

+/- format

Displays a bar of + (plus) or - (minus) signs equal to the integer value of the entry.

For example, displays 5.9 as +++++.

Displays a . (period) for any value between -1 and 1.

absolute reference

In a formula, a reference to a cell that does not change when you copy the formula. An absolute reference always refers to the same cell or range.

To create an absolute cell reference, enter a \$ (dollar sign) before the worksheet letter, column letter, and row number (\$A:\$A\$4) when you write the formula. To create an absolute range name, enter a \$ (dollar sign) before the range name (\$INTEREST).

For example, if you copy the formula $+\$A\$1*B10$ entered in cell C10 to C11 and C12, the formula changes to $+\$A\$1*B11$ and $+\$A\$1*B12$. The absolute reference ($\$A\1) does not change.

active area

The area bounded by cell A1 and the lowest and rightmost nonblank cell in the current worksheet. Press END +HOME to find this cell. The size of the active area affects the amount of memory a worksheet requires.

active file

An open worksheet file.

active window

The window in which you are working. Only one window can be active at a time.

You can identify the active window by the presence of color in its title bar, the color defined in the color dialog box of the Windows control panel.

add-in

A special program, created by Lotus and other software developers, that you can use with 1-2-3 to extend its capabilities.

adjustable cell

In Solver, one or more cells that 1-2-3 can change to solve a problem. Adjustable cells must contain numbers and cannot be protected.

alignment

The position of data in a cell, range, or a text block.

To control alignment, use Style Alignment, Style Worksheet Defaults, or enter a label-prefix character before you enter data in a cell.

anchor cell

The cell at which you begin to highlight a range.

ANSI (American National Standards Institute)

A set of character codes used by Windows. The ANSI character set contains 256 character codes. The first 128 ANSI characters (0-127) are the same as the ASCII (American Standard Code for Information Interchange) character set. The first 32 ANSI characters (0-31) are non-printing control character, and display as substitute characters.

answer

In Solver, a set of values for adjustable cells that 1-2-3 finds that satisfies all constraints.

argument

Text, value, location, or condition that you provide for an @function or macro command. For example, in the formula @SUM(A1..A10), the argument is A1..A10. In the macro {BRANCH TOTALS}, the argument is the range name TOTALS.

argument separator

A , (comma), ; (semicolon), or . (period) that separates one argument from another in an @function or macro command, and one range from another in some commands. Commas and semicolons are the initial default argument separators.

A semicolon is always a valid argument separator, but you can set either a period or comma as an argument separator using Tools User Setup International.

arithmetic operator

A symbol in a formula that indicates the arithmetic relationship between two values or the type of operation being performed: + (addition), - (subtraction), * (multiplication), / (division), ^ (exponentiation), = (equals), <> (not equal).

ASCII (American Standard Code for Information Interchange)

A standard set of character codes many computers and devices use to create text. LMBCS (Lotus Multibyte Character Set) and ANSI (American National Standards Institute) include the ASCII character set.

attempt

In Solver, a set of values for adjustable cells that 1-2-3 finds that satisfies some, but not all, constraints. If 1-2-3 cannot find answers to a problem, it produces attempts.

Automatic format

The 1-2-3 default number format. Automatic determines the number format as Date, Time, Comma, Currency, Percent, or Scientific, depending on how it looks as you enter it. If you enter a plain number that is not one of these types, 1-2-3 leaves the cell unformatted.

For example, if you enter 8/25/93, 1-2-3 automatically assigns the Long International Date format to that cell. However, if you type 1.2, 1-2-3 leaves the cell unformatted. If you enter \$1000, 1-2-3 automatically assigns the US dollar Currency format to that cell.

1-2-3 automatically formats only the currency types displayed in the format selected on the status bar.

To change the default format, use Tools User Setup or Style Worksheet Defaults.

best answer found

In Solver, the answer that yields the highest or lowest value that 1-2-3 finds for the cell you specify as the optimal cell. Better answers may exist.

binding constraint

In Solver, a constraint that is satisfied at its most limiting condition for the current answer. For example, if the constraint formula is $+B6 \leq 5$, and 1-2-3 adjusts the value in B6 to be 5, the constraint is binding for the answer.

blank cell

A cell that contains no letters, numbers, spaces, or label-prefix character.

branch

A transfer of macro control to another macro routine. Unlike subroutine calls, branches do not return control to the original macro.

byte pointer

A place marker that moves by bytes in a text file and indicates the current position. 1-2-3 uses the byte pointer in some of the file-manipulation macro commands.

Cancel button



Appears in the edit line to the left of the contents box when you enter or edit data, or when you select a range from a dialog box.

Click the Cancel button to cancel an entry and return 1-2-3 to Ready mode, or to cancel a range selection and return to the dialog box. This is equivalent to pressing ESC.

In a dialog box, the Cancel command button is a rectangular button with the label Cancel. Click this button to close the dialog box and cancel the command.

cell

The basic unit of a 1-2-3 worksheet. The intersection of a column and a row forms a cell. You enter and store data in a cell.

cell address

The location of a cell, identified by a column letter and row number; for example, A1.

If you have more than one worksheet in a file, 1-2-3 also includes the worksheet letter in the cell address; for example, B:A1.

cell dependent

A cell whose formulas involve the value(s) of the selected cell or range. Selected cells or ranges may be blank.

cell pointer

The rectangular outline in the worksheet that marks the current cell. If a multi-cell range is selected, the current cell appears in reverse color.

chart type

A chart available in 1-2-3: area, bar, HLCO, line, mixed, pie, radar, and XY. Area, bar, line, and pie charts are available with 3D effects.

check box

In a dialog box, the box that turns an option on and off. When an X appears in the box, the option is on. When the box is blank, the option is off. When the box is shaded, 1-2-3 cannot determine the state of the option for the current selection because the selection uses several options, some on and some off.

To change the check box for a selected option, do one of the following:

- Click the check box.
- Press the SPACEBAR when a dotted box surrounds the check box name.
- Press ALT plus the key corresponding to the underlined letter in the option name.
- Press DEL to deselect the check box when a dotted box surrounds the check box name.

circular reference

A formula that refers to itself, either directly or indirectly. For example, a circular reference occurs if you enter the formula `+B1+1` in cell B1.

When a formula contains a circular reference, 1-2-3 displays the indicator `Circ` in the status bar. To locate the circular reference, click the circular-reference button, which appears in the status bar; 1-2-3 moves the cell pointer to a cell containing a circular reference.

Use Tools Audit to highlight or produce a report on circular references.

click

To press the mouse button and quickly release it.

client

In a DDE or OLE link, the application that requests data from, or sends instructions to be carried out by another Windows application (the server).

Clipboard

A storage area Windows uses to temporarily store data when you use Edit Cut or Edit Copy. Use Edit Paste, Edit Paste Special, and Edit Paste Link to paste the Clipboard contents into 1-2-3 or another application in Windows.

Clipboard format

One of a number of standard formats used for the exchange of data between Windows applications via the Clipboard.

1-2-3 Release 5 uses the following Clipboard formats:

Rich Text Format

Text

Wk3

Wk1

Picture

Dib

Bitmap

Lotus123Graph

Comma format

Displays numbers with thousands separators and up to 15 decimal places. Comma format is the same as Currency format without the currency symbol.

command button

In a dialog box, a rectangular button labeled with a command. 1-2-3 carries out the command when you click the button, or press ENTER when the button is selected. OK and Cancel are examples of command buttons in a dialog box.

compose sequence

A series of keystrokes beginning with ALT+F1 (COMPOSE) that you use to produce a character that is not on your keyboard.

You can use a compose sequence to produce any character in LMBCS (Lotus Multibyte Character Set). Windows displays and prints characters in the ANSI character set, which includes many characters in the LMBCS character set. If Windows cannot represent a LMBCS character, a substitute character appears.

configuration setting

A setting from Tools User Setup or View Set View Preferences that 1-2-3 stores in the 1-2-3 configuration file (123R5.INI). Configuration settings become the default settings and take effect whenever you start 1-2-3.

Confirm button



Appears in the edit line to the left of the contents box when you enter or edit data, or when you select a range from a dialog box.

Click the Confirm button to enter data in a cell and return 1-2-3 to Ready mode, or to accept a range selection and return to the dialog box. This is equivalent to pressing ENTER or clicking another cell.

constraint

In Solver, a logical formula each answer must satisfy. Constraints can use the following logical operators: $>$, $<$, \geq , \leq , or $=$. They cannot use \neq , #AND#, #NOT#, or #OR#.

Control menu box



The box located in the left corner of a title bar. The Control menu displays commands for moving, sizing, and closing the window, and for switching to another Windows application, or to another window in 1-2-3. The Control menu in a dialog box lets you move and close the box.

control panel

The three lines at the top of the 1-2-3 window: the title bar, menu bar, and edit line.

The 1-2-3 control panel displays the product name, the menu items, the address of the current cell or the name of the selected item in the selection indicator, the navigator, the @function selector, and the cell contents of the current cell.

The navigator consists of a drop-down box in the edit line that displays a list of named ranges on the current worksheet. You can choose an item from this list to select it directly on the worksheet.

criteria

The conditions that you want records to meet when querying a database table. For example, to select all employees in the sales department, specify the criterion as DEPT=SALES.

Also, in database @functions, the values, labels, formulas, @functions, or logical expressions that you enter as the *criteria* argument.

Currency format

Displays numbers with a currency symbol, thousands separators, and up to 15 decimal places; for example, \$2,1330.40. You can format different cells in the same file with different types of currency. For example, you can format one cell as US dollar and another as French franc.

You can also modify the currency symbol or International Standards Organization (ISO) code and display it before or after the number. Use [Style Number Format](#) and [Style Worksheet Defaults Format](#) to format cells as currency and modify a currency symbol or code. Use [Tools User Setup International Currency](#) to set the default currency, and whether to display currency symbols or ISO codes.

current cell

The cell in the worksheet that contains the cell pointer. The next selection, entry, or edit affects the current cell. The address of the current cell appears in the selection indicator in the edit line.

current directory

The directory that 1-2-3 automatically uses during a session to save, open, or list files.

The current directory is initially set to the directory you specified as the default directory with Tools User Setup. If you specify a different directory during a 1-2-3 session with the File Open or File Save As commands, it takes precedence over the default directory during that session.

current file

The file that contains the cell pointer.

current selection

The highlighted cell, range, collection, worksheet(s), drawn object(s), chart, chart element, or query table which the next command will affect.

When you select a drawn object, chart, chart element, or query table, handles--the small boxes on the edges of the selection--appear around it.

DDE (Dynamic Data Exchange)

A method for linking data between Windows applications. Use Edit Paste Link, Edit Paste Special, or Edit Links to create links between a 1-2-3 worksheet file and another Windows application that supports DDE. You can also use the DDE and OLE macro commands to perform DDE operations such as creating links and sending commands to other applications.

To create a link to 1-2-3 data from another application, copy data to the Clipboard from a named 1-2-3 file, then select Edit Paste Link in the other application.

data label

The label you assign to a bar, a point, or a slice in a chart.

data point

The coordinates of a value plotted in a line, XY, HLCO, radar, or mixed chart. Data points are usually connected by line segments and may be marked by a symbol.

Use Style Lines & Color to modify symbols for data points. Use Chart Data Labels to assign labels to data points.

data range

A range of data in a worksheet that is plotted in a chart.

data series

In a chart, the graphical representation of a range of values in a worksheet. The data series depends on the chart type you select.

database

One or more database tables. A database table is a collection of related data organized in rows and columns. A 1-2-3 database table consists of records (rows of data) whose parts are identified by labeled fields (columns).

database table

A collection of related data organized in rows and columns. A 1-2-3 database table consists of records (rows of data) whose parts are identified by labeled fields (columns). Each field contains one kind of information. For example, in an employee database table that contains the fields Last Name, First Name, and so on, each record contains information about one employee.

When you perform a database query, the database table is the table from which you select records.

Date formats

The way 1-2-3 displays a date number. Use Style Number Format or Style Worksheet Defaults to specify date formats in a worksheet. Use Tools User Setup International to specify the Long and Short International Date formats.

<u>Date format</u>	<u>Example</u>
Day-Month-Year	31-Dec-93
Day-Month	31-Dec
Month-Year	Dec-93
Long International Date	12/31/93
Short International Date	12/31

date number

A number from 1 through 73050 that 1-2-3 assigns in sequence to each date from January 1, 1900, through December 31, 2099. For example, the date number for July 21, 1991, is 33440.

If you enter a value that looks like a date, for example, 8/25/92 or 31-Dec, 1-2-3 enters the date as you typed it in the cell; the corresponding date number appears in the contents box. Use date @functions to enter date numbers, and then format the number to look like a date.

You can use date numbers in calculations.

day-count basis

A convention for counting the number of days in a month and a year. Some calendar and financial @functions offer a choice of the following bases in order to simplify calculations:

Day-count basis

1-2-3 counts

actual/actual	The actual number of days in a month and in the year
30/360	30 days in every month and 360 days in the year
actual/360	The actual number of days in every month, and 360 days in the year
actual/365	The actual number of days in every month, and 365 days in the year

default directory

The directory that 1-2-3 automatically uses for files when you start 1-2-3. Initially, 1-2-3 uses the directory you specified in the Install program, but you can specify a different default directory with Tools User Setup, or with File Open or File Save As.

default font

The font 1-2-3 uses for all data in a file, except for data in cells you explicitly style with another font. 1-2-3 uses an Adobe Type Manager (ATM) or TrueType font as the initial default font for new files depending on the version of Windows you use and whether ATM is installed.

default page setting

The File Page Setup display and print settings that are initially available when you open a new file.

default setting

A setting chosen from View Set View Preferences, Tools User Setup, or Style Worksheet Defaults, which 1-2-3 uses for entire worksheets or files.

defined range name

A name assigned to a range of cells or a single cell. To see a list of the range names in the worksheet, click the navigator, or press F3 (NAME) when writing a formula or specifying a range in dialog box.

delimited text file

A file in ASCII format that contains rows of data with delimiters. A delimiter is a , (comma), space, : (colon), or ; (semicolon) entered between numbers and labels in each row. Each row must end with a carriage return.

All labels must be enclosed in quotation marks. For example, "Stolper","Boston",1400,1300,2800 is a line from a delimited text file.

Use File Open to bring data in a delimited text file into a 1-2-3 worksheet. 1-2-3 separates the data into columns in the worksheet according to the delimiters.

destination range

The range in a file that receives data from another application when you use Edit Paste Link, Edit Paste Special, or Edit Link to create a link.

dotted box

A rectangular, dotted outline that indicates the current selection in a dialog box.

double-click

To press and release the mouse button twice, quickly.

drag

To press the mouse button and hold it while moving the mouse.

drawn object

An item, such as a chart, arrow, or shape that you can select, move, size, and style independently of the cells behind it. Drawn objects include the following: all items created with the Tools Draw commands, charts, chart elements, and pictures brought from another program into 1-2-3.

A query table is also a kind of drawn object, with the exception that what you do to a query table affects the cells behind it.

driver

A program that tells 1-2-3 how to communicate with a piece of hardware, such as a printer or monitor, or how to perform a particular task, such as reading data in an external database table.

drop-down box

In a dialog box, a box that shows a single option until you select the scroll arrow to the right of the option; then a list of options drops down. Some drop-down boxes let you enter text in the top box; in others, you must select an option from the list.

drop shadow

A graphic enhancement -- a wide, dark or colored line below and to the right of a range, as if the range were casting a shadow.

edit line

The third line in the control panel of the 1-2-3 window. The edit line is used to display and edit data in a cell.

Edit line area	Control
Left	Selection indicator indicates the address or name of the current selection.
Middle	Navigator opens a drop-down box that lets you go to and select an item in the worksheet. @Function selector opens a drop-down box that lets you insert an @function in a cell. Cancel and Confirm buttons appear only when you enter or edit data. They let you cancel or confirm a cell entry.
Right	Contents box displays the entry you are typing or editing.

Choose View Set View Preferences to hide or display the edit line.

empty string

A cell that contains a label-prefix character but no text. The cell looks blank, but 1-2-3 will not return the value ERR when you use it as an argument in a text @function, with the exception of the @CHAR and @CODE functions.

ERR

A special value that either 1-2-3 generates to indicate an error in a formula or you generate with @ERR.

ERR can ripple through formulas: any formula that refers to a cell that contains ERR results in ERR, and any other formula that depends on that formula also results in ERR. When you correct the formula that contains ERR, the results of dependent formulas also become correct.

The label ERR is not equivalent to the value ERR.

extension

At the end of a file name, a . (period) followed by up to three characters. When 1-2-3 for Windows creates a file, it automatically adds the extension .WK4. You can override this extension by specifying a different extension when you save the file.

An extension indicates the file type. For example, a file with the extension .TXT is a text file.

external database table

A table in an external database that contains a collection of related information. External databases are stored in files that are not 1-2-3 files, such as dBASE IV, IBM Database Manager, Informix, Paradox, or SQL Server files.

field

A labeled column in a database or query table that contains the same kind of information for each record. For example, an employee database table may contain fields labeled First Name, Last Name, and Employee Number.

field name

A label in the first row of a database or query table that identifies the contents of a field. For example, an employee database may contain the field names First Name, Last Name, and Employee Number.

In database @functions, the argument *field* is the field name enclosed in " " (quotation marks); an offset number that indicates the position of the field (column) in the database table; or the address of a cell that contains an offset number or field name in quotation marks.

file reference

A file name and extension, with or without a path, enclosed in << >> (double angle brackets). Use a file reference in formulas and commands to refer to data in a file other than the current file.

Fixed format

Displays numbers with up to 15 decimal places, a minus sign for negatives, and a leading zero for decimal values.

flow of control

The direction in which control passes from one set of macro instructions to another during macro execution. Some macro commands that govern the flow of control are {BRANCH}, {DEFINE}, {FOR}, and {RETURN}.

format file

A file in which some releases of 1-2-3 store style information associated with a worksheet file.

Format file type

Release

.FM3	1-2-3 for Windows Releases 1, 1.1, 4, and 5 Wysiwyg in 1-2-3 for DOS Release 3.1 or later
.FMT	Impress in 1-2-3 for DOS Release 2.3 and 2.4
.FMS	Impress in Symphony Release 3.0
.ALL	Allways in 1-2-3 for DOS Release 2.2 Symphony Release 2.2

formula precedent

A cell that contains a value used by the formula in another selected cell.

free cell

The cell located diagonally opposite the anchor cell while you are selecting a range.

General format

Displays numbers with a minus sign for negatives, no thousands separators, and no trailing zeros to the right of the decimal point.

guess value

In Solver, a new value you specify for an adjustable cell when 1-2-3 needs more information to solve a problem.

handle

One of the small boxes that appears on the edge of a selected object, such as a shape, text block, chart, or query table. Use handles to move and size the object.

Hidden format

Makes data in the range invisible, though the data still exists. When the cell pointer is in a hidden cell and the cell is unprotected, the data appears in the edit line; if the File is sealed and the cell is protected, the data does not appear in the edit line.

To make hidden data visible, choose Reset in the Style Number Format dialog box.

To hide entire columns in the worksheet or entire worksheets in the file, select Style Hide.

HLCO chart (high-low-close-open)

A chart that illustrates stock performance (or any data that fluctuates in evenly defined time periods) by plotting the high, low, close, and open values.

horizontal chart

A chart with a horizontal y-axis. In a horizontal chart, the usual orientation of the axes is rotated clockwise 90 degrees. You can create a horizontal chart for all chart types except pie and radar.

if-then-else

In a macro, conditional processing that directs the flow of control according to whether a specified condition is true or false.

inconsistent constraint

In Solver, a constraint that is not satisfied for an attempt.

information box

A rectangular area in some dialog boxes in which 1-2-3 displays information on the item currently selected in the dialog box. You cannot edit the contents of an information box.

input cell

A cell in which 1-2-3 temporarily stores values while it performs calculations for creating a what-if table.

input range

In database @functions, the argument *input* is the range that contains the database table(s); *input* can be the address or name of a range that contains the database table(s), or the name of the external database table(s), but it cannot be a 3D range.

input value

In a what-if table, a number or text that 1-2-3 substitutes in a formula to perform sensitivity analysis or cross-tabulation.

label

Any cell entry you begin with a letter or label-prefix character.

When you complete a cell entry that starts with a letter, 1-2-3 automatically inserts the worksheet default label-prefix character at the beginning of the entry. 1-2-3 does not display the label-prefix character in the cell but does display it in the edit line when you select a cell that contains a label.

To create a label that begins with a number or with + = - < \$ (# @ / or \ , you can first type a label-prefix character, such as an ' (apostrophe), " (quotation mark), or ^ (caret).

Label format

Displays new entries as labels by automatically adding a label-prefix character that corresponds to the alignment set on Style Worksheet Defaults. Displays existing numbers in General format.

label-prefix character

The first character in a label entry. It defines the entry as a label and controls how 1-2-3 aligns the label in the cell. 1-2-3 does not display the label-prefix character in the cell but does display it in the edit line when you select a cell that contains a label.

Use Style Alignment or Style Worksheet Defaults to change the alignment 1-2-3 uses when you type a label. To enter a label that begins with a number or with + = - < \$ (# @ / or \, you can type one of these label-prefix characters (' " ^) first.

<u>Label-prefix character</u>	<u>Effect</u>
' (apostrophe)	Left-aligns labels (default)
" (quotation mark)	Right-aligns labels
^ (caret)	Centers labels
\ (backslash)	Repeats one or more characters across a cell

LICS (Lotus International Character Set)

The 256 codes (0 through 255) that Symphony and 1-2-3 for DOS Release 2 use to display, store, and print characters. LICS codes 32 through 127 are equivalent to ASCII and LMBCS codes 32 through 127.

linear scale

Equal intervals along the y-axis or the 2nd y-axis. In an XY chart, the x-axis may also have a linear scale.

link

A connection between two applications or two 1-2-3 files that lets the applications or files share data.

You can link a 1-2-3 file to another Windows application that supports DDE or OLE using Edit Paste Link, Edit Paste Special, or Edit Links.

To create a link between 1-2-3 files, use file references in formulas, or Edit Paste Link.

list box

A list of choices that appears in a dialog box. If there are more choices than can fit in the visible area of the list box, use the scroll bar or the arrow keys to bring the other choices into view.

LMBCS (Lotus Multibyte Character Set)

The character set that 1-2-3 for DOS Release 3 uses which includes all the characters contained in LICS, ASCII, and most other international character sets. If Windows cannot represent a LMBCS character, a substitute character appears.

logarithmic scale

A scale on the chart axis incremented in intervals representing logarithmic powers of 10. For example, the axis values of 10, 100, and 1000 may be placed along the y-axis with each of them spaced at equal intervals along the axis. This scaling is typically used by scientists and engineers.

logical formula

A formula that evaluates a condition as true or false by using a logical operator or a logical @function. The result of a logical formula is 1 for true or 0 for false.

For example, the formula `+A2>8` returns 1 (true) when the value in A2 is greater than 8; it returns 0 (false) when the value in A2 is 8 or less.

logical operator

A symbol in a formula that indicates the relationship between two values or defines the criteria in a query.

Logical operators: = (equal to), < (less than), <= (less than or equal to), > (greater than), >= (greater than or equal to), <> (not equal to), #AND# (AND), #NOT# (NOT), #OR# (OR).

long label

A label that exceeds the column width. If the cell to the right is blank, a long label extends into the next column. If the cell to the right is not blank, 1-2-3 displays as much of the label as possible. 1-2-3 stores the entire label in the cell. To see the entire label, widen the column or place the pointer on the cell and view the label in the contents box.

long value

A formatted value that is wider than the cell column width minus one. For example, in a cell that is nine characters wide and formatted as Currency with two decimal places, 1500 is a long value because \$1,500.00 contains nine characters -- one more than the cell's width minus one. Depending on the number format, and font, 1-2-3 displays a long value in scientific notation or displays *** (asterisks). To display the value, widen the column or place the pointer on the cell and view the value in the contents box.

loop

A set of macro instructions that executes repeatedly. You can use the macro commands {FOR} and {BRANCH} to create a loop in a macro.

Lotus Map Viewer

1-2-3 creates a map as an OLE object in your worksheet. Double-click the map object to start the Lotus Map Viewer, where you can zoom in on a section of the map, change the style and position of the title and legend, add an overlay to the map, and make other enhancements to the map.

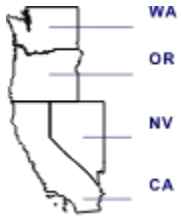
macro

A set of instructions, called macro commands, that automate a 1-2-3 task. You can use a macro to enter data or to perform a series of 1-2-3 commands that format worksheets or files, guide users through specific applications, calculate complex formulas with variable data, extract records from a database table, and so on.

map code

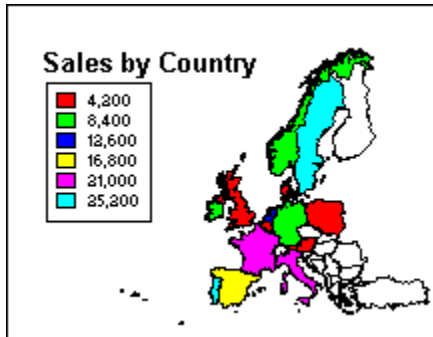
A map code identifies a row of data in a worksheet with a map region. The data files (.WK4) in the \MAPDATA subdirectory of 1-2-3 list the map codes for map types.

Region Check lets you create custom names that you can link to codes that 1-2-3 recognizes.



map data bin










1-2-3 groups into bins the values or labels in a set of map data. 1-2-3 displays each bin as a color in the map. If you have two sets of map data, 1-2-3 creates pattern bins as well as color bins. To switch the bins so data that was originally in color bins becomes patterns, use [Tools Map Ranges & Title](#).



In this map, 1-2-3 groups the sales data for 15 countries into 6 bins. The legend label next to each color indicates the upper limit of the data in that bin. For example, each of the five countries that fall into the red bin has sales that are less than or equal to 4,200.

map legend

Explains the meaning of the colors and patterns in a map. Values used as legend labels either exactly match values in the range of map data, or they represent the upper limit of the values contained in the bin. Use [Tools Map Colors & Legend](#) and [Tools Map Patterns & Legend](#) to change the labels, the colors and patterns, and the values used to create bins. Use [View Set View Preferences](#) in the [Lotus Map Viewer](#) to hide the color or pattern legend.

	4,200
	8,400
	12,600
	16,800
	21,000
	25,200
	Central
	Atlantic
	North

map overlay

An overlay is simply another map added to your basic map. You cannot link worksheet data to an overlay.

The overlay can be a different map type; for example, you can add the world overlay to a map of the European Union.

The overlay can also be a map that is identical in outline to your basic map, but that displays different information. For example, you can add an overlay showing 5-digit ZIP code boundaries to a map of the United States by state. (See [Purchasing More Maps](#) for information on how to order such overlays.)

map type

1-2-3 provides the following maps:

- World Countries
- USA by State (continental United States)
- Alaska
- Hawaii
- Canada by Province
- European Union by Region
- Europe by Country
- Japan by Prefecture
- Mexico by Estado
- Australia by State

You can use many kinds of maps with 1-2-3. For information about ordering additional geographic and demographic data, see [Purchasing More Maps](#).

Maximize button



The button that appears at the far right of a window title bar. Click this button to expand the window to fill the entire screen.

menu pointer

A highlight that marks the current menu item.

Minimize button



The button that appears at the far right of a window title bar. Click this button to reduce the window to an icon.

mixed reference

In a formula, a reference to a cell in which parts of the referenced address are absolute and parts are relative. Absolute references in a formula refer to the same cells no matter where you copy or move the formula. To make a reference absolute, precede it with a \$ (dollar sign). Relative references in a formula adjust relative to their new location when you copy or move the formula.

For example, the formula `+A:$C4` contains a mixed reference. The column letter (C) is an absolute reference and is preceded by a \$. The worksheet letter (A) and the row number (4) are relative references. If you copy the formula, the column letter stays absolutely the same while the worksheet letter and row number adjust relative to their new location.

modeless dialog box

A dialog box that displays information but doesn't require you to close it before you can continue working.

mouse pointer

The symbol that indicates the location of the mouse on the screen. The pointer is usually shaped like an arrow, but can change depending on the task. For example, when you change the size of a window, the pointer becomes a white two-headed arrow.



multiple branches

In a circular reference, more than one chain, or branch, of cells that references the starting cell.

NA

A special value that either 1-2-3 or you generate to indicate that a value needed to complete a formula is not available. @NA returns the value NA.

NA can ripple through formulas: any formula that refers to a cell that contains NA results in NA (no matter how the value NA is generated) unless the cell contains ERR. (ERR takes precedence over NA.) This ripple-through effect also means that when you provide the previously unavailable value to a formula that contains NA, the results of the dependent formulas also become correct.

The label NA is not equivalent to the value NA.

name conventions

Range names can be up to 15 characters long. 1-2-3 does not distinguish between uppercase and lowercase letters in names.

Do not start a range name with ! (exclamation point), and do not include spaces, commas, semicolons, periods, or any of the following characters in a range name:

+	*	-	/	&	>	<
	@	#	{	?		

Do not create names that look like cell addresses, such as P12 or EX100, or names that begin with numbers, such as 20DEC. Do not use @function names, key names, or macro command keywords as names.

named page settings

Print options, such as margins, headers, and footers, that you named and saved with File Page Setup Save. 1-2-3 for Windows saves page settings to an .AL3 file. When you save page settings, you can use them again without having to respecify them.

named worksheet

A worksheet that you name by editing its tab. Initially, a worksheet tab displays a letter (A, B, and so on). To enter a worksheet name, double-click the tab and type the name. To delete a worksheet name, double-click the tab, press DEL, and press ENTER.

To insert additional worksheets, use Edit Insert or click the New Sheet button. To turn worksheet tabs on and off, click the Tab button or use View Set View Preferences. Worksheet tabs do not display in perspective view.

named style

A collection of styles, copied from a single cell, that you can apply to other data in a file. Styles stored in a named style can include number format, typeface, type size, underlining, bold, italics, lines, colors, and alignment.

nested subroutine

In a macro, a subroutine that is called from within another subroutine. If 1-2-3 encounters a subroutine call while executing a subroutine, it transfers control to the subroutine specified in the subroutine call, performs the instructions there, returns to the first subroutine, finishes the instructions there, and finally returns to the main macro.

nonbinding constraint

In Solver, a constraint that is satisfied but not binding for a particular answer for the problem. For example, if the constraint is $+B6 \leq 5$, and 1-2-3 adjusts the value in B6 to 4, the constraint is nonbinding. Formerly referred to as unused constraint.

nonblank cell

A cell that contains a label-prefix character, letters, numbers, or spaces. A nonblank cell can appear to be blank if it has only a label-prefix character or spaces in it.

number format

The way 1-2-3 displays numbers on the screen. A number may look different from the actual value entered in the cell, depending on the number format. For example, the entry 25.451 may appear as \$25.45, 2545%, or 25.4.

numeric formula

A formula that calculates numeric values using one or more of the arithmetic operators:

+ - * / ^

For example, the numeric formula +H16*2 multiplies the value in cell H16 by 2.

offset number

The number that corresponds to the position of a specified row, column, worksheet, character, list item, or byte; used in some @functions and macros. The first offset number is 0, the second 1, the third 2, and so on.

In a database @function, the *field* argument can be the offset number for a field in the database table. For example, if the field TOTALS is in the fifth column of the database table, the offset number for that field is 4.

OLE (Object Linking and Embedding)

A method for linking data between applications or embedding objects created with one Windows application into files created with another Windows application.

Use Edit Paste Link, Edit Paste Special, or Edit Links to create links between a 1-2-3 worksheet file and another Windows application that supports OLE.

Use Edit Insert Object or Edit Paste Special to embed an object into a 1-2-3 file from another Windows application that supports OLE.

To embed 1-2-3 data into another application, copy data to the Clipboard from a named 1-2-3 file, then follow the procedures required by the other application to embed a 1-2-3 Worksheet object into that application.

1-2-3 supports OLE 2 drag-and-drop, allowing you to copy, move, and create links by dragging ranges and drawn objects to other applications that support OLE 2.

1-2-3 mail file

The 1-2-3 file that 1-2-3 attaches to a mail message when you send or receive a range. A 1-2-3 mail file contains a range of worksheet data, text blocks displaying names and comments, and depending upon how the file is sent, a button for sending, routing, replying, or merging the range.

1-2-3 Worksheet object

A worksheet that is embedded in another application file, such as an Ami Pro document.

To open a 1-2-3 Worksheet object embedded in another application file, follow the procedures required by that other application. To update a 1-2-3 Worksheet object, use File Update.

100% scale

Equal intervals along the y-axis or 2nd y-axis that represent changes in the plotted values as percentages of the sum (100%) of the plotted values.

operator

A symbol in a formula that indicates the relationship between two values or the type of operation to be performed. 1-2-3 uses arithmetic, logical, and text operators.

Arithmetic operators

+ (addition), - (subtraction), * (multiplication), / (division), ^ (exponentiation)

Logical operators

= (equal to), < (less than), <= (less than or equal to), > (greater than), >= (greater than or equal to), <> (not equal to), #AND# (AND), #NOT# (NOT), #OR# (OR)

Text operator

& (ampersand)

optimal answer

In Solver, the answer that yields the mathematical optimum (the highest or lowest possible value) for the cell you specify as the optimal cell.

optimal cell

In Solver, the cell for which 1-2-3 is to find the highest or lowest value. The optimal cell may be an adjustable cell or a cell whose formula depends on at least one adjustable cell.

option button

In a dialog box, a round selection button. You can select only one option button in a group of related options. Also known as radio button.

order of precedence

The order in which 1-2-3 performs operations in a formula. The lower the precedence number, the earlier 1-2-3 performs the operation. Operations with the same precedence number are performed sequentially from left to right. To override the order of precedence, put () (parentheses) around the operations you want 1-2-3 to do first.

- 1 ^ (exponentiation)
- 2 - + (negative, positive values)
- 3 * / (multiplication, division)
- 4 + - (addition, subtraction)
- 5 = < <= > >= <> (logical operators)
- 6 #NOT# (logical operator)
- 7 #AND#, #OR#, & (logical and text operators)

page settings

The options you specify for printing such as margins, headers, and footers using File Page Setup. You can name and save page settings.

panes

A display of two, or three (perspective view), parts of a worksheet in the same window. Use View Split to divide a window into panes and to synchronize or unsynchronize panes. Use View Clear Split to clear panes.

path

The root directory and all the subdirectories in which you save, read, list, and link a file. In C:\1991\BUDGET.WK4, the path for the file BUDGET.WK4 is C:\1991\.

pattern

Distinguishes a range, a drawn object, or a data series in a bar, area, or pie chart.

Use Style Lines & Color to apply patterns to ranges and drawn objects. Use Chart Numeric Color to modify hatch patterns in charts.


Percent format

Displays numbers as percentages (that is, multiplied by 100) with a percent sign and up to 15 decimal places.

perspective view

A layered display of three contiguous worksheets from a file. To create a perspective view, choose View Split.

pin character

Symbols, like , or labels, like "World Headquarters." that you can add to your map just as you might write annotations or stick pins on a paper map.

To create a pin character, enter the following in the range of map data: a symbol or label, the latitude and longitude to locate the pin character in the map, and optionally, the color of the pin character.

point

To position the mouse pointer. For example, to select a cell, point at it and click the right mouse button.

point size

In reference to fonts, a point is a unit of measurement that determines the height of a character. A point is approximately $\frac{1}{72}$ of an inch.

pointer-movement keys

Keys that control the movement of the cell pointer, menu pointer, and insertion point. These keys include UP, DOWN, LEFT, RIGHT, PG UP, PG DN, and HOME, and can be combined with CTRL and END to move around worksheets in the same file and other active files.

preselection

The action of selecting an item--for example a cell range, chart, or drawn object--before you choose the command that affects it.

printer driver

A software program that controls how 1-2-3 communicates with your printer. 1-2-3 for Windows uses the printer drivers supplied by Windows.

proportional spacing

A way of spacing characters on a line that gives each character in a typeface a different amount of space based on its size. For example, a font that uses proportional spacing gives less space to the letter I than to the letter W.

query table

A copy of a database table, created when you choose Tools Database New Query. In the query table, you can work with the records of the database table without altering the original table.

When you specify limiting criteria, the query table displays only those records that meet your criteria.

You can move, size, copy, and delete query tables.

radian

The unit 1-2-3 uses to measure an angle, equal to approximately 57 degrees, 17 minutes. Used in mathematical @functions such as @TAN and @COS.

range

A single cell, a rectangular block of adjoining cells, an entire worksheet, or an entire file. A range is represented as the addresses of its top left and bottom right most cells, separated by two periods, for example, B1..E5. A 3D range spans two or more contiguous worksheets; for example, A:B1..B:B5.

range address

The location of a range in a file. A range address consists of the addresses of the top left and bottom right cells, separated by two periods; for example, A:A4..M:C20.

range name

A name that identifies a range and that can be used in commands and formulas instead of the range address. The formula `@AVG(TEST_GRADES)` is easier to understand than `@AVG(C4..C29)` because the range name TEST_GRADES lets you know what kind of values you are working with.

Name a range by using Range Name or Range Version Create Version. A range name can be up to 15 characters long.

You must name a range before you can create a version of that range.

recalculation

Re-evaluation of formulas in active files using the latest cell values.

recalculation order

The three orders in which 1-2-3 recalculates formulas. Use Tools User Setup to change the recalculation order.

Natural	Recalculates all values on which a formula depends before recalculating the formula. Natural is the default setting.
By column	Recalculates by column, starting with A:A1
By row	Recalculates by row, starting with A:A1

record

A one-row collection of information about one item in a database table. The first row of a database table contains field names, which identify the data in records; all other rows contain records.

relative reference

In a formula, a reference to a cell or a range that changes when you copy the formula. A relative reference refers to the location of the data in relation to the formula. A relative reference can be an address or range name.

For example, if the formula $+A1+A2$ is in cell A4 and you copy this formula to B4, the formula changes to $+B1+B2$. A1 and A2 are relative references, which means that they refer to the values entered in cells two and three rows above the formula. After you copy the formula, the relative references still refer to the cells two and three rows above the formula.

If you do not want a cell or range address to change when you copy a formula, use an absolute reference.

Restore button



The button that appears at the right of the title bar of a maximized window. Click the Restore button to return the window to its previous size.

ripple-through effect

The condition that occurs when one formula depends on another formula that evaluates to ERR or NA. The dependent formula will also result in ERR or NA. When you correct the formula that evaluates to ERR or provide the unavailable value to the formula that evaluates to NA, the dependent formulas also change.

2nd y-axis

A second, optional y-axis that you place on the right side of the chart, against which data series are plotted.

scenario

In Version Manager, a named group of one or more versions. Each version in a scenario must be associated with a different named range.

Scientific format

Displays numbers in scientific (exponential) notation, with up to 15 decimal places. For example, the number 123 displays as 1.23E+02 in Scientific format.

scroll bar

The bar that appears at the right or bottom of a window or list box when the contents exceed the size of the window or list box. To scroll within a window or list box, click the scroll arrows or drag the scroll box. To turn the Worksheet window scroll bars on and off, use View Set View Preferences.

scroll box



The square box in a scroll bar, which you drag with the mouse pointer to make another area of the worksheet or list box visible.

scrolling

Moving horizontally or vertically through a window or a list box, or moving the cell pointer from one worksheet to another. To scroll within a window or list box, click the scroll arrows, drag the scroll box or use the navigation keys. When you scroll within a window, the view of the active worksheet moves, not the cell pointer.

sealed file

A file that was sealed with File Protect. Prevents changes to protected cell contents, styles, range names, drawn objects, charts, query tables, and the file reservation settings.

select

To highlight or specify cells in a worksheet, records or fields in a database table, options in a dialog box, drawn objects, charts, chart elements, or query tables.

server

In a DDE or OLE link, the application that provides data to, or carries out instructions from, another Windows application (the client).

shared file

A 1-2-3 file saved on a Lotus Notes server. You can create versions and scenarios in unprotected named ranges in the shared file. More than one person can create versions and scenarios in a shared file at the same time without writing over one another's data.

A file reference to a shared file must be in uppercase and must include the complete path. Substitute a tilde (~) for the drive letter, and the name of the Lotus Notes server for the directory. For example:

<<~:SALES\FORECAST\MYFILE.NS4>>

refers to the shared file MYFILE.NS4 in the FORECAST directory on the Notes server named SALES.

1-2-3 cannot resolve a reference to a shared file unless the file is open.

SmartIcons

Buttons (icons) in the 1-2-3 window that let mouse users choose commonly used commands and macros. Click SmartIcons to select them.

Choose Tools SmartIcons to change the set of SmartIcons and to create SmartIcons using your own macros.

Click the SmartIcons selector in the status bar, or choose View Set View Preferences, to hide or show the set of SmartIcons.

SmartMaster

Templates for business and financial tasks. Each SmartMaster gives you a head start for creating attractive, useful spreadsheets. Sample data and instructions in the SmartMaster show you how it works. Enter your own data and use the built-in charting and printing features for quick results.

soft font

A font that you download from disk to your printer.

sort

To arrange data in a range or records in a database table or a query table in a particular order, determined by the contents of one or more columns or fields. In 1-2-3, use Range Sort or Query Sort to sort data in ascending (A through Z, 0 through 9) or descending (Z through A, 9 through 0) order.

When you install 1-2-3, you can change the initial default sort order. To change the default sort order again, double-click the Country Sorting icon in the program group that contains 1-2-3 Release 5, and specify the sort order and country driver you want.

source range

The range that supplies data to a command, or to another file.

specify

To select from the items in a list box or enter a new item by typing.

styles

Enhancements applied to the current selection using the Style commands. Styles include bold, italics, underlining, frames, lines, color, patterns, alignment, typeface, type size, and number formats.

subroutine

A discrete set of macro instructions executed from the macro. When the main macro calls the subroutine, control passes to the subroutine. After 1-2-3 completes the instructions in the subroutine, control returns to the main macro.

3D chart

A chart in which the lines, areas, bars, or pie slices are represented as solids, having depth as well as height and width.

3D range

A range that includes the same cells in two or more contiguous worksheets. The 3D range A:A1..B:B2 contains the cells A:A1, A:A2, A:B1, A:B2, B:A1, B:A2, B:B1, B:B2.

text argument

Text enclosed in " " (quotation marks), a text formula, or the address or name of a cell that contains a label or a formula that results in a label.

text block

A drawn object, shaped as a rectangle or square, that contains text. Text blocks, like other drawn objects, can be moved, sized, and copied. You can also edit the text, change the typeface, add and modify lines and color, and align the text in a text block.

Choose Tools Draw Text to create a text block. Use the Style Commands or SmartIcons to change the appearance of a text block.

text box

A rectangular area in some dialog boxes in which you enter information and edit text required by a command.

text file

A file on disk in ASCII format. Use File Save As and specify the extension .TXT to create a text file in 1-2-3 for Windows. Use File Open to read data from a text file into 1-2-3.

Text format

Displays formulas as entered, rather than in their computed values (or as much of the formulas as fit within the current column width).

text formula

A formula that uses text in quotation marks and the text operator & (ampersand) in its calculations. For example, the formula +"Ms."&" Smith" combines the two words and a space between them (be sure to include a space inside one of the pairs of quotation marks) to display the label Ms. Smith.

text operator

The & (ampersand) used to combine (concatenate) text in a text formula. For example, the formula +"Kathy "&"Howard" combines the two words and a space between them to display the label Kathy Howard.

tilde (~)

The keyboard character that represents ENTER in macros.

Time format

The way 1-2-3 displays a time number. Use Style Number Format or Style Worksheet Defaults to specify time formats in a worksheet. Use Tools User Setup International to specify the Long and Short International Time formats.

<u>Time format</u>	<u>Example</u>
Hour:minutes:seconds AM/PM	11:59:59 PM
Hour:minutes AM/PM	11:59 PM
Long International Time	23:59:59
Short International Time	23:59

time number

A decimal from 0.000000 through 0.999988 that 1-2-3 assigns in sequence to each moment in the 24 hours from midnight through 11:59:59. Use a time @function to enter a time number in a worksheet. Use Style Number Format or Style Worksheet Defaults to display a time number as the time it represents.

Transcript window

The window in which commands are recorded. You can copy, delete, or play back recorded commands and mouse actions to create macros. You can paste recorded commands from the Transcript window into a worksheet or button to create a macro. Choose Tools Macro Show Transcript to open the Transcript window.

Translate utility

The 1-2-3 program that converts files from one file format to another so you can share data between 1-2-3 for Windows and other applications. The Translate utility lists the applications for which translation is available.

undefined range name

A range name that is not assigned to a range. Formulas that contain undefined range names evaluate to ERR.

value

An entry that is a number, a formula, or an @function. 1-2-3 changes the mode to Value if you begin an entry with a number or one of the following symbols: + = - @ . (# or \$ (or the current currency symbol).

version

In Version Manager, a named set of data and styles for a named range.

wildcard character

The * (asterisk) or the ? (question mark) used in file names and criteria.

* Represents any number of sequential characters

? Represents a single character

In file names, for example, *.wk4 lists all files with a .wk4 extension; *.wk? lists all files with extensions that begin with .wk, such as .wk4, .wk1, and .wk3. In criteria, B* matches all entries that begin with B. The criteria B??? matches all entries that begin with B and contain three other characters.

worksheet frame

The horizontal bar that contains a worksheet letter (A: through IV:) at the top of the 1-2-3 worksheet, the column letters (A through IV), and the vertical bar that contains the row numbers (1 through 8192) at the left side of the worksheet. The worksheet letter displays only when you select Standard as the frame type.

Click the worksheet letter, column letter, or row number to select the entire worksheet, column, or row.

Use View Set View Preferences to change or hide the worksheet frame.

worksheet letter

The letter in the top left corner of the worksheet that identifies each worksheet in a file. The worksheet letter displays only when you select Standard as the frame type. Use View Set View Preferences to change the frame type.

A 1-2-3 file can contain up to 256 worksheets, with letters from A (for the first worksheet) through IV (for the 256th worksheet). In formulas, the worksheet letter is followed by a colon (A:) to distinguish it from the column letter (A).

Click the worksheet letter to select the entire worksheet.

worksheet tab

A tab appearing above the worksheet that lets you name the worksheet. Initially, files have a single tab with the letter A for the first worksheet. To insert additional worksheets, use Edit Insert or click the New Sheet button.

To enter a worksheet name, double-click the tab and type the name. To delete a worksheet name, double-click the tab, press DEL, and press ENTER.

Click the Tab button or use View Set View Preferences to turn worksheet tabs on and off. Worksheet tabs do not display in perspective view.

Use Style Worksheet Defaults Colors to change the color of a worksheet tab.

x-axis

In a chart, a reference line marked in regular intervals typically with labels, against which data series may be plotted. In an XY chart, the intervals represent numbers. The line is typically horizontal, unless you modify the plot orientation in the Chart Type dialog box.

X range

A range that 1-2-3 uses to label the x-axis. In XY charts, the range must contain values because the data points are plotted against both the x- and y-axes.

XY (scatter) chart

A chart that shows how values change relative to other values. XY charts use both a scaled x-axis and y-axis.

y-axis

In a chart, a reference line marked in regular intervals with numbers, against which data series are plotted. The line is typically vertical, unless you modify the plot orientation in the Chart Type dialog box.

yes/no argument

Text that specifies whether to turn a setting on or off. You can use on, true, or yes to turn a setting on; you can use off, false, or no to turn a setting off.

Enter the argument as text enclosed in " " (quotation marks), a text formula, or the address or name of a cell that contains a label or a formula that results in a label.

Keyboard Index

Keyboard Shortcuts

Execute commands by using key combinations.

Style Keys

Change the styles applied to data in a range.

Function Keys

F1 through F10 perform special operations when used alone or combined with ALT and CTRL.

Editing Keys

Move around, select, and change the entry in a cell or text box.

Pointer-Movement Keys

Move around the worksheet.

Worksheet Navigation Keys

Move between worksheets in the current file.

File Navigation Keys

Move between active files.

Dialog Box Keys

Move and close dialog boxes, and move around and select options in dialog boxes.

Help Keys

Move, size, and close the Help window, and move around a Help topic.

Special Keys

Use of ALT, ALT+ - (hyphen), CTRL+BREAK, CTRL+ a letter, and ESC.

Control Menu Keys

Move, size, and close windows and dialog boxes, and give you access to other windows that are open in the 1-2-3 window, or to other open Windows applications.

See also

[1-2-3 Release 5 Help Contents](#)

Keyboard Shortcuts

Execute commands by using key combinations.

ALT+BACKSPACE

Reverses the effect of the most recently executed command or action that you can undo. ALT+BACKSPACE is equivalent to Edit Undo.

ALT+F4

Ends the 1-2-3 session, prompts you to save any unsaved files, and returns you to the Windows Program Manager; this use of ALT+F4 is equivalent to File Exit. You can also use ALT+F4 to close the Help window or a dialog box.

CTRL+C

Copies selected data and related styles from the worksheet to the Clipboard. CTRL+C is equivalent to Edit Copy.

CTRL+F4

Closes the active window and prompts you to save the file if it contains unsaved changes. If the window you close is the only active window, CTRL+F4 closes the window and opens a new window that contains a blank untitled worksheet file. CTRL+F4 is equivalent to Close in the Control menu of a window within the 1-2-3 window, and to File Close.

CTRL+GRAY+

Brings up the Insert dialog box; equivalent to Edit Insert. When a row or column is selected, CTRL+GRAY+ inserts a row or column without bringing up the dialog box.

CTRL+GRAY-

Brings up the Delete dialog box; equivalent to Edit Delete. When a row or column is selected, CTRL+GRAY- deletes a row or column without bringing up the dialog box.

CTRL+INS

Copies selected data and related styles from the worksheet to the Clipboard. CTRL+INS is equivalent to Edit Copy.

CTRL+ a letter

Runs a macro in 1-2-3 Release 5. CTRL+ a letter is equivalent to Tools Macro Run. In 1-2-3 Release 2 for DOS and 1-2-3 Release 3 for DOS, ALT+ a letter runs a macro.

CTRL+O

Displays the File Open dialog box.

CTRL+P

Displays the File Print dialog box.

CTRL+S

Saves the current file. CTRL+S is equivalent to File Save.

CTRL+V

Pastes data and related styles from the Clipboard to the worksheet. CTRL+V is equivalent to Edit Paste.

CTRL+X

Cuts selected data and related styles from the worksheet to the Clipboard. CTRL+X is equivalent to Edit Cut.

CTRL+Z

Reverses the effect of the most recently executed command or action that you can undo. CTRL+Z is equivalent to Edit Undo.

DEL

Deletes the cell contents of selected cells without using the Clipboard. DEL is equivalent to Edit Clear.

ENTER

Pastes data and related styles from the Clipboard to the worksheet when you select a location and

press ENTER immediately after choosing [Edit Cut](#) or [Edit Copy](#).

SHIFT+DEL

Cuts data and related styles from the worksheet to the Clipboard. SHIFT+DEL is equivalent to [Edit Cut](#).

SHIFT+INS

Pastes selected data and related styles from the Clipboard to the worksheet. SHIFT+INS is equivalent to [Edit Paste](#).

See also

[Keyboard Index](#)

Style Keys

Change the styles applied to data in a range.

CTRL+B

Adds or removes **boldface**.

CTRL+E

Centers data in cells.

CTRL+I

Adds or removes *italics*.

CTRL+L

Aligns data with the left edge of cells.

CTRL+N

Removes bold, italics, and underlining from the current selection.

CTRL+R

Aligns data with the right edge of cells.

CTRL+U

Adds or removes underlining.

See also

[Keyboard Index](#)

Function Keys

F1 through F10 perform special operations when used alone or combined with ALT and CTRL.

F1 (HELP)

Displays a Help topic.

F2 (EDIT)

Switches 1-2-3 between Edit and Ready, Point, Value, or Label mode. In Edit mode, you can change data in the current cell, or in the contents box

F3 (NAME)

Lists names of files, charts, ranges, collections, database tables, query tables, drawn objects, versions, @functions, macro key names, and macro commands.

F4

In Edit, Point or Value mode, changes the cell references in formulas from absolute to mixed to relative.

In Ready mode, F4 anchors the cell pointer so you can select a range.

F5 (GOTO)

Moves the cell pointer to a cell, named range, worksheet, chart, drawn object, query table, version, or active file. F5 (GOTO) is equivalent to Edit Go To.

F6 (PANE)

Moves the cell pointer between panes and between worksheets you display in perspective view.

F7 (QUERY)

Update the records in a query table. F7 (QUERY) is equivalent to Query Refresh Now.

F8 (TABLE)

Repeats the last Range Analyze What-if Table command.

F9 (CALC)

In Ready mode, recalculates formulas. In Edit or Value mode, converts a formula to its current value.

F10 (MENU)

Activates the menu bar. F10 (MENU) is equivalent to ALT.

ALT+F1 (COMPOSE)

Creates characters in 1-2-3 that you cannot enter directly from your keyboard.

ALT+F2 (STEP)

Turns Step mode on or off.

ALT+F3 (RUN)

Displays a list of the macros in the active files. ALT+F3 (RUN) is equivalent to Tools Macro Run.

ALT+F6 (ZOOM PANE)

Enlarges the current horizontal, vertical, or perspective pane to the full size of the window or shrinks it to its original size.

See also

Keyboard Index

F2 (EDIT)

Switches 1-2-3 between Edit and Ready, Point, Value, or Label mode. In Edit mode, you can change data in the current cell, or in the contents box.

1-2-3 changes to Edit mode when you

- Click anywhere in the contents box.
- Double-click a cell
- Press F2 (EDIT) when you are typing an entry.
- Press F2 (EDIT) when 1-2-3 is in Ready mode.
- Type an entry that 1-2-3 cannot accept. 1-2-3 places the insertion point at the point where it detects an error.

Use the [editing keys](#) to change data when 1-2-3 is in Edit mode.

See also

[Entering Data](#)
[Keyboard Index](#)

F3 (NAME)

Lists names of files, charts, ranges, collections, database tables, query tables, drawn objects, versions, @functions, macro key names, and macro commands, depending on what you are doing when you press F3 (NAME).

Listing range names or names of active files

Press F3 (NAME) to list range names and names of other active files

- When you are specifying a range in a text box
- When you are writing a formula and 1-2-3 is in Point or Value mode

Listing and entering @functions

Type @ and press F3 (NAME) to display a list of @functions. When you choose an @function, 1-2-3 enters it in the current cell and the contents box, along with placeholders for its arguments.

Listing and entering macro commands

Type { (left brace) and press F3 (NAME) to display a list of macro commands and key names. When you choose a macro command, 1-2-3 enters it in the current cell and the contents box.

Selecting a name from the list box

To select a name in the list box, double-click the name in the list box; or press TAB to move to the list box, use UP and DOWN to highlight the name you want, and then press ENTER.

See also

[Function Keys](#)

F4

Has two functions, depending on what mode 1-2-3 is in.

Selecting a range

When 1-2-3 is in Ready mode, F4 anchors the cell pointer so you can select a range using the pointer-movement keys.

Changing references in formulas

When 1-2-3 is in Point, Value, or Edit mode, pressing F4 changes the cell references in a formula from absolute to mixed to relative.

When you are creating or editing a formula, press F4 when the insertion point is on or to the right of a reference. 1-2-3 changes the references by entering a \$ (dollar sign) in front of the worksheet letter, column letter, row number, or range name.

For example, if you typed the formula +A:C5 and pressed F4 several times, 1-2-3 would change it in the following ways:

+\$A:\$C\$5	Absolute address
+\$A:C\$5	Mixed address
+\$A:\$C5	Mixed address
+\$A:C5	Mixed address
+A:\$C\$5	Mixed address
+A:C\$5	Mixed address
+A:\$C5	Mixed address
+A:C5	Relative address

See also

Function Keys

F5 (GOTO)

Moves the cell pointer to a specified cell, a named range, another worksheet, another active file, a drawn object, a chart, or a query table.

When you go to another worksheet or file, 1-2-3 moves the cell pointer to the cell you last highlighted in that worksheet or file. F5 (GOTO) is equivalent to Edit Go To.

See also

Function Keys

F6 (PANE)

After you create panes or use perspective view, press F6 (PANE) to move the cell pointer between panes or from one worksheet to another in perspective view.

See also

ALT+F6 (ZOOM PANE)

Function Keys

View Split/View Clear Split to turn panes on and off

F7 (QUERY)

Updates records in a query table to reflect changes made to the database table, query options, criteria, aggregate, or field names.

See also

[Function Keys](#)

[Query Refresh Now](#)

F8 (TABLE)

Repeats the last Range Analyze What-if Table command you selected to calculate a what-if table.

You can use F8 (TABLE) with Range Analyze What-if Table.

See also

[Range Analyze What-if Table](#)

[Function Keys](#)

F9 (CALC)

Performs one of two functions, depending on what mode 1-2-3 is in.

Recalculating formulas in active files

When 1-2-3 is in Ready mode, F9 (CALC) recalculates formulas in active files.

- When Tools User Setup Recalculation is set to Manual, use F9 (CALC) to recalculate the formulas in active files. 1-2-3 displays the Calc indicator in the status bar whenever it is performing an automatic recalculation pass.
- When Tools User Setup Recalculation is set to Automatic, 1-2-3 automatically recalculates formulas whenever you change data they refer to. Automatic recalculation occurs in the background, so you can continue working while it is happening.

Note If a worksheet contains formulas that link to data in files on disk, use [Edit Links Update All](#) to update those formulas.

Converting a formula to its displayed value

When 1-2-3 is in Edit or Value mode and the current cell contains a formula, press F9 (CALC) and then press ENTER to convert the formula to its displayed value.

See also

[Function Keys](#)

[Tools User Setup Recalculation](#)

ALT+F1 (COMPOSE)

Enters characters in 1-2-3 that you cannot enter directly from the keyboard.

1-2-3 Release 5 uses the American National Standards Institute (ANSI) character set to display and print characters and the Lotus Multibyte Character Set (LMBCS) to store characters.

You can enter a LMBCS character in a worksheet either by using @CHAR and the LMBCS code for the character or by using a compose sequence.

Note If Windows cannot represent a LMBCS character, a fallback character will appear. For more information about what characters Windows can represent, see the documentation for Microsoft Windows.

To use a compose sequence

1. Press ALT+F1 (COMPOSE).
2. Enter the appropriate keystrokes.

For example, to enter the character £ (British pound sterling symbol), press ALT+F1 (COMPOSE) and type L=.

To use an extended compose sequence

1. Press ALT+F1 (COMPOSE) twice.
2. Type 0 or 1 (depending on the Group number), - (hyphen), and a three-digit LMBCS code.

If the LMBCS code for that character has only two digits, precede it with a 0.

For example, to enter an ellipsis, which is in Group 1 and has a key code of 040, press ALT+F1 1-040.

For more information on using ALT+F1 (COMPOSE), see Appendix C of the 1-2-3 Release 5 *User's Guide*. Appendix C also contains a complete list of LMBCS codes, compose sequences, and the characters you can enter in 1-2-3 using a compose sequence.

See also

Function Keys

ALT+F6 (ZOOM PANE)

Enlarges the current pane or worksheet in perspective view to the current size of the active window. Press ALT+F6 (ZOOM PANE) again to shrink the pane or worksheet to its original size.

See also

[Function Keys](#)

[View Split/View Clear Split](#)

Editing Keys

You can use the following keys in the contents box, in a cell after you double-click, and in a text box when 1-2-3 is in Edit mode. If 1-2-3 is in another mode, press F2 (EDIT) to get into Edit mode.

Keys to change an entry

BACKSPACE

Erases the highlighted selection or the character to the left of the insertion point.

DEL

Erases the character to the right of the insertion point or erases the highlighted selection.

ESC

Erases all characters in the entry. Not available in a text box.

F2 (EDIT)

Switches 1-2-3 between Edit and Ready, Point, Value, or Label mode.

F9 (CALC)

Converts a formula to its current value when 1-2-3 is in Edit or Value mode. Not available in a text box.

Keys to move the insertion point

CTRL+LEFT

In labels, moves the insertion point to the left of the previous word. In values, moves to the beginning of the value. Not available in a text box.

CTRL+RIGHT

In labels, moves the insertion point to the left of the next word. In values, moves to the end of the value. Not available in a text box.

END

Moves the insertion point to the last character in the entry.

HOME

Moves the insertion point to the first character in the entry.

RIGHT OR LEFT

Moves the insertion point one character to the right or left.

Keys to select characters in an entry

SHIFT+LEFT

Extends the highlight to the left of the insertion point.

SHIFT+RIGHT

Extends the highlight to the right of the insertion point.

Keys to complete editing in the contents box

CTRL+PG UP OR CTRL+PG DN

Completes editing and, if you are using multiple worksheets, moves the cell pointer forward or back one worksheet.

ENTER

Completes editing and leaves the cell pointer in the current cell.

PG UP OR PG DN

Completes editing and moves the cell pointer up or down the number of rows currently visible in the window.

UP OR DOWN

Completes the entry and moves the cell pointer up or down one cell.

See also

[Entering Data](#)

[F2 \(EDIT\)](#)

[Keyboard Index](#)

Pointer-Movement Keys

Move the cell pointer around the worksheet when 1-2-3 is in Ready mode. When 1-2-3 is in Point mode, you can use these keys to move the cell pointer and specify a range in the worksheet.

CTRL+HOME

Moves the cell pointer to cell A:A1 in the current file. If you hide A:A1 or freeze it with View Freeze Titles, CTRL+HOME moves the cell pointer to the top left cell in the current file.

CTRL+LEFT or SHIFT+TAB

Moves the cell pointer left the number of columns currently visible in the window.

CTRL+RIGHT or TAB

Moves the cell pointer right the number of columns currently visible in the window.

END+HOME

Moves the cell pointer to the lower right corner of the worksheet's active area.

END+RIGHT or END+LEFT

Moves the cell pointer right or left to a cell that contains data and is next to a blank cell.

END+UP or END+DOWN

Moves the cell pointer up or down to a cell that contains data and is next to a blank cell.

HOME

Moves the cell pointer to cell A1 in the current worksheet. If you hide A1 or freeze it with View Freeze Titles, HOME moves the cell pointer to the top left cell in the worksheet.

PG UP or PG DN

Moves the cell pointer up or down the number of rows currently visible in the window.

RIGHT or LEFT

Moves the cell pointer right or left one column.

UP or DOWN

Moves the cell pointer up or down one row.

See also

[Keyboard Index](#)

Worksheet Navigation Keys

Move the cell pointer between worksheets in the current file when 1-2-3 is in Ready mode. When 1-2-3 is in Point mode, you can use these keys to move the cell pointer and specify a range.

CTRL+HOME

Moves the cell pointer to cell A:A1 in the current file. If you hide A:A1 or freeze it with View Freeze Titles, CTRL+HOME moves the cell pointer to the top, left cell in the current file.

CTRL+PG DN

Moves the cell pointer to the previous worksheet, for example, from worksheet B to worksheet A.

CTRL+PG UP

Moves the cell pointer to the next worksheet, for example, from worksheet A to worksheet B.

END CTRL+HOME

Moves the cell pointer to the lower right corner of the current file's active area.

END CTRL+PG DN

Staying in the same row and column, moves forward through worksheets to the next cell that contains data and is next to a blank cell.

END CTRL+PG UP

Staying in the same row and column, moves back through worksheets to the next cell that contains data and is next to a blank cell.

See also

[Keyboard Index](#)

File Navigation Keys

Move the cell pointer between active files. Only CTRL+F6 cycles through all windows that are open in the 1-2-3 window.

Note The order in which the cell pointer moves between active files, expressed in the terms first, last, next, and previous in the following definitions, depends on

- Which file is current when you open a file
- The order in which you open the files

CTRL+END CTRL+PG DN

Moves the cell pointer to the cell you last highlighted in the previous active file.

CTRL+END CTRL+PG UP

Moves the cell pointer to the cell you last highlighted in the next active file.

CTRL+END END

Moves the cell pointer to the cell you last highlighted in the last active file.

CTRL+END HOME

Moves the cell pointer to the cell you last highlighted in the first active file.

CTRL+F6

Makes the next open Worksheet or Transcript window active. CTRL+F6 is equivalent to Next in the Control menu of a window in the 1-2-3 window.

CTRL+PG DN

When the cell pointer is in the first worksheet of a file, moves the cell pointer to the cell you last highlighted in the previous active file.

CTRL+PG UP

When the cell pointer is in the last worksheet in a file, moves the cell pointer to the cell you last highlighted in the next active file.

See also

[Keyboard Index](#)

[Window Commands](#)

Dialog Box Keys

Move and close the dialog box, and move around and select options in the dialog box.

ALT+ a letter

Selects the option or command with the underlined letter that you press.

ALT+F4

Closes the dialog box without completing the command. This is equivalent to choosing Cancel.

ALT+ SPACEBAR

Opens the Control menu for the dialog box. The Control menu contains commands to move and close the dialog box.

ALT+UP or ALT+DOWN

Opens and closes a drop-down box.

END

Selects the last item in a drop-down box or list box.

ENTER

Completes the command and closes the dialog box.

ESC

Closes the dialog box without completing the command. This is equivalent to choosing Cancel.

HOME

Selects the first item in a drop-down box or list box.

PG UP or PG DN

Moves to the top or bottom item in the list of items currently visible in a drop-down box or list box, and selects the item.

SHIFT+TAB

Moves backward to the previous option, from bottom to top and right to left.

TAB

Moves forward to the next option, from left to right and top to bottom.

UP, DOWN, LEFT, RIGHT

Move within a group of options.

Using characters to select an item in a drop-down box or list box

You can press a letter, number, or symbol to select an item in a drop-down box or list box.

To select an item	Press
Beginning with a letter	The letter. For example, to select Currency format in Style Number Format, press c .
Beginning with a number	The number. For example, to select the Long International Time format in Style Number Format, press 2 .
Beginning with a symbol	The symbol. For example, to select the Comma format in Style Number Format, press , (comma).

When a list box is attached to a text box, you can type a letter to scroll to the first item that begins with that letter.

1. Click the list box or press TAB to enter the list box.
2. Type a letter.

See also

[Keyboard Index](#)

Special Keys

ALT

When 1-2-3 is in Ready mode, activates the menu bar. Used with the underlined letter of a command name, ALT chooses the command from a menu.

In a dialog box, ALT+ a letter selects the option or command with the underlined letter you press. ALT also performs special operations when used in combination with the function keys.

ALT+ - (hyphen)

Opens the Control menu for the active window.

CTRL+BREAK

Cancels the current 1-2-3 command or operation and returns 1-2-3 to Ready mode.

CTRL+ a letter

Runs a macro in 1-2-3 Release 5. In 1-2-3 Release 2 for DOS and 1-2-3 Release 3 for DOS, ALT + a letter runs a macro.

ESC

Cancels a dialog box without completing the command, cancels the current entry in the current cell or the edit line, returns you to the previous menu, or closes the Help window.

See also

[Keyboard Index](#)

Control Menu Keys

Move, size, and close windows and dialog boxes, and give you access to other windows that are open in the 1-2-3 window, or to other open Windows applications.

ALT+ ESC

Cycles through open Windows applications.

ALT+F4

Closes the 1-2-3 window, prompts you to save any unsaved files, and returns you to the Windows Program Manager; this use of ALT+F4 is equivalent to Close in the Control menu of the 1-2-3 window, and to [File Exit](#). You can also use ALT+F4 to close the Help window or a dialog box.

ALT+ - (hyphen)

Opens the [Control menu](#) for the [active window](#).

ALT+ SPACEBAR

Opens the Control menu for the 1-2-3 window, the Help window, and dialog boxes.

CTRL+ESC

Displays the Windows Task List, which lets you go to another Windows application. CTRL+ESC is equivalent to Switch To in the Control menu of the 1-2-3 window.

CTRL+F4

Closes the active window and prompts you to save the file if it contains unsaved changes. If the window you close is the only active window, CTRL+F4 closes the window and opens a new window that contains a blank untitled worksheet file. CTRL+F4 is equivalent to Close in the Control menu of a window within the 1-2-3 window, and to [File Close](#).

CTRL+F6

Makes the next open Worksheet or Transcript window active. CTRL+F6 is equivalent to Next in the Control menu of a window in the 1-2-3 window.

See also

[Keyboard Index](#)

Mouse

The mouse can provide a shortcut for many actions because it lets you manipulate objects on the screen without choosing a command.

Mouse buttons

1-2-3 Release 5 uses the same mouse button -- the left button -- for every mouse action (see the two exceptions that follow). When Help topics mention the mouse button, the left mouse button is intended.

There are two uses for the right mouse button in 1-2-3 Release 5:

- To display a quick menu that contains commonly used commands. For example, if you select a cell and then press the right mouse button, you see a menu with commands such as Cut, Copy, Paste, Clear, and so on. If you select a chart or other drawn object, you see different commands.
- To view the description of one of the SmartIcons, point to the SmartIcon, and then hold down the right mouse button. The description appears in the title bar of the 1-2-3 window.

Mouse instructions

The following table lists the terms you need to know to follow instructions for the mouse.

Term	Means
Click	Press and release the mouse button quickly.
Double-click	Press and release the mouse button twice, quickly.
Drag	Hold down the mouse button while you move the mouse.
Point	Position the mouse pointer.

See also

[Keyboard Index](#)

User's Guide

Chapter 4, "Managing the 1-2-3 Windows"

Parts of the 1-2-3 Window

The 1-2-3 window consists of three areas. From top to bottom, they are

- Control Panel
- Work area
- Status bar

For a visual tour of the individual parts of the 1-2-3 window, select the following cross-reference:

[1-2-3 Window](#)

Control panel

The control panel displays information about 1-2-3 and the window you're working in. The control panel consists of the title bar, menu bar, and edit line.

- **Title bar:** When you highlight a command while holding down the right mouse button, the title bar displays a short description of the command, or displays instructions for how to complete a task.
- **Menu bar:** You choose commands from the menu bar. The menu changes depending on whether a Worksheet window or a Transcript window is active. When a Worksheet window is active, the menu also changes depending on whether the current selection is a cell or range, chart, or query table.

To activate the menu bar, click it, or press ALT or F10 (MENU).

- **Edit line:** The edit line consists of the selection indicator, the navigator, the @function selector, and the contents box.
 - The selection indicator displays the address of the current cell or range, or the name of the currently selected drawn object.
 - Use the navigator to go to and select named ranges in the the current file or to insert a range name in a formula, @function, or text box.
 - Use the @function selector to choose an @function.
 - You enter and edit the contents of a cell in the contents box.

Work area

The work area is the area between the control panel and the status bar. The work area contains the set of SmartIcons; the worksheet tabs, Tab Scroll button, New Sheet button, and Tab button; and the windows you work in.

You can open multiple windows in the work area and move easily among them; but you can work in only one window at a time.

Status bar

The status bar is at the bottom of the 1-2-3 window. It displays information about the current selection, the current file, and the current status and mode of 1-2-3.

You can change the number format and style of the current selection by using the buttons in the left half of the status bar.

See also

Help

[Entering Data](#)
[Mode Indicator](#)
[Status Indicators](#)

Tools SmartIcons

View Set View Preferences to hide or show the edit line and the status bar

Naming a Worksheet

User's Guide

Chapter 2, "What's New for Upgraders" for more information about the user interface in 1-2-3 Release 5.

Chapter 3, "Starting and Ending 1-2-3"

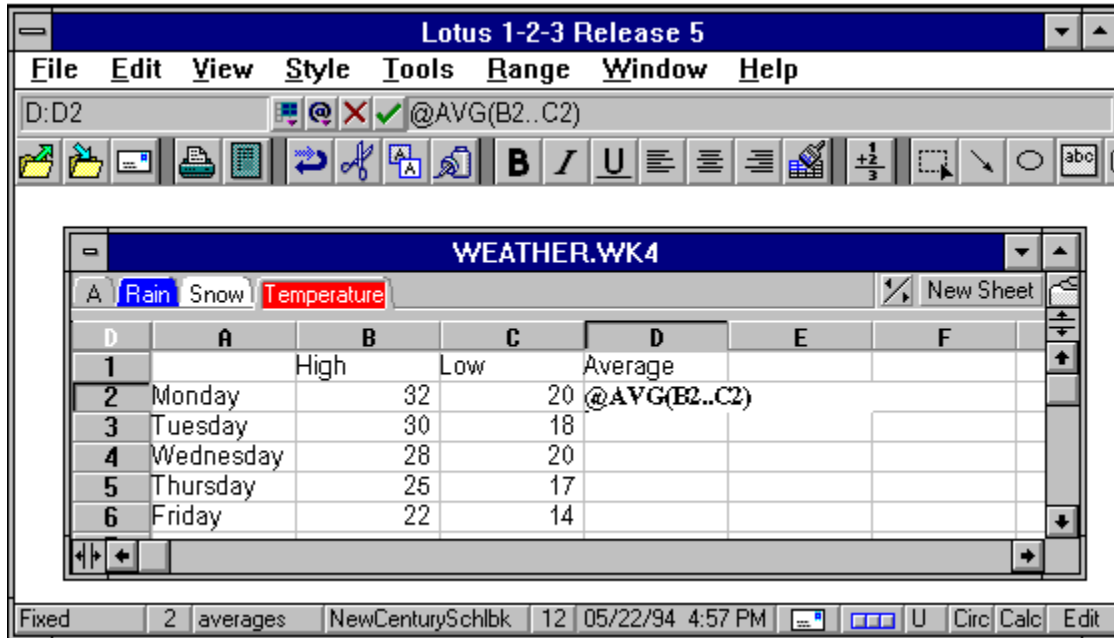
Chapter 4, "Managing the 1-2-3 Windows"

Close

Example: Parts of the 1-2-3 window

Mouse: Position the mouse pointer on the part. When the mouse pointer changes to a hand, click the left mouse button.

Keyboard: Press TAB until the part is highlighted and then press ENTER.



Control menu box

Displays the Control menu commands. To close the window, position the mouse pointer on the Control menu box and double-click.

title bar

Contains the Control menu box, the program name, the Minimize button, and the Maximize or Restore button.

Look for descriptions and instructions in the title bar when you are highlighting a command or using one of the SmartIcons.

When the active window is maximized, the title bar displays the name of the window in parentheses. If the file is read-only, the RO indicator appears next to the name.

Minimize button

Minimizes the window so that it appears as an icon on the screen.

Maximize button

Maximizes the window so that it fills the entire screen.

menu bar

Contains the commands that you use with 1-2-3. Certain commands appear in the menu bar only when the element they pertain to is selected.

When you select	The menu bar displays the
------------------------	----------------------------------

Cell or range	Range command
Chart	Chart command
Query table	Query command
Transcript window	Transcript command

This example shows the menu bar as it appears when you are working in the worksheet. The Range command appears because you can work with cells and ranges in a worksheet.

selection indicator

Displays the address of the current cell or range, or the name of the currently selected drawn object.

Only when a file contains more than one worksheet do cell and range addresses include the worksheet letter; for example, A:A1.

navigator

Click the navigator to

- Go to and select any named range in the current file.
- Select a named range to insert in a formula, @function, or text box.

@function selector

Displays a customizable pull-down menu of frequently used @functions and gives you access to a list of all @functions.

Use the dialog box to

- Insert an @function in the edit line with placeholders to remind you of its arguments.
- Add @functions to, or remove them from, the pull-down menu.

Cancel and Confirm buttons

When you enter data, 1-2-3 displays the data in the contents box and the Cancel and Confirm buttons appear. Click Confirm to enter the data or Cancel to cancel the entry.

contents box

As you type, the data you type appears in the contents box and in the cell. Formulas and @functions appear in the contents box; their results appear in the cell.

SmartIcons

SmartIcons are shortcuts for many tasks you would otherwise perform with 1-2-3 commands or macros.

1-2-3 displays SmartIcons in sets that you can move, hide, and customize. You can also create your own SmartIcons.

1-2-3 displays different sets of SmartIcons depending upon which window is active and what is selected. This example displays the default set of SmartIcons for the worksheet.

title bar

Displays the file name. If the file is read-only, the title bar displays the RO indicator.

worksheet tabs

Show you if a file contains more than one worksheet. Click a worksheet tab to move to that worksheet.

The worksheet letter appears on the tab. To give the worksheet a name, double-click the tab, enter the name, and then click elsewhere or press ENTER.

tab-scroll arrows

Click to scroll worksheet tabs right or left when you have so many worksheets in a file that you can't see all their tabs at once.

New Sheet button

Click to insert a new worksheet after the current worksheet.

Tab button

Click to hide or show worksheet tabs.

worksheet letter

The worksheet letter identifies the current worksheet. Click the worksheet letter to select the entire worksheet.

A file can contain 256 worksheets, and the letters range from A through IV.

columns

A letter identifies each column.

A worksheet contains 256 columns, and the letters range from A through IV.

horizontal splitter

Splits the Worksheet window horizontally.

rows

A number identifies each row.

A worksheet contains 8,192 rows.

cells

The intersection of a column and row is called a cell. Each cell has an address consisting of a worksheet letter followed by a : (colon), a column letter, and a row number; for example, A:A1.

The cell pointer marks the current cell.

scroll arrow

Position the mouse pointer on the scroll arrow and click to scroll through the contents of the window line by line.

To scroll continuously, position the mouse on the scroll arrow and hold the mouse button down.

vertical splitter

Splits the Worksheet window vertically.

scroll box

Indicates the position of information currently visible in the window. Drag the scroll box to move around in the Worksheet window.

format selector

Click to select a number format.

decimal selector

Click to select the number of decimal places you want in a number format.

style selector

Click to select a named style created with Style Named Style.

font selector

Click to change the typeface of the data in the current selection.

point-size selector

Click to change the point size of the data in the current selection.

date-time/height-width indicator

Click to display panels with the following information:

- Date and time, according to settings from Windows Control Panel International
- Row height and column width of the current cell

Mail button

If the envelope appears, click to open your mail application and read newly delivered mail.

SmartIcons selector

Click to hide or show the set of SmartIcons, or to select one of the sets of SmartIcons available for the current selection or active window.

status indicator

Indicates the current status of the worksheet.

Common status indicators:

Cmd 1-2-3 is executing a command.

Group The current file is in Group mode.

Pr The current cell or worksheet is protected.

U The current cell or worksheet is unprotected.

Zoom 1-2-3 currently displays a full-window view of the current pane or worksheet.

Circular-reference button

If Circ appears, click to go to the [circular reference](#).

Calc button

If Calc appears, click to update the formulas in the current file with the latest data.

mode indicator

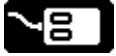
Indicates what mode 1-2-3 is in.

Common modes and their meanings:

Ready	1-2-3 is ready for you to enter data or choose a command.
Point	You need to select a range for 1-2-3 to work with.
Value	You're entering a number, formula, or @function.
Label	You're entering text.
Edit	You're changing cell contents. Press F2 (EDIT) to get into Edit mode.

Choosing a 1-2-3 Command

A command is an instruction you give 1-2-3. Commands are located in the menu bar.



To choose a command

1. Point to the command you want in the menu bar.
2. Click the mouse.
1-2-3 highlights the command and drops down the pull-down menu.
3. Drag the mouse pointer to the command you want.
4. Release the mouse button.



To choose a command

1. Press ALT+F4 to close Help.
2. Press ALT or F10 (MENU).
1-2-3 highlights File, the first command in the menu bar.
3. Press the underlined letter of the command you want in the menu bar.
The pull-down menu drops down.
4. Press the underlined letter of the command you want.

See also

[Mouse](#)
[1-2-3 Release 5 Help Contents](#)

User's Guide

Chapter 5, "Using 1-2-3 Commands"

Mode Indicator

1-2-3 displays the mode indicator at the right end of the status bar to tell you what mode or state 1-2-3 is in.

Edit

You pressed F2(EDIT) to edit an entry, you are entering or editing text in a text box; or you made an incorrect entry.

Error

1-2-3 is displaying a message. Choose Help or press F1 (HELP) to get Help; select OK to clear the message. See the 1-2-3 Message Index for a list of messages.

Files

You are in 1-2-3 Classic and 1-2-3 is displaying a list of file names.

Label

You are entering a label. See Label Mode for more information.

Menu

You clicked the menu bar, or pressed ALT or F10 (MENU); or in a dialog box, the dotted box is in a list box or on a check box, option button, or command button.

Point

You are specifying a range before choosing a command, while working in a dialog box, or while entering a formula.

Ready

1-2-3 is ready for you to enter data or choose a command.

Value

You are entering a value. See Value Mode for more information.

Wait

1-2-3 is completing a command or process, such as saving a file.

See also

Parts of the 1-2-3 Window

Status Indicators

When you press specific keys and when 1-2-3 performs certain actions, 1-2-3 displays status indicators. All status indicators except RO appear in the status bar at the bottom of the 1-2-3 window.

Calc

You need to recalculate formulas by pressing F9 (CALC), or 1-2-3 is performing background formula recalculation.

Circ

You entered a formula that contains a circular reference. Click the Circular-reference button to go to the cell that contains the circular reference.

Cmd

1-2-3 is running a macro.

End

You pressed END to use it with a pointer-movement key.

Group

The current file is in GROUP mode.

Rec

You chose Tools Macro Record to record your actions as macro commands in the Transcript window. To stop recording, choose Tools Macro Stop Recording.

RO

The current file has read-only status, which means you cannot save changes to the file unless you get the file reservation. RO appears in the title bar of the Worksheet window, next to the file name.

Step

You pressed ALT+F2 (STEP) and selected Step to run a macro in STEP mode.

Zoom

After using View Split to create panes or a perspective view, you pressed ALT+F6 (ZOOM PANE) for a full-window view of the current pane or worksheet.

See also

Help

Parts of the 1-2-3 Window

User's Guide

Chapter 2, "What's New for Upgraders"

Entering Data

1-2-3 is ready for you to enter data in the worksheet when you see the Ready mode indicator in the lower left corner of the 1-2-3 window.



To enter data

1. Move the mouse pointer to the cell that you want to receive the data. Click the cell.

The cell pointer moves to the cell you selected.

2. Type your data. A cell can receive up to 512 characters.

As you type, your data appears in the cell and in the contents box, and the Cancel and Confirm buttons appear to the left of the contents box.

3. Click the Confirm button to complete the entry.

1-2-3 clears the contents box and your data appears in the cell you selected in the worksheet.

If you click the Cancel button, 1-2-3 clears the contents box and nothing appears in the selected cell.

If 1-2-3 beeps when you click the Confirm button, you probably made an error. Edit your entry or press ESC to clear your entry and start over.



To enter data

1. Press ALT+F4 to close Help.

2. Use the pointer-movement keys to move the cell pointer to the cell that you want to receive the data.

3. Type your data. A cell can receive up to 512 characters.

As you type, your data appears in the cell and in the contents box.

4. Press ENTER or one of the pointer-movement keys to complete the entry.

ENTER keeps the cell pointer in the cell that received the data. The pointer-movement keys move the cell pointer one cell.

If 1-2-3 beeps when you press ENTER, you probably made an error. Edit your entry or press ESC to clear your entry and start over.

Classifying data as a label or a value

1-2-3 automatically classifies the data you enter as either a label or a value based on the first character you type. At the same time, 1-2-3 changes the mode indicator to Label or Value. The initial default format for values is Automatic.

See also

Help

[Editing Keys](#)

[F2 \(EDIT\)](#)

[Mouse](#)

User's Guide

Chapter 8, "Entering and Editing Data"

Label Mode

Indicates you are entering a label. 1-2-3 classifies an entry as a label if the first character you type is a letter or a label-prefix character. A label can be up to 512 characters long.

Entering labels

When you type any letter, 1-2-3 automatically enters the default label-prefix character before the letter. 1-2-3 does not display the label-prefix character in the cell, but does display it in the contents box when you highlight the cell.

Entering numbers as labels

You can enter a label that starts with a number (such as a street address, ZIP code, or phone number) or one of the symbols + - @ . (# in two ways:

- Type the label prefix. For example, entering '8 Pushkin Avenue creates a label because you enter the label-prefix character ' (apostrophe) in front of the number 8.
- Use Style Number Format and format a range as Label before you enter data; then 1-2-3 automatically adds a label prefix to all new entries in the range.

See also

Help

[Keyboard Shortcuts](#)

[Editing Keys](#)

[Entering Data](#)

User's Guide

Chapter 8, "Entering and Editing Data"

Value Mode

Indicates you are entering a value. 1-2-3 classifies an entry as a value if the first character you type is a number (0 through 9) or any one of the characters + - @ . (# or \$ (or the current currency symbol).

Besides a number, a value can also be a formula or an @function.

Editing values

Use the following keys when 1-2-3 is in Value mode:

F2 (EDIT)

Switches between Value and Edit mode. When 1-2-3 is in Edit mode, you can use all the editing keys.

F4

Switches a cell or range reference between relative, mixed, and absolute.

F9 (CALC)

Converts a formula to its current value.

See also

Help

Keyboard Shortcuts

Editing Keys

Entering Data

User's Guide

Chapter 8, "Entering and Editing Data"

Help About 1-2-3

Displays the 1-2-3 Release 5 release number and copyright notice.

See also

[Help Commands](#)

Commands

1-2-3 Commands

File

Creates, maintains, and prints files.

Edit

Rearranges data and objects, manages links, and undoes actions.

View

Controls the display settings for the worksheet and 1-2-3.

Style

Controls the appearance of data onscreen and in print.

Tools

Creates lines, shapes, macro buttons, and text blocks; maps, queries and audits data; lets you use macros and add-ins; and changes defaults.

Range

Manipulates and analyzes ranges of data.

Query

Manipulates query tables.

Chart

Sets data ranges, changes chart types, and enhances charts.

Transcript

Starts, debugs, and controls the recording of a macro.

Window

Controls the display of the Worksheet and Transcript windows.

Help

Opens 1-2-3 Help; press F1 (HELP) at any time for context-sensitive Help.

Other commands

Control Menu

Help Window

1-2-3 Classic

Quick menus

A quick menu is a list of all the commands that you can use with the current selection. Click the right mouse button to see a quick menu; then click a command to use it.

For example, when you have a cell or range selected and you click the right mouse button, a quick menu appears that gathers together all the commands you can use with a cell or range, as follows:

- From the Edit pull-down: Cut, Copy, Paste, Clear, Insert, Delete
- From the Style pull-down: Number Format, Font & Attributes, Lines & Color, Alignment
- From the Range pull-down: Name

The commands available on a quick menu depend on what the current selection is. The list of commands available when part or all of a query table is selected is different from the list available when a chart is selected, and so on through all the kinds of selections possible in 1-2-3.

Dimmed commands

A command appears dimmed when it is unavailable in the current context. For example, when you are working with a range, Edit Arrange is dimmed because it can be used only with drawn objects; when there is nothing on the Clipboard, Edit Paste is dimmed; and so on.

See also

[1-2-3 Release 5 Help Contents](#)

Help Topic

Green text with a solid underline indicates a cross-reference to another Help topic. When you select a cross-reference, the topic explaining the green text replaces the current topic in the Help window.

Press **b** or click the Back button to return to the previous topic, or select a cross-reference to go to that topic.

See also

[1-2-3 Release 5 Help Contents](#)

definition

A definition or an example is displayed in a pop-up box. When you click the mouse button or press a key, the pop-up box disappears.

hand icon



When the mouse pointer takes this shape, you can select a Help topic or see a definition.

File Commands

New

Creates a new file based on a SmartMaster or a plain worksheet and places it in a window.

Open

Reads a worksheet file into memory and places it in a window.

Close/Close & Return

Closes the current file in 1-2-3 or closes a 1-2-3 Worksheet object embedded in another application file and returns to that other application.

Save/Update

Saves the current worksheet file on disk.

Save As/Save Copy As

Saves a worksheet file with a name you specify, or saves all modified files on disk; assigns a password to files.

Doc Info

Lets you enter or display information about a file.

Protect

Seals worksheet files and controls reservations for worksheet files.

Send Mail

Uses your mail application to send electronic mail from 1-2-3.

Print Preview

Displays the print selection as 1-2-3 will format it for printing.

Page Setup

Specifies the layout for a printed page; specifies header and footer text; and lets you create, save, and retrieve named page settings.

Print

Prints a range or ranges of data; specifies pages and number of copies.

Printer Setup

Specifies the printer destination and modifies printer settings.

Exit/Exit & Return

Ends the 1-2-3 session.

(File Name)

Lists the most recently opened files and lets you select one.

See also

File Password Protection

1-2-3 Commands

Protecting Data and Files

Reserving a File

Edit Commands

Undo

Reverses the effect of the most recently executed command or action.

Cut

Deletes data and related styles from the worksheet and places them on the Clipboard.

Copy

Copies data and related styles from the worksheet to the Clipboard.

Paste

Pastes the contents of the Clipboard to the worksheet.

Clear

Deletes the current selection from the worksheet without using the Clipboard.

Clear All

Deletes all keystrokes from the Transcript window without using the Clipboard.

Paste Special

Pastes data on the Clipboard into the worksheet, or creates a DDE link, OLE link, or OLE object.

Paste Link

Pastes data on the Clipboard into the worksheet as a formula, file link, DDE link, or OLE link.

Arrange

Manipulates drawn objects.

Copy Down

Copies the contents of the top row in the selection to fill the entire selection.

Copy Right

Copies the contents of the leftmost column in the selection to fill the entire selection.

Copy Up

Copies the contents of the bottom row in the selection to fill the entire selection.

Copy Left

Copies the contents of the rightmost column in the selection to fill the entire selection.

Copy Back

Copies the contents of the first worksheet in the selection to fill the entire selection.

Copy Forward

Copies the contents of the last worksheet in the selection to fill the entire selection.

Insert

Inserts blank columns or rows, adds worksheets to a file, or inserts blank cells in the range specified.

Delete

Deletes columns, rows, or worksheets in the current file, or deletes cells in the specified range, closing up the space left by the deletion.

Find & Replace

Finds or replaces specified characters in labels and formulas.

Go To

Goes to and selects an item.

Insert Object

Creates an OLE object and places it in the worksheet.

Links

Refreshes file links and creates and maintains DDE and OLE links between the current file and other

Windows applications.

See also

[1-2-3 Commands](#)

View Commands

Zoom In

Increases the display size of cells.

Zoom Out

Decreases the display size of cells.

Custom

Resets the display size of cells.

Freeze Titles/Clear Titles

Freezes (or unfreezes) columns along the top of the worksheet, rows along the left edge of the worksheet, or both.

Split/Clear Split

Divides the Worksheet window horizontally or vertically into two panes or displays three contiguous worksheets in perspective view; or removes panes or perspective view.

Set View Preferences

Controls view preferences for the current file and for sessions of 1-2-3, and sets default view preferences for new files.

See also

1-2-3 Commands

Style Commands

Number Format

Sets the display of values.

Font & Attributes

Applies fonts and text attributes to the current selection.

Lines & Color

Adds colors, patterns, lines, and frames to the current selection.

Alignment

Aligns data in a range, either within cells or across columns, and in text blocks.

Gallery

Styles a range using a style template.

Named Style

Defines the styling of a cell as a set of styles, called a named style; applies a named style to the current selection.

Column Width

Sets the width of selected columns or resets columns to the default column width.

Row Height

Sets selected rows to a specified height or resets each one to the height of the largest font in that row.

Protection

Protects the styles applied to a range, but does not prevent changes to cell contents in the range; used with File Protect.

Hide

Hides columns and entire worksheets.

Page Break

Inserts and removes page breaks.

Worksheet Defaults

Controls default settings for the current worksheet.

Fast Format

Copies the styles of the current range into other ranges you select.

See also

1-2-3 Commands

Tools Commands

Chart

Draws a chart using a selected range.

Map

Creates and modifies maps based on data in the worksheet.

Draw

Creates lines, arrows, shapes, freehand drawings, text blocks, and macro buttons.

Database

Creates query tables, manipulates data in database tables, and connects to Lotus Approach.

Spell Check

Checks for and corrects misspelled and duplicate words.

Audit

Highlights or produces a report on all formulas, or the relationships of values and formulas, in the current file or in all active files; also highlights or produces a report on circular references, file links, or DDE links.

SmartIcons

Positions and hides the set of SmartIcons, adds and removes SmartIcons from a set, creates custom sets of SmartIcons, creates custom SmartIcons, and turns icon descriptions on and off.

User Setup

Changes settings that affect the display and behavior of 1-2-3.

Macro

Starts macros; starts Step mode and opens the Macro Trace window so you can debug a macro; and opens the Transcript window, which records and plays back keystrokes and mouse actions.

Add-in

Reads add-ins into memory and removes add-ins from memory.

See also

1-2-3 Commands

Range Commands

Note Range commands are available only when a cell, range, or collection is selected.

Version

Creates and manages versions and scenarios.

Fill

Enters a sequence of values in a range.

Fill by Example

Completes a sequence of data in a range by using the pattern established by the values already in the range.

Sort

Arranges data in a range in the order you specify.

Parse

Converts a single column of long labels into one or more columns of data.

Transpose

Copies a range, transposing the layout of the data.

Name

Creates and deletes range names.

Analyze

Solves what-if problems, performs matrix analysis, performs regression analysis, and calculates frequency distribution.

See also

1-2-3 Commands

Query Commands

Note Query commands are available only when a [query table](#) is selected.

Set Criteria

Specifies criteria to determine which [records](#) will appear in a query table.

Choose Fields

Specifies fields to appear in a query table and creates computed columns.

Sort

Arranges data in a query table in the order you specify.

Aggregate

Performs summary calculations on groups of data from a [database table](#).

Show Field As

Specifies an alias field name for the current field to display in a query table. Doing so does not change the field name in the database table, but only changes the field name in the query table.

Name

Assigns a name to a query table so that you can subsequently run the query that produced the query table or go to a named query table.

Set Options

Specifies options for manipulating data in the current query table.

Show SQL

Shows SQL for the current query table.

Set Database Table

Specifies a new database table to query. The criteria, sort settings, and aggregates are preserved if the fields in the new table match those in the old table.

Join

Lets you query multiple database tables that contain a common field.

Update Database Table

Applies changes to records in either a 1-2-3 database table or an external database table.

Refresh Now

Updates the query table by fetching a fresh copy of records from the database table.

See also

[1-2-3 Commands](#)

[Database Basics](#)

[Keeping Records in a 1-2-3 Database Table](#)

[Specifying and Modifying Criteria](#)

[Tools Database](#)

[Working with Query Tables](#)

Chart Commands

Note Chart commands are available only when a chart is selected.

Type

Changes the chart type and orientation, and lists values from the data ranges used to create the chart.

Ranges

Adds, deletes, or modifies data ranges in a selected chart.

Headings

Adds, changes, or repositions the chart title, subtitle, or note.

Legend

Changes or moves the legend.

Data Labels

Adds and positions labels for data ranges.

Grids

Adds or removes grid lines.

Axis

Sets the scale and format of the chart axes.

Name

Renames the selected chart.

Set Preferred

Changes the default chart type using the selected chart.

Use Preferred

Changes the selected chart to the default chart type.

Numeric Color

Sets the color or pattern for data series using a range of values.

See also

[1-2-3 Commands](#)

Transcript Commands

Note Transcript commands are available only when the Transcript window is the active window.

Playback

Plays back commands from the Transcript window as a macro.

Make Button

Creates a macro button from selected commands in the Transcript window.

Record Relative/Record Absolute

Records range selections as offsets of the current cell or as cell addresses.

Minimize on Run

Reduces the Transcript window to an icon and makes it inactive when you play back commands with Transcript Playback.

See also

1-2-3 Commands

Window Commands

Tile

Sizes open windows and places them side by side in the 1-2-3 window.

Cascade

Sizes open windows and arranges them in the 1-2-3 window so they appear one on top of the other, with just the title bars showing.

(Window Name)

Lists up to nine open windows and displays a check mark next to the active window.

More Windows

Lists all windows that are open in the 1-2-3 window when more than nine windows are open.

See also

1-2-3 Commands

Help Commands

Contents

Displays categories of Help topics. You can get to any part of the 1-2-3 Help system from the Help Contents.

Search

Finds Help topics associated with a keyword or phrase.

Using Help

Provides information about how to use 1-2-3 Help.

Keyboard

Provides information about 1-2-3 keys, such as keyboard shortcuts, function keys, and navigation keys.

How Do I?

Displays a list of common 1-2-3 tasks.

For Upgraders

Describes 1-2-3 Classic and displays tables that show the 1-2-3 Release 5 command corresponding to a command in 1-2-3 Release 3.1.

Tutorial

Offers eight online, guided, hands-on lessons about 1-2-3 Release 5.

About 1-2-3

Displays the release number and copyright notice of 1-2-3 Release 5 for Windows.

See also

[Help Buttons](#)

[Help Window Commands](#)

[1-2-3 Commands](#)

Tutorial

To learn 1-2-3 by completing guided tasks, choose Tutorial from the Help pull-down in 1-2-3.

The Tutorial includes eight lessons. They guide you through many kinds of tasks, ranging from entering data to working with a database and creating versions; they also introduce many of the features of 1-2-3.

Each lesson is divided into small tasks, with an explanation describing each task and precise steps for every action you need to take.

Complete the lessons in sequence, or simply do the ones you want.

See also

[Basics](#)

[Help Commands](#)

[Learning About 1-2-3](#)

[1-2-3 Commands](#)

Control Menu

The 1-2-3 window, the Worksheet, Transcript, and Help windows, and all dialog boxes have a Control menu.

Displaying a Control menu

With a mouse, click the Control menu box to display the Control menu. The following table explains how to display a Control menu using the keyboard:

Control menu for	Displays when you press
1-2-3 window	ALT+ SPACEBAR
Worksheet window	ALT+ - (hyphen)
Transcript window	ALT+ - (hyphen)
Help window	ALT+ SPACEBAR
Dialog box	ALT+ SPACEBAR

The list of commands in a Control menu varies slightly, depending on the window. The only commands in the Control menu of a dialog box are Close and Move.

Close

Closes the window.

- With a mouse, double-clicking the Control menu box is equivalent to choosing Close.
- In the 1-2-3 or Help window, Close is equivalent to File Exit.
- In the Worksheet or Transcript window, Close is equivalent to File Close.
- In a dialog box, Close is equivalent to Cancel.

Maximize

Enlarges a window to its maximum size.

- With a mouse, clicking the Maximize button is equivalent to choosing Maximize.
- When you maximize the 1-2-3 or Help window, it fills the whole screen.
- When you maximize a Worksheet or Transcript window, it fills the whole work area of the 1-2-3 window.

Minimize

Reduces the window to an icon. When a window is an icon, it is still open and can also be active.

With a mouse, clicking the Minimize button is equivalent to choosing Minimize.

Move

Repositions the window or dialog box. When you choose Move, the mouse pointer changes to a four-headed arrow and a gray frame appears around the window or dialog box. Use the pointer-movement keys to move the window or dialog box. Press ENTER to complete the move.

With a mouse, pointing to the title bar of the window or dialog box and dragging it to a new position is equivalent to choosing Move.

Next

Makes the next open Worksheet or Transcript window the active window.

With a mouse, clicking a window makes it active.

Restore

Returns a minimized or maximized window to its previous size and position.

- With a mouse, clicking the [Restore button](#) is equivalent to choosing Restore when the window is maximized. Double-clicking the icon is equivalent to choosing Restore when the window is minimized.
- To restore a minimized 1-2-3 or Help window, press ALT+ESC repeatedly until the icon is selected, and then press ALT+ SPACEBAR to display the Control menu. Choose Restore.
- To restore a minimized Worksheet or Transcript window, press CTRL+F6 repeatedly until the icon is selected, and then press ALT+ - (hyphen) to display the Control menu. Choose Restore.

Size

Adjusts the dimensions of the window. When you choose Size, the mouse pointer changes to a four-headed arrow and a gray frame appears around the window. Use the [pointer-movement keys](#) to size the window. Press ENTER when the window reaches the size you want.

With the mouse, dragging the window border is equivalent to choosing Size.

Switch To

Lets you switch to another application by using the Windows Task List.

See also

[Control Menu Keys](#)
[1-2-3 Commands](#)

Selecting a range

Do one of the following:

- Select the range before you choose the command.
- In the dialog box, specify a range name or address in the Range text box.

The range stays selected after you complete the command.

For more information, see [Selecting the Data You Want to Work On](#).

Selecting a collection

1. Select the first range.
2. To select the next range, hold down the CTRL key while you select the range.

Collections cannot contain items of different types. For example, a collection cannot contain both ranges and charts.

For more information, see [Selecting a Collection](#).

Selecting a drawn object

Drawn objects include charts, chart elements, text blocks, macro buttons, and other objects such as lines and shapes. You must select a drawn object before choosing a command.

1. To select a drawn object, click the object.

Handles then appear around the drawn object, and the name of the drawn object appears in the selection indicator.

2. To include more drawn objects in the selection, hold down the SHIFT or CTRL key while you click the next object(s).

Selecting a query table

You must select a query table before choosing a command.

To select a query table, click the table.

Handles then appear around the query table, and the name of the query table appears in the selection indicator.

Selecting a file

You can edit the file name in the File name text box, or you can use the Files and Directories list boxes and the File type and Drives drop-down boxes to select the file you want. For more information about using these boxes, see [Specifying a File](#).

Password

A password can contain up to 15 characters, and you can use uppercase and lowercase letters. 1-2-3 is case-sensitive for passwords, so you must remember the exact combination of uppercase and lowercase letters you use when you create the password.

Caution Remember your password. Without the password, you cannot work with the file.

SmartIcons Reference

SmartIcons are buttons in the 1-2-3 window that let mouse users choose commonly used commands and macros. To use one of the SmartIcons, click it and then follow the instructions (if any are needed) in the title bar.

SmartIcons organized by command

The availability of individual SmartIcons depends on what the current selection is. To see which SmartIcons you can use with the current selection, select an item (for example, a chart) and then choose Tools SmartIcons.

[File](#)

[Edit](#)

[View](#)

[Style](#)

[Tools](#)

[Range](#)

[Query](#)

[Chart](#)

[Transcript](#)

[Window](#)

[Navigation](#)

[Starting Applications](#)

Creating and changing SmartIcons

[Tools SmartIcons Edit Icon](#)

Modifies an icon, creates a new icon, paints an icon, assigns a macro to an icon.

[Tools SmartIcons Icon Size](#)

Changes the default size used to display icons.

[Using SmartIcons](#)

Describes how to use SmartIcons, how to see a description of each icon when you're working in 1-2-3, and where 1-2-3 stores bitmap files (.BMP) for SmartIcons.

Using sets of SmartIcons

The availability of a set of SmartIcons depends on what the current selection is. To see which sets of SmartIcons you can use with the current selection, select an item (for example, a chart) and then choose Tools SmartIcons, or click the SmartIcons selector in the status bar.

[Tools SmartIcons](#)

Selects a set of SmartIcons; adds, removes, and moves icons in a set; and positions the set in the work area.

[Tools SmartIcons Delete Set](#)

Deletes a set of SmartIcons.

[Tools SmartIcons Save Set](#)

Saves a set of SmartIcons.

[Using SmartIcons](#)

Describes how to manipulate a set of SmartIcons and where 1-2-3 stores the files (.SMI) for sets of SmartIcons.

Related SmartIcons



Selects and rearranges available SmartIcons



Selects the next set of SmartIcons

Related button in the status bar






























Hides and shows the set of SmartIcons and lets you select a set from a list of available sets

See also

[1-2-3 Release 5 Help Contents](#)

Close

File Menu SmartIcons

-  Display the New File dialog box to create a SmartMaster or a plain worksheet file.
-  Create a plain worksheet file.
-  Open an existing file.
-  Close the active window.
-  Save the current file.
-  Send data by electronic mail.
-  Preview the print selection.
-  Go to the next page in the Print Preview window.
-  Go to the previous page in the Print Preview window.
-  Show four or nine pages in Print Preview window.
-  Show two facing pages in Print Preview window.
-  Show single page in Print Preview window.
-  Set up header, footer, margins, and other page settings.
-  Set page orientation to landscape mode.
-  Set page orientation to portrait mode.
-  Center the print range horizontally on a page.
-  Center the print range vertically on a page.
-  Center the print range both horizontally and vertically on a page.
-  Fit the print selection on one page.
-  Fit all columns in the print selection on one page.
-  Fit all rows in the print selection on one page.
-  Specify columns to print at the left of every page and left of every print selection.
-  Specify rows to print at the top of every page and above every print selection.
-  Select the data to print.
-  Display the Print dialog box.
-  Print the current selection.
-  End the 1-2-3 session.

Close

Edit Menu SmartIcons



Undo the previous action or command.



Cut the current selection to the Clipboard.



Copy the current selection to the Clipboard.



Paste the contents of the Clipboard in the worksheet.



Delete the current selection.



Delete styles from the current selection and leave data intact.



Paste data from the Clipboard, but not the styles.



Paste styles from the Clipboard, but not the data.



Paste the results of formulas from the Clipboard, not the formulas themselves.



Paste the contents of the Clipboard as a formula, file link, DDE link, or OLE link.



Place selected drawn objects in front of all other drawn objects.



Place selected drawn objects behind all other drawn objects.



Flip a chart or other drawn object horizontally.



Flip a chart or other drawn object vertically.



Rotate a chart or other drawn object.



Group or ungroup selected drawn objects.



Lock (protect) or unlock selected drawn objects.



Fasten a drawn object to the top left and bottom right cells behind it.



Fasten a drawn object to the top left cell behind it.



Select several drawn objects.



Select all drawn objects in the worksheet.



Copy the contents of the top row in the selection to fill the entire selection.



Copy the contents of the leftmost column in the selection to fill the entire selection.



Copy the contents of the top left cell in the selection to fill the entire selection.



Insert one or more columns to the left of the selected columns.



Insert one or more rows above the selected rows.



Insert a range.



Insert a new worksheet after the current worksheet.



Delete all columns in the selected range.



Delete all rows in the selected range.



Delete the selected range.



Delete all worksheets in the selected range.



Find or replace specified characters in labels and formulas.



Select a range, chart, drawn object, or query table.



Create and embed data in the worksheet.

Close

View Menu SmartIcons



Increase the size of the contents of the window.



Decrease the size of the contents of the window.



Display the contents of the window in the default size.



Display three contiguous worksheets in perspective view.



Show or hide worksheet elements.

Close

Style Menu SmartIcons



Format values with the default currency symbol, the default thousands separator, and the default number of decimal places.



Format values with the US dollar currency symbol, the default thousands separator, and two decimal places.



Format values with the British pound currency symbol, the default thousands separator, and two decimal places.



Format values with the Japanese yen currency symbol, the default thousands separator, and zero decimal places.



Format values with the default thousands separator and no decimal places.



Format values as % (percent) with two decimal places.



Enter today's date in the current cell.



Change the font, color, and attributes of data.



Remove **bold**, *italics*, and underlining from data.



Add or remove **boldface**.



Add or remove *italics*.



Add or remove underlining.



Add or remove double-underlining.



Change the color, pattern, lines, and frames in the current selection.



Draw an outline around a cell or range and add a drop shadow.



Add a border.



Align data to the left.



Center data.



Align data to the right.



Evenly align data with both the left and right edges of a range.



Center text across columns.



Set text at an angle.



Apply a style template to a range.



Create or apply a named style.



Size columns to fit the widest entries in the current selection.



Insert a horizontal page break.































Insert a vertical page break.



Turn fast formatting on and off.

Close

Tools Menu SmartIcons

-  Create a chart using the data in the selected range.
-  Draw a map.
-  Redraw the selected map.
-  Redraw maps in the current file automatically.
-  Redraw maps in the current file manually.
-  Draw a line.
-  Draw a segmented line.
-  Draw a forward-pointing arrow.
-  Draw a double-headed arrow.
-  Draw a rectangle or square.
-  Draw a rectangle or square with rounded corners.
-  Draw an arc.
-  Draw an ellipse or circle.
-  Draw a polygon.
-  Create a freehand drawing.
-  Create a text block.
-  Create a button for starting a macro.
-  Create a query table.
-  Cross-tabulate values from a database table.
-  Check spelling.
-  Audit cells.
-  Find formulas.
-  Find formula precedents.
-  Find cell dependents.
-  Find links to 1-2-3 files.
-  Find DDE links.
- Close Select and rearrange available SmartIcons.
- Close Select the next set of SmartIcons.
-  Recalculate the worksheet.
-  Select a macro command.



Run a macro.



Turn Step mode on or off.



Turn Trace mode on or off.



Record a macro or stop recording.



Show or hide the Transcript window.



Create a Lotus Approach Form.



Create a Lotus Approach Report.



Create a Lotus Approach Dynamic Crosstab.



Create Lotus Approach Mailing Labels.

Close

Range Menu SmartIcons



Use Version Manager to work with versions and scenarios.



Fill the selected range with a sequence of values.



Fill the selected range with a sequence of data in a pattern established by the first cell of the range.



Sort a range or database table in ascending order (A - Z and smallest to largest values), using the selected column as the key.



Sort a range or database table in descending order (Z - A and largest to smallest values), using the selected column as the key.



Transpose data from columns to rows, or rows to columns.



Create or delete a range name.



Use Solver to find solutions that meet constraints.



Sum values in the selected or adjacent range, if you include empty cells below or to the right of the range.

Close

Query Menu SmartIcons



Set criteria that records must meet to be included in a query table.



Specify fields to appear in a query table.



Sorts records in a query table.



Aggregate values in a query table.



Rename a field in a query table.



Update a query table with a fresh copy of records from the database table.



Show all the records in a query table.

Close

Chart Menu SmartIcons



Select a chart type.



Line chart.



Area chart.



Vertical bar chart.



Horizontal bar chart.



Horizontal stacked bar chart.



Vertical stacked bar chart.



Pie chart.



XY chart.



HLCO chart.



Vertical bar chart with comparison lines.



Unfilled radar chart.



Filled radar chart.



3D line chart.



3D area chart, with data series atop one another.



3D area chart, with one data series behind another.



3D vertical bar chart, with data series side by side.



3D vertical bar chart, with one data series behind another.



3D pie chart.



Mixed chart.



100% vertical bar chart.



100% horizontal bar chart.

Close

Transcript Menu SmartIcons



Play back the contents of the Transcript window.



Create a macro button from recorded commands in the Transcript window.

Close

Window Menu SmartIcons



Arrange windows side by side.



Stagger windows so that for all windows except the first, only the title bars show.

Close

Navigation SmartIcons



(CTRL+PG UP) Go to the next worksheet.



(CTRL+PG DN) Go to the previous worksheet.



(HOME) Go to cell A1 in the current worksheet.



(END HOME) Go to the bottom right corner of the worksheet's active area.



(END UP) Go up to the next cell that contains data and is next to a blank cell.



(END DOWN) Go down to the next cell that contains data and is next to a blank cell.



(END RIGHT) Go right to the next cell that contains data and is next to a blank cell.



(END LEFT) Go left to the next cell that contains data and is next to a blank cell.



Go to the first cell in the next range of a collection.



Go to the first cell in the previous range of a collection.

Close

SmartIcons for Starting Applications



Lotus Ami Pro



Lotus Approach



Lotus cc:Mail



DOS



Lotus Freelance Graphics



Lotus Improv



Lotus Dialog Editor



Lotus Notes



Lotus Macro Translator



Lotus Organizer



Lotus SmartPics



Windows File Manager



Lotus ScreenCam

Basics

[Learning About 1-2-3 Release 5](#)

[Entering Data](#)

[Using the Keyboard](#)

[Using the Mouse](#)

[Copying, Moving, and Pasting Data](#)

[Selecting the Data You Want to Work On](#)

[Naming a Worksheet](#)

[Enhancing the Appearance of a Worksheet](#)

[Creating a Chart](#)

[Creating Drawn Objects](#)

[Keeping Records in a 1-2-3 Database Table](#)

[Setting Up 1-2-3 to Look and Act the Way You Want](#)

[Writing a Formula](#)

[Printing Data, Drawn Objects, and Help Topics](#)

Learning About 1-2-3 Release 5

1-2-3 Release 5 was carefully designed and tested to make it simple and intuitive to use. You'll find that most parts of the product explain themselves. Nevertheless, Lotus provides complete and varied documentation of 1-2-3.

The *User's Guide* and Help

You will learn 1-2-3 more easily if you take some time to explore the contents of the *User's Guide* and the online Help system. The *User's Guide* and Help are designed to complement each other. Together, they give you a complete picture of 1-2-3.

To help you use the printed and online documentation together, the *User's Guide* contains many cross-references to Help, both in the text and in the index. Help, in turn, contains cross-references to the *User's Guide* at the end of many topics. To see the cross-references in Help, press CTRL+END to go to the end of the Help topic.

For an overview of how to use Help, see [Using Help](#) and read the inside front cover of the *User's Guide*.

For information about printing individual Help topics and sections of Help consisting of many related Help topics, see [To print a Help topic](#).

The following table suggests where you might start to read about certain kinds of information:

If you're looking for	Look in
Overview of the product	<i>User's Guide</i>
Conceptual information	<i>User's Guide</i>
Procedures	Help and the <i>User's Guide</i>
Illustrations	<i>User's Guide</i>
Examples	Help
Details on @functions	Help
Details on macro commands	Help

Online, animated presentation

To start with a 30-minute overview of 1-2-3, select the icon called 1-2-3 Guided Tour in your Lotus Applications window.

The *Guided Tour* introduces charting, drawing, macros, databases, versions and scenarios, and other major features of 1-2-3 Release 5.

Online, hands-on lessons

To learn 1-2-3 by completing tasks, choose Tutorial from the Help pull-down in 1-2-3.

The Tutorial includes eight lessons. They lead you through many kinds of tasks, ranging from entering data to working with a database and creating versions. They also introduce many of the features of 1-2-3. Complete the lessons in sequence, or simply do the ones you want.

Each lesson is divided into small tasks, with an explanation describing each task and precise steps for every action you need to take.

Information for upgraders

In the *User's Guide*, Chapter 2 "What's New for Upgraders" helps experienced 1-2-3 users make the transition to 1-2-3 Release 5. It describes new features in this release of 1-2-3.

For tables that list commands in 1-2-3 Release 5 and their equivalents in 1-2-3 Release 3 for DOS,

select [1-2-3 Classic](#).

Appendix A in the *User's Guide*, "Sharing Files and Macros" provides guidelines for sharing files with other releases of 1-2-3 and explains how to use macros created in previous releases of 1-2-3.

Late-breaking news about 1-2-3 Release 5

The README.TXT file, which the Install program copies to your 1-2-3 directory, contains notes for upgraders and network administrators, memory requirements, fonts, and other information received after the documentation was completed.

To open README.TXT after installation, select the View Product Updates icon in the Lotus Applications window.

Support services

Lotus offers support services to answer your questions about 1-2-3 Release 5.

If you aren't able to find the answer to your question in the *User's Guide*, Help, or README.TXT, please contact the support service that is most appropriate to your needs.

For information on the services offered, see [Lotus Customer Support Help](#).

See also

[Basics](#)

Copying, Moving, and Pasting Data

What's the difference between copying data and moving data?

Copying data: You make a copy of the data and then paste a copy of the data in a new location, which is called the destination. At the end of the operation, the same data appears in two places.

Use Edit Copy to perform a copy operation.

Moving data: You cut the data out of its original location and then paste a copy of the data in the destination. At the end of the operation, the data appears only in its new location; it no longer exists in the original location.

Use Edit Cut to perform a move operation.

What's similar about copying and moving?

Both kinds of operations

- Require that you select the data before you choose Edit Copy or Edit Cut
- Use the Clipboard to store the data
- Require that you choose Edit Paste to paste the data in the destination

Why must you select the data first?

1-2-3 performs a copy or cut operation immediately, at the moment you choose Edit Copy or Edit Cut. Therefore, whatever is selected at the moment you choose the command is affected by the command.

If you cut the wrong data, simply choose Edit Paste and paste the data back into its original location.

What's the Clipboard?

The Clipboard is a storage location provided by the Microsoft Windows environment. When you use Edit Copy or Edit Cut, the data that you copy or cut is stored on the Clipboard, and there the data waits for you to complete the operation by using Edit Paste.

How do you know you've successfully copied or cut data to the Clipboard?

Look for the following instruction in the title bar, at the top of the 1-2-3 window:

Select destination and choose Edit Paste

This prompt means that 1-2-3 is ready for you to complete the operation.

How do you select the destination?

Move the cell pointer to the destination, which is the new location where you want the data to appear.

It's easiest simply to select only one cell as the destination. 1-2-3 treats that cell as the top left cell of the destination and will paste all the data in its original size and layout.

Caution 1-2-3 writes over any existing data in the range, so be sure that the entire new location doesn't contain data you need.

Finally, paste the data.

What is pasting?

After you select the data and tell 1-2-3 what to do with the data (copy it or move it), the final step is to put the data in the destination by using Edit Paste.

After you finish copying or moving, what happens to the data on the Clipboard?

The data remains on the Clipboard until you do one of the following:




- Put new data on the Clipboard by doing another Edit Cut or Edit Copy
- Close Windows

This means that you can keep pasting the same data over and over, both in 1-2-3 and in any other Windows application that has an Edit Paste command.

Are Edit Copy and Edit Cut the only ways you can copy and move data?

No. You can also

- Use the SmartIcons that are shortcuts for these commands
- Use key combinations

Command	Icon	Key combinations
Edit Copy		CTRL+C or CTRL+INS
Edit Cut		CTRL+X or SHIFT+DEL
Edit Paste		CTRL+V or SHIFT+INS

You can also copy and move data using drag-and-drop.

See also

Help

Basics

Copying Drawn Objects

Edit Copy Down to copy data in the top row in a selection to fill the entire selection

Edit Copy Right to copy data in the leftmost column in a selection to fill the entire selection

Edit Paste for the effects of the size of the destination on pasted data

Edit Paste Special to insert only certain elements of the data that is on the Clipboard

Moving Drawn Objects

User's Guide

Chapter 10, "Calculating with Formulas," for information about copying and moving formulas

Using Drag-and-Drop to Move and Copy Data Within 1-2-3

Drag-and-drop is a mouse action that lets you move, copy, or link data. Drag-and-drop does not use the Clipboard.

To move data within 1-2-3

1. Select the range or drawn object you want to move.
2. Position the mouse pointer on the border of your selection.

You know 1-2-3 is ready to drag-and-drop a range when the mouse pointer changes from an arrowhead to an open hand:

Close

You know 1-2-3 is ready to drag-and-drop a drawn object when the mouse pointer changes to the following arrowhead:

Close

3. Hold down the left mouse button.

If you are moving a range, the mouse pointer now grabs the border of the selection and looks like this:

Close

If you are moving a drawn object, the mouse pointer changes when you begin to drag it.

4. Without releasing the mouse button, drag the selection to its destination.

While you drag, your selection is represented as a dotted outline.

To move your selection to a portion of the worksheet that is not visible, move the mouse pointer to the edge of the worksheet to scroll through the worksheet.

To move your selection to another worksheet, without releasing the mouse button, drag it to the other worksheet's tab, then to the location on the worksheet. You can pause over the tab-scroll arrows to move to a worksheet tab that is not visible.

To move your selection to a new worksheet, without releasing the mouse button, drag it to the New Sheet button, then to the location in the new worksheet.

To cancel the drag operation, press ESC.

5. Release the mouse button when you reach the destination.

As in any other move operation, the data has been removed from its original location and now appears only in its new location.

To copy data within 1-2-3

1. Select the range or drawn object you want to copy.
2. Position the mouse pointer on the border of your selection.

You know 1-2-3 is ready to drag-and-drop a range when the mouse pointer changes from an arrowhead to an open hand:

Close

You know 1-2-3 is ready to drag-and-drop a drawn object when the mouse pointer changes to the following arrowhead:

Close

3. Hold down the left mouse button and also hold down the CTRL key.

If you are moving a range, the mouse pointer now grabs the border of the selection and looks like this:

Close

If you are moving a drawn object, the mouse pointer changes when you begin to drag it.

4. Without releasing the mouse button or the CTRL key, drag the selection to its destination.

While you drag, your selection is represented as a dotted outline.

To copy your selection to a portion of the worksheet that is not visible, move the mouse pointer to the edge of the worksheet to scroll through the worksheet.

To copy your selection to another worksheet, without releasing the mouse button or the CTRL key, drag it to the other worksheet's tab, then to the location on the worksheet. You can pause over the tab-scroll arrows to move to a worksheet tab that is not visible.

To copy your selection to a new worksheet, without releasing the mouse button, drag it to the New Sheet button, then to the location on the new worksheet.

To cancel the drag operation, press ESC.

5. Release the mouse button and then the CTRL key when you reach the destination.

As in any other copy operation, a copy of the data has been pasted in its new location and now appears in two places.

See also

[Basics](#)

[Copying, Moving, and Pasting Data](#)

[Using Drag-and-Clear to Delete Data](#)

[Using Drag-and-Drop to Copy Data from 1-2-3 to Other Applications](#)

[Using Drag-and-Fill to Enter a Data Sequence in a Range](#)

Using Drag-and-Drop to Copy Data from 1-2-3 to Other Applications

Drag-and-drop is a mouse action that lets you copy data from 1-2-3 to other applications that support OLE 2. Drag-and-drop does not use the [Clipboard](#).

To copy data to another OLE 2 application

1. Tile the 1-2-3 window and the window of the other OLE 2 application so they are both visible.
2. Make the 1-2-3 file that contains the original data the [active window](#).
3. Select the [range](#) or [drawn object](#) you want to copy.
4. Position the mouse pointer on the border of your selection.

You know 1-2-3 is ready to drag-and-drop a range when the mouse pointer changes from an arrowhead to an open hand:

Close

You know 1-2-3 is ready to drag-and-drop a drawn object when the mouse pointer changes to the following arrowhead:

Close

5. Hold down the left mouse button.

If you are dragging a range, the mouse pointer now grabs the border of the selection and looks like this:

Close

If you are dragging a drawn object, the mouse pointer changes when you begin to drag it.

6. Without releasing the mouse button, drag the selection to its destination in the other OLE 2 application.
7. Release the mouse button when you reach the destination.

As in any other copy operation, a copy of the data has been pasted in its new location and now appears in two places.

See also

[Basics](#)

[Copying, Moving, and Pasting Data](#)

[Creating a Link to 1-2-3 in Another Application: 1-2-3 = Server](#)

[Using Drag-and-Clear to Delete Data](#)

[Using Drag-and-Drop to Move and Copy Data Within 1-2-3](#)

[Using Drag-and-Fill to Enter a Data Sequence in a Range](#)

Using Drag-and-Fill to Enter a Data Sequence in a Range

Drag-and-fill lets you use the mouse to fill a range with a sequence of data. 1-2-3 fills the range based on data and styles already in the range. For example, you can select a cell that contains the word January, and then drag to fill a range with February, March, April, and so on.

You can fill the range with a fill sequence that 1-2-3 creates or with a custom fill sequence that you create. Drag-and-fill works like [Range Fill by Example](#), except that you can't use it to fill a 3D range or a collection.

1. Select the cell or range containing the data that is the basis of your fill sequence.

For example, select cell A1 containing the word January.

2. Position the mouse pointer on the border of your selection at the bottom right corner.

If you select a range of more than one cell, you can only drag down or to the right; if you select a single cell you can drag in both directions. You're ready to drag-and-fill when the mouse pointer changes to the shape shown below:

Close

3. Hold down the left mouse button and drag to select the range you want to fill.

For example, drag to select range A1..A12.

4. Release the mouse button to fill the range.

For example, 1-2-3 fills the range with the names of the months in sequence, January to December.

Related SmartIcons

Close

Equivalent to choosing Range Fill by Example

Close

Equivalent to choosing Range Fill

See also

[Basics](#)

[Using Drag-and-Clear to Delete Data](#)

[Using Drag-and-Drop to Copy Data from 1-2-3 to Other Applications](#)

[Using Drag-and-Drop to Move and Copy Data Within 1-2-3](#)

Using Drag-and-Clear to Delete Data

Drag-and-clear lets you use the mouse to delete data in a selected range. Like [Edit Clear](#), drag-and-clear doesn't use the [Clipboard](#) or clear protected cells. You can use drag-and-clear only to clear ranges; you can't use it to clear a 3D range, a collection, drawn object(s), or query table(s).

Note Using drag-and-clear, you can delete all the data in a selected range except for data in the top left cell. To delete all the data in a selected range, use [Edit Clear](#) or press DEL.

To clear a range using the mouse

1. Select the [range](#) you want to clear.
For example, select the range A1..A12.
2. Position the mouse pointer on the border of your selection at the bottom right corner.
You're ready to drag-and-clear when the mouse pointer changes to the shape shown below:

Close

3. Hold down the left mouse button and drag up and to the left to delete data in the range.
For example, drag from A12 to A6 to clear data in the range.
4. Release the mouse button.

To restore the data to the same location, use [Edit Undo](#).

Related SmartIcons

Close

Equivalent to choosing [Edit Clear](#)

See also

[Basics](#)

[Edit Cut](#)

[Tools User Setup](#) to turn off the drag-and-drop features

[Using Drag-and-Drop to Copy Data from 1-2-3 to Other Applications](#)

[Using Drag-and-Drop to Move and Copy Data Within 1-2-3](#)

[Using Drag-and-Fill to Enter a Data Sequence in a Range](#)

Selecting the Data You Want to Work On

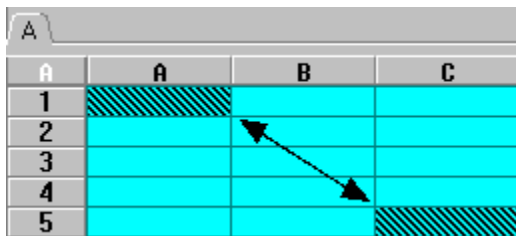
Suppose your spreadsheet contains a column of numbers that you want to format so that they all display a currency symbol (\$).

You could move the cell pointer to each cell and apply the Currency format, one number at a time. But 1-2-3 gives you a quicker way to perform the same operation: select all the cells together, as a range, and then perform the operation once.

A range is a rectangular block of cells. A range can consist of a single cell, an entire worksheet, or all the worksheets in a file.

Range address

A range is identified by its address. A range address consists of the addresses of the top left and bottom right cells in the range, separated by two periods. For example, A1..C5 is the range address of the rectangular block of 15 cells whose top left cell is A1 and whose bottom right cell is C5:



When a range is selected, 1-2-3 displays the range address in the selection indicator, at the far left of the edit line.

When to select a range: preselection

For nearly all 1-2-3 commands, it is easier to select the range you want to work on before you choose the command that does the work. This is called preselection.

Some commands, like Edit Copy and Edit Cut, affect whatever the current selection is at the moment you choose them, so you must preselect the data you want to affect.

You can tell if a command requires preselection by looking at its name on the pull-down menu: if the name is not followed by . . . (ellipsis), the command uses the current selection and so requires preselection.

When to select a range: selecting from within a dialog box

When you choose a command whose name is followed by . . . (ellipsis), a dialog box appears so that you can supply 1-2-3 with information it needs to complete the command.

One piece of information 1-2-3 needs is the range you want to use with the command. Dialog boxes have a text box in which to enter the range.

If you

Then

Have preselected the range The range address appears in the text box, and all you need to do is complete the rest of the dialog box and choose OK

Must change the preselection You can specify another range in the text box

The procedures that follow explain how to

- Preselect a range using the mouse or keyboard
- Select a range from within a dialog box using the mouse or keyboard

Close

To select a range

Preselection

1. Position the mouse pointer in a cell in one corner of the desired range.

Caution Before you go on to step 2, be sure the mouse pointer looks like this:



2. Anchor the cell pointer by pressing and holding down the left mouse button.
3. Still holding down the mouse button, drag to highlight the desired range.

As soon as you start dragging, the mouse pointer changes to look like this:

Close

4. Release the mouse button when the range you want is highlighted.

Another quick way to select a range: Click the top left cell, move the mouse pointer to the bottom right cell, and then SHIFT+click.

Selecting a range in a dialog box

If you know the range address or range name, you can enter it in the Range text box. Otherwise, use the following procedure.

1. In the dialog box, click inside the Range text box.

For some commands, the Range text box displays the address of the range that was most recently used with that command, and that range is now highlighted in the worksheet.

If this is not the range you want, press BACKSPACE: 1-2-3 then moves the cell pointer to the cell that was current when you opened the dialog box and replaces the old range address with the address of the current cell, which 1-2-3 assumes will be the top left cell of the range you want to select.

2. Click the range selector, located at the right end of the text box:



1-2-3 removes the dialog box so you can see the worksheet. The address of the current cell appears in the contents box.

3. Follow steps 1 through 4 under Preselection, above.

After you select the range, the dialog box reappears, and the address of the range you selected appears in the text box.

Close

To select a range

Preselection

1. Use the pointer-movement keys to move the cell pointer to a cell in one corner of the desired range.
2. Anchor the cell pointer by pressing F4.
3. Highlight the desired range using the pointer-movement keys.

4. Press ENTER when the range is complete.

Another quick way to select a range: Hold down SHIFT and use the pointer-movement keys to highlight the range.

Selecting a range in a dialog box

If you know the range address or range name, you can enter it in the Range text box. Otherwise, use the following procedure.

1. In the dialog box, press TAB until the selection in the Range text box is highlighted.

For some commands, the Range text box displays the address of the range that was most recently used with that command, and that range is highlighted in the worksheet.

If this is not the range you want, press BACKSPACE: 1-2-3 then moves the cell pointer to the cell that was current when you opened the dialog box and replaces the old range address with the address of the current cell, which 1-2-3 assumes will be the top left cell of the range you want to select.

2. Press a pointer-movement key.

1-2-3 removes the dialog box so you can see the worksheet. The address of the current cell appears in the contents box.

3. Press . (period) to anchor the cell pointer in a corner of the range.

4. Highlight the desired range using the pointer-movement keys.

5. Press ENTER when the range is complete.

After you select the range, the dialog box reappears, and the address of the range you selected appears in the text box.

Other kinds of selections

To learn how to select other kinds of items in 1-2-3, select any of the following cross-references.

Selecting a Collection

Select a group of ranges, which is called a collection, so that your next action affects all the ranges at once.

Selecting an Entire Column or Row

Select all 8,192 cells of a column, or all 256 cells of a row, at once.

Selecting a 3D Range

Select the same cells in two or more contiguous worksheets.

Selecting an Entire Worksheet

Select all the cells in a worksheet or a group of worksheets.

Reshaping a Selection

Extend or shrink a selection.

See also

Basics

Navigator to select and use range names in the current file

Range Name

Selecting a Collection

A collection is two or more ranges, selected at the same time, so that your next action affects all the ranges in the collection at once. The ranges in a collection can touch, not touch, or overlap.

- A collection can include ranges in different worksheets of the same file.
- A collection cannot contain items of different types. For example, a collection cannot contain both ranges and charts.
- You can type the address of a collection in the Range text box. The address of a collection consists of the addresses of all of the ranges in the collection separated by argument separators.

Use the following procedure to select a collection using the mouse.

To select a collection

1. Select a range.

If necessary, display another worksheet in the file by clicking the worksheet tab or by pressing CTRL+PG UP or CTRL+PG DN.

2. Hold down CTRL and select the next range you want to add to the collection.
3. Repeat step 2 until you select the entire collection.

To remove a range from a collection

1. Hold down CTRL and click the range you want to remove.

See also

Basics
Selecting the Data You Want to Work On

Selecting an Entire Column or Row

You must use the mouse to select an entire column or row.

To select a single column or row

1. Click the column letter or row number in the [worksheet frame](#).

To select a range of columns or rows

1. Point to the letter or number of the first column or row you want to include in the range.
2. [Drag](#) to the last column letter or row number you want to include.

See also

[Basics](#)

[Selecting the Data You Want to Work On](#)

Selecting a 3D Range

A range that includes the same cells in two or more contiguous worksheets is called a 3D range.

The address of a 3D range includes the worksheet letters in the cell addresses; for example, the address A:A1..C:F20 tells you that the range A1..F20 is selected in worksheets A through C.

To see the file in perspective view, so that you can see three worksheets at once, use [View Split](#).

Close

To select a 3D range

1. Select the range in the first worksheet of the 3D range.
2. Hold down **SHIFT**, and extend the selection by clicking the [worksheet tab](#) of the last worksheet you want to include in the range.

Close

To select a 3D range

1. Select the range in the first worksheet of the 3D range.
 2. Move to the last worksheet in the range by pressing **CTRL+PG UP** or **CTRL+PG DN**.
 3. Press **ENTER** to highlight the entire 3D range.
-

See also

[Basics](#)

[Selecting the Data You Want to Work On](#)

Selecting an Entire Worksheet

When you select an entire worksheet, all the cells in the worksheet are selected and the cell pointer moves to the first cell in the selected worksheet.

You must use the mouse to do the following procedures.

To select an entire worksheet

1. Click the worksheet letter, located in the top left corner of the worksheet, at the intersection of the column headings and row numbers.

To select a range of worksheets

1. Click the letter of the first worksheet in the range.
2. Hold down SHIFT and click the worksheet tab of the last worksheet you want to include in the range.

See also

[Basics](#)

[Selecting the Data You Want to Work On](#)

Reshaping a Selection

If you change your mind while selecting a range, you can reshape the selection.

Close

To reshape a selection

1. Hold down SHIFT and click any cell, or drag to any cell, to extend or shrink the selection to that cell.

Close

To reshape a selection

This key combination	Extends the selection
-----------------------------	------------------------------

SHIFT+ a pointer-movement key	One column or one row in the direction specified
-------------------------------	--

ALT+CTRL+PG UP	One worksheet forward; for example, from sheet A to sheet B
----------------	---

ALT+CTRL+PG DN	One worksheet back; for example, from sheet B to sheet A
----------------	--

See also

[Basics](#)

[Selecting the Data You Want to Work On](#)



Navigator

Lists the range names in the current file.

In the edit line, click the navigator to see the list of range names. Select a range name to do the following:

- Go to and select a named range (when 1-2-3 is in Ready mode).
- Insert a range name in a cell, for example, when you're creating a formula.
- Insert a range name in the Range text box of a dialog box:
 1. In the dialog box, click the range selector, to the right of the Range text box.
 2. Click the navigator and select a range name.
 3. Click the Confirm button.

The Range text box displays the range name you selected.

See also

[Selecting the Data You Want to Work On](#)

Naming a Worksheet

You can name a worksheet using its worksheet tab.

1. Double-click the worksheet tab.
2. Enter the name.
3. Press ENTER or click in the worksheet.

Worksheet naming conventions

Worksheet names can have a maximum of 15 characters. Avoid ambiguous names, for example, A. 1-2-3 doesn't distinguish between uppercase and lowercase letters in names.

Don't start a worksheet name with ! (exclamation point), @, or \$, and don't include commas, semicolons, colons or any of the following characters in a worksheet name:

+	*	-	/	&	>	<
	#	=	()	\$	

Don't create names that look like cell addresses, such as P12 or EX100, or names that begin with numbers, such as 20DEC. Don't use @function names, key names, or macro command keywords as names.

To delete a worksheet name

1. Double-click the tab of the named worksheet.
2. Press DEL or BACKSPACE.
3. Press ENTER.

1-2-3 replaces the name with the worksheet letter.

Naming worksheets automatically

If 1-2-3 recognizes a worksheet name as part of a fill sequence, you can automatically name worksheets you insert immediately before or after that named sheet. The fill sequences for worksheet names are the same as the ones for filling ranges with Range Fill By Example.

For example, suppose your file contains a worksheet named January. If you insert two sheets immediately after January, 1-2-3 automatically names them February and March. If you insert two sheets immediately before January, 1-2-3 automatically names them December and November.

You can also create custom fill sequences for naming worksheets, as described in Creating custom fill sequences.

To insert worksheets and name them automatically

1. Click the tab of the worksheet whose name you want as the basis for the other sheets.
For example, click the tab of the worksheet named January.
2. Do one of the following:
 - To insert and name worksheets immediately after the current sheet, click the New Sheet button.
For example, when January is the current sheet, click the New Sheet button twice to insert two new sheets immediately after January named February and March.
 - To insert and name worksheets immediately before or after the current sheet use Edit Insert.
For example, to insert two sheets immediately before January, naming them December and November, choose Edit Insert, select Sheet, select Before, specify a quantity of two, and choose OK.

Related SmartIcons

Close

Inserts a new worksheet after the current worksheet

See also

[Edit Insert](#)

[Parts of the 1-2-3 Window](#)

Enhancing the Appearance of a Worksheet

Simple enhancements to the appearance of data in a worksheet can improve its effectiveness in communicating your ideas.

Color can draw attention to especially important data or to show relationships among groups of data. Lines and borders can guide your readers' eyes and make your data easier to understand. Fonts can make titles and headings attractive and easy to read.

Style commands

Style commands

Offer most of the enhancement features available in 1-2-3 Release 5. Use those commands to format numbers; apply colors, patterns, lines, borders, and frames; change fonts; align data; and so on.

Style Gallery

Offers a selection of ready-made, attractive layouts for spreadsheets. Just select the range you want to enhance, and then choose one of the style templates.

Style Named Style

Lets you give a name to the styling you've done in a single cell. Then you can select a range and apply all those styles, at once, by selecting the named style from the style selector in the status bar.

Style Fast Format

Copies the styles of the current range into other ranges you select. With this command you can quickly paint many ranges with the styles you want.

Other commands for enhancing a worksheet

The following commands can also help improve the appearance and effectiveness of your data:

Tools Chart

Creates a chart from numeric data you specify. After you've created a chart, use the Chart commands to select the chart type that best expresses the point you want to make with your data, and to enhance the chart.

Tools Draw commands

Create shapes and lines, text blocks, and buttons to which you can assign macros. Use the Edit Arrange commands to place the drawn objects and group them so that you can move and style them all together.

Tools Spell Check

Checks the spelling of text in your worksheet.

See also

Help

Basics

Creating a Chart

Creating Drawn Objects

Setting Up 1-2-3 to Look and Act the Way You Want

Tutorial

Lesson 3, "Enhancing a Worksheet"

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Creating a Chart

A chart is an illustration of data in your worksheet.

Charts are effective ways to present data. They can make relationships among numbers easy to see because they turn numbers into shapes (lines, bars, slices of a pie), and the shapes can then be compared to one another.

You can set up a range so that it contains all the elements you need to create a basic chart.

Suppose the range you select has text and numbers arranged as in A1..D7 below:

	A	B	C	D
1	International Data			
2	By City			
3		Oslo	Paris	New York
4	January	677	528	904
5	April	984	540	239
6	July	703	864	351
7	October	602	581	301

1-2-3 follows rules to determine how to chart data arranged in this way.

1-2-3 begins by finding the first cell containing a value that isn't a date. In this example, that cell is B4. Then, starting from cell B4, 1-2-3 counts the number of columns that contain values (3) and the number of rows that contain values (4). The rules are

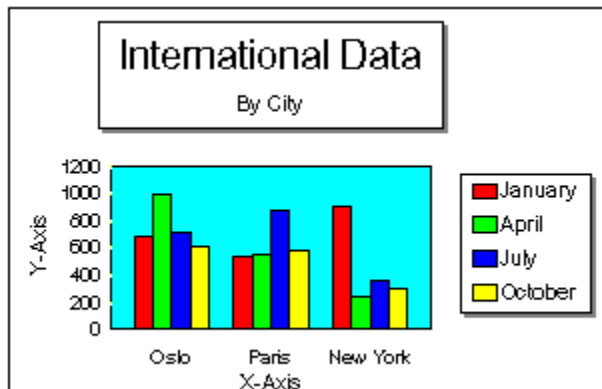
When there are 1-2-3 plots the chart

More columns than rows	By row: 1-2-3 creates <u>data series</u> based on rows of values
More rows than columns	By column: 1-2-3 creates data series based on columns of values
Equal rows and columns	By row

1-2-3 will plot the chart based on range A1..D7 by column. Using this range, 1-2-3 creates a chart with

- A title and a subtitle (cells A1 and A2)
- Three data series--in this case, clustered bars--representing the monthly numbers for each city: Oslo, B4..B7; Paris, C4..C7; and New York, D4..D7
- A legend with labels identifying the bars that represent January, April, July, and October (range A4..A7)
- An x-axis labeled with the names of cities (range B3..D3)
- A y-axis labeled with numbers to help you read the numbers represented by the data series

1-2-3 automatically creates a bar chart that looks like this:



Use the following procedure to create a chart quickly:

1. Enter text and numbers in a range in the worksheet.

Remember, how you set up the data affects how 1-2-3 creates a chart.

2. Select the range.

3. Choose Tools Chart.

The mouse pointer changes to indicate that you are about to select a location for a chart:

Close

4. Click any cell to mark the top left corner of the chart.

Don't worry if the chart covers data in the worksheet. You can move the chart and change its size; the data in the cells behind the chart will still be there.

See also

Help

Basics

Chart Commands, available when a chart is selected, to change the type of chart and enhance the appearance of the chart

Tools Chart

Tutorial

Lesson 4, "Creating a Chart"

User's Guide


Chapter 15, "Working with Charts and Maps"

Creating Drawn Objects

Drawn objects can be useful when you want to make worksheet data stand out. When preparing presentations, use drawn objects to focus your audience's attention on significant parts of your data. Reinforcing key pieces of data with drawn objects can make them easier to remember.

For example, the following figure contains a text block and an arrow that emphasize steadily increasing sales:

	Net Sales	
January	\$26,525	
February	\$31,297	
March	\$34,268	
April	\$35,921	



Drawn objects

Drawn objects are graphics you can select, move, size, and style independently of cells that they appear in front of. Drawn objects include the following:

- All items created with the [Tools Draw commands](#)
- Charts and chart components
- Pictures brought from another program into 1-2-3

Drawn objects appear in front of cells; they are not cell contents. You can place a drawn object in front of data in cells and you won't write over the cell contents; nor will the styles you apply to a drawn object affect the cells behind it.

There is one exception to this behavior: A [query table](#) is also a kind of drawn object; but a query table writes over the data in the cells behind it, and what you do to a query table affects the cells behind it.

Text blocks

Create text blocks with [Tools Draw Text](#). A text block is a rectangular drawn object that you can type in. Text blocks let you insert text that is not confined to cells and does not interfere with the layout of your worksheet data.

You can edit and style the text in a text block. However, you can apply only one font, attribute, and color to all of the text in a text block.

See also

Help

[Basics](#)

[Chart Commands](#)

[Creating a Chart](#)

[Edit Arrange](#) to arrange drawn objects and group them so you can move and style them together

[Enhancing the Appearance of a Worksheet](#)

[Style Commands](#) to add lines and color to shapes, and change the font and attribute of text blocks

User's Guide

Chapter 16, "Working with Graphics"

Keeping Records in a 1-2-3 Database Table

Teachers keep records of students' names, test grades, and final grades. People in business keep records that may include clients' names, addresses, phone numbers, and information about sales and purchases. People who track inventories keep records of each product's name, stock number, price, manufacturer, and so on.

The characteristics that all such records have in common are

- Each record is made up of separate pieces of information--for example, first name, last name, street address, city, telephone number.
- Each record contains the same kinds of information.

You can keep such records in a 1-2-3 database table. After you set up your records in a database table, you don't have to do a line-by-line search of the table to find information; you can use 1-2-3 to manipulate and find information in the table.

To create a 1-2-3 database table

A 1-2-3 database table is simply a range set up in the following way:

1. In the first row, enter the names of the separate pieces of information that make up each record. Enter one name per cell.

Each column in the database will then have a name, for example, First_Name, Last_Name, Street_Address, City, Telephone. It's a good idea not to include spaces in these names.

Each column in a database table lists only one kind of information. A column in a database table is called a field, so the names you enter in the first row are called field names.

2. In the next row, enter information for a record. A record is a collection of information about one item of the table. The information is organized by the fields you created in step 1.
3. Repeat step 2 for each record you enter in the database table.

For example, a teacher's database of the students in a class might look like this:

	A	B	C	D
1	LastName	FirstName	Test1	Test2
2	Callanan	Sean	57	72
3	Warren	Charles	95	90
4	Berenger	Alice	84	89
5	Ikeda	Yuko	87	92
..

Don't worry about entering records in any particular order. It is important, however, that for each record, you enter the appropriate information in each field.

Sorting the database table

Suppose you are a teacher of a class of 25 students. You created a database table to keep track of their work, and you've just entered their scores on the latest test.

The records in the table are currently sorted, or organized, in alphabetical order by the students' last names. The illustration that follows shows the first and last records of the table:

	A	B	C	D
1	LastName	FirstName	Test1	Test2
2	Abboud	Kenneth	78	81
3	Berenger	Alice	84	89
4	Braun	Martha	70	70
..
25	Warren	Charles	95	90
26	Zemeckis	Steven	84	87

Right now, however, you want to see the students listed according to their latest test scores, from highest

to lowest.

You can easily reorganize the table to show you what you want by using Range Sort.

This is a simple sort. You need to specify

- The range to sort (in this example, A1..D26)
- One sort key
- The sort order for that key

Sort key: A sort key is a field that 1-2-3 looks at to determine how to organize the table. In this case, the key is the field that contains the latest set of test scores (Test2). You tell 1-2-3 which field to use as a key by specifying the address of any cell in the field, other than the address of the field name. (So in this example, you would not use D1.)

Sort order: You also need to tell 1-2-3 how to list the records of the table. You do this by specifying either an ascending or descending sort order. Because you want to see the students ranked with those who achieved the highest scores at the top, you tell 1-2-3 to sort the scores in descending order (that is, from 100 to 99 to 98 on down).

As a result of your sort, the records are now organized according to the values in the field Test2, and those values are listed from highest to lowest:

	A	B	C	D
1	LastName	FirstName	Test1	Test2
2	Ikeda	Yuko	87	92
3	Warren	Charles	95	90
4	Berenger	Alice	84	89
5	Zemeckis	Steven	84	87
.
25	Abboud	Kenneth	78	81
26	Callanan	Sean	57	72

After you review the test grades, you can restore the original alphabetical order of the table by sorting the table again by last name, in ascending alphabetical order.

Sorting using more than one key

1-2-3 can accept over 200 sort keys for a single sort operation. Although you may never need that many keys, you may find it helpful to use two or three.

Finding specific records in a database table

Suppose you run a small retail clothing store, and you maintain a database table listing your inventory. This table contains over 700 records and has many fields, including each item's name, stock number, wholesale price, retail price, manufacturer, and so on.

The store is preparing to receive a large shipment from two manufacturers, Kawaii, Inc., and Kleide & Co. To make room in the warehouse for the new goods, you decide to have a sale on the items currently in stock from these manufacturers. You decide to discount all these manufacturers' items that sell for \$75.00 or less by 40%.

You have two questions:

1. Which items in the inventory have a retail price of \$75.00 or less?
2. Of those items, which come from these two manufacturers?

You want to see the records of all the items you plan to put on sale. The records in the table are not sorted in any particular order, and you certainly don't have time to look at over 700 records, line by line, to find the items that fulfill the criteria of the sale. What do you do?

1-2-3 offers you two ways to find specific records in a database table:

- Use Tools Database Find Records. This command highlights only the records in the database that

you want to see and lets you move quickly from record to record.

- Use Tools Database New Query to create a query table. You decide to do this because a query table offers some advantages over just looking through the database table:
 - The query table contains copies of only those records that fulfill the criteria you specify, making it much smaller than the database table.
 - You can remove unnecessary fields from the query table without removing those fields from the database table. You can also create fields in the query table without adding them to the database table.
 - You need to print a list of the sale items for the salespeople in the store, and the query table will be much smaller than the entire database table.

Setting the criteria to create a query table

Creating a query table is a simple procedure explained in the Help topic for Tools Database New Query.

The part of the procedure that requires a little preliminary thinking, however, is setting the criteria.

The criteria determine which records 1-2-3 copies from the database table and displays in the query table, so it's important to ensure the accuracy of the criteria and of the relationships among the criteria.

Use the Set Criteria command in the New Query dialog box to set the criteria.

To determine how many criteria you need and what their relationships are, you rephrase your two questions to make the following statement:

Every record in the query table must have a retail price that equals or is less than \$75.00, **and** every record must come from one of two manufacturers: either Kawaii, Inc., **or** Kleide & Co.

You now can see that you have three criteria:

- 1 The value in the field Retail equals or is less than \$75.00.
- 2 The name in the field Company is Kawaii, Inc.
- 3 The name in the field Company is Kleide & Co.

You can also see what the relationships are among the criteria: The key words in the statement are **and** and **or**.

- An And relationship means that every record must satisfy the criteria linked by And. So every record must have a retail price of \$75.00 or less.
- An Or relationship means that every record must satisfy either one or the other criteria, but need not satisfy both. So every record must have the name Kawaii, Inc., or Kleide & Co.

You can now easily translate these statements into criteria using the options and commands available in the Set Criteria dialog box:

Field: In the Retail field of the database table

Operator: The value is equal to or less than (<=)

Value: 75

And: In addition, the records of the query table must also satisfy one of the following conditions:

Field: In the Company field in the database table

Operator: The name in the field equals (=)

Value: Kawaii, Inc.

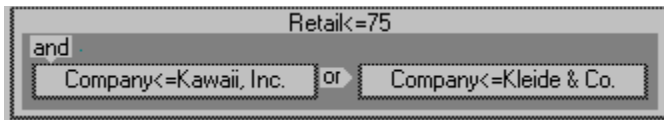
Or: Another name is acceptable

Field: In the Company field

Operator: The name equals (=)

Value: Kleide & Co.

In the Set Criteria dialog box, your criteria look like this:



The screenshot shows a dialog box with a title bar that reads "Retail<=75". Below the title bar, there is a section labeled "and" containing two criteria boxes. The first box contains "Company<=Kawaii, Inc." and the second box contains "Company<=Kleide & Co.". The two boxes are connected by an "or" operator.

After you've checked to be sure that the criteria will give you the results you want, you can go on to complete the rest of the New Query dialog box and produce the query table.

See also

Help

[Basics](#)

[Database Basics](#)

[Moving Criteria to Change Their Logical Relationship](#)

[Specifying and Modifying Criteria](#)

[Working with Query Tables](#)

Tutorial

Lesson 7, "Using a Database"

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Setting Up 1-2-3 to Look and Act the Way You Want

1-2-3 gives you many options that customize its display and behavior.

Some options control fundamental behavior that affects every session of 1-2-3; for example, whether 1-2-3 displays the status bar. Other options affect only the worksheet you're currently working in; for example, options that determine the column width and font used as defaults in a worksheet.

[Options Affecting All Files and All Sessions of 1-2-3](#)

[Options Affecting the Current File](#)

[Options Affecting the Current Worksheet](#)

Note No option is irrevocable. You can always change your mind and change, add, or remove options.

What does default mean?

Default simply means what 1-2-3 does in the absence of an overriding instruction from you.

For example, by default, worksheets are displayed with column headings and row numbers. You can override this default so that column headings and row numbers no longer appear in any worksheet. Your choice would then become the default behavior of 1-2-3.

See also

[Basics](#)

Options Affecting All Files and All Sessions of 1-2-3

The options you choose in the following locations affect all files and all sessions of 1-2-3:

Install

Tools User Setup and Tools User Setup International

View Set View Preferences, options under "Show in 1-2-3"

Install

When you installed 1-2-3, you had the option to customize features by manually installing only the features you want. If you subsequently want to add or remove features, you must return to Install.

The following are options that must be changed in Install:

- **Features you chose not to install**
 - Audit
 - Backsolver
 - Solver
 - Lotus Dialog Editor
 - Macro Translator
 - Version Manager for Lotus Notes
 - Spell Check
 - Mapping
 - Sample files
 - Detailed macro Help
 - Detailed @function Help
 - Tutorial
 - Tour
 - DataLens drivers
 - Adobe Type Manager

Note The order in which 1-2-3 sorts different types of labels is determined by the sort order specified when you installed. 1-2-3 uses the Numbers First sort order, unless you select a different one when you install. To change the country driver and the sort order, double-click the Country Sorting icon in your 1-2-3 for Windows Release 5 program group and specify the country driver and sort order you want.

Tools User Setup

Use this command if you want to change any of the following options:

- Skip the Welcome to 1-2-3 dialog box when you start up 1-2-3
- Skip the New File dialog box when you create a new file
- Drag-and-drop
- Confirm drag-and-drop actions and confirm replacing unsaved versions
- Use Automatic as the default number format
- Automatic saving of files
- Undo
- Run autoexecute macros
- Beep on error

- Refresh file links automatically in all active files when you open a file
- The number of file names displayed at the bottom of the File pull-down
- Your email or network user name
- Default directory

Tools User Setup International

Use this command if you want to change any of the following options:

- Long and short International Date and Time formats
- Translation of .WK1 files
- Punctuation marks used as decimal point and thousands separator
- Punctuation mark used as argument separator
- Display of negative values

View Set View Preferences, options under "Show in 1-2-3"

Use this command if you want to change the display of any of the following options:

- SmartIcons
- Edit line
- Status bar

See also

Basics

Setting Up 1-2-3 to Look and Act the Way You Want

Options Affecting the Current File

The options you choose in View Set View Preferences, under "Show in current file" and the Group mode option in Style Worksheet Defaults affect all worksheets in the current file. You can also make the "Show in current file" settings the default for all new files you create.

View Set View Preferences, options under "Show in current file"

Use this command if you want to change the display of any of the following options:

- Worksheet frame
- Worksheet tabs
- Grid lines
- Scroll bars
- Page breaks
- Charts, drawings, and pictures
- Size of cells

You can choose Make Default to make these settings the default for all new files created without using a SmartMaster template.

Style Worksheet Defaults, Group mode

When Group mode is on, changes you make to the current worksheet using any of the Style commands affect all worksheets in the file.

Note Any styling you apply to a selection overrides defaults set with Style Worksheet Defaults.

See also

Basics

Options Affecting the Current Worksheet

Setting Up 1-2-3 to Look and Act the Way You Want

Options Affecting the Current Worksheet

The options you choose in Style Worksheet Defaults affect all cells in the current worksheet. In addition, you can make the typeface and point size settings for the current worksheet the default font.

You can define different options for other worksheets in the same file.

Note Any styling you apply to a selection overrides the defaults set with Style Worksheet Defaults.

Style Worksheet Defaults

Use this command if you want to change the display of any of the following options:

- Font

You can choose Make Default to make the typeface and point size you select the default font for all new worksheets created without using a SmartMaster template.

- Column width
- Alignment
- Number format
- Colors

See also

Basics

Setting Up 1-2-3 to Look and Act the Way You Want

Writing a Formula

Suppose you're the office manager of a small real estate company, and each week, it's part of your job to calculate commissions on completed sales.

You keep the company's records in 1-2-3, so all the data you need to calculate commissions is clearly organized and readily available in a spreadsheet. The next step is to write a formula that calculates the results you need.

You can write the formula in 1-2-3, and what's more, you need to write it only once for all the hundreds of sales that occur in the course of a year.

First, let's look at how the data is set up:

	A	B	C	D
1	Property	Salesperson	Sale Price	Commission
2	24 Elm	Mosley	147,500	
3	401 Prince	Howard	236,000	
4	17 Rodman	Anthony	97,900	
5	54 Turner	Spencer	139,700	
6	87 Pleasant	Clarke	79,500	

Five sales were completed this week, by five different salespersons. You've set up a table with the necessary information and with a blank column ready to receive the results of the formulas.

Writing the formula

The arithmetic is simple. Every salesperson receives the same commission: 5% (written as a decimal: .05) of the sale price. By following a few rules, you can easily write this formula in 1-2-3.

- **Begin the formula so 1-2-3 can recognize it as a formula.**

The kind of formula you're writing is called a numeric formula because it performs a calculation using values. 1-2-3 recognizes any one of a number of characters as the beginning of a numeric formula. The easiest one to remember is + (plus sign).

- **Use the mathematical symbols that 1-2-3 recognizes.**

For a numeric formula, the five possible symbols are

- + Addition
- Subtraction
- * Multiplication
- / Division
- ^ Exponentiation

- **Don't put spaces in a formula.**

- **Don't put commas in numbers bigger than 999.**

Such commas, called thousands separators, make it easy for us to read large numbers; but they're unnecessary in a formula. If you want to display commas in the result of a formula, use Style Number Format to format the cell as Currency or , Comma.

You're ready to write the formula.

Where does it go? Enter the formula in the cell where you want to see the answer. For example, the formula calculating Mosley's commission should go in cell D2, so you move the cell pointer there.

Now, you could type the formula for Mosley's commission like this: **+147500*.05**

That is a legitimate formula, and 1-2-3 would return the correct result. If you enter the formula in this way, however, you cannot use it to calculate the other commissions, and your goal is to write the formula only once.

Writing a formula using cell addresses

Instead of giving 1-2-3 actual numbers to work with in a formula, use the cell addresses of numbers. Doing this leaves it up to 1-2-3 to find the numbers and calculate with them. The advantage of using cell addresses in formulas will be clear when it comes time to copy the formula so that you can use it to calculate the other commissions.

In cell D2, you type the formula for Mosley's commission: **+c2*.05**

As you type, the formula appears both in cell D2 and in the contents box. When you finish typing the formula, you press ENTER.

1-2-3 displays the result--7375--in the same cell where you typed the formula. The formula, however, remains visible in the contents box, so you can see the formula and its result at the same time.

Copying the formula

1-2-3 gives you several ways to copy data. In this situation, however, the best method to use is Edit Copy Down.

1. Select the range D2..D6.

With Edit Copy Down, you include the formula you want to copy as the first cell of the range that must also include the cells to which you want to copy the formula.

2. Choose Edit Copy Down.

The cells in range D2..D6 now display the following results:

	A	B	C	D
1	Property	Salesperson	Sale Price	Commission
2	24 Elm	Mosley	147,500	7375
3	401 Prince	Howard	236,000	11800
4	17 Rodman	Anthony	97,900	4895
5	54 Turner	Spencer	139,700	6985
6	87 Pleasant	Clarke	79,500	3975

As you move from cell to cell in range D2..D6, you look in the contents box and see that 1-2-3 has copied the original formula in D2, but has adjusted it so that each copy of the formula uses the cell address containing the data appropriate to each record:

+C2*0.05
+C3*0.05
+C4*0.05
+C5*0.05
+C6*0.05

Addresses that 1-2-3 adjusts when you copy them to new locations are called relative references. 1-2-3 interprets relative references in terms of the location of the cell containing the formula in relation to any cell address used in the formula. For example, the formulas above are in the range D2..D6, so 1-2-3 interprets them in the following way:

Take the value in the cell immediately to the left and multiply it by 0.05

Ensuring that 1-2-3 always uses the same value in a formula

One of the salespersons was looking over your shoulder while you copied the formula. "You'll have to change all those formulas soon," she said. "We're currently negotiating with the boss for a 5.5% commission. And it's likely we'll negotiate again in six months to raise it to 6%."

1-2-3 can minimize your work here, too. Rather than changing all the formulas again and again, you can enter the percent in a cell and use the cell address in the formula. Then, when the percent changes, you'll have to change only one cell.

In cell E1, you type **0.05**.

C	D	E
Sale Price	Commission	0.05
147,500	7375	
236,000	11800	
97,900	4895	
139,700	6985	
79,500	3975	

Then you modify the formula in cell D2 by deleting 0.05 and replacing it with the address of the cell that contains the percent (E1).

There is one thing you must do to the cell address to ensure that 1-2-3 always uses the value in E1 for all your formulas: You must make the cell address absolute. You do that by typing \$ (dollar sign) before each element of the address E1: **+c2*\$e\$1**.

You complete the revision of your formulas by selecting the range D2..D6 and choosing Edit Copy Down to copy the revised formula. The results you get, of course, are the same, but your formulas look like this:

```
+C2*$E$1
+C3*$E$1
+C4*$E$1
+C5*$E$1
+C6*$E$1
```

The absolute reference \$E\$1 tells 1-2-3 not to interpret the address in terms of the relation of the cell containing the formula to the cell used in the formula, as it would normally, but rather as an unchanging (absolute) reference to a specific address. 1-2-3 interprets the formula as follows:

Take the value in the cell immediately to the left and multiply it by the value in cell E1.

If you had not added the dollar signs to the cell address, both addresses would have been relative references, and 1-2-3 would have interpreted the formula as follows:

Take the value in the cell immediately to the left and multiply it by the value in the cell that is one row above and one column to the right.

Edit Copy Down would have given you the following formulas:

```
+C2*E1
+C3*E2
+C4*E3
+C5*E4
+C6*E5
```

Only the first formula, in cell D2, would have been correct. The others would have given you 0 as an answer because the cells E2, E3, E4, and E5 are blank.

See also

Help

[Basics](#)

[Range Name](#) for creating range names, which make your formulas easier to understand

Tutorial

Lesson 1, "Building a Simple Spreadsheet," to learn how to use @functions and other ways to create formulas

User's Guide

Chapter 10, "Calculating with Formulas"

Chapter 11, "Calculating with @Functions," to learn about formulas that are built into 1-2-3

Printing Data, Drawn Objects, and Help Topics

Before you print in 1-2-3 Release 5, there are a few things you should know.

- You install printers in Windows, from the Control Panel.
- If you want to print with installable fonts supported by 1-2-3 Release 5, Windows, or your printer, you must first install the fonts.

After printers and fonts are installed, you can use 1-2-3 commands to specify the ones you want to use. Windows defines the default printer only for the first time you print from 1-2-3; thereafter, 1-2-3 maintains as its default printer the printer used for the previous print job. In 1-2-3, use File Printer Setup to specify a different printer.

To change the Windows default printer

1. In the Windows Program Manager, make the Main group window active.
2. Choose Control Panel, and then choose Printers.
3. Select an installed printer.
4. Choose Set as a Default Printer.
5. Choose Close.

Preparing a worksheet for printing

To prepare a worksheet for printing you can use the following commands:

- Style Page Break to divide the worksheet into pages
- File Page Setup to set the layout and header and footer text
- File Print Preview to see how the selected printer will print a page

If the printer you select cannot use the page settings and options you specify with File Page Setup, 1-2-3 uses the printer settings that are closest to the specified settings.

To select a printer, printer settings, and options, use File Printer Setup.

To print the current worksheet or file

1. Select the worksheet you want to print.
2. Choose File Print.
3. Under Print, select an option.
 - Current worksheet prints the active area of the current worksheet.
 - All worksheets prints the entire file.
4. Choose OK.

1-2-3 prints all cell contents, charts, and other drawn objects included in your print selection.

To print a range or collection

1. Select the range or collection.
 - If you are printing long labels, select the cells the label overlaps as well as the cell containing the label.
 - To include a drawn object in the print selection, be sure that the complete drawn object is within the range or collection.
2. Choose File Print.

3. Under Print, select Selected range.

4. Choose OK.

1-2-3 prints all cell contents, charts, and other drawn objects included in your print selection.

To print drawn objects only

You can print drawn objects without printing the data in the cells behind them.

1. Select one or more drawn objects.

2. Choose File Print.

3. Under Print, select Selected drawn object.

4. Choose OK.

1-2-3 prints drawn objects starting at the left corner of the page.

To print a Help topic

You can print any 1-2-3 Help topic that appears in the main Help window.

You cannot print topics when they appear in pop-up boxes (for example, definitions) or secondary windows (for example, examples of @functions).

Windows defines the default printer, which Help uses to print Help topics unless you choose File Print Setup in the Help window and specify a different printer.

1. Display the topic in the main Help window.

Note Some Help topics appear in a secondary window when you select a cross-reference. If you want to print such a topic, check to see if it is included in the Browse sequence for the main Help window by pressing RIGHT or LEFT or choosing << or >> in the Help button bar.

2. Choose File Print Topic in the Help window.

To print sections of Help

You can print sections of Help consisting of many related Help topics. For example, you can print a section of Help describing all the database macro commands, or all the financial @functions, or how to create a chart.

1. Choose Help Contents.

2. Click the icon for Printing Sections of Help.

3. Click the type of Help you want to print: Main Help, Macros Help, or @Functions Help.

4. Do one of the following:

- In the list for 1-2-3 Main Help, click a general area, such as Working with Numbers; then click the Help section you want to print, such as Entering Formulas and @Functions.
- In the list for Macros Help and @Functions Help, just click the Help section you want to print.

See also

Help

Printing Data

Style Commands to enhance the appearance of data before you print it

Tutorial

Lesson 5, "Printing Data"

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Chapter 13, "Printing Data"

How Do I?

To select a general task using the mouse, point to green text with a solid underline. When the mouse pointer changes to a hand icon, click the left mouse button.

Using the keyboard, press TAB until the green text is highlighted, and then press ENTER.

Become familiar with 1-2-3

Run the 1-2-3 Release 5 Tutorial by choosing Help Tutorial

Learn about parts of the 1-2-3 window

Move around 1-2-3

Select ranges, collections, drawn objects, query tables

Get Help

Use SmartIcons

Upgrade from other releases of 1-2-3

End 1-2-3

Create a worksheet

Create a new worksheet

Enter data

Perform simple calculations

Correct mistakes

Save or retrieve work

Make the worksheet look the way I want

Change the appearance of data

Rearrange data in the worksheet

Change the worksheet display and characteristics

Draw lines and shapes

Print

Print

Create a chart

Chart data

Create a Map

Map Data

Analyze data

Analyze data

Work with database tables

Get data from other sources

Work with database tables

Share data with others and protect data

Work with data from other files or applications

Automate work

Write and use macros

Move Around 1-2-3

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Anchor the cell pointer to select a range

- [F4](#)

Choose commands

- [Choosing a 1-2-3 Command](#)

Find data

- [Edit Find & Replace](#)

Go to cells, ranges, charts, drawn objects, or query tables

- [F5 \(GOTO\)](#)
- [Edit Go To](#)

Move

- around a dialog box [Dialog Box Keys](#)
- around a window or worksheet [Pointer-Movement Keys](#)
- between active files [File Navigation Keys](#)
- between worksheet panes [F6 \(PANE\)](#)
- between worksheet windows [Window \(Window Name\)](#)
- between worksheets in a file [Worksheet Navigation Keys](#)
- between worksheets using worksheet tabs See Chapter 6, "Worksheet Basics," in the *User's Guide*
- to the next 1-2-3 window [Control Menu](#)

Switch to another Windows application

- [Control Menu](#)

Make Selections in 1-2-3

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Anchor the cell pointer to select a range

- [F4](#)

Name a range

- [Range Name](#)

Select

- [@functions](#) [@Function Selector](#)
- collections, drawn objects, query tables, and ranges [Selecting the Data You Want to Work On](#)
- options in dialog boxes [Dialog Box Keys](#)

Get Help

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Display Help

- Display Help [Using Help](#)
- Display Help and 1-2-3 together [Displaying 1-2-3 and Help Together on the Screen](#)
- Exit Help [File Exit](#)
[Help Keys](#)
- Find Help information [Using Search](#)

Copy or print Help information

- Copy a Help topic [Edit Copy](#)
- Print a Help topic [File Print Topic](#)
- Print sections of Help [Printing Sections of Help](#)

Customize Help

- Add a note to a Help topic [Edit Annotate](#)
- Mark a Help topic to refer back to it [Bookmark Define](#)

Learn more about 1-2-3

- Run the 1-2-3 Tutorial, which is available from the Help pull-down menu
- [Learning About 1-2-3](#)

Upgrade from Other Releases of 1-2-3

See command equivalents between 1-2-3 DOS Release 3.1 and 1-2-3 Release 5 for Windows

- [1-2-3 Classic](#)

Learn about new features in 1-2-3 Release 5 for Windows

- [New Features](#)

Learn about the user interface in 1-2-3 Release 5 for Windows

- [1-2-3 Release 5 User Interface](#)

End 1-2-3

Exit 1-2-3

- File Exit

Switch to another Windows application

- Control Menu

Create a New Worksheet

Create a multiple-sheet file

- Edit Insert

Create a new worksheet file

- File New

Enter Data

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Add a text block on the worksheet

- [Tools Draw Text](#)

Enter

- [@functions](#)
- characters not on the keyboard
- data
- dates
- formulas
- macro commands

- sequence of values in a range

[What Are @Functions?](#)

[ALT+F1 \(COMPOSE\)](#)

[Entering Data](#)

[Date Formats](#)

[Writing a Formula](#)

[What Are Macros?](#)

[F3 \(NAME\)](#)

[Range Fill](#)

[Range Fill by Example](#)

[Drag-and-](#)

[FillH_BASICS_DRAG_AND_FILL](#)

- times

[Time Formats](#)

Replace data

- [Edit Find & Replace](#)

Perform Simple Calculations

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Note For information on performing more complex analyses, see [Analyze Data](#)

Calculate

- Add numbers [@SUM](#)
- Average numbers [@AVG](#)
- Find maximum values [@MAX](#)
- Find minimum values [@MIN](#)
- Recalculate a worksheet [F9 \(CALC\)](#)
- Round numbers [@ROUND](#)

Use @functions

- List @functions [@Function Selector](#)
- Write an @function [What Are @Functions?](#)
- Write a formula [Writing Formulas](#)

Correct Mistakes

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Cancel the last action or command

- [Edit Undo](#)

Check for misspelled or repeated words

- [Tools Spell Check](#)

Correct data

- Edit data [Editing Keys](#)
[F2 \(EDIT\)](#)
- Erase data [Drag-and-Clear](#)
[Edit Clear](#)
[Edit Cut](#)
- Replace data [Edit Find & Replace](#)

Find a circular reference

- [Tools Audit](#)

Save or Retrieve Work

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Close an active file

- [File Close](#)

Erase a file on disk

- [Deleting a 1-2-3 File](#)

Save work

- Back up work [File Save As \(Replace/Backup/Cancel\)](#)
- Name a file [Naming a 1-2-3 File](#)
- Save data [File Save](#)
[File Save As](#)
[Working with .WK1 and .WK3 Files in 1-2-3 Release 5](#)
[Working with Excel Files in 1-2-3](#)
[Working with dBASE and Paradox files in 1-2-3](#)
- Save part of a worksheet file [File Save Range As](#)

Retrieve data

- Combine two worksheet files [File Open Combine](#)
- Retrieve a file [File Open](#)
- Specify a file [Specifying a File](#)

Change the Appearance of Data

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Cells and cell contents (labels and values)

- Align labels in a range or worksheet [Style Alignment](#)
- Change column width [Style Column Width](#)
- Change a font [Style Font & Attributes](#)
- Change row height [Style Row Height](#)
- Clear styles [Edit Clear](#)
- Copy styles from the current range into other ranges [Style Fast Format](#)
- Make data bold, italicized, or underlined [Style Font & Attributes](#)

Color, shading, lines, and shadows

- Add shading to a range [Style Lines & Color](#)
- Change colors in charts or worksheets [Style Lines & Color](#)
- Draw lines around a range [Style Lines & Color](#)
- Add a frame around a range [Style Lines & Color](#)

Hide or display data

- Hide a column or worksheet [Style Hide](#)
- Freeze a column or row as a title [View Freeze Titles](#)

- Hide zeros in a worksheet

[Style Worksheet Defaults Number Format](#)

Numbers

- Change format of numbers
- Change formulas to values
- Display negative values in red
- Hide zeros in a worksheet
- Display different types of currency in the same file
- Set default currency and whether to display currencies using symbols or International Standards Organization (ISO) codes
- Change currency symbol or ISO code and whether it goes before or after the number

[Style Number Format](#)

[Edit Paste Special](#)

[Style Lines & Color](#)

[Style Worksheet Defaults Number Format](#)

[Style Number Format](#)

[Style Worksheet Defaults Number Format](#)

[Tools User Setup International Currency](#)

[Modify Symbol](#)

Rearrange Data in the Worksheet

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Copy data

- Copy data
- Copy data and place it on the Clipboard
- Copy the leftmost column to fill the entire selection
- Copy the top row to fill the entire selection

[Copying, Moving, and Pasting Data](#)

[Edit Copy](#)

[Edit Copy Right](#)

[Edit Copy Down](#)

Move data

- Using drag-and-drop
- Insert a blank column, range, row, or worksheet
- Move data
- Transpose a range of data

[Using Drag-and-Drop to Move and Copy Data](#)

[Edit Insert](#)

[Copying, Moving, and Pasting Data](#)

[Range Transpose](#)

Paste Clipboard data to a worksheet

- [Edit Paste](#)
- [Edit Paste Special](#)
- [Edit Paste Link](#)

Remove or erase data

- Clear cell contents
- Cut data and place it on the Clipboard

[Using Drag-and-Clear to Delete Data](#)
[Edit Clear](#)

[Edit Cut](#)

- Delete a column, row, or worksheet [Edit Delete](#)

Sort data

- Change the sort order [Sort Order](#)
- Sort data [Range Sort](#)
- Sort records in a query table [Query Sort](#)

Change Worksheet Display and Characteristics

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Change columns and rows, cells

- Change the height of a row [Style Row Height](#)
- Change the width of a column [Style Column Width](#)
- Hide grid lines [View Set View Preferences](#)
- Hide the worksheet frame [View Set View Preferences](#)
- Zoom cell display [View Zoom In](#)

Customize SmartIcons

- Add, create, or customize SmartIcons [Tools SmartIcons](#)
- Hide the set of SmartIcons [View Set View Preferences](#)
- Move SmartIcons [Tools SmartIcons](#)
- Turn SmartIcons descriptions on and off [Tools SmartIcons](#)

Arrange and size windows and worksheets

- Change the size of a window [Control Menu](#)
- Display a list of open windows [Window \(Window Name\)](#)
[Window More Windows](#)
- Display three worksheets in a file at once [View Split](#)
- Display windows one on top of another [Window Cascade](#)
- Display windows side by side [Window Tile](#)
- Move a window [Control Menu](#)
- Split a window into two panes [View Split](#)
- Zoom a window pane [ALT+F6 \(ZOOM PANE\)](#)

Specify global default settings

- Change settings that affect the display and behavior of 1-2-3 [Style Worksheet Defaults](#)
[Tools User Setup](#)
[View Set View Preferences](#)
- Have changes affect all worksheets in the file [Style Worksheet Defaults Group Mode](#)

Change the name and color of worksheets

- Name worksheets [Naming a Worksheet](#)
- Change color of worksheet background and text [Style Worksheet Defaults Colors](#)
[Style Lines & Color](#)

- Change color of worksheet tab [Style Worksheet Defaults Colors](#)

Print

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Note For information about making your worksheet look the way you want, including using different fonts and text attributes, number formats, borders and shading see [Change the Appearance of Data](#).

For information on arranging data, see [Rearranging Data in the Worksheet](#).

Set up the page

- Headers and footers [File Page Setup Header/Footer](#)
- Margins [File Page Setup Margins](#)
- Center data on a printed page [File Page Setup Center](#)
- Page breaks [Style Page Break](#)
- Print grid lines or worksheet frame [File Page Setup Show](#)
- Print row or column on each page [File Page Setup Print Titles](#)
- Specify print settings [File Page Setup](#)

Name page settings to use them again

- [Named Page Settings](#)

Preview what you want to print

- [File Print Preview](#)

Print

- Choose a printer [File Printer Setup](#)
- Print data [Printing Data](#)
- Stop printing [File Print Cancel](#)

Draw Lines and Shapes

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Draw

- Lines and shapes [Tools Draw](#)
- Borders around ranges [Style Lines & Color](#)

Modify drawn objects

- Change the color, size, or style of drawn objects [Style Lines & Color](#)
- Change the size of a drawn object [Sizing Drawn Objects](#)

Copy a drawn object

- [Copying Drawn Objects](#)

Delete a drawn object

- [Deleting Drawn Objects](#)

Move a drawn object

- [Moving Drawn Objects](#)

Chart Data

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Create a chart

- Create a chart [Tools Chart](#)
- Move or size a chart [Drag and Drop](#)

Create and use default settings

- Create default settings [Chart Set Preferred](#)
- Use default settings [Chart Use Preferred](#)

Modify a chart

- Add grid lines [Chart Grids](#)
- Define settings for all charts [Chart Set Preferred](#)
[Chart Use Preferred](#)
- Explode pie slices [Chart Data Labels](#)
- Name a chart [Chart Name](#)
- Set axis scaling [Chart Axis](#)
- Set colors and patterns [Chart Numeric Color](#)

Map Data

Note To view all of the information in this topic, maximize the Help window by clicking the Maximize button.

Get an overview on maps

- [Mapping Overview](#)

Create a map

- Set up a range of map data [Creating a Map](#)
- Add a map to a worksheet [Tools Map New Map](#)
- Mark locations on a map [Adding Pin Characters to a Map](#)
[Finding the Latitude and Longitude for a Pin Character](#)

Modify a map

- Change a map legend [Tools Map Colors & Legend](#)
[Tools Map Patterns & Legend](#)
[Edit Font & Attributes \(Lotus Map Viewer\)](#)
- Change a map title [Tools Map Ranges & Title](#)
[Edit Font & Attributes \(Lotus Map Viewer\)](#)
- Add a map overlay [Map Add Overlay \(Lotus Map Viewer\)](#)
- Remove a map overlay [Map Remove Overlay \(Lotus Map Viewer\)](#)

- Update a map
- Assign new ranges of data
- Hide a map title
- Redisplay a map title

[Tools Map Redraw](#)

[File Update \(Lotus Map Viewer\)](#)

[Tools Map Ranges & Title](#)

[Edit Clear \(Lotus Map Viewer\)](#)

[View Set View Preferences \(Lotus Map Viewer\)](#)

Size a map

- Move the center of a map
- Zoom in on a portion of a map
- Display more regions on a map
- Reset the display size of a map

[Recenter \(Lotus Map Viewer\)](#)

[View Zoom In \(Lotus Map Viewer\)](#)

[View Zoom Out \(Lotus Map Viewer\)](#)

[View Reset \(Lotus Map Viewer\)](#)

Use the Lotus Map Viewer

- [Lotus Map Viewer Commands](#)
- [What Can You Do in the Lotus Map Viewer](#)

Analyze Data

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Count the values in a range that fall within certain intervals

- [Range Analyze Distribution](#)

Formulas

- Analyze the relationship between values and formulas [Tools Audit](#)
- Check circular references, file links, or DDE links [Tools Audit](#)

Matrixes

- Invert a matrix [Range Analyze Invert Matrix](#)
- Multiply matrixes [Range Analyze Multiply Matrix](#)

Predict values using regression analysis

- [Range Analyze Regression](#)

Solve what-if problems

- Create and compare different versions of data [Range Version](#)
- Make the result of a formula equal to a specified value [Range Analyze Backsolver](#)
- See a variety of answers to a problem [Range Analyze Solver](#)
- Substitute different values in a formula and see the results [Range Analyze What-if Table](#)

Work with Database Tables

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Create a database table

- Create a database table [Creating a 1-2-3 Database Table](#)
- Create a new external database table [Tools Database Create Table](#)

Modify a database table

- Add records [Tools Database Append Records](#)
- Arrange records [Range Sort](#)
- Delete records [Tools Database Delete Records](#)

Modify a query table

- Add or remove records from a query table [Set Criteria](#)
- Add fields to a query table [Choose Fields Add](#)
- Arrange records [Query Sort](#)
- Create a computed column [Choose Fields Formula](#)
- Delete records [Set Criteria](#)
- Update the query table to reflect changes in database table, query options, criteria, aggregate, or field [Query Refresh Now](#)

names.

Query a database table

- Extract records from a database [Tools Database New Query](#)
- Query multiple database tables [Query Join](#)
- Search for records in a database table [Tools Database Find Records](#)
- Specify criteria to select records from a database table [Set Criteria](#)

Work with data from external databases

- Connect to an external database [Connect to External](#)
- Create an external table [Tools Database Create Table](#)
- Send a SQL command to an external database [Tools Database Send Command](#)

Connect to Lotus Approach to work with data from a 1-2-3 database table

- Create an Approach form [Tools Database Form](#)
- Create an Approach report [Tools Database Report](#)
- Create an Approach dynamic crosstab [Tools Database Dynamic Crosstab](#)
- Create Approach mailing labels [Tools Database Mailing Labels](#)

Share Data with Others and Protect Data

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Note For information on using data from files other than .WK4 format files, see [Work with Data from Other Files or Applications](#).

For information on using data from external database tables, see [Work with Database Tables](#).

Protection

- Get or release a file reservation [Reserving a File](#)
- Protect data [Protecting Data and Files](#)
[File Protect](#)
- Remove protection [File Protect](#)
- Specify a password [File Save As](#)

Sharing data

- Send mail [File Send Mail](#)
- Share files using Lotus Notes [Sharing Files Using Lotus Notes](#)
- Share files on a network [Sharing Files Using a Network](#)
- Share files without a network [Sharing Files Without a Network](#)

Work with Data from Other Files or Applications

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Note For information on using data from external database tables, see [Work with Database Tables](#).

Bring data into 1-2-3

- Bring pictures into 1-2-3 [Bringing Pictures into 1-2-3](#)
- Embed an object from another [Embedding an Object in a 1-2-3 File](#)

application in a worksheet

- Modify data from a text file to fit in the worksheet [Range Parse](#)
- Read a text file into a worksheet [Working with Text Files in 1-2-3](#)
- Work with Excel files [Working with Excel Files in 1-2-3 for Windows](#)
- Work with dBASE and Paradox Files [Working with dBASE and Paradox Files in 1-2-3](#)

Link to files

- Link files [Creating a Link in a 1-2-3 File](#)
[Creating a Link to 1-2-3 in Another Application](#)
- Recalculate linked formulas [Edit Links Update/Update All](#)

Save worksheet data in another format

- Embed a 1-2-3 worksheet into another application [Embedding a 1-2-3 Worksheet Object in Another Application](#)
- Extract data to a file on disk [File Save Range As](#)
- Save data in Release 2 format [Working with .WK1 and .WK3 Files in 1-2-3 Release 5](#)

Exchange data with Lotus Notes

- [Exchanging Data Between 1-2-3 and Notes](#)

Load an add-in

- [Tools Add-in Load](#)

Remove an add-in

- [Tools Add-in Remove](#)

Write and Use Macros

Note To view all the information in this topic, maximize the Help window by clicking the [Maximize button](#).

Create a macro

- Draw a macro button in the worksheet [Tools Draw Button](#)
[Transcript Make Button](#)
- Write a macro See Chapter 24, "Using Macros to Automate Your Work," in the *User's Guide*
- List macro commands [F3 \(NAME\)](#)
- Name a macro See Chapter 24, "Using Macros to Automate Your Work," in the *User's Guide*
- Record commands [Tools Macro Record](#)
- Save a macro See Chapter 24, "Using Macros to Automate Your Work," in the *User's Guide*

Edit a macro

- Edit macro commands in a button
- Fix a macro
- Open the Transcript window

[Tools Macro Assign to Button](#)

[Tools Macro Single Step](#)

[Tools Macro Show Transcript](#)

Run a macro

- Play back commands from the Transcript window as a macro
- Run a macro

[Transcript Playback](#)

[Tools Macro Run](#)

Tools Database Form

Connects with Lotus Approach and creates a form for viewing and changing records in a 1-2-3 database table.

1. Select the 1-2-3 database table you want to view in the form.

Be sure to include column headings when you select the database table.

2. Choose Tools Database Form.

If you did not preselect a database table range, the Form dialog box appears. Select the range and choose OK.

1-2-3 starts the Approach Form Assistant. For information about using the Approach Form Assistant, click the ? button or press F1 (HELP) in Approach.

You can modify data in your Approach form and these changes will appear in your 1-2-3 database table.

Note You cannot modify protected cells or formulas. You also cannot change field definitions while working with data in the form.

3. After you create the form, you can return to 1-2-3 by doing one of the following:

- To exit Approach, choose File Exit & Return.
- To leave Approach running in the background, choose File Close and Return.

1-2-3 embeds the form as an icon in the worksheet. To connect to Approach and open the form again, double-click the icon. If you changed data in your 1-2-3 database table, Approach updates the form.

If you change your database table definition in 1-2-3, you must also change the definition of the range containing the table. For example, if you added a field, you must expand the range definition to include this new field.

Caution 1-2-3 allows up to 512 characters in a database table field. Approach allows up to 256 characters in a field. If you refresh the Approach form, any data longer than 256 characters in a field will be truncated in your 1-2-3 database table.

Related SmartIcons



Create an Approach form



Start Lotus Approach

See also

[Tools Database Dynamic Crosstab](#)

[Tools Database Mailing Labels](#)

[Tools Database](#)

[Tools Database Report](#)

Tools Database Report

Connects with Lotus Approach and creates a report about records in a 1-2-3 database table.

1. Select the 1-2-3 database table for which you want a report.

Be sure to include column headings when you select the database table.

2. Choose Tools Database Report.

If you did not preselect a database table range, the Report dialog box appears. Select the range and choose OK.

1-2-3 starts the Approach Report Assistant. For more information about using the Approach Report Assistant, click the ? button or press F1 (HELP) in Approach.

You can modify data in your Approach report and these changes will appear in your 1-2-3 database table.

Note You cannot modify protected cells or formulas. You also cannot change field definitions while working with data in the report.

3. After you create the report, you can return to 1-2-3 by doing one of the following:

- To exit Approach, choose File Exit & Return.
- To leave Approach running in the background, choose File Close and Return.

1-2-3 embeds the report as an icon in the worksheet. To connect to Approach and open the report again, double-click the icon. If you changed data in your 1-2-3 database table, Approach updates the report.

If you change your database table definition in 1-2-3, you must also change the definition of the range containing the table. For example, if you added a field, you must expand the range definition to include this new field.

Caution 1-2-3 allows up to 512 characters in a database table field. Approach allows up to 256 characters in a field. If you refresh the Approach report, any data longer than 256 characters in a field will be truncated in your 1-2-3 database table.

Related SmartIcons



Create an Approach report



Start Lotus Approach

See also

[Tools Database](#)

[Tools Database Dynamic Crosstab](#)

[Tools Database Form](#)

[Tools Database Mailing Labels](#)

Tools Database Dynamic Crosstab

Connects with Lotus Approach and creates a dynamic crosstab from data in a 1-2-3 database table. A dynamic crosstab is like a pivot table that lets you reorganize your data by simply dragging.

1. Select the 1-2-3 database table from which you want to create a cross-tabulation table.

Be sure to include column headings when you select the database table.

2. Choose Tools Database Dynamic Crosstab.

If you did not preselect a database table range, the Crosstab dialog box appears. Select the range and choose OK.

1-2-3 starts the Approach Crosstab Assistant. For more information about using the Approach Crosstab Assistant, click the ? button or press F1 (HELP) in Approach.

Note You cannot modify data in the crosstab.

3. After you create the crosstab, you can return to 1-2-3 by doing one of the following:

- To exit Approach, choose File Exit & Return.
- To leave Approach running in the background, choose File Close and Return.

1-2-3 embeds the crosstab as an icon in the worksheet. To connect to Approach and open the crosstab again, double-click the icon. If you changed data in your 1-2-3 database table, Approach updates the crosstab.

If you change your database table definition in 1-2-3, you must also change the definition of the range containing the table. For example, if you added a field, you must expand the range definition to include this new field.

Caution 1-2-3 allows up to 512 characters in a database table field. Approach allows up to 256 characters in a field. If you refresh the Approach crosstab, any data longer than 256 characters in a field will be truncated in your 1-2-3 database table.

Related SmartIcons



Create an Approach crosstab



Start Lotus Approach

See also

[Tools Database](#)

[Tools Database Form](#)

[Tools Database Mailing Labels](#)

[Tools Database Report](#)

Tools Database Mailing Labels

Connects with Lotus Approach and creates mailing labels from data in a 1-2-3 database table.

1. Select the 1-2-3 [database table](#) from which you want to create mailing labels.

Be sure to include column headings when you select the database table.

2. Choose Tools Database Mailing Labels.

If you did not preselect a database table range, the Mailing Labels dialog box appears. Select the range and choose OK.

1-2-3 starts the Approach Mailing Label Assistant. For more information about using the Approach Mailing Label Assistant, click the ? button or press F1 (HELP) in Approach.

You can modify data in your Approach mailing labels and these changes will appear in your 1-2-3 database table.

Note You cannot modify protected cells or formulas. You also cannot change field definitions while working with data in the mailing labels.

3. After creating the mailing labels, you can return to 1-2-3 by doing one of the following:

- To exit Approach, choose File Exit & Return.
- To leave Approach running in the background, choose File Close and Return.

1-2-3 embeds the mailing labels as an icon in the worksheet. To connect to Approach and open the mailing labels again, double-click the icon. If you changed data in your 1-2-3 database table, Approach updates the mailing labels.

If you change your database table definition in 1-2-3, you must also change the definition of the range containing the table. For example, if you added a field, you must expand the range definition to include this new field.

Caution 1-2-3 allows up to 512 characters in a database table field. Approach allows up to 256 characters in a field. If you refresh the Approach mailing labels, any data longer than 256 characters in a field will be truncated in your 1-2-3 database table.

Related SmartIcons



Create Approach Mailing Labels



Start Lotus Approach

See also

[Tools Database](#)

[Tools Database Dynamic Crosstab](#)

[Tools Database Form](#)

[Tools Database Report](#)

Could Not Find Lotus Approach

You chose Tools Database Form, Tools Database Report, Tools Database Dynamic Crosstab, or Tools Database Mailing Labels to create a form, report, dynamic crosstab, or mailing labels. 1-2-3 could not connect to Lotus Approach either because Lotus Approach version 3.0 is not installed on your computer or because information was missing from your LOTUS.INI file.

If you own the Lotus SmartSuite, you can install Approach version 3.0 on your computer. If you do not own Approach, you can order it by calling 1-800-TRADEUP or your Lotus Authorized Reseller.

If Approach is already installed on your computer, check the file LOTUS.INI in your \WINDOWS directory to make sure the Lotus Applications section contains the following line:

APPROACH=C:\APPROACH\APPROACH.EXE Lotus Approach Version 3.0

If Lotus Approach is installed in a directory other than C:\APPROACH, substitute the correct directory in your LOTUS.INI file.

Edit Arrange Commands

Manipulate drawn objects.

Bring to Front

Places selected drawn objects in front of all other objects.

Send to Back

Places selected drawn objects behind all other objects.

Flip Left-Right

Flips selected drawn objects horizontally so that they appear backward.

Flip Top-Bottom

Flips selected drawn objects vertically so that they appear upside down.

Rotate

Rotates a selected drawn object around its center.

Group

Groups selected drawn objects so that you can move, size, style, and delete them together instead of one by one.

Lock

Prevents changes to selected drawn objects.

Fasten to Cells

Fastens drawn objects to cells according to the fastening options you select.

See also

[Style Commands](#)

[Tools Draw Commands](#)

[View Set View Preferences](#) to hide drawn objects

Edit Arrange Bring to Front

Places selected drawn objects in front of all other objects. Objects in front may hide objects behind them.

1. Select one or more drawn objects.
2. Choose Edit Arrange Bring to Front.

Related SmartIcons

Close

Equivalent to choosing Edit Arrange Bring to Front

Close

Places a drawn object behind other drawn objects

See also

Help

[Edit Arrange Commands](#)

[Tools Draw Commands](#)

[View Set View Preferences](#) to hide drawn objects

User's Guide

Chapter 16, "Working with Graphics"

Edit Arrange Send to Back

Places selected drawn objects behind all other objects. Objects in back may be hidden by objects in front of them.

1. Select one or more drawn objects.
2. Choose Edit Arrange Send to Back.

Related SmartIcons

Close

Equivalent to choosing Edit Arrange Send to Back

Close

Places a drawn object in front of other drawn objects

See also

Help

[Copying Drawn Objects](#)

[Edit Arrange Commands](#)

[Tools Draw Commands](#)

[View Set View Preferences](#) to hide drawn objects

User's Guide

Chapter 16, "Working with Graphics"

Edit Arrange Flip Left-Right

Flips selected drawn objects horizontally, from left to right, so that they appear backward.

1. Select one or more drawn objects.
2. Choose Edit Arrange Flip Left-Right.

Note You cannot flip embedded objects, macro buttons, pictures, query tables, and text blocks.

Related SmartIcons

Close

Equivalent to choosing Edit Arrange Flip Left-Right

Close

Flips a drawn object vertically so that it appears upside down

See also

Help

[Edit Arrange Commands](#)

[Moving Drawn Objects](#)

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Edit Arrange Flip Top-Bottom

Flips selected drawn objects vertically so that they appear upside down.

1. Select one or more drawn objects.
2. Choose Edit Arrange Flip Top-Bottom.

Note You cannot flip embedded objects, macro buttons, pictures, query tables, and text blocks.

Related SmartIcons

Close

Equivalent to choosing Edit Arrange Flip Top-Bottom

Close

Flips a drawn object horizontally so that it appears backward

See also

Help

[Edit Arrange Commands](#)

[Moving Drawn Objects](#)

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Edit Arrange Rotate

Rotates a selected drawn object around its center.

1. Select one or more drawn objects.
2. Choose Edit Arrange Rotate.
3. Move the mouse pointer in the direction you want to rotate the object.
To rotate the object in 45-degree increments, hold down SHIFT as you move the mouse pointer.
4. Click the mouse button when the object is in the position you want.

Note You cannot rotate embedded objects, macro buttons, pictures, and query tables.

Related SmartIcons

Close

Equivalent to choosing Edit Arrange Rotate

See also

Help

[Edit Arrange Commands](#)

[Moving Drawn Objects](#)

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Edit Arrange Group

Edit Arrange Ungroup

Groups selected drawn objects so that you can move, size, style, and delete them together instead of one by one. Grouped objects stay together until you ungroup them, even when you deselect them or save and close the file.

Note You can select multiple drawn objects, without choosing Edit Arrange Group. However, when you deselect them, they are no longer a set.

To group objects

1. Select the drawn objects to group.
Each object appears with its own set of handles.
2. Choose Edit Arrange Group.
The group appears with one set of handles.

To ungroup objects

1. Select one or more groups.
Each group appears with one set of handles.
2. Choose Edit Arrange Ungroup.
Each object appears with its own set of handles.

Related SmartIcons

Close

Equivalent to choosing Edit Arrange Group/Ungroup

See also

Help

[Edit Arrange Commands](#)

[Style Commands](#)

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Edit Arrange Lock

Edit Arrange Unlock

Prevents changes to selected drawn objects. When you lock a drawn object you cannot move it, size it, delete it, style it using any of the Style Commands, or manipulate it using any of the other Edit Arrange commands.

To lock an object

1. Select one or more drawn objects.
 2. Choose Edit Arrange Lock.
-

To unlock an object

1. Select one or more locked drawn objects.
When you select a locked drawn object, its handles are shaped like diamonds rather than squares.
2. Choose Edit Arrange Unlock.

Related SmartIcons



Equivalent to choosing Edit Arrange Lock/Unlock

See also

Help

[Edit Arrange Commands](#)
[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Edit Arrange Fasten to Cells

Fastens drawn objects to cells according to the fastening options you select.

1. Select one or more drawn objects.
2. Choose Edit Arrange Fasten to Cells.
3. Under "Attach object to," select an option.
 - Top left and bottom right cells lets you move and size the drawn object when you move, size, or hide the cells behind it.
 - Top left cell only lets you move but not size the drawn object when you move, size, or hide the cells behind it.
4. Choose OK.

1-2-3 fastening behavior

- A drawn object is automatically fastened to the cell behind its top left and bottom right corners, which means that it moves and sizes with the cells behind it, unless you move the drawn object yourself. For example, if you insert a column behind a drawn object, the drawn object remains fastened to the cells originally behind its top left and bottom right corners. To fasten the drawn object to a cell in the new column, move the drawn object.
- A picture from another program that you paste in from the Clipboard automatically fastens to the top left cell only, which means that it moves but does not size with the cells behind it.
- When you size, move, rotate, flip, and copy a drawn object, it fastens according to its fastening options prior to when you sized it.

Related SmartIcons



Fastens a drawn object to the top left cell only



Fastens a drawn object to the top left and bottom right cells

See also

Help

[Edit Arrange Commands](#)

[Style Commands](#)

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Audit

Highlights or produces a report of all formulas, or the relationships of values and formulas, in the current file or in all active files; also highlights or produces a report on circular references, file links, or DDE links.

1. (Optional) To find formula precedents, select the cell or range that contains the formula(s) you want to audit.

To find cell dependents, select the cell or range that contains value(s) you want to audit.







2. Choose Tools Audit.
3. Under Audit, select an option.
 - All formulas finds all cells that contain formulas.
 - Formula precedents finds all cells that are referred to by a formula.
 - Cell dependents finds all cells containing a formula that refers to the cells.
 - Circular reference finds all cells that are involved in a circular reference.
 - File links finds all cells that contain a formula that links to other 1-2-3 files.
 - DDE links finds all cells that contain a link between the current file and other Windows applications.
4. Under "Produce a," select an option.
 - Selection highlights the cells found in the audit.
 - Report at range produces a list of all cells found in the audit, one item per cell from top to bottom, left to right, of the range you specify in the text box. Specify a range of blank cells.
5. Under "Limit audit to," select Current file or All files.
6. Choose OK.

To move among the highlighted cells, press CTRL+ENTER to go to the next range, and CTRL+SHIFT+ENTER to go to the previous range. Each cell of the collection found in the audit is a separate range.

When 1-2-3 finds circular references

- If 1-2-3 finds only one circular reference without multiple branches, it highlights or produces a report on the cells in the path of that circular reference in the worksheet.
- If 1-2-3 finds more than one circular reference, the Multiple Circular References dialog box appears.
- If 1-2-3 finds multiple branches in a circular reference, the Multiple Branches dialog box appears.

Related SmartIcons

	Equivalent to choosing Tools Audit
	Finds cell dependents
	Finds DDE links
	Finds file links
	Finds formulas
	Finds formula precedents

See also

Help

Tools Commands

Tools Audit Multiple Circular References

Identifies multiple circular references in the current file or in all active files.

1. Select the cell address of the reference you want to work on.

The addresses listed are of the top left cell in each circular reference.

2. Choose OK.

If the circular reference follows a single path, or chain of cells, 1-2-3 highlights or reports on the cells in the path directly in the worksheet.

If the circular reference follows multiple branches, or paths, the Multiple Branches dialog box appears, where you can select a path to follow for further analysis.

Note If you want to return to the list of circular references, you must repeat the audit from the Tools Audit dialog box to generate the Multiple Circular References dialog box.

Related SmartIcons

Close

Produces a report of all formulas, or the relationships of values and formulas

See also

Help

Tools Audit

Tools Audit Multiple Branches

Identifies all branches in a circular reference that either 1-2-3 found during an audit, or that you selected from the Multiple Circular References dialog box. When the Multiple Branches dialog box first appears, the Choose list box displays all the possible branches leading out of the first branched cell in the circular reference.

1. Select a cell address from the list of branches.
2. Choose OK.

The text box at the bottom of the dialog box displays the address you selected, preceded by the address of the cell from which it branched. The Choose list box changes to reflect the next set of branches, if any exist.

3. Repeat steps 1 and 2 until no more branches exist.

The text box at the bottom of the dialog box displays the path of the cell addresses you selected, in the order you selected them. When there are no more branches, 1-2-3 returns to the worksheet and reports or highlights the path of cells you selected.

Related SmartIcons

Close

Produces a report of all formulas, or the relationships of values and formulas

See also

Help

[Tools Audit](#)

Chart Type

Selects a chart type, sets its orientation, and, optionally, creates a table of the values represented in the chart.

1. Select the chart.
2. Choose Chart Type.
3. Under Types, select a chart type.
4. Select one of the styles displayed for the chart type.
5. Under Orientation, select an option.
 - Vertical displays the x-axis across the bottom of the plot, the y-axis along the left edge of the plot, and the 2nd y-axis along the right edge of the plot.
 - Horizontal displays the x-axis along the left edge of the plot, the y-axis across the top of the plot, and the 2nd y-axis along the bottom of the plot.
6. Under Placement, select an option.
 - Automatic tells 1-2-3 to automatically place the plot within the chart.
 - Manual indicates that the plot was previously moved manually.
7. To display the values used to create the chart under the chart, select the "Include table of values" check box.
8. Choose OK.

Related SmartIcons

Close

Equivalent to choosing Chart Type

See also

Help

Chart Commands

Style Lines & Color to set the way lines are displayed for data series

User's Guide

Chapter 15, "Working with Charts and Maps," for descriptions of 1-2-3 chart types

Chart Ranges

Adds, deletes, or changes the [data ranges](#) used to create a chart.

To assign data ranges individually

1. Select the [chart](#).
 2. Choose Chart Ranges.
 3. Select a [data series](#) from the Series [list box](#).
 4. Specify a range for the series in the Range [text box](#).
 5. To attach a data series to the [2nd y-axis](#) in line, area, bar, mixed, and XY charts, select the "Plot on 2nd Y-axis" [check box](#).

1-2-3 does not display the 2nd y-axis unless you attach one or more data series to it. If you attach all data series to the 2nd y-axis, 1-2-3 does not display the y-axis.
 6. For mixed charts, select Line, Area, or Bar from the Mixed type [drop-down box](#).
 7. Repeat steps 3 through 6 for each data series.
 8. Choose OK.
-

To assign data ranges all at once

1. Select the [chart](#).
 2. Choose Chart Ranges.
 3. Select an option from the "Assign ranges" drop-down box.
 - By Row assigns the A - W data ranges by row. If the first row of the range contains labels or dates, 1-2-3 assigns it as the X data range. If the first column of the range contains labels, 1-2-3 assigns it as the legends range.
 - By Column assigns the A - W data ranges by column. If the first column of the range contains labels or dates, 1-2-3 assigns it as the X data range. If the first row of the range contains labels, 1-2-3 assigns it as the legends range.
 4. Choose OK.
-

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps"

Chart Headings

Adds chart titles and a footnote to a chart.

1. Select the chart.
2. Choose Chart Headings.
3. To add or change the title and subtitle, do one of the following:
 - Under Title, enter the chart title in the Line 1 text box, and enter the subtitle in the Line 2 text box.
 - Under Title, specify in the Line 1 text box the name or address of a cell containing the text you want to use. Then select the Cell check box.
If you want to use text in another file, include a file reference.
4. To add or change the footnote, repeat step 3, using the Line 1 and Line 2 text boxes under Note.
5. To change the location of the title and subtitle, select a Placement option, under Title.
 - Left
 - Center
 - Right
 - Manual indicates that the component was previously moved manually.
Manual positioning overrides positioning done with the Placement option.
6. To change the location of the footnote, repeat step 5, using Placement, under Note.
7. Choose OK.

See also

Help

Chart Commands

Style Font & Attributes to change the font for a chart title or note

User's Guide

Chapter 15, "Working with Charts and Maps," for general information.

Chart Legend

Creates legend labels that identify the colors, symbols, or patterns used in the chart's data series.

1. Select the chart.
2. Choose Chart Legend.
3. Select a data series from the Series list box.
To create all legend labels at once, select All ranges.
4. Do one of the following in the "Legend entry" text box:
 - Enter the text for the legend label (available only for a single data range).
 - Specify the name or address of a cell (or range, if you selected All ranges) that contains a label you want to use for the legend entry. If you specify a single cell, select the Cell check box.
5. To change the location of the legend, select an option under "Place legend":
 - Right of plot
 - Below plot
 - Manual indicates that the legend was previously moved manually.
Manual positioning overrides positioning done with the "Place legend" option.
6. Choose OK.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps"

Chart Data Labels

Creates labels for [data points](#), pie slices, or bars, using data in one or more ranges as the labels; and explodes pie slices.

Chart Data Labels

For data points or bars.

Chart Data Labels

For pie charts.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps," for general information.

Chart Data Labels

For data points or bars: Creates labels from data in one or more ranges.

1. Select the chart.
2. Choose Chart Data Labels.
3. Select a data series from the Series list box.
To create data labels for all series, select All ranges.
4. In the Range of labels text box, specify the range that contains the values, labels, or formulas you want to use as data labels.
 - If you selected a single data series in step 3, the data-label range should be the same size as the corresponding data range.
 - If you selected All ranges in step 3, the data-label range should be the same size as all the data ranges combined.
For example, if the chart includes A, B, and C data series, each of which is a row that contains six values, the data-label range should include three rows, each containing six cells.
 - To label only some of the values in a data series, leave blank the cells in the data-label range that correspond to the values you don't want to label.
For example, to label only the first, third, and fifth values in a data series, enter data in only the first, third, and fifth cells of the data-label range.
5. Select a position for the data labels from the Placement drop-down box: Center, Right, Below, Left, Above.
Note For stacked bars, 1-2-3 always places data labels inside the corresponding portions of the stacked bars; for clustered bars, 1-2-3 always places the data labels above the bars.
6. Choose OK.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps"

Chart Data Labels

For pie charts: Creates labels from data in one or more ranges, or explodes pie slices.

1. Select the chart.
2. Choose Chart Data Labels.
3. Under Show, select the check box of components to display with each pie slice:
 - Values displays the values in the A data range.
 - Percentages displays each value in the A data range, as a percentage of the total of all the values.
 - Contents of X data range
 - Hide/show % using C range uses values you enter in the C data range to hide or show percentages.
4. Under Explode slices, choose an option:
 - No explosion
 - All by % explodes all slices by the percentage you specify in the text box.
 - Using B range uses values you enter in the B data range to explode slices.
 - Manual indicates that the slice was previously exploded manually.
Manual exploding overrides exploding done with the Explode slices option.
5. Choose OK.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps"

Setting Up B and C Ranges for Pie Charts

The B data range assigns a color to each slice in a pie chart.

The C data range removes percent labels from slices in a pie chart.

About B ranges

- The B range must be the same size as the corresponding A data range.
- Each cell that corresponds to a slice whose color you want to change must contain a value from 1 through 14.
1-2-3 uses the color value whose location corresponds to the location of the value in the A data range.
- To explode slices, add 100 to the B-range values that correspond to the slices you want to explode. For example, to explode the slice to which you are assigning color 4, enter 104 in the corresponding B-range cell.

About C ranges

- The C range must be the same size as the corresponding A data range.
- Each cell that corresponds to a slice whose percent labels you want to remove must contain 0. Leave the rest of the cells in the C range blank.

See also

Help

[Chart Commands](#)

[Chart Numeric Color](#)

Chart Grids

Adds grid lines to the current chart. You cannot add grid lines to pie charts or radar charts.

1. Select the chart.
2. Choose Chart Grids.
3. Select an option from the X-axis, Y-axis, or 2nd Y-axis drop-down box:
 - Major interval adds vertical (for X-axis) or horizontal (for Y-axis and 2nd Y-axis) grid lines that originate from major interval tick marks.
 - Minor interval adds vertical or horizontal grid lines that originate from minor interval tick marks.
 - Both adds vertical or horizontal grid lines that originate from both major and minor interval tick marks.
 - None
4. Choose OK.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps," for general information.

Chart Axis

Sets axis scaling, axis titles, axis-unit titles, and other options for the chart axes.

The Chart Axis commands do not apply to pie charts or radar charts.

X-Axis

Sets all scaling options for XY charts; for other chart types, sets only the axis title and the display interval for axis labels, and lets you assign an axis-unit title.

Y-Axis

For the y-axis, sets the scaling, numbers, the axis title, and the axis-unit title.

2nd Y-Axis

For the 2nd y-axis, sets the scaling, the axis title, and the axis-unit title.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps," for general information.

Chart Axis X-Axis
Chart Axis Y-Axis
Chart Axis 2nd Y-Axis

Changes the axis title, the upper and lower scale limits, the type of scale, and axis scaling intervals.

1. Select the [chart](#).
2. Choose Chart Axis X-Axis, Y-Axis, or 2nd Y-Axis.
3. To change an axis title, do one of the following in the Axis title [text box](#):
 - Enter a new title.
 - Specify the name or address of a cell that contains a label you want to use for the axis title. Then select the Cell [check box](#).
4. To create a scale for the axis that displays only the data that falls between (and includes) the upper and lower limits that you specify, enter a new limit in the Upper limit or Lower limit text box.

Note If you specify an upper limit that is lower than the lower limit, 1-2-3 displays a blank rectangle instead of the chart.
5. To change the intervals between tick marks, specify a new interval in the Major interval or Minor interval text box.
6. To display tick marks at major or minor intervals, select the Major interval or Minor interval check box.
7. To specify at which tick marks to display axis labels, enter a value in the "Place label every *n* ticks" text box.
8. To change the type of scale, the magnitude of the axis units, and the axis-unit titles, choose [Options](#).
9. Choose OK.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps"

Chart Axis X-Axis Options
Chart Axis Y-Axis Options
Chart Axis 2nd Y-Axis Options

Changes the type of scale, the magnitude of the axis units, and the axis-unit titles.

1. Select the chart.
2. Choose Chart Axis X-Axis, Y-Axis, or 2nd Y-Axis.
3. Choose Options.
4. Select the type of scale to use from the Type of scale drop-down box.
 - Standard increases scale numbers linearly by a fixed number of units.
 - Log increases scale numbers logarithmically.
 - 100% displays scale numbers that range from 0 through 100% and represent percentages instead of absolute values.
5. Under Axis units, select an option for setting the order of magnitude for the axis scale (the power of 10 by which the numbers along the scale must be multiplied to reflect the values you are charting):
 - Automatic
 - Manual lets you specify an order of magnitude. Specify a magnitude value between -95 and 95 in the Exponent text box.
6. Under Units title, select an option for creating the axis-unit title:
 - Automatic tells 1-2-3 to automatically create an axis-unit title, such as thousands.
 - Manual lets you specify a title. Enter the text for the title, or select the Cell check box and enter the name or address of a cell that contains the axis-unit title.
7. Choose OK.
You return to the Chart Axis dialog box.
8. Choose OK.

See also

Help

[Chart Axis](#)

User's Guide

Chapter 15, "Working with Charts and Maps"

Chart Name

Changes the name of a chart.

1-2-3 automatically assigns default names, starting with CHART 1, to all charts you create in a file.

1. Select the chart.
2. Choose Chart Name.
3. In the Existing charts list box, select the name of the chart you want to rename.
4. Enter a new name in the Chart name text box.

The name can be up to 15 characters long and should conform to the other conventions described in [Naming Conventions for Ranges, Charts, Query Tables and Worksheets](#).

5. Choose Rename.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps," for descriptions of 1-2-3 chart types

Chart Set Preferred

Defines the current chart's type, including the style, as the default chart type. 1-2-3 also defines the selected chart's grid settings as the default grid settings.

The default chart type remains in effect for all files in all 1-2-3 sessions until you change it.

1. Select the chart whose type you want to use as the default type.
2. Choose Chart Set Preferred.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps," for descriptions of 1-2-3 chart types

Chart Use Preferred

Changes the current chart to the default chart type. 1-2-3 also changes the current chart's grid settings to the default grid settings.

1. Select the chart.
2. Choose Chart Use Preferred.

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps," for descriptions of 1-2-3 chart types

Chart Numeric Color

Sets the color and the pattern for each value in a data range, using ranges of color values and pattern values you set up in a worksheet.

1. Set up each colors range and patterns range you want to use with the data ranges.
2. Select the chart.
3. Choose Chart Numeric Color.
4. Select a data series from the Series list box.
5. Specify a colors range for the series in the Range of color values text box.
6. Specify a patterns range for the series in the Range of pattern values text box.
7. Choose OK.

See also

Help

Chart Commands

Style Lines & Color to set one color or pattern for all values in a data range

User's Guide

Chapter 15, "Working with Charts and Maps," for general information.

Setting Up a Colors or Patterns Range

A colors range assigns a color to each value in a [data range](#) or assigns a color to each slice in a pie chart.

Note To assign colors to pie chart slices, you can also use the [B data range](#).

A patterns range assigns a [pattern](#) to each value in a data range or assigns a pattern to each slice in a pie chart.

About colors and patterns ranges

- The colors or patterns range must be the same size as the corresponding data range.
- Each cell that corresponds to a data series whose color or pattern you want to change must contain a value from 0 through 15.

For both the colors and patterns range, 0 and 15 hide the corresponding data series.

For the patterns range, values 1 through 7 correspond to patterns, 8 corresponds to hollow, and values 9 through 14 correspond to various shades of gray.

- 1-2-3 uses the color or pattern value whose location corresponds to the location of the value in the data range.

Note Negative values in a colors or patterns range cause 1-2-3 to hide the corresponding data series in the chart.

Examples

[Colors Range](#)

[Patterns Range](#)

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps"

Close

Example: Colors Range

B20..B24 is the A data range and C20..C24 is its corresponding colors range.

In a bar chart of this data range, 1-2-3 displays the first and second bars in color 4 and the third, fourth, and fifth bars in color 6 if you use Chart Numeric Color and specify C20..C24 as the range of color values.

A	A	B	C
19	SALESPERSON		Q1 TOTAL
20	Cargill	35,000	4
21	Dennis	38,275	4
22	Higle		25,225 6
23	Moskowitz		26,225 6
24	Smith		26,650 6

Close

Example: Patterns Range

B20..B24 is the A data range and C20..C24 is its corresponding patterns range.

In a bar chart of this data range, 1-2-3 displays the first and second bars in pattern 2 and the third, fourth, and fifth bars in pattern 7 if you use Chart Numeric Color and specify C20..C24 as the range of pattern values.

A	A	B	C
19	SALESPERSON		Q1 TOTAL
20	Cargill	35,000	2
21	Dennis	38,275	2
22	Higle		25,225 7
23	Moskowitz		26,225 7
24	Smith		26,650 7

Range Version

Gives you access to Version Manager, which creates and displays different sets of data in the same named range. Results of formulas that refer to the named range vary according to the set of data currently displayed in the worksheet, so you can see the effect of that set of data when it is used with other values in a model.

Version Manager makes it easy to do what-if analysis. For example, you can create high and low projections for sales in the same named range and then compare the effects of those projections on other values in a model.

Versions

When you create different sets of data for a single named range, you assign each set a name. Each named set of data for a named range is called a version.

When you create a version of a named range, Version Manager stores the contents of the range, including the styles, as well as other information including your name, the date and time you created the version, and an optional comment.

For example, in the range named REVENUES, you enter the values 500, 400, 300, and 200, and use Version Manager to create a version with the name High Sales. Then you enter the values 50, 40, 30, and 20 in the same named range, and create a second version with the name Low Sales. You can use Version Manager to display either version in the worksheet.

You can create versions of any named range in a file. For example, after you create versions of REVENUES, you create versions of the range named EXPENSES. Then you use Version Manager to display different combinations of the versions.

Scenarios: putting versions together

After you create versions, you can group versions of different named ranges. A named group of versions is called a scenario. For example, you can group the High Sales version of the REVENUES range with the Low Expenses version of the EXPENSES range to create a scenario named Best Case.

Working with Version Manager

Version Manager gives you two ways to work with versions.

Version Manager

Performs actions on a single version. Use the Manager to display versions in the worksheet, to create, delete, and update versions, and to change information saved with a version.

Version Manager Index

Performs actions that may affect more than one version, such as creating and modifying scenarios. The Index also lists information about every version and scenario in the current file. You can sort the information in the Index by range name, version name, scenario name, date, or contributor name.

Related SmartIcons

Close

Equivalent to choosing Range Version

See also

Help

[Version Manager Basics](#)

[Sharing Files Using Version Manager](#)

Tutorial

Lesson 8, "Using Version Manager"

User's Guide

Chapter 17, "Using Version Manager"

Version Manager Basics

Version Manager appears in its own window. The Version Manager window has two forms: the [Manager](#) and the [Index](#). While working in the Version Manager window, you can move back and forth between the Manager and the Index. For example, you can create [versions](#) in the Manager and then move to the Index to create [scenarios](#).

You can also move to the worksheet window without closing the Version Manager window. For example, you can use the Manager to create a version of a range, then move to the worksheet and enter data for another version, then move back to the Manager to create the second version.

You can move or resize the Manager or the Index. If you move or resize the Manager or the Index, it will appear in its new size and location the next time you use it.

To start Version Manager

1. Choose Range Version.

The Manager appears in the Version Manager window.

To move from the Manager to the Index

1. Click To Index or press ALT+T.

The Index appears in the Version Manager window.

To move from the Index to the Manager

1. Click To Manager or press ALT+T.

The Manager appears in the Version Manager window.

To make the 1-2-3 worksheet active

1. Click the worksheet or press ALT+F6.

To make the Version Manager window active

1. Click the Version Manager window, choose Range Version, or press ALT+F6.

To close Version Manager

1. Click Close or press ALT+L.

If you close Version Manager from the Index, the Index appears the next time you choose Range Version.

See also

Help

[Highlight On, Highlight Off](#)
[Navigating Using Version Manager](#)
[Range Version](#)

User's Guide

Chapter 17, "Using Version Manager"



Range Version Manager

Displays versions in the worksheet. You can also create, update, and delete versions and change information saved with a version.

You must select a version before you can work on it.

For information about parts of the Manager, click the part in the picture below; or press TAB to highlight the part, and then press ENTER.



To display a version in the worksheet

1. Choose Range Version.
2. In the Manager: In the Named range drop-down box, select the range for which you want to show a version.
3. In the "With version(s)" drop-down box, select the version to show in the worksheet.
1-2-3 displays the selected version of the range in the worksheet, or displays the Show Version dialog box if displaying the selected version would write over unsaved data.
4. Choose OK.

To display version comments in the Manager

1. Choose Range Version.
2. In the Manager: resize the Manager vertically until the comment appears.

See also

Help

[Highlight On, Highlight Off](#)
[Navigating Using Version Manager](#)
[Range Version](#)
[Range Version Manager Index](#)
[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"

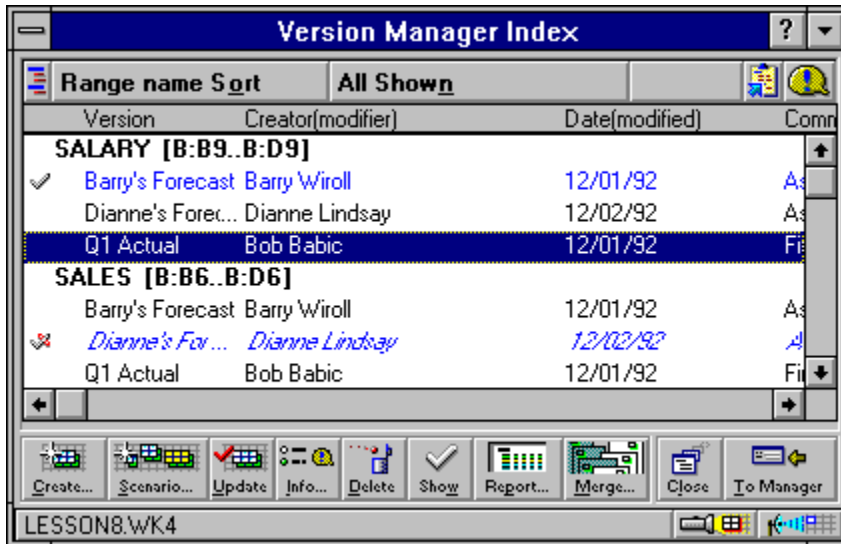


Range Version Manager Index

Displays versions and scenarios in the worksheet. You can also sort lists of versions and scenarios; create, update, and delete versions and scenarios; change version and scenario settings; create reports on versions; and merge versions and scenarios from other files.

You must select a version or scenario before you can work on it.

For information about parts of the Index, click the part in the picture below; or press TAB to highlight the part, and then press ENTER.



Note If you have Lotus Notes installed on your computer, the following buttons and indicators also appear in the Index:



Displays the Mark Read confirmation box, letting you remove the unread indicator from all versions and scenarios in a shared file



Refreshes a shared file, letting you see new versions and scenarios added to the file by other users



Indicates an unread version or scenario (a new version or scenario, entered by another user, that you have not yet displayed in the worksheet)

To select versions or scenarios in the Index



1. Choose Range Version.
2. In the Index: Click the version or scenario that you want to select.
CTRL+click to select additional versions or scenarios.
Drag or SHIFT+click to select a series of consecutive versions or scenarios.



1. Choose Range Version.
2. In the Index: Using the arrow keys, move to the version or scenario that you want to select.

SHIFT+UP or SHIFT+DOWN to select a series of consecutive versions or scenarios.

To display versions or scenarios in the worksheet

1. Choose Range Version.
2. In the Index: Do one of the following:
 - Double-click the version or scenario
 - Using the arrow keys, move to the version or scenario and press ENTER
 - Select the versions or scenarios and choose Show

1-2-3 displays the selected versions or scenarios in the worksheet, or displays the Show Version or Show Scenario dialog box if displaying the selected version or scenario would write over unsaved data.

3. Choose OK.

See also**Help**

[Highlight On, Highlight Off](#)
[Navigating Using Version Manager](#)
[Range Version](#)
[Range Version Manager](#)
[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"

Navigating Using Version Manager

With Tracking on, you can use Version Manager to move the cell pointer in the worksheet, or use the cell pointer to change the selected range and version in the Version Manager window.

To move the cell pointer to a named range that contains versions

1. Choose Range Version.
2. If necessary, choose Tracking to turn tracking on.
3. In the Manager: In the Named range drop-down box, select the range.
In the Index: Double-click a version of the range, or select a version and then choose Show.
1-2-3 moves the cell pointer to the range.

To change the selection in the Version Manager window

1. Choose Range Version.
2. If necessary, choose Tracking to turn tracking on.
3. Move the cell pointer to a cell in a named range.
In the Manager: The range is selected in the Named range drop-down box. If the selected cell is in more than one named range, only one range is selected. If a version is currently displayed in the range, it is selected in the "With version(s)" drop-down box.
In the Index: The currently displayed version in that range is selected.

See also

Help

[Highlight On, Highlight Off](#)
[Range Version](#)
[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"



Create Version

Creates versions of named ranges.

You can create versions of named ranges only. You can name the range in the Create Version dialog box, or you can use Range Name Add to name the range before creating the version.

Note You can only create versions of named ranges containing 2000 or fewer cells.

To name a range and create a version of the range

1. Enter the data for the version in the worksheet.
2. Select the range.
3. Choose Range Version.
4. In the Manager or in the Index: Choose Create.
The Create Version dialog box appears.
5. Enter a range name in the Range name text box, or accept the name proposed by 1-2-3.
6. Enter a version name in the Version name text box, or accept the name proposed by 1-2-3.
7. (Optional) In the Comment text box, enter a comment about the version.
8. (Optional) To save style information with the version, select the Retain styles check box.
9. Select a sharing option: Unprotected, Protected, or Protected & hidden.
10. Choose OK.

To create a version of an already named range

1. Enter the data for the version in the named range.
2. Make sure the cell pointer is in a cell in the named range.
3. Choose Range Version.
4. In the Manager or in the Index: Choose Create.
The Create Version dialog box appears. The range name appears in the Range name text box.
5. (Optional) To rename the range, enter a new name in the Range name text box.
6. Enter a version name in the Version name text box, or accept the name proposed by 1-2-3.
7. (Optional) In the Comment text box, enter a comment about the version.
8. (Optional) To save style information with the version, select the Retain styles check box.
9. Select a sharing option: Unprotected, Protected, or Protected & hidden.
10. Choose OK.

Related buttons



Displays the Create Scenario dialog box



Deletes a version



Updates data and styles for a version



Displays the [Version Info](#) dialog box, letting you modify version comments, style retention, and sharing options

See also

Help

[Range Version](#)

[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"



Version Info

Modifies version comments, style retention, and sharing options; renames named ranges.

To modify a version

1. Choose Range Version.
2. In the Manager: In the "With version(s)" drop-down box, select the version.
In the Index: Select the version.
3. Choose Info.
The Version Info dialog box appears.
4. To rename the range, enter the new name in the Range name text box.
5. To modify the comment, edit it in the Comment text box.
6. To save styles with the version when you update version data, select the Retain styles check box.
If the version is displayed in the worksheet and does not contain unsaved data, 1-2-3 updates the styles for the version when you choose OK. Otherwise, the next time you Update this version, 1-2-3 updates the styles as well as the data for the version.
7. To modify the sharing setting, select a sharing option: Unprotected, Protected, or Protected & hidden.
8. Choose OK.
If you renamed the range, the Rename Range confirmation box appears.
9. Choose OK.

To modify a protected version

1. Choose Range Version.
2. In the Manager: In the "With version(s)" drop-down box, select the version.
In the Index: Select the version.
3. Choose Info.
The Version Info dialog box appears.
4. Under Sharing options, select Unprotected.
You cannot unprotect a protected version in a sealed file.
5. Continue with step 4 under To modify a version, above.

To modify a protected & hidden version

1. Choose Range Version.
2. In the Index: In the Shown drop-down box, select Hidden only.
You cannot show hidden versions in a sealed file.
3. Select the version.
4. Choose Info.
5. Under Sharing options, select Unprotected.

6. Continue with step 4 under To modify a version, above.

Related buttons



[Deletes](#) a version



[Updates](#) data and styles for a version

See also

Help

[Range Version](#)

[Scenario Info](#) modifies scenario comments and sharing options; adds or removes versions in a scenario

[Versions Info](#) modifies version style retention and sharing options when more than one version is selected in the Index

[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"



Versions Info

Modifies version style retention and sharing options when more than one version is selected in the [Index](#).

1. Choose Range Version
2. In the Index: Select the versions.
3. Choose Info.

The Versions Info dialog box appears.

4. To save styles with the versions when you update version data, select the Retain styles [check box](#).

If any versions are displayed in the worksheet and do not contain unsaved data, 1-2-3 updates the styles for those versions when you choose OK. Otherwise, the next time you [Update](#) any of these versions, 1-2-3 updates the styles as well as the data for the version.

5. To modify the sharing setting, select a sharing option: Unprotected, Protected, or Protected & hidden.
6. Choose OK.

Related buttons



[Deletes](#) a version



[Updates](#) data and styles for a version

See also

Help

[Range Version](#)

[Version Info](#) modifies comments, style retention, and sharing options for a single version.

[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"



Update Version

Updates an already existing version with new data you enter in its named range.

The Update button is dimmed except when you have changed the data in a range in which an unprotected version is currently displayed.

If you change the data in a range in which an unprotected version is currently displayed, the version name appears in italics and the check mark next to the version name has a line through it.

If you checked Retain styles when you created or modified a version, 1-2-3 also makes the Update button available and displays a check mark with a line through it next to the version name when you change styles in a range in which an unprotected version is currently displayed. Update updates the version with the styles contained in its named range.

To update a version

1. Choose Range Version.
2. In the Manager: In the "With version(s)" drop-down box, select the version.
In the Index: Select the version and choose Show.
3. Enter the new data and styles in the worksheet.
4. Choose Update.
The Update Version confirmation box appears.
5. Choose OK.

To update more than one version

1. Choose Range Version.
2. In the Index: Select the versions.
3. Choose Show.
4. Enter the new data and styles in the worksheet.
5. Choose Update.
The Update Version confirmation box appears.
6. Choose OK.

Related buttons



Displays the Version Info dialog box

See also

Help

[Range Version](#)
[Version Manager Basics](#)
[Style Commands](#)

User's Guide

Chapter 8, "Entering and Editing Data"
Chapter 12, "Changing the Worksheet's Appearance"

Chapter 17, "Using Version Manager"



Delete Version/Scenario

Deletes selected versions or scenarios, but does not delete protected versions or scenarios.

Deleting a version that is currently shown in the worksheet does not delete the data in the worksheet.

Caution If you delete a version that is currently shown in the worksheet, and then display a different version in that range, 1-2-3 writes over the data for the deleted version.

Deleting a scenario does not delete or modify the versions in that scenario.

To delete one or more versions

1. Choose Range Version.
2. In the Manager: In the "With version(s)" drop-down box, select the version.
In the Index: Select one or more versions.
3. Choose Delete.
The Delete Version confirmation box appears.
4. Choose OK.

To delete one or more scenarios

1. Choose Range Version.
2. In the Index: In the Sort drop-down box, select Scenario name.
3. Select one or more scenarios.
4. Choose Delete.
The Delete Scenario confirmation box appears.
5. Choose OK.

Related buttons



Displays the Scenario Info dialog box, letting you remove versions from a scenario

See also

Help

[Range Version](#)

[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"



Show

Displays in the worksheet the selected versions or scenarios.

1. Choose Range Version.
2. In the Index: Select the versions or scenarios.
3. Choose Show.

1-2-3 displays the selected versions or scenarios in the worksheet, or displays the Show Version or Show Scenario dialog box if displaying the selected version or scenario would write over unsaved data.

See also

Help

[Range Version](#)

[Version Manager Basics](#)

[Range Version Manager](#)

User's Guide

Chapter 17, "Using Version Manager"



Create Scenario

Creates scenarios.

1. Choose Range Version.
2. In the Index: (Optional) Select the versions to include in the scenario.
Select only one version in each named range.
3. Choose Scenario.
The Create Scenario dialog box appears.
4. Enter a scenario name in the Scenario name text box, or accept the name proposed by 1-2-3.
5. (Optional) In the Comment text box, enter a comment about the scenario.
6. Select a sharing option: Unprotected, Protected, or Protected & hidden.
7. (Optional) To add a version to the scenario, select the version in the Available versions list box, and double-click the version or choose <<.
The version appears in the Selected versions list box.
8. (Optional) To remove a version from the scenario, select the version in the Selected versions list box, and double-click the version or choose >>.
The version is removed from the Selected versions list box.
9. Choose OK.

Related buttons



Displays the Create Version dialog box



Deletes a scenario



Displays the Scenario Info dialog box, letting you modify scenario comments and sharing options or add or remove versions in a scenario

See also

Help

Range Version

Version Manager Basics

User's Guide

Chapter 17, "Using Version Manager"



Scenario Info

Modifies scenario comments and sharing options; adds or removes versions in a scenario.

To modify a scenario

1. Choose Range Version.
2. In the Index: In the Sort drop-down box, select Scenario name.
3. Select the scenario.
4. Choose Info.
The Scenario Info dialog box appears.
5. To modify the comment, edit it in the Comment text box.
6. To add a version to the scenario, select the version in the Available versions list box, and double-click the version or choose <<.
The version appears in the Selected versions list box.
7. To remove a version from the scenario, select the version in the Selected versions list box, and double-click the version or choose >>.
The version is removed from the Selected versions list box.
8. To modify the sharing setting for the scenario, select a sharing option: Unprotected, Protected, or Protected & hidden.
9. Choose OK.

To modify a protected scenario

1. Choose Range Version.
2. In the Index: In the Sort drop-down box, select Scenario name.
3. Select the scenario.
4. Choose Info.
The Scenario Info dialog box appears.
5. Under Sharing options, select Unprotected.
You cannot unprotect a protected scenario in a sealed file.
6. Continue with step 5 under To modify a scenario, above.

To modify a protected & hidden version

1. Choose Range Version.
2. In the Index: In the Sort drop-down box, select Scenario name.
3. In the Shown drop-down box, select Hidden only.
You cannot show hidden versions in a sealed file.
4. Select the scenario.
5. Choose Info.
6. Under Sharing options, select Unprotected.

7. Continue with step 5 under To modify a scenario, above.

Related buttons



Displays the [Create Scenario](#) dialog box



[Deletes](#) a scenario

See also

Help

[Range Version](#)

[Scenarios Info](#) modifies scenario sharing options when more than one scenario is selected in the Index.

[Version Info](#) modifies comments, style retention, and sharing options for a single version.

[Version Manager Basics](#)

User's Guide

Chapter 17, "Using Version Manager"



Scenarios Info

Modifies scenario sharing options when more than one scenario is selected in the Index.

1. Choose Range Version.
2. In the Index: In the Sort drop-down box, select Scenario name.
3. Select the scenarios.
4. Choose Info.

The Scenarios Info dialog box appears.

5. Select a sharing option: Unprotected, Protected, or Protected & hidden.
6. Choose OK.

Related buttons



Displays the Create Scenario dialog box



Deletes a scenario

See also

Help

Range Version

Scenario Info modifies scenario comments and sharing options; adds or removes versions in a scenario.

Version Info modifies version comments, style retention, and sharing options.

Version Manager Basics

User's Guide

Chapter 17, "Using Version Manager"



Version Report

Creates reports showing selected versions and their effect on the outcome of a formula.

1. Choose Range Version.
2. In the Index: Choose Report.
The Version Report dialog box appears.
3. In the "Report on named range" drop-down box, select a range.
4. In the Versions list box, select one or more versions.
5. (Optional) To include the data for the selected versions, select the Version data check box.
6. (Optional) To include the names of the users who created and last modified the version and the date and time the version was created and last modified, select the Audit information check box.
7. (Optional) To include the effect of the selected versions on formulas in the worksheet, specify the address or name of a range that contains formulas in the "Include results for formulas from this range" text box.
8. Under Arrange data, select an option: By columns or By rows.
9. Choose OK.

1-2-3 creates a version report in a new file. 1-2-3 gives the file a unique name beginning with REPORT (for example, REPORT01.WK4).

The version report lists the name of the file, the name of the range you select, and any optional information you select in steps 5, 6, or 7.

Note If you specify a range in the "Include results for formulas from this range" text box, 1-2-3 recalculates formulas in active files.

Related buttons



Copies the information in the Index to the Clipboard.

Example

Version Report

See also

Help

Range Version

User's Guide

Chapter 17, "Using Version Manager"

Close

Example: Version Report

A	A	B	C	D
1	File	D:\123W\LESSON8.WK4		
2	Named range	SALARY (B:B8..B:D8)		
3				
4	Version name	5% Raise	Q1 Actual	Staffing Up
5	Creator	Glenn Wilder	Bob Babic	Glenn Wilder
6	Date created	04/13/93	04/10/93	04/15/93
7	Modifier	Glenn Wilder		
8	Date modified	04/15/93		
9				
10	Version cells			
11				
12	B:B8	2000	2000	2000
13	B:C8	2100	2000	2100
14	B:D8	2100	2000	2310
15				
16	Formula results			
17				
18	A:E16	25956	26156	25746



Merge Versions & Scenarios

Copies versions and scenarios from a source file into a destination file.

1-2-3 copies versions from named ranges in the source file to ranges of the same size and with the same names in the destination file.

1. Open the source file and the destination file.
2. Choose Range Version.
3. Make the destination file the active file.

To display the full path and name of the active file, click the file name button at the bottom of the Version Manager window. Click the button again to display just the file name of the active file.

4. In the Index: Choose Merge.

The Merge Versions & Scenarios dialog box appears.

5. In the From file drop-down box, select the name of the source file.
6. (Optional) To merge only versions and scenarios created on or after a particular date, enter the date in the "Modified on or after date" text box.

Enter the date in day-month-year, day-month, or long international date format.

7. (Optional) To merge only versions and scenarios created or last modified by a particular user, select the user's name in the "Last modified by" drop-down box.
8. Choose OK.

1-2-3 merges versions and scenarios from the source file into the destination file.

If 1-2-3 cannot merge any versions or scenarios that meet the criteria you specified, the Merge Results message box appears.

See also

Help

[Range Version](#)

[Sharing Files Using Version Manager](#)

User's Guide

Chapter 17, "Using Version Manager"

Merge Results

Displays the results of [Merge Versions & Scenarios](#) and copies the results to the Clipboard.

"The following items were not merged" list box contains

- A list of items in the source file that met the criteria you specified and yet were not merged into the destination file
 - The reason each item was not merged
1. (Optional) To copy the entire list to the Clipboard, choose Copy. To copy part of the list, use the mouse to select the text you want to copy, and then press CTRL+C or choose Copy.
 2. Choose OK.

Types of items

Items in the list are either named ranges, versions, or scenarios.

If a named range appears in the list, no versions of that range were merged.

Version names are given in the form "RANGE.version," where "RANGE" is the range name and "version" is the version name. For example, SALES.BestCase indicates the BestCase version of the range named SALES.

Reasons items could not be merged

Reason	Description
No matching range name	The named range in the source file does not exist in the destination file.
Different size	The named range in the source file and the corresponding named range in the destination file contain a different number of rows, columns, or sheets.
Protected	The named range in the destination file is protected.
Hidden	The version or scenario in the source file is hidden.
Contains versions not merged	The scenario in the source file contains one or more versions that could not be merged.
Already exists	A version or scenario exists in the destination file with the same name, creation date, last modified date, and last user as the version or scenario in the source file.

A version that does not meet the merge criteria is merged if it is part of a scenario that does meet the criteria.

See also

Help

[Range Version](#)
[Sharing Files Using Version Manager](#)

User's Guide

Chapter 17, "Using Version Manager"



Highlight On



Highlight Off

When highlighting is on, all ranges with versions are outlined in the worksheet.

1. Choose Highlight to turn highlighting on and off.

See also

[Range Version](#)



Tracking On



Tracking Off

When tracking is on, selecting a range or version in the Manager or showing a version in the Index navigates to and selects that range in the worksheet.

Moving the cell pointer to a named range in the worksheet selects that range in the Version Manager window; if a version is displayed in the range, that version is selected.

1. Choose Tracking to turn tracking on and off.

See also

[Range Version](#)

Sharing Files Using Version Manager

Version Manager lets you share a single file in which co-workers can enter and save data in the same range without writing over one another's work. For example, you can share an income statement projection worksheet with your co-workers, in which they enter their projections for income and expenses as versions of named ranges.

See [Sharing Files Using Lotus Notes](#) if your workgroup uses Lotus Notes.

See [Sharing Files Using a Network](#) if your workgroup does not use Lotus Notes, but has access to a network file server.

See [Sharing Files Without a Network](#) if your workgroup does not have access to a network file server.

See also

Help

[Range Version](#)

User's Guide

Chapter 17, "Using Version Manager"

Sharing Files Using Lotus Notes

To share files using Lotus Notes, create a shared file. Your co-workers can create, delete, modify, or display versions and scenarios in the shared file. More than one person can create, delete, or modify versions and scenarios in the shared file at the same time without overwriting one another's work. You can use Lotus Notes to replicate shared files among Lotus Notes servers.

To create a shared file

1. Open the file you want to share.
2. Choose Range Version and then choose Create Version to assign a name to, and create a version of, each range for which you want your co-workers to create versions.
3. Choose Style Protection to allow changes to cell contents in the named ranges.
4. Choose File Save As and do the following to save the file as a shared file:
 - a. Select the Shared file type in the File type drop-down box.
 - b. If necessary, enter the password for your Notes User ID.
 - c. Select a Notes server or your local Notes directory in the Notes servers drop-down box.
 - d. To save the shared file in a subdirectory on a Notes server, select the subdirectory in the Directories drop-down box.
 - e. Enter the file name in the File name text box.
 - f. Choose OK.
The Set Password dialog box appears.
 - g. In the Password text box, enter a password for the shared file.
 - h. In the Verify text box, enter the same password.
 - i. Choose OK.

1-2-3 protects all cells in the file that are not in an unprotected named range; seals the file using the password you entered, preventing changes to the file except in unprotected ranges; and saves the file as a shared file.

To use a shared file

1. Choose File Open and do the following to open a shared file:
 - a. Select the Shared file type in the File type drop-down box.
 - b. If necessary, enter the password for your Notes user ID.
 - c. Select a Notes server or your local Notes directory in the Notes servers drop-down box.
 - d. If the shared file is in a subdirectory on the Notes server, select the subdirectory in the Directories drop-down box.
 - e. Select the file in the Files list box.
 - f. Choose OK.
2. Choose Range Version to create, modify, delete, or display versions and scenarios in the shared file.
New versions and scenarios created by other users are marked with a star until you display them in the worksheet or choose Mark Read.
You can only create and display versions in unprotected named ranges that contain versions.
3. Choose File Save Versions to save your work.

To display new versions and scenarios in a shared file

More than one user can create versions and scenarios in a shared file at the same time. If another user creates versions or scenarios in a shared file while you are using the file:

1-2-3 beeps

The message "New versions have been posted" appears in the title bar of the Version Manager window (if it is open) or in the title bar of the 1-2-3 window

The Refresh button in the Index becomes available

1. In the Index: Choose Refresh.

1-2-3 makes all newly entered versions and scenarios available.

New versions and scenarios created by other users are marked with a star until you display them in the worksheet or choose Mark Read.

See also**Help**

Sharing Files Using Version Manager

User's Guide

Chapter 17, "Using Version Manager"

Close

Refresh

Lets you see new versions and scenarios that have been added to a shared file by other users.

Note The Refresh button appears only if Lotus Notes is installed on your computer.

In a shared file, several users may enter versions or scenarios simultaneously. If another user enters versions or scenarios in a shared worksheet file while you are using the file, Refresh makes those versions and scenarios available to you.

The Refresh button is dimmed when there are no new versions or scenarios for the shared file or when the active file is not a shared file.

Related buttons

Close

Displays the Mark Read confirmation box, letting you remove the unread indicator from all versions and scenarios in a shared file

See also

Help

[Range Version](#)

[Version Manager Basics](#)

[Sharing Files Using Version Manager](#)

User's Guide

Chapter 17, "Using Version Manager"

Close

Mark Read

Removes the unread indicator from all versions and scenarios entered by other users in a shared file.

Note The Refresh button appears only if Lotus Notes is installed on your computer.

1. Choose Mark Read.

The Mark Read confirmation box appears.

2. Choose OK.

1-2-3 removes the unread indicator from all versions and scenarios in the shared file.

Related buttons

Close

Refreshes a shared file, letting you see new versions and scenarios added to the file by other users

See also

Help

[Range Version](#)

[Version Manager Basics](#)

[Sharing Files Using Version Manager](#)

User's Guide

Chapter 17, "Using Version Manager"

Sharing Files Using a Network

To share files using a network, create a file on a network file server. Your co-workers can create, modify, delete, or display [versions](#) and [scenarios](#) in the file. Only the person with the file reservation can save changes to the file.

To share a file on a network file server

1. Open the file you want to share.
2. Choose [Range Name Add](#) to name the ranges for which you want your co-workers to create versions.
3. (Optional) Choose [Style Protection](#) to allow changes to cell contents in the named ranges, and then choose [File Protect](#) and select the Seal file [check box](#) to seal the file with a password.
The seal prevents changes to the file except in unprotected ranges.
4. Choose [File Save As](#) and select a network file server in the Drives [drop-down box](#) to save the file on the file server.

To use a file shared on a file server

1. Choose [File Open](#) and do the following to open a file shared on a network file server:
 - a. Select the network file server in the Drives drop-down box.
 - b. If the file is in a subdirectory on the file server, select the subdirectory in the Directories drop-down box.
 - c. Select the file in the Files list box.
 - d. Choose OK.

If another user has the file reservation, a message appears and you cannot save changes to the file.

Use [File Save As](#) to save the file with a different name, then use [Range Version](#) to create or modify versions and scenarios in the file. Later, when the file reservation is available, use [Merge Versions & Scenarios](#) to merge your versions and scenarios into the original file.

2. Choose [Range Version](#) to create, modify, delete, or display versions and scenarios in the shared file.
If the file is sealed, you can only create versions in unprotected named ranges.
3. Choose [File Save](#) to save your work.

See also

Help

[Sharing Files Using Version Manager](#)

User's Guide

Chapter 17, "Using Version Manager"

Sharing Files Without a Network

To share files without a network, create a file and make copies of the file for your co-workers. Your co-workers can use [Range Version](#) to enter [versions](#) and [scenarios](#) in their copies of the file.

After your co-workers return their copies of the file, use [Merge Versions & Scenarios](#) to copy the new versions and scenarios into your copy of the file.

To share a file without a network

1. Open the file you want to share.
2. Choose [Range Name Add](#) to name the ranges for which you want your co-workers to create alternatives.
3. (Optional) Choose [Style Protection](#) to allow changes to cell contents in the named ranges, and then choose [File Protect](#) and select the Seal file [check box](#), to seal the file with a password.

The seal prevents changes to the file except in unprotected ranges.

4. Choose [File Save](#) to save the file.

See also

Help

[Sharing Files Using Version Manager](#)

User's Guide

Chapter 17, "Using Version Manager"

Close

ALT+C

Displays the Create Version dialog box, so you can create versions of ranges.

Named range ALT+R

Lists the named ranges in the current file that have versions.

With version(s) ALT+V

Lists the versions for the selected named range.

Close

ALT+U

Updates the selected version(s) with the current styles and values in the worksheet.

Close

ALT+I

Displays the Version Info dialog box, so you can change the comment, style retention, and sharing options for the selected version.

Close

ALT+I

Depending on the selection, displays one of the following dialog boxes:

Selection	Dialog box
One version	<u>Version Info</u> changes the comment, style retention, and sharing options for the selected version.
More than one version	<u>Versions Info</u> changes the style retention and sharing options for the selected versions.
One scenario	<u>Scenario Info</u> changes the comment and sharing options, and adds or removes versions in the selected scenario
More than one scenario	<u>Scenarios Info</u> changes the sharing options for the selected scenarios.

Close

ALT+D

Deletes the selected version(s) or scenario(s).



ALT+L

Closes Version Manager.

Close

ALT+T

Changes from the Manager to the Index.

LESSON8.WK4

Displays the name of the current file. Click to display the full path of the current file.

Highlight ALT+H



Indicates Highlight mode is on.



Indicates Highlight mode is off.

Tracking ALT+K



Indicates Tracking mode is on.



Indicates Tracking mode is off.



Indicates a version currently displayed in the worksheet.



Indicates that new data has been entered in the range since this version was displayed.

Displaying a version in this range writes over the new data. To avoid losing data, use Create Version or Update Version.

To prevent accidentally writing over data, 1-2-3 displays the Show Version or Show Scenario dialog box if displaying a version or scenario would write over unsaved data. If you deselect "Confirm drag-and-drop" in the Tools User Setup dialog box, 1-2-3 does not display the Show Version or Show Scenario dialog box, even when displaying a version or scenario would write over unsaved data.

Note When two or more ranges that overlap contain versions, this indicator will always appear next to the currently displayed version in one of the ranges.

Control menu box

Displays the Control menu for the Version Manager window.

Minimize button

Minimizes Version Manager to an icon.

collapse/expand ALT+GRAY PLUS



Indicates the listing in the Index is expanded.



Indicates the listing in the Index is collapsed.

Range name Sort

ALT+O

Lists the different views available in the Index: Range name, Version name, Scenario name, Date, Contributor name.

All Shown

ALT+N

Lists criteria to select the versions or scenarios that appear in the Index: All, Current versions, New only, Protected only, Hidden only, Unsaved versions.

Close

ALT+A

Copies the information in the Index to the Clipboard.

show/hide comment ALT+E



Displays the comment for the selected version or scenario.



Hides the comment.

object list

The object list displays a hierarchical list of versions and scenarios in the current file.

selected object(s)

Selected versions or scenarios are displayed in white text on a blue background. To select a version or scenario, click it in the Index. To select multiple versions or scenarios, use CTRL+click or SHIFT+click.

current version(s)

The names of versions that are currently displayed in the worksheet are displayed in blue text in the Index. A checkmark appears to the left of any current version.

If new data has been entered in the worksheet in a range with a current version, the version's name is displayed in blue italic text, and a checkmark with a red line through it appears to the left of the version.

To show a version, double-click it in the Index, or select it and then choose Show.

vertical scroll bar

Use the arrows and scroll bar to scroll the Index up and down.

horizontal scroll bar

Use the arrows and scroll bar to scroll the Index right and left.

Close

ALT+W

Shows the currently selected versions or scenarios in the worksheet.

Close

ALT+S

Displays the Create Scenario dialog box, so you can group versions into a scenario.

Close

ALT+P

Displays the Version Report dialog box, so you can create a report containing information about the versions of a named range.



ALT+M

Displays the Merge Versions & Scenarios dialog box, so you can copy versions and scenarios from a source file into a destination file.

Close

ALT+T

Changes from the Index to the Manager.

field names

Displays the names of the fields in the object list.

top level item

Top level items in the object list are displayed in boldface. The top level item for each sort is displayed in the sort selector.

vertical scroll bar

Use the arrows and scroll bar to scroll the comment up and down.

comment box

Displays the comment for the selected version. Resizing the Manager vertically resizes the comment box.

help button

Displays help for Version Manager.

title bar

Drag the title bar to move the Version Manager window.

Show Version

Prompts you when displaying a version in a range would write over data in that range that has not been saved as a version.



Indicates that new data has been entered in the range since this version was displayed.

Displaying a version in this range writes over the new data.

1. Select an option.

- OK displays the version, writing over the data in the range.
- Cancel cancels the operation, letting you save the data in the range as a version. Use [Create Version](#) to save the data in a new version or [Update Version](#) to save the data in the last version you displayed in the range.

Note To prevent accidentally writing over data, 1-2-3 displays the Show Version dialog box if displaying a version would write over unsaved data. If you deselect "Confirm drag-and-drop" in the [Tools User Setup](#) dialog box 1-2-3 does not display the Show Version dialog box, even when displaying a version in a range would write over unsaved data.

See also


[Range Version Manager](#)

[Show](#)

[Show Scenario](#)

Show Scenario

Prompts you when displaying a scenario would write over data in one or more ranges that has not been saved as a version.

 Indicates that new data has been entered in a range since this version was displayed. Displaying a scenario that includes a version of this range writes over the new data.

1. Select an option.

- OK displays the scenario, writing over the data in the range(s).
- Cancel cancels the operation, letting you save the data in each range as a version. Use [Create Version](#) to save the data in a new version or [Update Version](#) to save the data in the last version you displayed in the range.

Note To prevent accidentally writing over data, 1-2-3 displays the Show Scenario dialog box if displaying a scenario would write over unsaved data. If you deselect "Confirm drag-and-drop" in the [Tools User Setup](#) dialog box 1-2-3 does not display the Show Scenario dialog box, even when displaying a scenario in a range would write over unsaved data.

See also

[Range Version Manager](#)

[Show](#)

dBASE and SQL Command Equivalents

To see the dBASE IV command and the equivalent command you use with the 1-2-3 {SEND-SQL} macro command, select a cross-reference or definition.

Note You must connect to one database table before issuing {SEND-SQL} statements. You need to make the connection only once; you can use any database and table name. It is not required to connect to each database and/or table referred to by subsequent {SEND-SQL} statements.

Database Tasks

[Create Table](#)

[Drop Table](#)

[Create Index Ascending/ \[Unique\] / Expression](#)

[Drop Index](#)

[Select](#)

[Select Clauses](#)

[Add records](#)

[Delete a record](#)

[Update a record](#)

[Scale for Float fields](#)

[Table Join](#)

[PACK](#)

Expressions

[Logical operators](#)

[Arithmetic operators](#)

[Functions in expressions](#)

[Aggregates](#)

[Functions](#)

See also

Help

[{COMMIT}](#)

[{ROLLBACK}](#)

[{SEND-SQL}](#)

[Tools Database Send Command](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Select Clauses

Where clause (including expressions and NULL recognition)

Where In

Group by clause

Having clause

Order by clause

For update clause

Union operator

Create Table

dBASE IV command:

```
CREATE tablename etc.
```

{SEND-SQL} command:

```
CREATE TABLE tablename (last_name CHAR (20),Pay NUMERIC(10,2), hire_date DATE, rank  
FLOAT(10,2), married LOGICAL, history MEMO)
```

Note: The first number in the definitions of NUMERIC and FLOAT fields is the number of integer digits. The second number is the number of decimal places. This is not an overall length with decimal specification as in dBASE. If no decimal places are involved, a length of 20 may be specified for NUMERIC and FLOAT fields. If there are decimal places, the combined number of integer and decimal places may not exceed 19.

Drop Table

dBASE IV command:

ERASE tablename

{SEND-SQL} command:

DROP TABLE tablename

Create Index Ascending/ [Unique] / Expression

dBASE IV command:

USE file1

INDEX ON <expression> [TO <index file>] / [TAG <index tag>]

{SEND-SQL} command:

CREATE [UNIQUE] INDEX index ON emp(empid)

Drop Index

dBASE IV command:

ERASE [<index file>] or DELETE TAG <tag name>

{SEND-SQL} command:

DROP index ON c:\dir1\emp

Scale for FLOAT fields

dBASE IV command:

<same as numeric decimal places>

{SEND-SQL} command:

See Create Table

Delete a record

dBASE IV command:

```
USE file1
```

```
DELETE ... FOR <condition>
```

{SEND-SQL} command:

```
DELETE FROM emp [(options,index) alias] WHERE empid='E100'
```

Note The index is used only to make the DELETE more efficient. Index files are not updated by the DELETE statement since records are only marked for deletion. To physically delete records see PACK.

Update a record

dBASE IV command:

```
USE file1
```

```
REPLACE <field> with <expression> [... ] FOR <condition>
```

{SEND-SQL} command:

```
UPDATE emp [(options,index) alias] SET lastname="Abel", pay=123.45*2, hire_date={4/6/91},  
married=T, rank=100 , history= "This is a loong message" [WHERE expression>]
```

Note Expression includes dBASE ROWID. The equivalent to the dBASE RECNO() is ROWID; for example, the dBASE command WHERE RECNO()=5 is equivalent to the {SEND-SQL} command WHERE ROWID=5.

Add records

dBASE IV command:

```
USE file1
```

```
APPEND
```

{SEND-SQL} command:

```
INSERT INTO emp [(options,index) alias] [(lastname, pay, hire_date, married, rank , history)  
VALUES ("Abel", 123.45, {4/6/91}, T, 100, "This is a loong message")
```

Table Join

dBASE IV command:

```
SELECT B
USE dept INDEX indexa
SELECT A
USE emp
SET RELATION TO <expression> INTO file2
```

{SEND-SQL} command:

```
SELECT deptid, last FROM dept [(options,index) [alias]], emp [options, index] [alias] WHERE
dept.deptid=emp.empid
```

Select

dBASE IV command:

```
USE emp  
DISPLAY ALL lastname, firstname for salary > 1000
```

{SEND-SQL} command:

```
SELECT [DISTINCT] Lastname[, aggregate], FROM STUDENTS [(options,index) alias] WHERE  
Student_no =1234 [select clauses]
```

PACK

dBASE IV command:

```
PACK c:\data\emp
```

Note: PACK physically removes records previously marked for deletion by the DELETE command. Index files (.NDX) are not maintained by the PACK command, only .MDX indexes. To maintain .NDX indexes, you must issue the PACK command in a dBASE environment.

Designating an Index

Designate the index in one of two ways (assuming that the dBASE IV database file is emp.dbf):

- To create a tag in the dBASE .MDX file
(/empid)
- If dBASE II or dBASE III database file:
(c:\data\empid.ndx[/USE])

Note /USE is not used for CREATE INDEX or DROP INDEX

Note If no .MDX file exists, one is created automatically when the first /TAG is created.

If no index TAG is specified and a WHERE clause is specified with one or more conditions, dBASE selects one TAG or .NDX file to optimize the search. If no ORDER BY clause is specified, the result set is returned in the order of the optimizing index.

To explicitly specify an index to be used for optimization, type /USE after an .NDX file, or specify a TAG explicitly.

There is no optimized processing in dBASE II or dBASE III if the .NDX file is not specified.

Specify all .NDX files (including drive and directory if other than the default directory) that should be associated with a database file to assure indexes are synchronized with their database files.

Options

(COMPATIBILITY= ANSI | DBASE,
CHARSET=ANSI | IBMPC,
RECORDS=DELETED | UNDELETED,
LOCKING=NONE | RECORD | FILE,
[path]index) alias (see above)

Compatibility

For the COMPATIBILITY option ANSI, SELECT ... WHERE returns only full field exact matches. For example:

```
SELECT * FROM emp WHERE LASTNAME="S"
```

returns only those records with the full LASTNAME of "S." 'Smith' or "SMITH" is returned. The opposite is true if the option is DBASE instead of ANSI.

Sorting of NULL values is different for each of the two options.

Data Type	dBASE	ANSI
number	Sorted as 0	Placed at front
date	Sorted as largest date	Placed at front
logical	Sorted as .F.	Placed at front
character	Sorted as blanks	Placed at front

Sorting of BLANK values is different for each of the two options for field X:

Data Type	dBASE	ANSI
number	X = 0	X is NULL
date	X = { / / }	X is NULL
logical	X = .F.	X is NULL
character	X = ' '	X is NULL

Expressions containing null values are different for each of the two options:

dBASE treats BLANKS as 0; ANSI always returns the null value.

For example, given the expression AMOUNT * 1.1 where AMOUNT is BLANK (after a new record has been added where no value is supplied for AMOUNT), dBASE compatibility resolves to 0; ANSI resolves to NULL.

For Date expressions involving a null value where the field hire_date is blank:

Expression	dBASE	ANSI
hire_date - {01/01/89}	0	NULL
hire_date + 10	0	NULL
hire_date - 10	blank	NULL

For Logical expressions, dBASE treats blank values as .F.; ANSI as NULL

For ANSI following are rules for AND and OR with NULL expressions:

Expression	Result
TRUE AND NULL	NULL
FALSE AND NULL	FALSE
TRUE OR NULL	TRUE
FALSE OR NULL	NULL

NULL AND/OR NULL NULL

Where Clause

dBASE IV command:

... FOR <expression>

{SEND-SQL} command:

DELETE ..., UPDATE ..., INSERT ..., SELECT ... [WHERE expression or [function]]

Where In Clause

{SEND-SQL} command:

```
SELECT Lastname FROM STUDENTS [(options,index) alias] WHERE Student_no IN  
(SELECT Student_no FROM Enrolls [(options,index) alias] Where Course_no = "201")
```

Group By Clause

dBASE IV command:

```
REPORT ... Summary
```

{SEND-SQL} command:

```
SELECT ... GROUP BY <col_expr>[,...]
```

Note col_expr can be one or more field names separated by a comma. Returns one record for each distinct value in the field. For example, SELECT dept_id [,aggregate] FROM emp GROUP BY dept_id

Having Clause

Allows conditions based on the aggregate value.

dBASE IV command:

```
REPORT... Summary
```

{SEND-SQL} command:

```
SELECT ... HAVING <conditions>
```

Note An example of a condition in the SELECT ... HAVING statement is SUM(salary). For example, SELECT dept_id, SUM(salary) FROM emp GROUP BY dept_id HAVING SUM(salary)>200000.

Order By Clause

dBASE IV command:

```
USE emp INDEX empid  
DISPLAY empid,lastname
```

{SEND-SQL} command:

```
SELECT ... ORDER BY <sort expr >[DESC|ASC]
```

Note <sort expression> can be any field name, expression or column number.

The default sort order in SELECT ... ORDER BY is Ascending.

For Update Clause

dBASE IV command:

no command language equivalent

{SEND-SQL} command:

SELECT ... FOR UPDATE OF column[,...]

Union Operator

dBASE IV command:

no command language equivalent

{SEND-SQL} command:

SELECT set1 UNION [ALL] SELECT set2

Note The "ALL" clause causes duplicate records to be returned.

Logical Operators

	dBASE IV command	{SEND-SQL} command
AND	.AND.	AND
OR	.OR.	OR
NOT	.NOT.	NOT
Equal	=	=
Not equal	<>	<>, !=, #
Less than	<	<
Greater than	>	>
Less than or equal	<=	<=, !>
Greater than or equal	>=	>=, !<
Between	>= <x>. AND. <= <y>	BETWEEN
Is null		IS NULL
Is not null		IS NOT NULL
Wildcard		LIKE "xx%" NOT LIKE "xx %"
String concatenation	+	+
String concatenation (move trailing blanks to end)	-	-

Arithmetic Operators

	dBASE IV command	{SEND-SQL} command
Addition	+	+
Subtraction	-	-
Multiplication	*	*
Division	/	/
+ unary operator		+
- unary operator		-
Exponentiation	**	** , ^

Functions in Expressions

	dBASE IV command	{SEND-SQL} command
IF	IIF()	IIF()
Modulus	MOD(n1,n2)	MOD(n1,n2)
Left part of string	LEFT('string',n)	LEFT('string',n)
Middle part of string	SUBSTR('string',n1,n2)	SUBSTR('string',n1,n2)
Right part of string	RIGHT('string',n)	RIGHT('string',n)
Length of string	LEN('string')	LEN('string')
Lowercase of string	LOWER('string')	LOWER('string')
Uppercase of string	UPPER('string')	UPPER('string')
Trim leading spaces from string	LTRIM('string')	LTRIM('string')
Trim trailing spaces from string	RTRIM('string')	RTRIM('string')
Convert a string to a number	VAL('nstring')	VAL('nstring')
Convert a number to	STR(n1,n2,n3)	STR(n1,n2,n3)

a string		
Generate a string of blanks	SPACE(n1)	SPACE(n1)
Day of date	DAY(mm/dd/yy)	DAY({mm/dd/yy})
Month of date (number)	MONTH(mm/dd/yy)	MONTH({mm/dd/yy})
Year of date (number)	YEAR(mm/dd/yy)	YEAR({mm/dd/yy})
Today's date	DATE()	DATE()
Convert a string to a date	CTOD("mm/dd/yy")	CTOD('mm/dd/yy',n1)
Convert a date to a string with separators	DTOC(mm/dd/yy)	DTOC({mm/dd/yy},n1,'x1')
Convert a date to a string with no separators		DTOS({mm/dd/yy})

Note In the SUBSTR() function, n1 is the starting position in the string. For {SEND-SQL} dBASE, the first character is character 1. For 1-2-3, the first character is character 0. n2 is the number of characters to be selected.

Use LEN(TRIM(charfield1)) instead of LEN(charfield1) to get the length of the data rather than the length of the field with trailing spaces.

When using LOWER and UPPER, if you choose COMPATIBILITY=dBASE on the SELECT statement, characters with accent marks are not changed. To change the case of such characters, choose the default, COMPATIBILITY=ANSI.

In the STR() function, n1 is the number to be converted. n2 is the total number of characters to display, including the decimal point. n3 is optional and denotes the number of decimal places for the STR() function.

The {SEND-SQL} dBASE YEAR() function produces a 4-digit year. YEAR() is equivalent to the dBASE command SET CENTURY ON.

The n1 argument is optional in the {SEND-SQL} CTOD() function. If it is not present, 'mm/dd/yy' is converted to {mm/dd/yy}. If it is present, it accepts the date in European format 'dd/mm/yy' and returns {mm/dd/yy}.

The n1 argument in the {SEND-SQL} DTOC() function determines the format of the date returned as follows:

n1	date format
0	'mm/dd/yy'
1	'dd/mm/yy'
2	'yy/mm/dd'
10	'mm/dd/yyyy'
11	'dd/mm/yyyy'
12	'yyyy/mm/dd'

The x1 argument is optional and represents the date separator character, for example "/" or "-".

The DTOS() function converts {mm/dd/yy} to YYYYMMDD.

Aggregates

	dBASE IV command	{SEND-SQL} command
Minimum value	CALCULATE MIN(expression) FOR <expression>	MIN(expression)
Maximum value	CALCULATE MAX(expression) for <expression>	MAX(expression)
Average value	CALCULATE AVG(expression) FOR <expression>	AVG(numeric expression)
Sum of values	CALCULATE SUM(expression) FOR <expression>	SUM(numeric expression)
Count of values	CALCULATE CNT(expression) FOR <expression>	COUNT(colname)/COUNT(*)

Note {SEND-SQL} MIN() and MAX() functions return the lowest and highest values for all data types except LOGICAL or MEMO. @MIN() and @MAX() for 1-2-3 and MIN and MAX for dBASE return the lowest and highest value in a list, respectively. For all types except VALUE the result is 0.

{SEND-SQL} dBASE COUNT() returns the number of non-null and nonblank values for all data types except LOGICAL.. {SEND-SQL} dBASE COUNT(*) returns the count of rows in the set, including those rows with null values.

See also

Help

[Compatibility.](#)

Functions

	dBASE IV command	{SEND-SQL} command
No duplicate rows	SET UNIQUE ON USE file1 INDEX... DISPLAY ...	SELECT DISTINCT
Left outer join		=*
Right outer join		*=
Saved statements	.prg files executed as "do prog"	{SEND-SQL "SQL"} executed as a 1-2-3 macro command
Native statements	all dBASE commands	{SEND-SQL " "}
Transaction rollback	BEGIN TRANSACTION ROLLBACK files	ROLLBACK [driver-name, database-name]
Transaction commit	BEGIN TRANSACTION END TRANSACTION	begin transaction end transaction COMMIT [driver name, database name]

Note DISTINCT may also be used in aggregate components of the SELECT statement, for example COUNT(DISTINCT empid).

Lotus's implementation of left and right outer joins preserve rows for those join value no-matches on the right and left, respectively. {SEND-SQL} dBASE outer joins match null values on the right and left.

In 1-2-3, for both {COMMIT} and {ROLLBACK}, you must either supply both the driver and database name or supply neither. If you supply neither, all pending transactions for all drivers and databases are committed or rolled back, respectively.

Tools Draw Commands

Add drawn objects, including text blocks and macro buttons, to the worksheet.

Line

Draws a single straight line.

Polyline

Draws a multi-sided, open shape with straight line segments, freehand line segments, or both.

Arrow

Draws a single straight line with an arrowhead.

Rectangle

Draws a rectangle or a square.

Rounded Rectangle

Draws a rounded rectangle or rounded square.

Arc

Draws an arc.

Ellipse

Draws an ellipse or a circle.

Polygon

Draws a multi-sided, closed shape with straight line segments, freehand line segments, or both.

Freehand

Draws a freehand object.

Text

Draws a text block.

Button

Draws a macro button from which you can run a macro.

See also

[Bringing Pictures into 1-2-3](#)

[Copying Drawn Objects](#)

[Deleting Drawn Objects](#)

[Edit Arrange Commands](#) to manipulate drawn objects

[Moving Drawn Objects](#)

[Sizing Drawn Objects](#)

[Style Commands](#) to style drawn objects

Tools Draw Line

Draws a single straight line.

1. Choose Tools Draw Line.
2. Move the mouse pointer to where you want to begin drawing the line.
3. Drag across the worksheet.
To draw a horizontal, vertical, or 45-degree line, hold down SHIFT as you drag.
4. Release the mouse button.

Related SmartIcons

Close

Equivalent to choosing Tools Draw Line

See also

Help

Edit Arrange Commands to manipulate a drawn object

Style Lines & Color to add arrow heads, and change the line width, style, and color

Tools Draw Commands

User's Guide




Chapter 16, "Working with Graphics"

Tools Draw Polyline

Draws an open shape with straight or freehand line segments.

1. Choose Tools Draw Polyline.
2. Move the mouse pointer to where you want to begin drawing the first line segment.
3. To draw a straight line segment, drag across the worksheet.
To draw a straight horizontal, vertical, or 45-degree line segment, hold down SHIFT and drag.
To draw a freehand line segment, hold down CTRL and drag.
4. Release the mouse button where you want the line segment to end.
5. Drag, or hold down CTRL and drag, and release the mouse button for every additional line segment.
6. Double-click to complete the polyline.

Related SmartIcons

	Equivalent to choosing Tools Draw Polyline
	Draws a line
	Draws a polygon

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Style Lines & Color](#) to add arrow heads, an interior color and pattern, and to change the line width, style, and color

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"



Tools Draw Arrow

Draws a single straight line with an arrowhead.

1. Choose Tools Draw Arrow.
2. Move the mouse pointer to where you want to begin drawing the arrow.
3. Drag across the worksheet.
To draw a horizontal, vertical, or 45 degree line, hold down SHIFT and drag.
4. Release the mouse button.

The arrowhead appears at the point where you release the mouse button.

Related SmartIcons

	Equivalent to choosing Tools Draw Arrow
	Draws a double-headed arrow

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Style Lines & Color](#) to add more arrow heads, an interior color and pattern, and to change the line width, style, and color

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Rectangle

Draws a rectangle or a square.

1. Choose Tools Draw Rectangle.
2. Move the mouse pointer to where you want to begin drawing the rectangle or square.
3. To draw a rectangle, drag across the worksheet.
To draw a square, hold down SHIFT as you drag.
4. Release the mouse button when the rectangle or square is the size you want.

Related SmartIcons

Close

Equivalent to choosing Tools Draw Rectangle

Close

Draws a rounded rectangle or rounded square

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Style Lines & Color](#) to change the line width, style, and color, and to add an interior color and pattern

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Rounded Rectangle

Draws a rounded rectangle or rounded square.

1. Choose Tools Draw Rounded Rectangle.
2. Move the mouse pointer to where you want to begin drawing the rounded rectangle or rounded square.
3. To draw a rounded rectangle, drag across the worksheet.
To draw a rounded square, hold down SHIFT and drag across the worksheet.
4. Release the mouse button when the rounded rectangle or square is the size you want.

Related SmartIcons

Close

Equivalent to choosing Tools Draw Rounded Rectangle

Close

Draws a rectangle or square

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Style Lines & Color](#) to change the line width, style, and color, and to add an interior color and pattern

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Arc

Draws an arc.

1. Choose Tools Draw Arc.
2. Move the mouse pointer to where you want to begin drawing the arc.
3. Drag across the worksheet to where you want the arc to appear, in the direction you want the arc to curve.
4. Release the mouse button.

Related SmartIcons

Close

Equivalent to choosing Tools Draw Arc

See also

Help

Edit Arrange Commands to manipulate a drawn object

Style Lines & Color to add arrow heads, an interior color and pattern, and to change the line width, style, and color

Tools Draw Commands

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Ellipse

Draws an ellipse or a circle.

1. Choose Tools Draw Ellipse.
2. Move the mouse pointer to where you want to begin drawing the ellipse or circle.
3. Drag across the worksheet.
To draw a circle, hold down SHIFT and drag across the worksheet.
4. Release the mouse button when the ellipse or circle is the size you want.

Related SmartIcons

Close

Equivalent to choosing Tools Draw Ellipse

See also

Help

Edit Arrange Commands to manipulate a drawn object

Style Lines & Color to change the line width, style, and color, and to add an interior color and pattern

Tools Draw Commands

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Polygon

Draws a multi-sided, closed shape composed of straight line segments, freehand line segments, or both.

1. Choose Tools Draw Polygon.
2. Move the mouse pointer to where you want to begin drawing the first line segment.
3. To draw a straight line segment, drag across the worksheet.
To draw a straight horizontal, vertical, or 45 degree line segment, hold down SHIFT and drag.
To draw a freehand line segment, hold down CTRL and drag.
4. Release the mouse button where you want the line segment to end.
5. Drag, or hold down CTRL and drag, and release the mouse button for every additional line segment.
6. Double-click to complete the polygon.
You do not have to draw the last line segment. 1-2-3 automatically connects the last line segment you draw with the first.

Related SmartIcons



Equivalent to choosing Tools Draw Polygon



Draws an open shape with straight or freehand line segments

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Style Lines & Color](#) to change the line width, style, and color, and to add an interior color and pattern

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Freehand

Draws a freehand object.

1. Choose Tools Draw Freehand.
2. Move the mouse pointer to where you want to begin the freehand drawing.
3. Drag across the worksheet.
4. Release the mouse button where you want the drawing to end.

Related SmartIcons

Close

Equivalent to choosing Tools Draw Freehand

Close

Draws a line

Close

Draws an open shape with straight or freehand line segments

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Style Lines & Color](#) to add arrow heads, an interior color and pattern, and to change the line width, style, and color

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Text

Adds a text block on the worksheet. You can type text directly in the block, cut or copy it from the text block to the [Clipboard](#), and paste it in from the Clipboard.

1. Choose Tools Draw Text.
2. Move the [mouse pointer](#) to where you want to begin the text block.
3. Do one of the following:
 - To create the text block in the default size, [click](#) the worksheet.
 - To size the text block, [drag](#) across the worksheet and release the mouse button when the text block is the size you want.

The text block appears with a blinking insertion point in the top left corner.

4. Enter text by typing or by pasting it in.
5. When you finish entering text, click the worksheet.

To edit text

1. [Double-click](#) the text block.
2. Edit the text.
3. When you finish editing text, click the worksheet.

To change the appearance of a text block

1. Select the [text block](#).
2. Choose [Style Font & Attributes](#) to change the typeface of the text in the block.
3. Choose [Style Lines & Color](#) to apply color and lines to the text block.

Note When you style text in a text block, you can apply only one typeface, size, attribute, and color to all of the text. Use Style Font & Attributes, Style Lines & Color, or SmartIcons.

Related SmartIcons



Equivalent to choosing Tools Draw Text



Applies color and lines to a selection



Changes the font and attributes of data in a selection

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Draw Button

Draws a macro button on the worksheet, which, when you click it, runs the assigned macro.

1. Choose Tools Draw Button.
2. Move the mouse pointer to where you want the macro button to appear.
3. Do one of the following:
 - To create the macro button in the default size, click the worksheet.
 - To size the macro button, drag across the worksheet and release the mouse button when the macro button is the size you want.

The Assign to Button dialog box appears.

4. To assign a macro to run from a range:
 - Select Range in the Assign macro from drop-down box.
 - Select the macro name from the Existing named ranges list box or enter the macro name or address in the Range text box.

The Existing named ranges list box displays all range names in the current file.

5. To assign a macro to run from commands in the button:
 - Select Button in the Assign macro from drop-down box.
 - Enter the macro in the "Enter macro here" text box.

You can type in macro commands and paste recorded macro commands copied from the Transcript window.

6. To display a label on the button, other than the default label "Button," enter the label in the "Button text" text box.
7. Choose OK.

If you do not assign a macro in steps 4 or 5 you can assign one later or modify an existing one using Tools Macro Assign to Button.

To run a macro with a button

1. Make sure the worksheet containing the button is the current worksheet. If the macro is in a range, make sure the file containing that range is active.
2. Click the button.

Related SmartIcons



Equivalent to choosing Tools Draw Button



Runs a macro

See also

Help

Edit Arrange Commands to manipulate a drawn object

Style Font & Attributes to apply a font and attributes to data in a selection

Tools Draw Commands

Transcript Make Button to create a macro button from recorded commands

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Bringing Pictures into 1-2-3

You can bring a picture from another program into 1-2-3 and manipulate it the same way you manipulate other drawn objects.

For example, you can create or edit a picture with Windows Paintbrush, copy it to the Clipboard, paste it onto your worksheet, and then select, move, copy, size, or delete it. As with any drawn object, you can paste a picture onto a drawn object or a chart.

1. Make sure the Clipboard contains a copy of the picture.
2. Click the worksheet where you want to place the top left corner of the picture.

If you paste the picture on a drawn object or chart, 1-2-3 places the top left corner of the picture over the top left corner of the drawn object or chart.

3. Choose Edit Paste.

Related SmartIcons

Close

Pastes the contents of the Clipboard

See also

Help

[Copying Drawn Objects](#)

[Deleting Drawn Objects](#)

[Edit Arrange Commands](#) to manipulate a drawn object

[Moving Drawn Objects](#)

[Sizing Drawn Objects](#)

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Moving Drawn Objects

You can move a drawn object to another location on the worksheet, to another worksheet in the file, or to another file.





To move drawn objects within 1-2-3

1. Select one or more drawn objects.
2. Drag a drawn object by any part except the handles.
For multiple drawn objects, position the mouse pointer over any one of the selected drawn objects.
3. Release the mouse button when the object is where you want it.
To move your selection to a portion of the worksheet that is not visible, move the mouse pointer to the edge of the worksheet to scroll through the worksheet.

To move drawn objects to another worksheet

1. Select one or more drawn objects.
2. Choose Edit Cut.
3. Select a cell, drawn object, or chart in the worksheet where you want to put the object.
4. Choose Edit Paste.

Related SmartIcons

	Cuts a selection to the Clipboard
	Pastes the contents of the Clipboard
	Selects all drawn objects
	Selects several drawn objects

See also

Help

[Copying Drawn Objects](#)
[Deleting Drawn Objects](#)
[Edit Arrange Commands](#) to manipulate a drawn object
[Tools Draw Commands](#)
[Using Drag-and-Drop to Copy Data from 1-2-3 to Other Applications](#)
[Using Drag-and-Drop to Move and Copy Data Within 1-2-3](#)

User's Guide

Chapter 16, "Working with Graphics"

Sizing Drawn Objects

You can change the size of a drawn object.

1. Select one or more drawn objects.
2. Drag a handle in the direction you want to size the object. For multiple drawn objects, dragging one handle in a given direction sizes all selected objects in that direction.

For example, if you want to make a rectangle wider on its right side, drag one of the right edge handles to the right; the left edge remains anchored. If you want to make it narrower, drag the right edge handle to the left. The height does not change. To simultaneously change the height and width, drag a corner handle.

3. To size an object proportionally, hold down SHIFT and drag a corner handle in the direction you want to size the object.
4. Release the mouse button when the object is the size you want.

Related SmartIcons



Selects all drawn objects



Selects several drawn objects

See also

Help

[Edit Arrange Commands](#) to manipulate a drawn object

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Copying Drawn Objects

You can copy a drawn object to another location in the worksheet, to another worksheet in the file, or to another file.

1. Select one or more drawn objects.
2. Choose Edit Copy.
3. Select a cell, drawn object, or chart in the worksheet where you want to paste the object.
4. Choose Edit Paste.

Note You can also press INS to create a duplicate of a selected drawn object.

Related SmartIcons



Copies a selection to the Clipboard



Pastes the contents of the Clipboard



Selects all drawn objects



Selects several drawn objects

See also

Help

[Deleting Drawn Objects](#)

[Edit Arrange Commands](#) to manipulate a drawn object

[Moving Drawn Objects](#)

[Tools Draw Commands](#)

[Using Drag-and Drop to Copy Data from 1-2-3 to Other Applications](#)

User's Guide

Chapter 16, "Working with Graphics"

Deleting Drawn Objects

You can delete drawn objects.

1. Select one or more drawn objects.
2. Choose Edit Clear or press DEL.

Note When you delete a drawn object using Edit Clear or DEL, 1-2-3 does not save the object to the Clipboard. Choose Edit Cut to remove a drawn object and save it to the Clipboard.

Related SmartIcons



Selects all drawn objects



Selects several drawn objects

See also

Help

[Copying Drawn Objects](#)

[Edit Arrange Commands](#) to manipulate a drawn object

[Moving Drawn Objects](#)

[Tools Draw Commands](#)

User's Guide

Chapter 16, "Working with Graphics"

Tools Database

Lets you query databases and manipulate data in database tables.

New Query

Creates a query table, which contains the records you extract from a database table.

Find Records

Locates records in a 1-2-3 database table that meet criteria you specify.

Delete Records

Deletes the records from a database table that meet criteria you specify.

Append Records

Adds new records to a database table.

Form

Connects with Lotus Approach and creates a form for viewing and changing records in a 1-2-3 database table; this command works only if Lotus Approach release 3 or later is installed.

Report

Connects with Lotus Approach and creates a report about records in a 1-2-3 database table; this command works only if Lotus Approach release 3 or later is installed.

Dynamic Crosstab

Connects with Lotus Approach and creates a dynamic crosstab from data in a 1-2-3 database table. A dynamic crosstab is like a pivot table that lets you reorganize your data by simply dragging. This command works only if Lotus Approach release 3 or later is installed.

Mailing Labels

Connects with Lotus Approach and creates mailing labels from records in a 1-2-3 database table; this command works only if Lotus Approach release 3 or later is installed.

Crosstab

Creates a cross-tabulation table.

Connect to External

Establishes a connection to an external database table so you can use the table with other 1-2-3 commands.

Disconnect

Disconnects an external table, ending all data exchange between 1-2-3 and the external table.

Create Table

Sets up the structure for a new table in an external database

Send Command

Sends a command to an external database.

See also

Help

1-2-3 Commands

Database Basics

Query Commands

Tools Commands

Tutorial

Lesson 7, "Using a Database"

Tools Database New Query

Creates a query table, which contains the records you extract from a database table.

1. Choose Tools Database New Query.
2. If the table you want to query is an external table or a named table, press F3 and select the name of the table you want to query. To query an unnamed table, specify the range that contains the table.
If you want to query an external table to which you are not connected, choose External.
3. (Optional) Select Choose Fields to determine which fields you want to appear in the query table, and in what order.
4. (Optional) Select Set Criteria to determine which records will appear in the query table.

When you query an external table, 1-2-3 limits the number of records in the query table to the first 25 that meet the criteria you specify. Use Set Criteria to change the limit.

5. Specify the location of the query table.

Caution 1-2-3 writes over any existing data in the range.

The query table cannot overlap the database table.

If you specify the top left cell of a range, the query table will contain as many fields and records as will fit in the worksheet.

If you specify a range, 1-2-3 displays only the records and fields that fit in that range.

For example, if you specify a range of five columns by ten rows, 1-2-3 displays the first five fields and the first ten records in the order in which they appear in the database table.

If you subsequently resize the query table to be larger, 1-2-3 displays the additional fields and records.

6. Choose OK.

See also

Help

[Tools Database](#)

[Query Set Database Table](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Tools Database Find Records

Locates records in a 1-2-3 database table that meet criteria you specify.

1. Select the range that contains the database table.
2. Choose Tools Database Find Records.
3. Specify a criterion for the records you want to find.
4. To further limit the records to find, choose And and repeat step 3.
5. To expand the number of records to find, choose Or and repeat step 3.
6. Choose OK.

1-2-3 highlights the records that meet the criteria you specify.

To edit selected records

Use the following keys to navigate through the highlighted records:

ENTER	Goes to the next cell in the highlighted records (left to right, top to bottom)
SHIFT+ENTER	Goes to the previous cell in the highlighted records
CTRL+ENTER	Goes to the first cell in next record
SHIFT+CTRL+ENTER	Goes to the first cell in previous record

1. Once you have selected the cell you want to edit, type a new entry or use the standard editing keys to edit the current entry.
2. Press ENTER to complete editing.
3. Press ESC to remove the highlight from the selected records.

See also

Help

[Moving Criteria to Change Their Logical Relationship](#)

[Tools Database](#)

[Set Criteria](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Tools Database Delete Records

Deletes records from a 1-2-3 database table that meet criteria you specify.

1. Select the range that contains the database table.
2. Choose Tools Database Delete Records.
3. Specify a criterion for the records you want to delete.
4. To further limit the records to delete, choose And and repeat step 3.
5. To expand the number of records to delete, choose Or and repeat step 3.
6. Choose OK.

See also

Help

[Moving Criteria to Change Their Logical Relationship](#)
[Query Set Criteria](#)
[Tools Database](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Tools Database Append Records

Adds new records to a database table.

1. Select the range that contains the records you want to add to the table.

The first row of the range should contain field names that are the same as those in the table to which you are appending records.

2. Choose Tools Database Append Records.

3. Specify the table to which you are appending the records in the To database table text box.

To append records to a named table, press F3 and select the name of the table.

4. Choose OK.

1-2-3 appends the records to the bottom of the database table. Use Range Sort to put the records in order in a 1-2-3 database table.

See also

Help

Query Update Database Table
Tools Database

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Tools Database Crosstab

Creates a cross-tabulation table.

Example

Crosstab table

1. Select the range that contains the database table.
The range must contain at least three columns and two rows.
 2. Choose Tools Database Crosstab.
 3. In the Row headings list box, select the field whose entries you want to use as row headings.
 4. In the Column headings list box, select the field whose entries you want to use as column headings.
 5. Choose Continue.
The Crosstab Data Options dialog box appears.
 6. Select the field whose values you want to be summarized in the cells of the crosstab table.
 7. Select the summarization method: Sum, Average, Count, Minimum, Maximum.
 8. Choose Continue.
- 1-2-3 creates a crosstab table and places the table in a new worksheet. 1-2-3 inserts the new worksheet after the current worksheet.

See also

[Query Aggregate](#)

[Range Analyze What-if Table](#)

Close

Example: Crosstab Table

The following portion of a database table contains information about recyclables collected from different regions over the course of a year.

REGION	TYPE	Q1	Q2	Q3
Midlands	Glass	383.67	592.87	403.79
Oceanfront	Paper	257.83	407.15	440.13
Bayside	Aluminum	376.89	948.58	282.13
Lakeview	Plastic	314.39	838.50	784.16
Hillside	Glass	900.02	690.21	298.12
Midlands	Paper	655.00	334.24	430.34

The column REGION contains the row headings.

The column TYPE contains the column headings.

The column Q1 is what you want to summarize.

The summarization method is Sum.

The following crosstab table, created from the entire database table, shows the total of each type of recyclable collected from each region in the first quarter.

	Aluminum	Glass	Paper	Plastic
Bayside	2136.89	2017.79	1304.85	1993.54
Hillside	1574.80	3076.09	1225.46	1108.87
Lakeview	1548.46	1447.33	1029.49	1598.51
Midlands	1264.11	2148.22	2303.30	1592.13
Oceanfront	2505.03	1014.77	1970.74	2090.86

Connect to External

Establishes a connection to an external database table so you can use the table with other 1-2-3 commands.

1-2-3 uses DataLens drivers to connect to external database tables. DataLens drivers are programs that allow 1-2-3 to read data from and send data to an external database.

Use the 1-2-3 Install program to install the DataLens drivers that come with 1-2-3 for Windows.

Note Depending on the DataLens driver you select and how it is configured, 1-2-3 may prompt you for a driver or database user ID and password when you connect to an external database.

If so, enter the user ID and password in the appropriate text boxes and choose OK. If you are connecting to a driver and are prompted for a user ID and password but do not need one to connect to the driver, choose OK.

1. Choose Tools Database Connect to External.

If you know the names of the driver, the external database, and the external table, you can combine steps 2 through 4 by entering all of these names, separated by spaces in the text box.

For example, enter DBASE_IV C:\123W\SAMPLE EMPLOYEE to use the dBASE IV driver, a database named C:\123W\SAMPLE, and a table named EMPLOYEE.

2. Specify the driver and choose Continue.

If the list box does not display the name of a driver you want to use, use the Install program to install the driver.

3. Specify the external database or directory and choose Continue.

If 1-2-3 can locate the external databases, it displays the names in the list box. If 1-2-3 does not display the name of the external database you want to use, type it in the text box.

To display the database names in the list box automatically, you can add a database record to the registration file, LOTUS.BCF.

4. Specify the external database table and choose Continue.

5. In the Refer to as text box, specify a range name for the table and choose OK.

The range name is the name you use in 1-2-3 to refer to this table in Tools Database commands, Query commands, and database @functions. 1-2-3 displays the table name as the default range name. If you already used that range name in the current worksheet, 1-2-3 displays ??? (question marks). You can type a new name of up to 15 characters in the text box. After you enter the range name, the prompt above the text box changes to Connect to table.

After 1-2-3 is connected to the external table, you can use Query commands and database @functions to analyze, add to, or change data in the table.

Note The 1-2-3 Classic menu contains additional commands for using 1-2-3 with external database tables.

See also

Help

[DataLens Drivers](#)

[Tools Database Commands](#)

[Tools Database Disconnect](#)

[Tools Database Connect Password](#)

User's Guide

Chapter 22, "Working with External Databases"

Connect to External Password

Depending on the DataLens driver you select and how it is configured, 1-2-3 may prompt you for a user ID and password when you connect to an external database.

If so, enter the user ID and password in the appropriate text boxes and choose OK.

If you are connecting to a driver and are prompted for a user ID and password but do not need one to connect to the driver, choose OK.

See also

Help

[Tools Database Connect to External](#)

User's Guide

Chapter 22, "Working with External Databases"

Tools Database Disconnect

Disconnects an external table, ending all data exchange between 1-2-3 and the external table.

After you use this command, any queries or database @functions that refer to the table may result in errors. 1-2-3 will not update these queries or @functions until you connect to the table again using Tools Database Connect to External with the same range name to refer to the table.

1. Choose Tools Database Disconnect.
2. Select the range name of the external database table.
3. Choose OK.

1-2-3 disconnects from the database table you specified.

See also

Help

[Tools Database Commands](#)

[Tools Database Connect to External](#)

User's Guide

Chapter 22, "Working with External Databases"

Tools Database Create Table

Sets up the structure for a new table in an [external database table](#).

You can create an external table by modeling it on an existing 1-2-3 database table, [query table](#), or external table.

The DataLens driver assigns a default data type to each column, depending on the column's data type in 1-2-3. See [DataLens Drivers](#) for more information about data types for the driver you are using.

Note Depending on the DataLens driver you select and how it is configured, 1-2-3 may prompt you for a driver or database user ID and password when you connect to an external database.

If so, enter the user ID and password in the appropriate text boxes and choose OK. If you are connecting to a driver and are prompted for a user ID and password but do not need one to connect to the driver, choose OK.

1. Choose Tools Database Create Table.

2. Specify the driver and choose Continue.

If the list box does not display the name of a driver you want to use, use the Install program to install the driver.

3. Specify the external database and choose Continue.

If 1-2-3 can locate the external databases, it displays the names in the list box. If 1-2-3 does not display the name of the external database you want to use, type it in the text box.

To display the database names in the list box automatically, you can add a database record to the registration file, LOTUS.BCF.

4. Specify the external database table and choose Continue.

5. Specify the range that contains the model table in the Model table range text box.

6. (Optional) Specify a table creation command if one is supported or required by your DataLens driver.

A table creation command specifies additional information about the table. For example, the Paradox driver lets you use a table creation command to specify a sort order for the table.

7. To insert records from the model table into the new table, select the "Insert records from model table" check box.

8. Choose OK.

1-2-3 creates a new external table in the external database. To add records to the new table, use [Tools Database Append Records](#).

See also

Help

[Tools Database Commands](#)

User's Guide

Chapter 22, "Working with External Databases"

Tools Database Send Command

Sends a command to an [external database table](#).

Depending on the driver you are using, you may be able to send driver-specific commands directly to the DataLens driver or external database.

Note Depending on the DataLens driver you select and how it is configured, 1-2-3 may prompt you for a driver or database user ID and password when you connect to an external database.

If so, enter the user ID and password in the appropriate text boxes and choose OK. If you are connecting to a driver and are prompted for a user ID and password but do not need one to connect to the driver, choose OK.

1. Choose Tools Database Send Command.
2. Specify the driver you want to use and choose Continue.

If the list box does not display the name of a driver you want to use, use the Install program to install the driver.

3. Specify the directory or external database you want to use and choose Continue.

If 1-2-3 can locate the external databases, it displays the names in the list box. If 1-2-3 does not display the name of the external database you want to use, type it in the text box.

To display the database names in the list box automatically, you can add a database record to the registration file, LOTUS.BCF.

4. Enter the command.
5. Choose OK.

See also

Help

[DataLens Drivers](#)

[{SEND-SQL}](#)

[Tools Database Commands](#)

[Tools Database Connect to External](#)

User's Guide

Chapter 22, "Working with External Databases"

Set Criteria

Specifies criteria to determine which records will appear in a query table.

To specify criteria for a new query table

1. Select the range that contains the database table.
If the table you want to query is an external table or a named table, press F3 and select the name of the table you want to query. To query an unnamed table, specify the range that contains the table.
If you want to query an external table to which you are not connected, choose External.
2. Choose Tools Database New Query.
3. Choose Set Criteria.
4. Specify a criterion that the records in the query table must meet.
5. To further limit the records in the query table, choose And and repeat step 3.
6. To expand the number of records in the query table, choose Or and repeat step 3.
7. To remove a criterion, click on box that contains the criterion and choose Clear.
8. To specify the maximum number of records to appear in the query table, select the Limit records check box and specify a number.
9. Choose OK.
1-2-3 returns you to the New Query dialog box.

To specify criteria for an existing query table

1. Select the query table.
2. Choose Query Set Criteria.
3. Specify a criterion that the records to appear in the query table must meet.
4. To apply the new criteria to the query table without removing the Set Criteria dialog box, choose Refresh.
5. To further limit the records in the query table, choose And and repeat step 3.
6. To expand the number of records in the query table, choose Or and repeat step 3.
7. To remove a criterion, click the box that contains the criterion and choose Clear.
8. To specify the maximum number of records to appear in the query table, select the Limit records check box and specify a number.
9. Choose OK.

See also

Help

[Moving Criteria to Change Their Logical Relationship](#)
[Query Commands](#)
[Specifying Criteria in 1-2-3 Commands](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Choose Fields

Specifies the fields to appear in a query table and creates computed columns.

To remove or move one or more fields in a new query table

1. Select the range that contains the database table.
2. Choose Tools Database New Query.
3. Choose Choose Fields.
The Selected fields list box lists all of the fields that will appear in the query table, in the order in which they will appear.
4. To remove a field, select it in the Selected fields list box and choose Clear.
5. To change the position of a field in the query table, select it in the list box, and then click the up or down arrow until the field is in the position you want.
6. To create a computed column choose Formula.
7. Choose OK.
1-2-3 returns you to the New Query Dialog box.

To remove, add, or move fields in an existing query table

1. Select the query table.
2. Choose Query Choose Fields.
The Selected fields list box lists all of the fields that will appear in the query table, in the order in which they will appear.
3. To remove a field, select it in the Selected fields list box and choose Clear.
To remove all fields from the list box, choose Clear All.
4. To add a field that appears in the database table to the query table choose Add.
5. To change the position of a field in the query table, select it in the Selected fields list box, and then click the up or down arrow until the field is in the position you want.
6. To create or edit a computed column, choose Formula.
7. Choose OK.

See also**Help**

[Tools Database](#)

[Query Set Database Table](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Choose Fields Formula

Creates computed columns.

1. Select the query table.
2. Choose Query Choose Fields.
3. Choose Formula.

The Formula dialog box appears.

4. Enter the formula in the Enter Formula text box.

A valid formula contains the name of a field in the database table.

In computed columns, you can use any @function except @@, @CELL, @COLS, @HLOOKUP, @INDEX, @INFO, @IRR, @N, @NPV, @ROWS, @S, @SHEETS, @STD, @STDS, @VAR, @VARS, @VLOOKUP, and the database @functions.

For example to determine a five percent bonus for all employees, the formula is SALARY * .05.

5. (Optional) Enter a name for the computed field in the "Show field as" text box.

For example, you might want to rename the field BONUS. 1-2-3 displays the formula as the field name if you do not enter a name.

6. Choose Insert to add the computed column to the query table.
7. Choose Replace to replace the original formula to create the computed column in the query table with the edited formula.

The formula appears in the Selected fields list box.

8. Choose OK.

See also

Help

[Query Aggregate](#)

[Query Set Database Table](#)

[Tools Database](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Choose Fields Add

Adds a field that appears in the database table to the query table.

1. Select the query table.
2. Choose Query Choose Fields.
3. Choose Add.
4. Select the field from the Available fields list box.
5. Choose OK.

See also

Help

[Tools Database](#)

[Query Set Database Table](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Query Sort

Arranges data in a query table in the order you specify.

1. Select the query table.
2. Choose Query Sort.
3. Under Sort by, in the text box, select the name of the field you want to sort by.
4. Select an option.
 - Ascending sorts A - Z, and smallest to largest values.
 - Descending sorts Z - A, and largest to smallest values.
5. (Optional) To specify additional sort keys, choose Add key and repeat steps 3 and 4.
For example, if the Last_Name field is the first sort key, select the First_Name field as the second sort key.
6. Choose OK.

The order in which 1-2-3 sorts different types of labels is determined by the sort order specified when you installed 1-2-3.

Related SmartIcons



Sorts a database table in ascending order using the selected column as the key.



Sorts a database table in descending order using the selected column as the key.



Sorts records in a query table.

See also

Help

[Clearing Sort Keys When Sorting Query Tables](#)

[Query Commands](#)

[Range Sort](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Clearing Sort Keys When Sorting Query Tables

1-2-3 ignores duplicate sort keys when you sort data, so to clear a sort key, make it match the key that precedes it.

1. Select the query table.
2. Choose Query Sort.
3. In the All keys list box, select the sort key you want to clear.
4. Specify the field name that matches the preceding sort key.
For example, if you are removing the sixth sort key, specify the same cell you defined for the fifth sort key.
5. Specify the sort order you specified for the preceding sort key.
For example, if you are removing the sixth sort key and the sort order for the fifth sort key is ascending, specify ascending sort order.
6. To clear all sort keys, choose Reset.
7. Choose OK.

See also

[Query Sort](#)

Query Aggregate

Performs calculations on groups of data from a [query table](#). For example, you can calculate sales by salesperson, by month of sale, or by account.

Example

Aggregate

Note Creating aggregates is quicker and more efficient than using [Range Analyze What-if Table](#) with database @functions for analyzing data in database tables.

1. Select the [query table](#).

Be sure that the query table does not contain any computed columns.

2. Choose [Choose Fields](#) to remove any [fields](#) from the query table to obtain the results you want.

For example, if the query table contains the fields Name, Month, and Sales, and you want to see the total sales per person, delete the field Month.

3. Select the field you want to use as a basis for the aggregate by clicking on the field name in the query table.
4. Choose Query Aggregate.
5. Under Compute, select one of the following operations:
 - Sum
 - Avg
 - Count
 - Min
 - Max
6. (Optional) Enter a name for the aggregate field in the "Show field as" text box.
1-2-3 displays the field name in the text box if you do not enter a name.
7. Choose Reset to cancel the aggregate.
8. Choose OK.

See also

Help

[Choose Fields Formula](#) to create computed columns

[Query Commands](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Close

Example: Aggregate

The query table appears in A1..C6.

```
A: --- A ----- B ----- C ----
1   Name      Month   Sales
2   Mintz     May     2800
3   Smith     May     2100
4   Smith     June    1400
5   Mintz     June    1500
6   Smith     June    1600
```

Since you want the total sales per salesperson, you delete the field Month. If you do not, the results of the aggregate will be the total sales per salesperson per month.

When you position the cell pointer on the field Sales and choose Query Aggregate Sum, the query table displays the total sales per salesperson.

```
A: --- A ----- B -----
1   Name      Sales
2   Mintz     4300
3   Smith     5100
```

Query Show Field As

Specifies an alias field name for the current field to display in a query table. Doing so does not change the field name in the database table, but only changes the field name in the query table.

For example, if a query table contains a computed column SALES*.05, you may want to display the field name as BONUS in the query table.

1. Position the cell pointer on the field in the query table.
2. Choose Query Show Field As.
The dialog box displays the field name.
3. Enter the new field name in the Show As text box.
4. Choose OK.

See also

Help

Choose Fields Formula to create a computed column
Query Commands

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Query Name

Assigns a new name to a query table. You can then run the query that produced the query table by using the {QUERY-REFRESH} macro command. You can also go to a named query table by using Edit Go To.

You cannot assign a name to a query table if that name has already been assigned to another query table in the worksheet.

1. Select the query table.

2. Choose Query Name.

The name of the query table appears in the Query name text box.

3. Type the new name for the query table in the Query name text box.

The name can be up to 15 characters long and should conform to the other conventions described in Naming Conventions for Ranges, Charts, Query Tables and Worksheets.

4. Choose Rename.

See also

Help

Query Commands

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Query Set Options

Specifies options for manipulating data in database and query tables.

1. Select the query table.
2. Choose Query Set Options.
3. Select the check box for the options you want.
 - "Allow updates to database table" allows you to post any changes made in the query table to the database table.
 - "Show unique records only" excludes duplicate records from the query table.
 - "Show sample values in filter" lets you select from a list of unique values when specifying criteria for the query table. For very large database tables or tables on network servers, performance may be improved by turning off this option.
 - "Auto refresh" changes the query table results when you change any criteria, sort settings, field names, or aggregate. If you do not select this option, you must choose Query Refresh Now to update the query table results. For very large database tables or tables on network servers, performance may be improved by turning off this option.

Changing the "Allow updates to database table" option causes 1-2-3 to refresh the query table automatically. Changes to the other options do not automatically refresh the query table.

See also

Help

[Query Commands](#)

[Query Update Database Table](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Query Show SQL

Displays the SQL command equivalent to create the current query table. You can copy the SQL statement to the [Clipboard](#). You can use the SQL statement with the [{SEND-SQL}](#) macro command.

1. Select the [query table](#).
2. Choose Query Show SQL.
3. Choose Copy to copy the SQL statement to the Clipboard.

See also

Help

[Edit Paste](#)

[Tools Database Send Command](#)

Query Set Database Table

Specifies a database table or changes the database table without changing the criteria, sort settings, aggregates, or the location of the query table if the new database table contains all the fields in the current table. If not all the fields match, criteria, sort settings, aggregates, and join criteria are removed.

1. Select the query table.
2. Choose Query Set Database Table.
3. Select the range that contains the database table, or press F3 and select the database table from the list of database names and choose OK.

To specify an external database table, select External to establish a connection to an external database table. Then you can specify the database table as the range name you assigned to the external table.

4. Choose OK.

See also

Help

[Query Commands](#)

[Tools Database New Query](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Query Join

Allows you to query multiple database tables that contain a common field.

To join two tables

1. Select the query table.
 2. Choose Query Join.
 3. Specify the first database table in the "Join database table" drop-down box.
For example, if you queried the table INVENTORY to see what you have in stock from a particular manufacturer, the table INVENTORY is the first database table.
 4. Specify the second database table in the "With database table" drop-down box, or select the range that contains the second database table you want to query.
To specify an external table to which you are not yet connected, choose External.
For example, if you want to check a list of distributors to see who else carries items made by the same manufacturer, the second table is DISTRIBUTORS.
 5. Select the field from the first table that you want to use to join the tables.
The kind of data in the field should be the same in both database tables, although the field name can be different.
In this example, you select the field manufacturer.
 6. Select the operator.
 7. Select the field from the second table that corresponds to the field in the first database table.
In this example, you select the field manufacturer.
 8. Choose OK.
The Choose Fields dialog box appears.
-

To join three or more tables

1. Choose Query Join and follow steps 1 through 7 above to join two tables.
The join criteria you have already specified appear in the Join criteria box.
For example, the join criteria might be INVENTORY.manufacturer = DISTRIBUTORS.manufacturer.
2. Choose And or Or to query an additional table.
A duplicate of the original or previously selected join criterion appears in the Join criteria box.
For example, INVENTORY.manufacturer = DISTRIBUTORS.manufacturer appears in the Join criteria box.
3. In the "With database table" drop-down box, select the third table.
For example, you may want to contact the manufacturer directly, so you need the manufacturer's address from the MANUFACTURERS table. In that case, specify MANUFACTURERS as the table.
4. In the "With database table" list box, select the name of the field you want to use to join the three tables.
For example, specify manufacturer as the field you want to use to join the tables.
5. To join additional tables, repeat steps 2 through 4.
6. Choose OK.

See also**Help**

[Tools Database New Query](#)
[Query Set Database Table](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"
Chapter 22, "Working with External Databases"

Query Update Database Table

Applies any changes you make to the query table records to the corresponding database table. To be able to update a database table, choose [Query Set Options](#) and select Allow updates to database table.

1. Select the [query table](#).
2. Edit the records.
3. Choose Query Update Database Table.

1-2-3 posts the changes you made to records in the query table to the database table.

See also

Help

[Query Commands](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Chapter 22, "Working with External Databases"

Query Refresh Now

Updates records in a query table to reflect changes made to the database table, query options, criteria, aggregates, or field names.

If you want to automatically update the query table when you make changes, choose Query Set Options.

1. Select the query table.
2. Choose Query Refresh Now.

See also

Help

Query Commands

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Database Basics

The general procedures for working with database tables are

- Creating a database table
See [Creating a 1-2-3 Database Table](#).
- Manipulating the contents of a database table
See [Tools Database Find Records](#) to find specific records.
See [Tools Database Delete Records](#) to remove records.
See [Tools Database Append Records](#) to add records.
See [Database @Functions](#) to calculate data in a database table.
- Connecting to Lotus Approach to work with data from a 1-2-3 database table
See [Tools Database Form](#) to create an Approach form.
See [Tools Database Report](#) to create an Approach report.
See [Tools Database Dynamic Crosstab](#) to create an Approach dynamic crosstab.
See [Tools Database Mailing Labels](#) to create Approach mailing labels.
- Creating a query table
When you extract records from a database table, 1-2-3 creates a query table.
See [Tools Database New Query](#).
- Manipulating the contents and appearance of a query table
See [Working with Query Tables](#).

See also

Help

[Query Commands](#)

[Tools Database Commands](#)

Tutorial

Lesson 7, "Using a Database"

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Creating a 1-2-3 Database Table

After you create a [database table](#), you can use it with Tools Database commands.

Example

1-2-3 Database Table

1. Before you create a database table in a worksheet, you may want to name the fields and plan the organization of the table on paper.
2. In a blank area of a worksheet, enter the [field names](#) in the first row of the database table. Each field name must be unique within a database table.
3. Enter data for each [record](#) in the rows below the field names. The entries in each field should be all labels or all values. Use consistent formats and capitalization when you enter data in each field.

Note Use a date [@function](#) to enter dates in a database table if you want to sort and query the table by dates.

4. (Optional) Use [Range Name Add](#) to name the 1-2-3 database table, but do not use a range name that matches a field name in the table. The row that contains the field names must be part of the named range. Naming a table makes referring to it easier when you specify different ranges for Tools Database commands.

See also

Help

[Database Basics](#)

[Entering Data](#)

[Tools Database Create Table](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Close

Example: 1-2-3 Database Table

The following information is organized as a 1-2-3 database table. The database table is in A:A1..A:D8; the range name for the table is Q2SALES. Row 1 contains the field names and rows 2 to 8 contain the records.

A	B	C	D	
1	Name	Month	Account	Sales <-- field names
2	Kaplan	April	Theater Inc	1950
3	Mintz	April	Dance Corp	1800
4	Morse	May	Art Etc	2100 <-- record
5	Smith	May	Photo Show	1850
6	Mintz	June	Dance Corp	1750
7	Kaplan	June	Theater Inc	2200
8	Morse	June	Art Etc	2050

Specifying and Modifying Criteria

A query consists of criteria that the records in a database must meet in order to appear in a query table.

To specify criteria

1. Select the query table or database table.
2. Choose Tools Database Find Records, Tools Database Delete Records, or Query Set Criteria.
3. Specify a criterion you want the records in the table to meet.

For example, if you want the records of everyone in the Sales department, the criterion is DEPT=Sales, where DEPT is the field, = is the operator, and Sales is the value.

- a. Select the field in the Field drop-down box.
- b. Select the operator in the Operator drop-down box.
- c. Specify the value in the Value drop-down box.

You can select a displayed value or enter a label, value, or formula.

Note Because of the way floating point numbers are stored, when you select a floating point value from the Value drop-down box, 1-2-3 may not display any records that meet the criteria. You can create two criteria to indicate a range of acceptable values. For example, to find matches for the criteria LENGTH=0.666666666666, you specify the criteria LENGTH>0.65 And LENGTH<0.67.

See About Criteria for information about specifying values in criteria.

4. To further limit the records to find, choose And and repeat step 3.
5. To expand the number of records to find, choose Or and repeat step 3.
6. Choose OK.

To modify criteria

1. Select the query table or database table.
2. Choose Tools Database Find Records, Tools Database Delete Records, or Query Set Criteria.
3. Select the criterion you want to modify by clicking it.
4. Modify the field, operator, or value.

- a. Select the field in the Field drop-down box.
- b. Select the operator in the Operator drop-down box.

To indicate NOT, change all operators to the opposite operator. For example, = becomes <>, >= becomes <, and > becomes <=.

- c. Specify the value in the Value drop-down box.

You can select a displayed value or enter a label, value, or formula.

You can also move criteria to change their logical relationship.

See also

Help

About Criteria

Example: Criteria Related by And

Example: Criteria Relate by Or

Example: Multiple Criteria

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

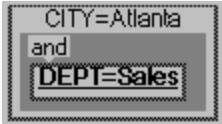
Criteria Related by And

Connect two or more criteria with And when you want to retrieve only those records for which all the criteria are true. For example, you want to retrieve records of employees who work in the Boston office and who are in the Sales department.

There are two criteria:

CITY=Atlanta
DEPT=SALES

The criteria CITY=Atlanta AND DEPT=SALES is represented as:



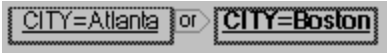
Criteria Related by Or

Connect two or more criteria with Or when you want to retrieve records for which at least one of the conditions is true. For example, you want to retrieve records of employees who work either in the Boston or the Atlanta office.

There are two criteria, and each record must fulfill one condition, but not both:

CITY=BOSTON
CITY=ATLANTA

The criteria CITY=BOSTON OR CITY=ATLANTA is represented as:



Multiple Criteria

You can connect three or more criteria with combinations of And and Or relationships.

For example, you want to retrieve the records of employees in either the Boston or the Atlanta office who are in the Sales department.

There are three conditions. All records must meet the criterion

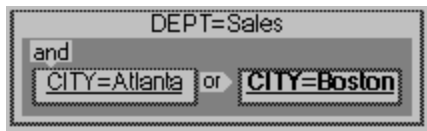
DEPT=SALES

In addition, each record must fulfill one of the following criteria, but not both:

CITY=BOSTON

CITY=ATLANTA

The conditions DEPT=SALES AND (CITY=Atlanta OR CITY=Boston) is represented as



Moving Criteria to Change Their Logical Relationship

Inside the "Criteria" area, 1-2-3 creates a box for each criterion you build from elements in Field, Operator, and Value.

You can move these boxes. To move a box, position the mouse pointer on it, hold down the left mouse button, and then drag the box to its new position.

Since the relative position of the boxes indicates the logical relationship of the criteria displayed in them, moving them changes that relationship.

Example

You are a teacher working with a database table containing students' records. Inside the "Select records where" area, you create two boxes:

A AVG_GRADE>89

B ATTENDANCE=14

If you move box B

You create

Inside box A

An "And" relationship: Both A and B must be true for every record, so your results show only one kind of student:

Those whose average grade is greater than 89 and who showed up for 14 class meetings.

Next to box A

An "Or" relationship: Either A or B must be true for every record, but not both; so your results show two kinds of students:

Those whose average grade is greater than 89, but who attended fewer than 14 classes.

Those who showed up for 14 classes, but whose average grade is less than 89.

See also

[Criteria Related by And](#)

[Criteria Related by Or](#)

[Multiple Criteria](#)

Working with Query Tables

When you select a query table by clicking it, you can

- Change the data in a query table
 - See Set Criteria to change which records appear.
 - See Choose Fields to determine which fields appear.
 - See Query Set Database Table to retrieve records from a different database table using the same criteria.
 - See Query Show Field As to change a field name.
 - See Query Refresh Now to update the query table to reflect any changes to criteria, options, aggregate, field names, or sort order.
- Change the appearance of a query table.
 - See Query Sort to put records in an order you specify.
 - See Style to change the font, number formats, borders, color, alignment, column width, or row height.
- Manipulate a query table
 - See Query Name to name a query table.
 - See Edit Paste Special to copy the contents of the query table to the Clipboard or to another location on the worksheet.
 - See Edit Paste to copy a query table. Doing so creates another query table.
 - To delete a query table, select the entire table and press DEL.

See also

Help

Database Basics

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

About Criteria

Criteria tell 1-2-3 which records to select from a database table.

You specify criteria when using the Tools Database Find Records, Tools Database Delete Records and Query Set Criteria commands. In addition you can specify criteria in database @functions.

See also

[Entering Data](#)

[Multiple Criteria in Database @Functions](#) to select records that meet more than one condition.

[Specifying Criteria in 1-2-3 Commands](#)

[Entering Criteria in Database @Functions](#)

Specifying Criteria in 1-2-3 Commands

Matching an exact label or number

Enter a label or number exactly as it appears in the database table as the value portion of the criterion.

For example, to select all records in which the city is Boston, specify CITY as the field, = as the operator, and enter or select Boston as the value. To select all records in which salary is greater than \$25,000, specify SALARY as the field, > as the operator, and enter or select 25000 as the value.

Note By default, 1-2-3 does not distinguish between uppercase and lowercase letters. For example, the label SMITH matches the entries Smith and smith. To make 1-2-3 case-sensitive, use the Install program and change the sort order to ASCII.

Matching similar labels

Use wildcard characters to match similar labels.

For example, to select all quarterly data, specify PERIOD as the field, = as the operator, and enter Q? to match all two-character entries beginning with Q such as Q1, Q2, Q3, and Q4.

Matching a date value

When a field contains date entries, enter a date. You can enter numbers or date @functions.

For example, to find everyone born before January 8, 1957, specify BIRTHDAY as the field, < as the operator and enter @date(57,1,8) as the value. As a shortcut, you can also enter 1/8/57 as the value.

Matching values in a worksheet

Use absolute references to match entries outside of the database table.

For example, to find all records in which sales is less than the number in cell D25, specify SALES as the field, <= as the operator and enter \$D\$25 as the value.

See also

[About Criteria](#)

[Multiple Criteria in Database @Functions](#)

Entering Criteria in Database @Functions

Matching an exact label or number

Enter a label or number exactly as it appears in the database table as the value portion of the criterion.

For example, enter CITY="Boston" as the criteria. To match a number exactly, enter SALARY>25000.

Note By default, 1-2-3 does not distinguish between uppercase and lowercase letters. For example, the label SMITH matches the entries Smith and smith. To make 1-2-3 case-sensitive, use the Install program and change the sort order to ASCII.

Matching similar labels

Use wildcard characters to match similar labels.

For example, enter PERIOD=Q? as the criteria.

Matching a date value

When a field contains date entries, enter a date. You can enter numbers or date @functions.

For example, to select everyone born before January 8, 1957, enter BIRTHDAY<@date(57,1,8) as the criteria.

Matching values in a worksheet

Use absolute references to match entries outside of the database table.

For example, to find all records in which sales is less than or equal to the number in cell D25, enter SALES<=\$D\$25 as the criteria.

See also

[About Criteria](#)

[Multiple Criteria in Database @Functions](#)

Multiple Criteria in Database @Functions

You can select records that meet more than one condition. For example, you might want to see records for sales in May that were greater than \$2,000, or you might want to see sales records for May and June.

Meeting all conditions (#AND#)

Use #AND# to select records in which all conditions are true. For example, to select only records in which the Month is May and the Sales value is greater than 2000, enter the criteria
Month="May"#AND#Sales>2000.

Meeting at least one condition (#OR#)

Use #OR# to select records in which at least one of two or more conditions is true. For example, to select records in which the Month is May or the Sales value is greater than 2000, enter the criteria
Month="May"#OR#Sales>2000.

Meeting one condition and excluding one condition (#NOT#)

Use #NOT# to select records in which one condition is true and another condition is false. For example to select records in which the City is Washington and the Department is not Sales, enter the criteria
City="Washington"#NOT#Department="Sales".

See also

[About Criteria](#)

[Referring to Multiple Tables in Criteria](#)

Referring to Multiple Tables in Criteria

When entering criteria in a database @function, you can compare fields from separate tables. The field name must be preceded by the table name and a . (period).

- Enter field names exactly as they appear in the database tables.
 - The field names do not have to match, but the two fields must contain the same type of data.
 - Entries in one field must match entries in the other field, and one field should not contain duplicate entries.
1. Enter one of the tables' names and the name of the field they have in common, separated by a . (period), For example, SALES.Item tells 1-2-3 that the table named SALES contains a field named Item.
 2. Enter an operator.
 3. Enter the second table's name and the name of the field the tables have in common, separated by a . (period),

For example, the join formula +SALES.Item=PRICE.Item_Name tells 1-2-3 that the fields named Item and Item_Name are located in different tables but contain similar data. Each entry in PRICE.Item_Name is listed only once but may be listed many times in SALES.Item.

Note 1-2-3 can join information from database tables that contain a common field. However, 1-2-3 cannot create a union between two database tables that have no fields in common.

See also

[About Criteria](#)

[Entering Criteria in Database @Functions](#)

[Query Join](#)

Edit Undo

Reverses the effects of the most recently executed command or action that you can undo.

Edit Undo is off when you install 1-2-3. To enable Edit Undo, use [Tools User Setup](#).

1. Choose Edit Undo, or press CTRL+Z.

You cannot undo the following:

- A previous use of Edit Undo or CTRL+Z
- Printer activity
- Cell pointer movement caused by pressing a [pointer-movement key](#) or by clicking a cell
- F5 (GOTO)
- F6 (PANE)
- Formula recalculation caused by pressing F9 (CALC) or using Edit Links Update or Edit Links Update All
- Changes to data and settings in inactive worksheets
- Changes to files on disk
- Changes to Clipboard contents

Choosing Edit Undo after executing a macro reverses the entire macro.

Related SmartIcons

Close

Equivalent to choosing Edit Undo

See also

Help

[Edit Commands](#)

User's Guide

Chapter 5, "Using 1-2-3 Commands"

Edit Cut

Cuts data and related [styles](#) or [drawn objects](#) from the worksheet and places them on the [Clipboard](#).

1. Select the [range](#), [drawn object\(s\)](#), or [query table](#).
2. Choose Edit Cut, or press CTRL+X.

To cut selected text in a text block, press CTRL+X.

The cut data remains on the Clipboard until you use Edit Copy or Edit Cut again in any Windows application. When you use File Close or File Exit, all [Clipboard formats](#) except the Text format are removed from the Clipboard.

You can paste the data you cut by selecting the location and pressing ENTER immediately after choosing Edit Cut.

Related SmartIcons



Equivalent to choosing Edit Cut

See also

[Copying, Moving, and Pasting Data](#)

[Edit Clear](#) to delete data from the worksheet without placing it on the Clipboard

[Edit Commands](#)

[Edit Copy](#)

[Edit Paste](#)

[Edit Paste Special](#)

[Using Drag-and-Clear to Delete Data](#)

[Using Drag-and-Drop to Move and Copy Data](#)

Edit Copy

Places a copy of data and related styles or drawn objects from the worksheet on the Clipboard.

1. Select the range, drawn object(s), or query table.
2. Choose Edit Copy, or press CTRL+C.

To copy selected text in a text block, press CTRL+C.


The copied data remains on the Clipboard until you use Edit Copy or Edit Cut again in any Windows application. When you use File Close or File Exit, all Clipboard formats except the Text format are removed from the Clipboard.

You can paste the data you copied by selecting the location and pressing ENTER immediately after choosing Edit Copy.

Performing related operations without using the Clipboard

<u>Use</u>	<u>To copy</u>
<u>Edit Copy Down</u>	Data from the topmost row of a range to the other rows in the range
<u>Edit Copy Right</u>	Data from the leftmost column of a range to the other columns in the range
<u>File Open</u>	The contents of entire files or data from a <u>text file</u> to a worksheet file

Related SmartIcons

	Equivalent to choosing Edit Copy
---	----------------------------------

See also

Copying, Moving, and Pasting Data

Edit Commands

Edit Cut

Edit Paste to insert copied data

Edit Paste Link to insert copied data as formulas or file links

Edit Paste Special to insert styles only, insert contents only, or convert formulas to values

Using Drag-and-Drop to Move and Copy Data

Edit Paste

Pastes data and related styles or drawn objects from the Clipboard into the current worksheet file, starting at a location you select. You cannot paste data into protected cells.

1. Cut or copy the data.
2. Select the location.

If the Clipboard contains text, cell data, or a query table, select a range or the top left cell of the range.

If the Clipboard contains a chart, drawn object, bitmap, or picture, select a range, drawn object, or query table.

3. Choose Edit Paste, or press CTRL+V.

You can also paste data by selecting the location and pressing ENTER immediately after choosing Edit Copy or Edit Cut.

To paste text from the Clipboard into a text block, press CTRL+V.

Caution Remember the following:

- When the Clipboard contains text, cell data, or a query table, 1-2-3 writes over any existing data in the range, including data in hidden columns and sheets. If the cell data is from 1-2-3, 1-2-3 also writes over any existing styles in the range.
- If the cell data on the Clipboard is the result of an Edit Cut from a 1-2-3 file, and you then paste the data into the first or last cell of a named range or any range referred to in a formula
 - 1-2-3 changes the references to the range to ERR, and the formula results in ERR.
 - The range name becomes undefined, and you must use Range Name again to define the range name.

Cell references in pasted data

Copied data: When you paste cell data that you previously copied from a 1-2-3 file

- 1-2-3 adjusts any relative and mixed references in the pasted data.
- 1-2-3 does not adjust absolute references.
- 1-2-3 does not adjust formulas elsewhere in the file that refer to data inside the range you copied.

Cut data: When you paste cell data that you previously cut from a 1-2-3 file

- 1-2-3 adjusts any relative, mixed, or absolute references in the pasted data.
- The first time you paste the data into the same file, 1-2-3 adjusts formulas elsewhere in the file that refer data inside the range you cut so that they refer to the new location. Subsequent pastes into the same file behave the same as if you were pasting data that you copied.
- All pastes into a different file behave the same as if you were pasting data that you copied.

Effects of the size of the destination range on pasted data

When the Clipboard contains a chart, drawn object, picture, or bitmap, 1-2-3 pastes it in its original size.

When the Clipboard contains text, cell data, or a query table

- And the destination range is a single cell, 1-2-3 uses the cell as an anchor cell and pastes the contents of the Clipboard in its original size and layout.
- And the destination range is larger than the contents of the Clipboard, 1-2-3 uses the top left cell of the destination range as the anchor cell and pastes the contents of the Clipboard in its original size and layout.

- And the destination range is smaller than the contents of the Clipboard

If the data is from a 1-2-3 worksheet, 1-2-3 uses the top left cell of the destination range as an anchor cell and pastes the contents of the Clipboard in its original size and layout.

If the data is from another application, 1-2-3 clips the contents of the Clipboard at the bottom and right.

When the Clipboard contains data from a single cell in a 1-2-3 file and the destination range is larger than the Clipboard contents, 1-2-3 replicates the Clipboard contents to fill the destination range.

When the Clipboard contains data from a single row in a 1-2-3 file and the destination range is a single column, 1-2-3 replicates the Clipboard contents to fill the destination range.

When the Clipboard contains data from a single column in a 1-2-3 file and the destination range is a single row, 1-2-3 replicates the Clipboard contents to fill the destination range.

Related SmartIcons

Close

Equivalent to choosing Edit Paste

See also

[Copying, Moving, and Pasting Data](#)

[Edit Commands](#)

[Edit Copy](#)

[Edit Cut](#)

Edit Clear

Deletes the current selection from the worksheet without using the Clipboard. Edit Clear does not clear protected cells or change their format and does not affect the contents of the Clipboard.

1. Select the range, collection, drawn object(s), or query table(s)

2. Choose Edit Clear, press DEL, or press CTRL+DEL.

If you select charts, drawn objects, or query tables, no dialog box appears and the command executes.

If you select cells and press DEL, no dialog box appears and the command executes, deleting cell contents only.

If you select cells and press CTRL+DEL, no dialog box appears and the command executes, deleting both cell contents and styles.

If you select cells and choose Edit Clear, the Clear dialog box appears.

3. Select Cell contents only, Styles only, or Both.

4. Choose OK.

To restore the data to the same location, use Edit Undo.

Related SmartIcons

Close

Equivalent to choosing Edit Clear

See also

[Edit Commands](#)

[Edit Cut](#)

[Using Drag-and-Clear to Delete Data](#)

Edit Clear All

Deletes all keystrokes from the Transcript window without using the Clipboard.

1. Choose Edit Clear All.

See also**Help**

Edit Clear

Tools Macro Show Transcript

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Edit Paste Special

Pastes data on the Clipboard into the worksheet, or creates a DDE link, OLE link, or OLE embedded object.

To paste 1-2-3 cell data

1. Cut or copy the data.
2. Select the entire range or the top left cell of the range in which you want to paste the data.
3. Choose Edit Paste Special.
4. Under Paste, select an option.
 - All
 - Cell contents only
 - Styles only
 - "Formulas as values" pastes cell contents and styles, but converts all formulas to values.
5. Choose OK.

Caution Remember the following:

- 1-2-3 writes over existing data in the range, including data in hidden columns and sheets.
- If the cell data on the Clipboard is the result of an Edit Cut from a 1-2-3 file, and you then paste the data into the first or last cell of a named range or any range referred to in a formula
 - 1-2-3 changes the references to the range to ERR, and the formula results in ERR.
 - The range name becomes undefined, and you must use Range Name again to define the range name.

To paste a 1-2-3 chart or drawn object

1. Cut or copy the chart or drawn object.
2. In 1-2-3, select a cell, drawn object(s), or query table.
3. Choose Edit Paste Special.
4. Under "Using Clipboard format," select a Clipboard format.
5. Choose Paste.

To paste a 1-2-3 query table

1. Cut or copy the query table.
2. In 1-2-3, select the entire range or the top left cell of the range in which you want to paste the data.
3. Choose Edit Paste Special.
4. Select an option:
 - Query table
 - Cell data and styles only
5. Choose OK.

To paste data from another application

1. Cut or copy the data.

You can only create links to data that you copy.

2. In 1-2-3, select the location.

If the Clipboard contains text or cell data, select a range or the top left cell of the range.

If the Clipboard contains a chart, drawn object, bitmap, or picture, select a cell, drawn object(s), or query table.

3. Choose Edit Paste Special.

4. Under "Using Clipboard format," select a Clipboard format.

If you select Text, Wk1, or Wk3, 1-2-3 pastes the data into the selected range.

If you select Picture, Bitmap, or DIB, 1-2-3 pastes the data as a drawn object.





If you select "... Object," 1-2-3 pastes the data as an OLE embedded object.

5. Choose a command button.

- Paste
- Paste Link creates a link to the data using the selected Clipboard format. If the server application supports OLE, 1-2-3 creates either a DDE link or an OLE link, depending on the selected Clipboard format. Otherwise, 1-2-3 creates a DDE link.

Caution When pasting data using the Text, Wk1, or Wk3 Clipboard formats, 1-2-3 writes over existing data in the range, including data in hidden columns and sheets.

Related SmartIcons

	Creates a link to the data on the Clipboard
	Pastes cell contents only
	Pastes formulas as values
	Pastes styles only

See also

[Creating a Link to a 1-2-3 File](#)

[Edit Commands](#)

[Edit Copy](#)

[Edit Cut](#)

[Edit Paste](#) for information about cell references in pasted data and effects of the size of the destination range on pasted data

[Overview of DDE and OLE in 1-2-3](#)

Edit Paste Link

Pastes data on the [Clipboard](#) into the worksheet as a formula, file [link](#), [DDE](#) link, or [OLE](#) link.

To paste 1-2-3 cell data

1. Copy the data.
2. Select the entire [range](#) or the top left cell of the range in which you want to paste the data.
3. Choose Edit Paste Link.

1-2-3 pastes formulas that refer to the range you copied. If the range you copied is not in the current file, 1-2-3 pastes file links.

Caution 1-2-3 writes over existing data in the range, including data in hidden columns and sheets.

To paste data from another application

1. Copy the data.
2. In 1-2-3, select the location.

If the Clipboard contains text or cell data, select a [range](#) or the top left cell of the range.

If the Clipboard contains a chart, drawn object, bitmap, or picture, select a [range](#) or [drawn object\(s\)](#).

3. Choose Edit Paste Link.

1-2-3 creates a link to the data. If the [server](#) application supports OLE, 1-2-3 creates either a DDE link or an OLE link, depending on the type of information on the Clipboard. Otherwise, 1-2-3 creates a DDE link.

Caution When pasting text or cell data, 1-2-3 writes over existing data in the range, including data in hidden columns and sheets.

Related SmartIcons

 **Close**

Equivalent to choosing Edit Paste Link

See also

[Creating a Link to a 1-2-3 File](#)

[Edit Commands](#)

[Edit Copy](#)

[Edit Paste](#) for information about effects of the size of the destination range on pasted data

[Overview of DDE and OLE in 1-2-3](#)

Edit Copy Down

Copies the contents of the top row in the selection to fill the entire selection.

1. Select the range or collection.
2. Choose Edit Copy Down.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and sheets.

Related SmartIcons



Equivalent to choosing Edit Copy Down



Copies the contents of the current cell into all selected cells



Copies the contents of the leftmost column in the selection to fill the entire selection

See also

[Edit Commands](#)
[Edit Copy Back](#)
[Edit Copy Forward](#)
[Edit Copy Left](#)
[Edit Copy Right](#)
[Edit Copy Up](#)

Edit Copy Right

Copies the contents of the leftmost column in the selection to fill the entire selection.

1. Select the range or collection.
2. Choose Edit Copy Right.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and sheets.

Related SmartIcons



Equivalent to choosing Edit Copy Right



Copies the contents of the current cell into all selected cells



Copies the contents of the top row in the selection to fill the entire selection

See also

- [Edit Commands](#)
- [Edit Copy Back](#)
- [Edit Copy Down](#)
- [Edit Copy Forward](#)
- [Edit Copy Left](#)
- [Edit Copy Up](#)

Edit Copy Up

Copies the contents of the bottom row in the selection to fill the entire selection.

1. Select the range or collection.
2. Hold down SHIFT, and then choose Edit Copy Up.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and sheets.

Related SmartIcons



Copies the contents of the current cell into all selected cells



Copies the contents of the leftmost column in the selection to fill the entire selection.



Copies the contents of the top row in the selection to fill the entire selection

See also

- [Edit Commands](#)
- [Edit Copy Back](#)
- [Edit Copy Down](#)
- [Edit Copy Forward](#)
- [Edit Copy Left](#)
- [Edit Copy Right](#)

Edit Copy Left

Copies the contents of the rightmost column in the selection to fill the entire selection.

1. Select the range or collection.
2. Hold down SHIFT, and then choose Edit Copy Left.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and sheets.

Related SmartIcons



Copies the contents of the current cell into all selected cells



Copies the contents of the leftmost column in the selection to fill the entire selection.



Copies the contents of the top row in the selection to fill the entire selection

See also

[Edit Commands](#)
[Edit Copy Back](#)
[Edit Copy Down](#)
[Edit Copy Forward](#)
[Edit Copy Right](#)
[Edit Copy Up](#)

Edit Copy Back

Copies the contents of the first worksheet in the selection to fill the entire selection.

For example, if you select A5..D10, Edit Copy Back copies the contents of A5..A10 to B5..B10, C5..C10, and D5..D10.

1. Select the range or collection.

You must select a 3D range.

2. Hold down CTRL, and then click Edit and choose Copy Back.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and sheets.

Related SmartIcons



Copies the contents of the current cell into all selected cells



Copies the contents of the leftmost column in the selection to fill the entire selection.



Copies the contents of the top row in the selection to fill the entire selection

See also

- [Edit Commands](#)
- [Edit Copy Down](#)
- [Edit Copy Forward](#)
- [Edit Copy Left](#)
- [Edit Copy Right](#)
- [Edit Copy Up](#)

Edit Copy Forward

Copies the contents of the last worksheet in the selection to fill the entire selection.

For example, if you select A5..D10, Edit Copy Forward copies the contents of D5..D10 to C5..C10, B5..B10, and A5..A10.

1. Select the range or collection.

You must select a 3D range.

2. Hold down CTRL, and then click Edit and choose Copy Forward.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and sheets.

Related SmartIcons



Copies the contents of the current cell into all selected cells



Copies the contents of the leftmost column in the selection to fill the entire selection.



Copies the contents of the top row in the selection to fill the entire selection

See also

[Edit Commands](#)

[Edit Copy Back](#)

[Edit Copy Down](#)

[Edit Copy Left](#)

[Edit Copy Right](#)

[Edit Copy Up](#)

Edit Insert

Inserts blank columns or rows, adds worksheets to a file, or inserts blank cells in the range specified.

Caution Unless you select "Insert selection," Edit Insert inserts entire columns and rows in a file, not just in the part you see on the screen. If the current file is in Group mode, inserting rows or columns in one worksheet inserts rows or columns in all worksheets in that file.

1. To insert columns or rows, select a range that includes at least one cell in each of the columns or rows you are inserting, or select entire columns, rows, or worksheets.

Edit Insert inserts new rows above the selected range or rows and new columns to the left of the selected range or columns.

2. Choose Edit Insert or press CTRL+GRAY PLUS.

If you select entire columns, rows, or worksheets, no dialog box appears and the command executes, inserting new columns, rows, or worksheets.

If you select a range, the Insert dialog box appears.






3. Select Column, Row, or Sheet.
4. If you select Sheet, select Before or After to insert new worksheets before or after the current worksheet, and enter in the Quantity text box the number of worksheets to insert.

(Optional) If you select Column or Row, select "Insert selection" to insert blank cells in the range you specified and move existing data to the right (if you select Column) or down (if you select Row).

5. Choose OK.

When you insert columns, rows, or worksheets, 1-2-3 redefines named ranges and adjusts cell addresses and range addresses in formulas if necessary. For example, if you enter the formula +E6*100 and then insert two columns to the left of column E, 1-2-3 changes the formula to +G6*100.

Related SmartIcons and buttons

	Inserts a new worksheet after the current worksheet
	Inserts blank cells in the selected range and moves existing data down
	Inserts one or more columns to the left of the highlighted columns
	Inserts one or more rows above the highlighted rows
	Inserts a new worksheet after the current worksheet

See also

[Edit Commands](#)

[Edit Delete](#)

[File New](#) to insert a new blank file in memory

Edit Delete

Deletes columns, rows, or worksheets in the current file, or deletes cells in the range specified, closing up the space left by the deletion.

Caution Unless you select "Delete selection," Edit Delete deletes entire columns or rows, not just the part you see on the screen. If the current file is in Group mode, deleting rows or columns in one worksheet deletes the same rows or columns in all worksheets in that file.

1. Select a range that includes at least one cell in each of the columns, rows, or worksheets you are deleting, or select entire columns, rows, or worksheets.
2. Choose Edit Delete or press CTRL+GRAY MINUS.

If you select entire columns, rows, or worksheets, no dialog box appears and the command executes, deleting the selected columns, rows, or worksheets.

If you select a range, the Delete dialog box appears.

3. Select Column, Row, or Sheet.
4. (Optional) If you select Column or Row, select "Delete selection" to delete the cells in the selected range and move existing data to the left (if you select Column) or up (if you select Row).
5. Choose OK.

When you delete columns, rows, or worksheets, 1-2-3 redefines named ranges and adjusts cell addresses and range addresses in formulas if necessary. For example, if you enter the formula +G6*100 and then delete two columns to the left of column G, 1-2-3 changes the formula to +E6*100.

Caution If you delete an entire named range or any range referred to in a formula

- 1-2-3 changes the references to the range to ERR, and the formula results in ERR.
- The range name becomes undefined, and you must use Range Name again to define the range name.

Related SmartIcons



Deletes all columns in the highlighted range



Deletes all rows in the highlighted range



Deletes all worksheets in the highlighted range



Deletes the cells in the selected range and moves existing data up

See also

[Deleting a 1-2-3 for Windows File](#)

[Edit Commands](#)

[Edit Insert](#)

[Edit Undo](#) to restore deleted columns, rows, or worksheets

Edit Find & Replace

Finds or replaces specified characters in labels, formulas, or both.

1-2-3 searches for the characters in cells formatted as Hidden using Style Number Format, but not in columns or worksheets hidden using Style Hide.

To find specified characters

1. Select the range.
2. Choose Edit Find & Replace.
3. In the "Search for" text box, enter the characters you want to find. You can specify up to 512 characters.
4. Under Action, select Find.
5. Under Include, select Labels, Formulas, or Both.
6. Under Search through, select All worksheets or Selected range.
7. Choose OK.

The Find dialog box appears and 1-2-3 highlights the cell containing the first occurrence of the search characters.

To replace specified characters

1. Select the range.
2. Choose Edit Find & Replace.
3. In the "Search for" text box, enter the characters you want to find. You can specify up to 512 characters.
4. Under Action, select Replace with; then enter the replacement characters in the "Replace with" text box. You can specify up to 512 characters.
5. Under Include, select Labels, Formulas, or Both.
6. Under Search through, select All worksheets or Selected range.
7. Choose OK.

The Replace dialog box appears and 1-2-3 highlights the cell containing the first occurrence of the search characters.

Related SmartIcons

Close

Equivalent to choosing Edit Find & Replace

See also

Edit Commands

Edit Find

1. To find the next occurrence of the search characters, choose Find Next.
2. To stop the search and return 1-2-3 to Ready mode, choose Close.

When 1-2-3 cannot find another occurrence of the search characters, 1-2-3 displays the message "No more matching strings".

See also

[Edit Find & Replace](#)

[Edit Replace](#)

Edit Replace

1. Choose an option.

- Replace replaces the first occurrence of the search characters in the highlighted cell with the replacement characters and highlights the cell containing the next occurrence of the characters.
- Replace All replaces all remaining occurrences of the search characters with the replacement characters and returns to 1-2-3 to Ready mode.
- Find Next highlights the cell containing the next occurrence of the search characters without replacing the current occurrence.

2. To stop the search and return 1-2-3 to Ready mode, choose Close.

When 1-2-3 cannot find another occurrence of the search characters, 1-2-3 displays the message "No more matching strings" .

See also

[Edit Find & Replace](#)

[Edit Find](#)

Edit Go To

Navigates to and selects an item. You can go to cells, ranges, charts, drawn objects, and query tables.

1. Choose Edit Go To.
2. In the "Type of item" drop-down box, select the item type.
3. To go to an item in another open file, select the file in the "In file" drop-down box.
4. Enter the name of an item in the text box, or select the item in the list box.
5. Choose OK.

Related SmartIcons and buttons



Equivalent to choosing Edit Go To



Navigates to and selects a named range in the current file

See also

F5 (GOTO)

Edit Insert Object

Creates and places in the worksheet an OLE embedded object.

1. Select a cell or drawn object.

1-2-3 places the new OLE object slightly to the right and below the cell or drawn object you select.

2. Choose Edit Insert Object.

3. In the Object Type list box, select the application you want to use to create the new object (the server application).

4. Choose OK.

This starts the selected application, or activates it if it is already open.

5. In the server application, create the new object.

6. When you are finished, choose File Update in the server application.

7. Choose File Exit or File Exit & Return in the server application.

The server application closes if it was closed when you started, and you return to 1-2-3. The new OLE object appears as a drawn object.

Related SmartIcons

Close

Equivalent to choosing Edit Insert Object

See also

[Creating a Link to a 1-2-3 File](#)

[Edit Commands](#)

[Edit Links](#)

[Editing an OLE Embedded Object in a Worksheet](#)

[Overview of DDE and OLE in 1-2-3](#)

Edit Links

Refreshes file [links](#) and creates and maintains [DDE](#) and [OLE](#) links between the current file and other Windows applications that support DDE or OLE as a [server](#).

1. In the Link Type [drop-down box](#), select File Links or DDE/OLE Links.

File Links

Updates formulas in the current file that contain links to other files.

DDE/OLE Links

Creates and maintains DDE and OLE links.

See also

Help

[Edit Commands](#)

User's Guide

Chapter 10, "Calculating with Formulas"

Chapter 25, "Using 1-2-3 with Other Applications"

Edit Links File Links

Updates all file links.

1. Choose Edit Links.

2. In the Link type drop-down box, select File Links.

In the Links list box, 1-2-3 displays the names of all files to which the current file has links.

3. Choose Update All.

1-2-3 updates all formulas in the current file that contain links to other files.

4. Choose Close.

Related SmartIcons

Close

Highlights or produces a report of all file links in the current file or in all active files

See also

Help

Edit Links

User's Guide

Chapter 10, "Calculating with Formulas"

Chapter 25, "Using 1-2-3 with Other Applications"

Edit Links DDE/OLE Links

Creates and maintains DDE and OLE links between the current file and other Windows applications that support DDE or OLE as a server.

Information

Displays information about the selected DDE or OLE link.

Update/Update All

Updates DDE or OLE links when the link update mode is Manual, or activates and updates links deactivated with Edit Links Deactivate.

Edit

Changes a DDE or OLE link by changing the source application, topic, item, format, link update mode, or destination.

Deactivate

Deactivates a DDE or OLE link, but leaves the link intact. When a link is deactivated, 1-2-3 does not automatically update the contents of the destination.

Delete

Deletes a DDE or OLE link, but leaves the contents obtained through the link in the destination.

Create

Creates a DDE or OLE link between the current file and data from another Windows application.

Related SmartIcons

Close

Highlights or produces a report of all DDE links in the current file or in all active files

See also

Help

[Edit Links](#)

[Edit Paste Link](#)

[Edit Paste Special](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 10, "Calculating with Formulas"

Chapter 25, "Using 1-2-3 with Other Applications"

Edit Links Information

Displays information about the currently selected DDE or OLE link in the Edit Links dialog box.

1. Choose Edit Links.
2. In the Link type drop-down box, select DDE/OLE links.

In the Links list box, 1-2-3 displays the names of all DDE and OLE links associated with the current file except those created with {DDE-ADVISE} or {DDE-REQUEST}.

3. Select the link in the Links list box.

In the Information box, 1-2-3 displays the following information about the selected link:

Caption	Description
Application	The name of the <u>server</u> application, for example, AmiPro.
Topic	Usually the name of a file in the server application, for example, C:\AMIPRO\DOCS\REPORT.SAM
Item	A region in the topic, such as a range in a spreadsheet or a bookmark in a word processing document.
Format	The <u>Clipboard format</u> for the link. The format may be any format recognized by both 1-2-3 and the server application. If the format for the link is Picture, Bitmap, or DIB, the destination for the link is a drawn object.
Update mode	Either Automatic or Manual. Automatic links: 1-2-3 automatically updates the destination when the server data changes. Manual links: Choose <u>Update</u> to update the destination.
Link status	The current status of the link. Inactive: This link may not be up-to-date, either because you deactivated the link or the application or topic is unavailable. Not Available: This link may not be up-to-date, either because the server does not support the specified format or the item is unavailable. Active: If the link is automatic, it is up-to-date.
Range	The <u>destination range</u> for the link. If the format for the link is Picture, Bitmap, or DIB, or if the link is an OLE link, the destination for the link is a drawn object and no range is given.

See also

Edit Links
Overview of DDE and OLE in 1-2-3

Edit Links Update/Update All

Updates DDE and OLE links when the link update mode is Manual, or activates and updates links deactivated with Edit Links Deactivate. Update updates the selected link; if no link is selected, Update All updates all DDE and OLE links in the current file.

1. Choose Edit Links.
2. In the Link type drop-down box, select DDE/OLE links.
In the Links list box, 1-2-3 displays the names of all DDE and OLE links associated with the current file except those created with {DDE-ADVISE} or {DDE-REQUEST}.
3. (Optional) To update a single link, select the link in the Links list box.
In the Information box, 1-2-3 displays information about the selected link.
4. Choose Update or Update All.
1-2-3 updates the destination(s) with current information from the source file(s).
5. Choose Close.

See also

Help

[Edit Links](#)

[Edit Paste Special](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 10, "Calculating with Formulas"

Chapter 25, "Using 1-2-3 with Other Applications"

Edit Links Edit

Changes a DDE or OLE link by changing the source application, topic, item, or format, the link update mode, or the destination range.

1. Choose Edit Links.
2. In the Link Type drop-down box, select DDE/OLE links.
In the Links list box, 1-2-3 displays the names of all DDE and OLE links associated with the current file except those created with {DDE-ADVISE} or {DDE-REQUEST}.
3. In the Links list box, select the link to edit.
In the Information box, 1-2-3 displays information about the selected link.
4. Choose Edit.
The Edit Link dialog box appears.
5. To change the server application, specify another application in the Application drop-down box. The application you specify must support DDE or OLE as a server.
The Application drop-down box contains a list of active Windows applications that support DDE or OLE as a server. You can select an active application, or you can enter the name of an inactive application.
If you enter the name of an application on the system path, or the full path and name of an application, 1-2-3 attempts to start the application if it is not currently open.
6. To change the topic, specify another topic in the Topic drop-down box.
The Topic drop-down box contains a list of supported topics in the selected application, including all active files and any other supported topics. You can select a topic from the list, or you can enter the name of an inactive file or another supported topic.
If you enter the name of a file in the server application's default directory, or the full path and name of a file, 1-2-3 attempts to open the file in the server application if it is not currently open.
7. To change the data item in the topic whose data is transferred to the destination, enter the name of another item in the Item text box.
8. To change the Clipboard format for the transferred data, specify another format in the Format drop-down box.
9. To change the update mode, select an option.
 - Automatic updates data in the destination each time the source item is updated.
 - Manual updates data in the destination only when you choose Edit Links Update/Update All.
10. To change the destination range displayed in the Range text box, specify another range.
If the format for the link is Picture, Bitmap, or DIB, or if the link is an OLE link, the destination for the link is a drawn object and the Range text box does not appear.
Caution When the format for the link is Text, Wk1, or Wk3, and the destination range is not big enough to hold the incoming data, 1-2-3 clips the incoming data that does not fit.
11. Choose OK.
12. Choose Close.

See also

Help

Edit Links

Edit Paste Special

Overview of DDE and OLE in 1-2-3

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Edit Links Deactivate

Deactivates a DDE or OLE link, but leaves the link intact. When a link is deactivated, 1-2-3 does not update values in the destination range.

1. Choose Edit Links.
2. In the Link type drop-down box, select DDE/OLE links.
In the Links list box, 1-2-3 displays the names of all DDE and OLE links associated with the current file except those created with {DDE-ADVISE} or {DDE-REQUEST}.
3. In the Links list box, select the link to deactivate.
In the Information box, 1-2-3 displays information about the selected link.
4. Choose Deactivate.
5. Choose Close.

To reactivate and update values in the link's destination range, use Edit Links Update.

See also

Help

Edit Links

Overview of DDE and OLE in 1-2-3

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Edit Links Delete

Deletes a DDE or OLE link, but leaves the values obtained through the link in the destination range.

1. Choose Edit Links.
2. In the Link type drop-down box, select DDE/OLE links.
In the Links list box, 1-2-3 displays the names of all DDE and OLE links associated with the current file except those created with {DDE-ADVISE} or {DDE-REQUEST}.
3. In the Links list box, specify the link to delete.
In the Information box, 1-2-3 displays information about the selected link.
4. Choose Delete.
5. Choose Close.

See also

Help

Edit Links

Overview of DDE and OLE in 1-2-3

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Edit Links Create

Creates a [link](#) between the current file and data in another Windows application that supports [DDE](#) or [OLE](#) as a [server](#). Edit Links Create also specifies an update mode for the link.

1. Select a cell or [range](#).

Caution When the format for the link is Text, Wk1, or Wk3, and the [destination range](#) is not big enough to hold the incoming data, 1-2-3 clips the incoming data that does not fit.

2. Choose Edit Links.
3. In the Link type [drop-down box](#), select DDE/OLE links.

In the Links [list box](#), 1-2-3 displays the names of all DDE and OLE links associated with the current file except those created with [{DDE-ADVISE}](#) or [{DDE-REQUEST}](#).

4. Choose Create.

The Create Link dialog box appears.

5. To change the default link name displayed in the Link name [text box](#), enter a new link [name](#).

If you do not enter a new name, 1-2-3 assigns the default name to the link. The first default link name is LINK1, the next default link name is LINK2, and so on.

6. In the Application drop-down box, specify the application to link to (the server application).

The Application drop-down box contains a list of active Windows applications that support DDE or OLE as a server.

When there is information on the [Clipboard](#) from an application that supports DDE or OLE as a server, 1-2-3 selects the name of that application in the Application drop-down box. You can select another active application, or you can enter the name of an inactive application.

If you enter the name of an application on the system path, or the full path and name of an application, 1-2-3 attempts to start the application if it is not already open.

7. In the Topic drop-down box, specify the topic to link to.

The Topic drop-down box contains a list of supported topics in the selected application, including all active files and any other supported topics.

When there is information on the Clipboard from an application that supports DDE as a server, 1-2-3 displays the topic name in the Topic drop-down box. You can select another topic from the list, or you can enter the name of an inactive file or another supported topic.

If you enter the name of a file in the server application's default directory, or the full path and name of a file, 1-2-3 attempts to open the file in the server application if it is not already open.

8. In the Item text box, specify the source item to link to. This is the data item in the topic whose data is transferred to the destination.
9. In the Format drop-down box, specify a [Clipboard format](#) for the transferred data.

10. Under Update mode, select an option.

- Automatic updates data in the destination each time the source item is updated.
- Manual updates data in the destination only when you choose [Edit Links Update/Update All](#).

Note If the source file does not support the requested mode, the link is created but its status is Not Available.

11. Choose OK.
12. Choose Close.

See also**Help**

[Edit Links](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Overview of DDE and OLE in 1-2-3

In the Microsoft Windows environment, you can share information across applications by using one of the following:

- [Dynamic Data Exchange \(DDE\)](#)
- [Object Linking and Embedding \(OLE\)](#)

For more information about DDE and OLE, see the following Help topics.

Creating links

[Creating a Link in a 1-2-3 File](#)

Explains how to use 1-2-3 as a client that receives information from another application.

[Creating a Link to 1-2-3 in Another Application](#)

Explains how to use 1-2-3 as a server that sends information to another application.

Creating embedded objects

[Embedding an Object in a 1-2-3 File](#)

Explains how to embed an object from another application into a 1-2-3 file.

[Embedding a 1-2-3 Worksheet Object in Another Application](#)

Explains how to embed a 1-2-3 Worksheet object into a file in another application.

Basic DDE and OLE Concepts

[About DDE and OLE Links](#)

[About OLE Embedded Objects](#)

[Communicating Between Applications Using DDE and OLE](#)

[Glossary of DDE and OLE Terms](#)

Advanced DDE and OLE Information

[@DDELINK](#)

[DDE and OLE Macro Commands](#)

[1-2-3 as a DDE or OLE Client](#)

[1-2-3 as a DDE or OLE Server](#)

[Sample DDE Macros](#)

Exchanging data with Lotus Notes

[Exchanging Data Between 1-2-3 and Notes](#)

Explains how to use OLE to exchange data between 1-2-3 and Notes.

Creating a Link in a 1-2-3 File: 1-2-3 = Client

When you create a [link](#) to another application in a 1-2-3 file, the file uses data from another Windows application. 1-2-3 is the [client](#), and the other application must support [DDE](#) or [OLE](#) as a [server](#).

A 1-2-3 file can use data from several different OLE/DDE applications at once.

Creating a link the easy way

The easiest way to create a link in a 1-2-3 file is by using [Edit Paste Link](#), which creates a link using the contents of the Clipboard. Use Edit Copy in the other application to copy the data to the Clipboard, and then use Edit Paste Link in 1-2-3 to create the link.

If the other Windows application supports OLE 2, you may also be able to drag the selection from the other application to create a link. See the other application's documentation for more information about which key combination to use in conjunction with dragging.

Other ways to create links

1-2-3 provides several other methods for creating links. You need to understand more about DDE and OLE to use these methods.

[Edit Paste Special](#)

Creates a link using the contents of the Clipboard, but gives you more control over the appearance of the link.

[Edit Links Create](#)

Creates a link using an application, topic, and item that you specify.

[@DDELINK](#)

Creates a DDE link using an application, topic, and item that you specify.

[DDE and OLE Macro Commands](#)

Create and manipulate links.

See also

Help

[About DDE and OLE Links](#)

[Communicating Between Applications Using DDE and OLE](#)

[Creating a Link to 1-2-3 in Another Application](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Creating a Link to 1-2-3 in Another Application: 1-2-3 = Server

When you create a [link](#) to 1-2-3 in another Windows application, 1-2-3 provides data to the other application. 1-2-3 is the [server](#), and the other application must support [DDE](#) or [OLE](#) as a [client](#).

To create a link using Edit Paste Link or Edit Paste Special

1. Make the 1-2-3 file that contains the original data the [active window](#).
The 1-2-3 file must be a named file. It cannot be Untitled.
2. Select the [range](#), [chart](#), or [query table](#) you want to use in another application.
3. Choose Edit Copy to copy the data to the Clipboard.
Leave 1-2-3 running. If you want, you can minimize the 1-2-3 window to an icon.
4. Start the other application and open the file you want to contain the data.
5. If necessary, indicate the position where you want the data to appear.
6. Choose Edit Paste Link or Edit Paste Special.
See the other application's documentation for more information about which Edit Paste command to use.
The data appears in the file and is linked to the 1-2-3 file.

To create a link using drag-and-drop

The client application must support OLE 2.

1. Tile the 1-2-3 window and the window of the other OLE 2 application so they are both visible.
2. Make the 1-2-3 file that contains the original data the [active window](#).
The 1-2-3 file must be a named file. It cannot be Untitled.
3. Select the [range](#), [chart](#), or [query table](#) you want to use in the other application.
4. Position the mouse pointer on the border of your selection.
You know 1-2-3 is ready to do a drag-and-drop of a range when the mouse pointer changes from an arrowhead to an open hand:

Close

5. Hold down the left mouse button and also hold down both the CTRL and the SHIFT keys.
The mouse pointer now grabs the border of the selection and looks like this:

Close

6. Without releasing the mouse button or the CTRL and SHIFT keys, drag the selection to its destination in the other OLE 2 application.
While you drag, your selection is represented as a dotted outline.
To cancel the drag operation, press ESC.
7. Release the mouse button and the CTRL and SHIFT keys when you reach the destination.
As in a copy operation, a copy of the data has been pasted in its new location and now appears in two places. The two copies are linked; if you make changes to the data in 1-2-3, those changes will appear in the other OLE 2 application.

See also

Help

About DDE and OLE Links

Communicating Between Applications Using DDE and OLE

Creating a Link in a 1-2-3 File

Overview of DDE and OLE in 1-2-3

Using Drag-and-Drop to Copy Data from 1-2-3 to Other Applications

Using Drag-and-Drop to Move and Copy Data Within 1-2-3

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Embedding an Object in a 1-2-3 File: 1-2-3 = Client

When you embed an object from another application in a 1-2-3 file, the object and its data are stored in the .WK4 file. You use the other application to create and edit the object while you are in 1-2-3. 1-2-3 is the client, and the other application must support OLE as a server.

A 1-2-3 file can contain objects from several different applications.

Embedding a new object

To create a new object with another application and embed it in a 1-2-3 file, use Edit Insert Object. You choose the type of object, and 1-2-3 automatically activates the other application, letting you use all of that application's features to create the object.

Embedding an existing object

To create an embedded object using data that already exists in another application, use Edit Copy in the other application to place the data on the Clipboard. Then use Edit Paste Special in 1-2-3, choosing the "... Object" Clipboard format, to embed the object in the 1-2-3 file.

See also

Help

[About OLE Embedded Objects](#)

[Communicating Between Applications Using DDE and OLE](#)

[Editing an OLE Embedded Object in a 1-2-3 File](#)

[Embedding a 1-2-3 Worksheet Object in Another Application](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Embedding a 1-2-3 Worksheet Object in Another Application: 1-2-3 = Server

When you embed a [1-2-3 Worksheet object](#) into a file in another application, the worksheet and its data are stored in the other application's file, but you use 1-2-3 to create and edit the object while you are in the other application. 1-2-3 is the [server](#), and the other application must support [OLE](#) as a [client](#).

Embedding a new object

To create a new 1-2-3 Worksheet object and embed it in a file in another application, use Edit Insert Object in the other application, choosing 1-2-3 Worksheet from the list of object types. The other application automatically activates 1-2-3, letting you use all of 1-2-3's features to create the object.

Embedding an existing object

To create a 1-2-3 Worksheet object using data that already exists in a 1-2-3 file, use [Edit Copy](#) or [Edit Cut](#) in 1-2-3 to place the data on the Clipboard. Then use Edit Paste Special in the other application, choosing the "1-2-3 Worksheet Object" [Clipboard format](#), to embed the object in the other application's file. The 1-2-3 file must be a named file. It cannot be Untitled.

OLE-specific File commands

When the current 1-2-3 window contains a 1-2-3 Worksheet object embedded in another application, the following commands are available:

File Update

Updates data in the 1-2-3 Worksheet object.

File Save Copy As

Saves a copy of the 1-2-3 Worksheet object as a 1-2-3 file or as another file type.

File Exit & Return

Ends the 1-2-3 session and returns to the application that contains the 1-2-3 Worksheet object.

See also

Help

[About OLE Embedded Objects](#)

[Communicating Between Applications Using DDE and OLE](#)

[Embedding an Object in a 1-2-3 File](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Editing an OLE Embedded Object in a 1-2-3 File

1. Double-click the object.

This starts the server application or activates it if it is already open, and opens the object in the server application.

2. Edit the object.
3. Choose File Update in the server application to save your changes as part of the 1-2-3 worksheet file.
4. Choose File Exit or File Exit & Return in the server application.

The server application closes if it was closed when you started, and you return to 1-2-3.

See also

Help

[About OLE Embedded Objects](#)

[Embedding an Object in a 1-2-3 File](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Communicating Between Applications Using DDE and OLE

In the Microsoft Windows environment, you can share information across applications in several ways. Information that you share can be either static or dynamic.

Static shared information: Using Edit Copy and Edit Paste

To share information statically, you use the Clipboard to copy data from one application and paste it into another application. When you change the original information, the copy that you pasted does not automatically change. You must repeat the copy and paste to keep the information up to date.

Dynamic shared information: Links

To share information dynamically, you create a link between the two applications. A link is a communication channel through which

- Information is transferred from one application to another.
- Information is automatically updated in the receiving, or client, application whenever the information changes in the originating, or server, application.

Two kinds of communication channels: DDE and OLE

Windows provides two kinds of communication channels that let you create links: Dynamic Data Exchange (DDE) and Object Linking and Embedding (OLE). Whenever you create a link between Windows applications, you are using DDE or OLE.

Link = Server + Client

Every link connects a server and a client. For example, when you create a link from an Ami Pro for Windows document to a 1-2-3 worksheet, Ami Pro is the server because it provides data to 1-2-3, and 1-2-3 is the client because it uses the data from Ami Pro.

A server can provide data to several clients, and a client can obtain data from several servers. A 1-2-3 file can be both a server and a client simultaneously.

Think of a link as being like a telephone conversation. The client starts the conversation by calling the server. If the server responds, the client then asks the server for a specific piece of information. If the server has the information, it provides the information to the client.

As long as the conversation continues, the server will notify the client whenever the information changes. Either the client or the server can end the conversation, or hang up the phone, at any time.

Automatic and manual links

Most links are automatic links, so when the information in the server changes, the link is automatically updated.

Links can also be manual. With a manual link, the link is updated only when you choose Edit Links Update. You can create manual links, or change existing automatic links to manual links.

When you have many links in a file, and the data in the server application changes frequently, you may want to make the links manual or deactivate them to improve system performance.

OLE embedded objects

In addition to creating DDE and OLE links, you can also use OLE to create OLE embedded objects. Embedded objects are not links, but they share some characteristics of links.

Like links, OLE embedded objects give you access to one application (the server) when you are in another (the client). When you embed an object, however

- The data is stored in the client application.

- There is no link to a file in the server application.
- You edit the embedded object by opening the server application from within the client application.

You embed objects using [Edit Paste Special](#) or [Edit Insert Object](#).

See also**Help**

[1-2-3 as a DDE or OLE Client](#)

[1-2-3 as a DDE or OLE Server](#)

[About DDE and OLE Links](#)

[About OLE Embedded Objects](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

About DDE and OLE Links

What is a link?

A link is a connection between data in one application (the server) and another application (the client). With an automatic link, the data in the client automatically changes when you change the original data in the server.

What does a link look like?

Depending on the type of link, a link may look like ordinary data in the spreadsheet, or like a drawn object.

Links that look like spreadsheet data have the @DDELINK @function in the top left corner of the linked range.

Depending on the server application, links that look like drawn objects may look like a piece of a document in the server application (for example, a few cells from a spreadsheet) or like the server application's icon. If a link looks like the server application's icon, double-click the object to activate the server application. You can then view or print the data in the object.

What can you do with a link?

Once you have created a link, you can do anything with it that you can do with other information in 1-2-3. For example, you can move the link, copy it, or delete it just as you would with a range or a drawn object. However, you cannot move or delete only part of a link; you must move or delete the entire link.

There are also operations that you can only perform with links. You can double-click a link to activate the server application so that you can change the original data for the link. Using Edit Links, you can display and change information about a link. For example, you can edit a link so that it refers to a different piece of data in the server application or change a link from automatic to manual.

You can even use DDE to control the server application. To do this, you open a DDE conversation with the DDE macro commands. You can then send commands to the server application for it to execute.

When should you use links?

Use links when **all** of the following are true:

- You need to share data between Windows applications.
- You expect the shared data to change.
- You need to update the shared data when the original data changes.

For example, if you keep financial information in a 1-2-3 worksheet, and you use the same information in reports you create using Ami Pro, you may want to create links in an Ami Pro document to the data in the 1-2-3 worksheet. In this example 1-2-3 is the server and Ami Pro is the client.

Do not use links when **any one** of the following is true:

- You only need to use the data in one application.
- You do not expect the data to change.
- You do not need to update the shared data when the original data changes.

For example, if you use Freelance Graphics to create your company logo, and you want to use the logo in your 1-2-3 worksheets and your Ami Pro documents, you would not use links, since the logo is not likely to change. Instead, you could simply copy the logo in Freelance Graphics and paste it into 1-2-3 and Ami Pro.

Link terminology

Every link has an application, a topic, and an item.

Application	The name of the server application for a DDE link, for example, AmiPro; the OLE class name for an OLE link, for example, AmiPro Document
Topic	Usually the name of a file in the server application, for example, C:\AMIPRO\DOCS\REPORT.SAM
Item	A region in the topic, such as a range in a spreadsheet or a bookmark in a word processing document.

See also**Help**

[Communicating Between Applications Using DDE and OLE
Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

About OLE Embedded Objects

What is an OLE embedded object?

An OLE embedded object is a piece of data stored in a file in one application (the client) that you create and edit using another application (the server). With an embedded object, you can use the features of the server application to manipulate data in the client application. For example, you can embed an AmiPro Document object in a 1-2-3 file. You use Ami Pro to create and edit the object's data, but that data is stored in the 1-2-3 file.

What does an OLE embedded object look like?

An OLE embedded object looks like a drawn object. Depending on the server application, an embedded object may look like a piece of a document in the server application (for example, a few cells from a spreadsheet) or like the server application's icon. If an object looks like the server application's icon, double-click the object to activate the server application. You can then view or print the data in the object.

What can you do with an OLE embedded object?

Once you have created an embedded object, you can do anything with it that you can do with another drawn object in 1-2-3. For example, you can move the object, copy it, or delete it just as you would with a drawn object.

Just as with a link, you can double-click an embedded object to activate the server application so that you can edit the object. You can use all the features of the server application to change the object's data or appearance. For example, you can use Ami Pro to format text in an AmiPro Document object so that it appears in two-column format.

When should you use OLE embedded objects?

Use OLE embedded objects when

- You need to use information in one application that you can only create or format in another application.
- You don't need to share the information.

For example, if you want to place two-column text in a 1-2-3 worksheet, and you don't need to use the data in any other application except 1-2-3, you can embed an AmiPro Document object in the 1-2-3 file.

OLE terminology

Every OLE embedded object has a class name and a document name.

Class name The name of the application used to create and edit the object, and the type of object, for example, 1-2-3 Worksheet or AmiPro Document.

Document name The name of the object itself.

See also

Help

[Communicating Between Applications Using DDE and OLE](#)
[Exchanging Data Between 1-2-3 and Notes](#)
[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Glossary of DDE and OLE Terms

Application	The name of the server application for a DDE link, for example, AmiPro; the OLE class name for an OLE link, for example, AmiPro Document.
Automatic link	A link that automatically updates data in the client application when the data in the server application changes.
Client	The application that requests data from or sends instructions to be carried out by a server application.
Clipboard format	One of a number of standard formats for the exchange of data between Windows applications, for example, Text format.
DDE	Dynamic Data Exchange, a standard for data exchange between Windows applications.
Embedded object	A piece of data in an application that was created in a different application and can be manipulated as a single unit, for example, a 1-2-3 worksheet in an Ami Pro document.
Item	The specific region or piece of data for a link, for example, an Ami Pro bookmark.
Link	A communication channel between data in one application (the server) and another application (the client).
Manual link	A link that does not automatically update data in the client application when the data in the server application changes.
OLE	Object Linking and Embedding, a standard for data exchange and the creation of compound documents using Windows applications.
Server	The application that provides data to or receives instructions from a client application.
Topic	Either the name of the file in the server application or a special topic supported by the server application, for example, "SALES.WK4" or "System".

See also

[Overview of DDE and OLE in 1-2-3](#)

1-2-3 as a DDE or OLE Server

1-2-3 Release 5 supports both DDE and OLE as a server application. The following technical information about 1-2-3 server support may be of interest if you are an advanced DDE or OLE user.

The System topic

1-2-3 supports a special topic called System, which provides a context for items of information that may be of general interest to other applications. The System items that 1-2-3 supports are listed below. 1-2-3 responds to a request for any of these items in tab-delimited text format. Each string is terminated with a carriage-return and linefeed characters, for example, `\r\n`.

Items in the System topic

Item	Return Value
Systems	A list of all System topic items supported by 1-2-3.
Topics	A list of all 1-2-3 DDE topics, including all files in memory plus the System topic.
Formats	A list of all <u>Clipboard formats</u> that 1-2-3 supports. This list does not distinguish between formats that can be only copied or only pasted and formats that can be both copied and pasted.
Selection	The address of the currently selected range or the name of the currently selected <u>drawn object</u> . If no range or drawn object is selected, the current cell pointer location, preceded by the current file name.
RangeNames	A list of all files in memory and their named ranges. Tab characters separate each range and CRLF characters precede each new file name.
Status	The current state of 1-2-3, either "Ready" or "Busy".

Clipboard formats

1-2-3 supports the following Clipboard formats as a server: Rich Text Format, Text, Wk3, Wk1, Picture, DIB, Bitmap.

DDE execute strings

The format for execute strings sent to 1-2-3 is

`[run(command-string)]`

where *command-string* is any 1-2-3 command, including macros.

Examples of DDE execute strings

This string	Executes a
<code>[run(/dfa1..c10~~~~)]</code>	1-2-3 Classic menu command
<code>[run(:fctma1..c10~)]</code>	1-2-3 Wysiwyg menu command
<code>[run({EDIT-COPY a1..c10})]</code>	1-2-3 macro command
<code>[run({pasteit})]</code>	Macro named <i>pasteit</i>

DDE control settings in 123R5.INI

The ServerOff setting in the [DDE] section of 123R5.INI controls whether 1-2-3 will respond as a DDE server. The default setting is 0 (server support is on).

DDE application name

The DDE application name of 1-2-3 is "123W"

OLE class name

The OLE class name of 1-2-3 objects is "1-2-3 Worksheet"

See also**Help**

[1-2-3 as a DDE or OLE Client](#)

[Overview of DDE and OLE in 1-2-3](#)

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

1-2-3 as a DDE or OLE Client

1-2-3 Release 5 supports both DDE and OLE as a client application. The following technical information about 1-2-3 client support may be of interest if you are an advanced DDE or OLE user.

Clipboard formats

1-2-3 supports the following Clipboard formats as a client: Text, Wk3, Wk1, Picture, DIB, Bitmap.

DDE control settings in 123R5.INI

The following settings in the [DDE] section of 123R5.INI control how 1-2-3 works as a DDE client.

<u>Setting</u>	<u>Description</u>
Autostart	Whether to automatically launch the server application when creating a <u>link</u> or updating an inactive link if there is no response to the DDE-Initiate message. Default setting: 1 (automatically launch the server)
ExecTimeOut	Time in mSec to wait for the server application to answer a DDE-Execute message. Default setting: 30000
PokeTimeOut	Time in mSec to wait for the server application to answer a DDE-Poke message. Default setting: 10000
ReqTimeOut	Time in mSec to wait for the server application to answer a DDE-Request message. Default setting: 10000
TermTimeOut	Time in mSec to wait for the server application to answer a DDE-Terminate message. Default setting: 15000

See also

Help

1-2-3 as a DDE or OLE Server
Overview of DDE and OLE in 1-2-3

User's Guide

Chapter 25, "Using 1-2-3 with Other Applications"

Exchanging Data Between 1-2-3 and Notes

Notes Field Exchange (Notes/FX) lets you exchange data between 1-2-3 and Notes by embedding a [1-2-3 Worksheet object](#) in a Notes form. Information that you enter in either 1-2-3 or Notes then appears in the other application when the worksheet object is activated or updated.

Use this feature to create Notes applications that let multiple users create spreadsheets using the same 1-2-3 template and store the spreadsheets in a Notes database.

For example, you can create a Notes form for an expense report and embed a worksheet object in the form. Whenever you use the form to compose a new expense report, Notes can automatically start 1-2-3 so you can enter your expense report information easily in a 1-2-3 worksheet.

When you complete the expense report and close 1-2-3, you can update the worksheet object embedded in the form. Information from the expense report worksheet, such as total expenses, now appears in the Notes document or in the Notes view. The expense report is stored in a Notes database with other expense reports.

You can exchange two types of data:

- Application-defined data: Descriptive data about the embedded worksheet object, such as title and comments from the File Doc Info dialog box, the file size, number of worksheets in the file, and so on.
- User-defined data: Text and numbers (including dates and times) from cells. User-defined data can travel in both directions: from 1-2-3 to Notes, and from Notes to 1-2-3.

In order to exchange data between 1-2-3 and Notes, you must have Lotus Notes Release 3.0 for Windows or later, and you must start SHARE.EXE before you start Windows. To start SHARE.EXE before every Windows session, add the following line to your AUTOEXEC.BAT file, substituting the location of your DOS directory for *d:\dos_dir*:

```
d:\dos_dir\SHARE
```

See your DOS documentation for information about SHARE.EXE.

1-2-3 includes a sample Notes database file, EXPENSE.NSF, that demonstrates Notes Field Exchange. To use the sample file, copy EXPENSE.NSF into your local Notes directory; then use File Open Database in Notes to add the database to your Notes desktop. In addition, most SmartMaster templates contain fields for Notes/FX.

Setting Up Notes Field Exchange

Explains how to set up an application that exchanges data between 1-2-3 and Notes.

Using Notes Field Exchange

Explains how to use an application that exchanges data between 1-2-3 and Notes.

See also

[About OLE Embedded Objects](#)

[Embedding a 1-2-3 Worksheet Object in Another Application](#)

[Overview of DDE and OLE in 1-2-3](#)

Setting Up Notes Field Exchange (Notes/FX)

To exchange data between fields in 1-2-3 and Lotus Notes, embed a 1-2-3 Worksheet object in a Notes form. 1-2-3 can exchange file information and worksheet data with Notes.

Setting up Notes field exchange is a three-step process:

- Create the 1-2-3 template (the 1-2-3 Worksheet object that you will embed in the Notes form).
- Create the Notes form.
- Embed the 1-2-3 template as an object in the Notes form.

To create the 1-2-3 template

1. In 1-2-3, use File New to create a new file or use File Open to open the file you want to use as a template for exchanging data with Notes.
2. To create fields that exchange worksheet data (user-defined data), create a 2-column table anywhere in the worksheet.

Column 1: Field names in Notes form that will receive and send worksheet data. Field names in Notes cannot contain spaces.

Column 2: Data to exchange, or the cell address or name of a range in the same file that contains the data. If you specify a range, the corresponding field in Notes must accept multiple values.
3. Use Range Name Add to name the 2-column table NOTES FIELDS.
4. Use File Save to save the file.

To create the Notes form

1. In Lotus Notes, select a database and choose Design Forms.
2. Do one of the following:
 - To create a new form, choose New.
 - To edit an existing form, select a form and choose Edit.
3. (Optional) In the Notes form, enter a description for your field.
4. To create a field that exchanges worksheet data (user-defined data), use Design New Field to create a field with a name that you entered in column 1 of the range named NOTES FIELDS in the worksheet template, and specify a data type, typically Number or Text.
5. To create a field that exchanges file data (application-defined data), such as the fields displayed in the worksheet object's Doc Info dialog box, enter the Notes field name and the data type as listed in the table below.

For example, in a Notes form you can create a field named Title, specify Text as the data type and embed a 1-2-3 worksheet object. When you open a Notes document created with that form, it will display the title (defined using File Doc Info) of the worksheet object.

Note To view all the information in this table, maximize the Help window by clicking the Maximize button.

Doc Info field name	Description	Notes field name	Data type	Information flow
Author	Author of file	From	Names	Notes to 1-2-3
Title	Title entered in Doc Info dialog box	Title	Text	Bidirectional
Subject	Subject entered in	Subject	Text	Bidirectional

	Doc Info dialog box			
Keywords	Keywords entered in Doc Info dialog box	Categories	Text	Bidirectional
Comments	Comments entered in Doc Info dialog box	DocumentComments	Text	Bidirectional
Revisions	Revision notes entered in Doc Info dialog box	RevisionComments	Text	Bidirectional
Created	Date and time file was created	Date	Time	1-2-3 to Notes
Last revised	Date and time file was last revised	LastRevisionDate	Time	1-2-3 to Notes
Revised by	Person who last revised the file	LastEditor	Text	1-2-3 to Notes
Total revisions	Total number of revisions	NumberOfEdits	Number	1-2-3 to Notes
Editing time	Total time file was open	EditingTime	Number	1-2-3 to Notes
Worksheets	Number of worksheets in the file	SizeInPages	Number	1-2-3 to Notes
Size	Size of the embedded object in kilobytes (1-2-3 file plus a header)	SizeInK	Number	1-2-3 to Notes
(not displayed)	OLE class name (123Worksheet)	DocumentClass	Text	1-2-3 to Notes
(not displayed)	Worksheet names (worksheet letters are not sent)	PageTitles	Text	1-2-3 to Notes

The last two fields listed in the table are available to exchange data, but are not displayed in the Doc Info dialog box.

To embed the 1-2-3 template as an object

1. In 1-2-3, use Edit Copy to copy to the Clipboard the part of the worksheet that you want to display in the Notes form. Users of the Notes form can click this object to open 1-2-3.

You don't have to display the information that you want to exchange. Copying any part of the file makes the whole file available in Notes. For example, you can embed a text block that says "Double-click here to open 1-2-3."

Note Larger objects take longer to process and increase the document's size.

2. In Notes, embed the 1-2-3 Worksheet object into the form by choosing Edit Paste Special, selecting Picture or Bitmap under "Display As," and then choosing Embed.
3. (Optional) To automatically activate the worksheet object when you open or edit the form in Notes, choose Design Form Attributes and then choose Object Activation.

Otherwise, Notes activates the embedded object only when you double-click it.

4. Use Design Form Attributes to name the form, if necessary, and select the "Store form in documents" check box.

The form name will appear in the Compose menu for the database.

5. Close the Notes form and choose Yes to save the form.

See also

[Exchanging Data Between 1-2-3 and Notes](#)
[Using Notes Field Exchange](#)

Using Notes Field Exchange (Notes/FX)

After you create a Notes form that contains an embedded [1-2-3 Worksheet object](#), Notes embeds a new worksheet object in each new document you create using the form.

To create a new Notes document

1. In Lotus Notes, choose Compose, then choose the name of the form that you created in [Setting Up Notes Field Exchange](#).

Notes creates a new document containing an embedded worksheet object.

2. If necessary, double-click the embedded object to start 1-2-3 and open the object.
3. In 1-2-3, enter or edit the data in the worksheet object.
4. Choose [File Update Lotus Notes](#) to update the worksheet object.
5. Choose [File Exit & Return to Lotus Notes](#) to close 1-2-3 and return to Notes, or [File Close & Return to Lotus Notes](#) to close the worksheet object without closing 1-2-3.

The fields in the Notes document that refer to 1-2-3 data are updated.

To update an existing Notes document

1. In Lotus Notes, select the document and choose Edit Edit Document or press CTRL+E.
2. (Optional) Edit the field whose value you want to change.

You cannot exchange data with 1-2-3 cells that contain formulas or that are protected. You cannot exchange data with Notes computed fields.

3. Double-click the embedded worksheet object.

Notes starts 1-2-3, opens the worksheet object, and updates any fields that you changed in the Notes document.

4. In 1-2-3, edit the data that you want to change.

To toggle to Lotus Notes from 1-2-3, choose Window then select the notes document. To toggle back to 1-2-3 from Notes, double-click the embedded worksheet object.

5. Choose File Update Lotus Notes to update the worksheet object.
6. Choose File Exit & Return to Lotus Notes to close 1-2-3 and return to Notes, or File Close & Return to Lotus Notes to close the worksheet object without closing 1-2-3.

The fields in the Notes document that refer to 1-2-3 data are updated.

See also

[Exchanging Data Between 1-2-3 and Notes](#)

Welcome to 1-2-3

Creates a new file, opens an existing file, or lets you start the 1-2-3 online tutorial.

1. To create a new file, select "Create a new worksheet."

The New File dialog box appears so you can create a new file based on a SmartMaster or a plain worksheet.

2. To open an existing file, select "Work on an existing worksheet."

The Open File dialog box appears so you can select the existing file you want.

3. To run the online tutorial, choose Start Tutorial.

The tutorial consists of eight lessons that introduce many new features and lead you through essential 1-2-3 tasks, from entering data and changing the appearance of your worksheet to working with databases and using Version Manager.

4. To stop the display of the welcome dialog box when you start 1-2-3, select the "Don't show this screen again" check box.

5. Choose OK.

See also

File Commands

Tools User Setup to control the display of the Welcome and Open File dialog boxes when starting 1-2-3

File New

Creates a new file using either a [SmartMaster](#) or a plain worksheet.

Caution If you want to keep a copy of the new file on disk, you must save the new file before you close it or end the session.

1. Choose File New.
2. To create a new file based on a SmartMaster in the \123R5WMASTERS directory, select a SmartMaster from the "Create a worksheet by selecting a SmartMaster" list box.

The \123R5WMASTERS directory is the default directory for every SmartMaster that comes with 1-2-3.

Information about the selected SmartMaster appears in the Comments box.

Note For optimal display, before you create a file using a SmartMaster, maximize the 1-2-3 window and make sure that the "Run autoexecute macros" option in [Tools User Setup](#) is selected.

3. To create a new file based on a SmartMaster in another directory, choose [Browse](#).
4. To create a new file based on a plain worksheet, select the "Create a plain worksheet" [check box](#).
5. Choose OK.

1-2-3 supplies a default file name for the current path. The first default file name is FILE0001.WK4, the next default file name is FILE0002.WK4, and so on.

1-2-3 creates the new file on disk and in memory, places the new file in a window, makes the window current, and displays the first worksheet in the file with the [cell pointer](#) in cell A1.

Related SmartIcons



Create a file based on a SmartMaster or a plain worksheet file



Create a plain worksheet file

See also

Help

[File Commands](#)

[File Save](#) to save the file without changing the file name

[File Save As](#) to assign another name, comments, (and, optionally, a password) to the file

[Naming a 1-2-3 File](#)

[Working with SmartMaster Files](#)

User's Guide

Chapter 6, "Worksheet Basics"

Browse

Lets you find and select a SmartMaster for creating a new file. Only SmartMaster .WT4 files appear in the File name and File type list boxes.

1. In the File name text box, specify the path and file name of the SmartMaster file you want.
To browse for the file you want, you can use the Directories and Drives drop-down boxes and select the file name when it appears in the File name list box.
2. Choose OK.

The name of the SmartMaster you selected appears in the "Create a worksheet by selecting a SmartMaster" list box in the File New dialog box.

See also

[File Commands](#)

[Specifying a File](#)

[Working with SmartMaster Files](#)

File Open

Reads one or more files into memory. If you select more than one file to open, 1-2-3 opens them alphabetically by file name. The last file opened becomes the current file. The cell pointer appears where it was when you last saved the current file.

1. Choose File Open.
2. Specify the name of the file(s).

You can select up to 32 files to open, but they must be in the same directory. You can select multiple files to open in the following ways:

- Edit the File name text box, leaving a space between each file name
- Drag over consecutive file names
- Hold down CTRL and click the file names

Note If you select multiple files to open and more than one contains an autoexecute macro, 1-2-3 determines which is the last file that contains an autoexecute macro, and runs only that macro.

3. Choose OK.

To combine files

File Open Combine incorporates data and number formats from a file on disk into the current file. Combine changes data in the current file beginning at the current cell. As a precaution, save the file before using this command.

Note You cannot combine .XLS, .XLW, .XLT, .WT4, or .NS4 files.

1. Choose File Open.
2. Specify the name of the file.
3. Choose Combine.

If you combine a file with a .WK* (1-2-3 worksheet file) or .WR* (Symphony file) extension, the Combine 1-2-3 File dialog box appears.

To work with different types of files

Choose the type of file you want to work with from the File type drop-down box. You can work with the following types of files:

- 1-2-3 (.WK*); see Working with .WK1 and .WK3 Files in 1-2-3 Release 5 for details about opening and saving files in .WK1 and .WK3 format
- SmartMaster (.WT4); see Working with SmartMaster Files
- Shared (.NS4); see Opening a Shared File and Sharing Files Using Lotus Notes
- Text; see Working with Text Files in 1-2-3
- Symphony (.WR*); see Opening Symphony or Release 1A files
- Excel (.XLS, .XLT, .XLW); see Working with Excel Files in 1-2-3
- ANSI Metafile (.CGM)
- 1-2-3 PIC (.PIC)
- dBASE (.DBF); see Working with dBASE and Paradox Files in 1-2-3
- Paradox (.DB); see Working with dBASE and Paradox Files in 1-2-3
- All Files (*); lists files of all the types above

Opening a file containing linked formulas

When you open a file, 1-2-3 automatically updates formulas that are linked to other files in memory. If [Tools User Setup Recalculation](#) is set to Manual, 1-2-3 displays the Calc indicator after you open the file. To update values for linked formulas in the current file, choose [Edit Links](#), specify the link type, and then choose Update All.

Related SmartIcons

Close

Equivalent to choosing File Open

See also

Help

[File Commands](#)

[File Save As](#) for entering comments to appear in the Comments field

[File Doc Info](#) for entering comments and other information

[File Password Protection](#)

[Opening a File Using the File Manager](#)

User's Guide

Chapter 6, "Worksheet Basics"

Working with SmartMaster Files

A SmartMaster gives you a quick start for creating attractive, useful spreadsheets. Each SmartMaster provides you with a template for common business and financial tasks, including reports, forecasts, and forms.

Every SmartMaster contains an Information sheet to provide Help about using the SmartMaster features. Each SmartMaster also contains a contents sheet and buttons for working with [versions](#) and [scenarios](#), for zooming data, and for charting and printing.

Note For optimal display, before you use a SmartMaster to create a file, maximize the 1-2-3 window and make sure that the "Run autoexecute macros" option in [Tools User Setup](#) is selected.

Using sample data in a SmartMaster

Every SmartMaster contains sample data to help you understand how the SmartMaster works. After looking over the sample data, you can replace it with your own data. Then use the built-in charting and printing features for quick good-looking results.

Creating a customized SmartMaster

You can also create your own customized SmartMaster template based on the SmartMaster shell file (SHELL.WT4). You can name your template file, add descriptive comments to appear in the New File dialog box, and save it. Then you can share this template with your workgroup.

To create your own SmartMaster template

1. Choose [File New](#) and do one of the following:
 - Select "Use Shell to create a SmartMaster" and choose OK to create a file based on the SmartMaster shell file (SHELL.WT4).
 - Select the "Create a plain worksheet" [check box](#) and choose OK to create a plain worksheet file, which you can modify to make a SmartMaster template.
2. To enter a SmartMaster title and comments, choose [File Doc Info](#).

The title you give a SmartMaster appears in the list of SmartMaster templates in the New File dialog box. You can also enter comments using [File Save As](#).
3. After you have modified the SmartMaster shell file or the plain worksheet file, use [File Save](#) or File Save As to save your file. Make sure to save your customized template with a SmartMaster .WT4 file extension.

Now every time you want to create a file based on your customized SmartMaster template, you use File New. The title and comments that you entered using File Doc Info appear in the New File dialog box when you select your customized SmartMaster.

See also

[File Commands](#)

[File Open](#)

Opening Symphony or 1-2-3 Release 1A Files

When you open a file created with 1-2-3 Release 1A (.WKS) or Symphony (.WRK or .WR1), 1-2-3 creates a copy of the file in .WK4 format in memory and leaves the original file unchanged on disk.

When you save the file, 1-2-3 saves the data in .WK4 file format, unless you choose File Save As and specify a different extension.

See also

File Commands

File Open

Opening a Shared File

When you open a shared file stored on a Lotus Notes server (.NS4), the Drives drop-down box becomes the Notes Servers drop-down box. When you specify a Notes server, the Directories drop-down box lists all the directories on the server.

When you save the file, 1-2-3 saves the data in .NS4 format on the Notes server and directory in which the file is located, unless you choose File Save As and specify a different file path and extension.

See also

[File Commands](#)

[File Open](#)

[Exchanging Data Between 1-2-3 and Notes](#)

[Setting Up Notes Field Exchange \(Notes/FX\)](#)

[Sharing Files Using Lotus Notes](#)

Working with dBASE and Paradox Files in 1-2-3

In 1-2-3 Release 5 for Windows, you can use [File Open](#) to open and combine dBASE IV (.DBF) and Paradox (.DB) files, and you can use [File Save](#) and [File Save As](#) to save dBASE IV and Paradox files.

To open and save dBASE IV and Paradox files, you must install the DataLens and ODBC drivers for dBASE IV and Paradox. Also, you must include the DN parameter in your LOTUS.BCF file. Set DN="dBASE_IV" for working with dBASE files or DN="Paradox" for working with Paradox files.

Opening dBASE IV and Paradox files

When opening a dBASE IV or Paradox file, you can either specify the file type and select the file you want or type the file name with a .DBF or .DB extension. After you open a dBASE or Paradox file in 1-2-3, it is not locked and can still be accessed and changed by others on your network.

You can insert rows for new records and columns for new fields within the range of the original dBASE IV or Paradox table. When you save the file, 1-2-3 inserts these new records into the table and creates a new table with a new table definition. However, 1-2-3 does not save new records appended at the end of the table or new fields added outside the range of the original table in the dBASE IV or Paradox file.

Saving dBASE or Paradox files

After you open a dBASE IV or Paradox file, you can save your changes using File Save. 1-2-3 saves only the data in the database table range, including data in rows or columns that you added within this range. Nothing outside this range is saved, and no styles, formats, charts, or drawn objects are saved to the .DBF or .DB file.

When you save a .WK4 file in .DBF or .DB format, you can save only a selected range containing a valid [database table](#). You save the file using File Save As, and you must select the "Selected range only" check box. 1-2-3 saves only the data in the selected range. No styles, formats, charts or drawn objects are saved.

When you save a .WK4 file in dBASE IV or Paradox format, you cannot save it with a password or comments. The dBASE IV or Paradox file does not maintain any password protection from the .WK4 file you saved. Also, if you are saving a .WK4 file to a .DB or .DBF file that has a password, 1-2-3 writes over the password, and you have to create a new password for the dBASE IV or Paradox file.

Note 1-2-3 does not automatically save dBASE IV and Paradox files, even when "Save files every" in the [User Setup](#) dialog box is selected with an autosave time specified.

See also

[File Commands](#)

Working with Text Files in 1-2-3

You can open text files (.TXT, .CSV, .DAT, .OUT and so on) in 1-2-3 and save worksheet files (.WK4) in text file format.

Opening text files in 1-2-3

When opening a text file, 1-2-3 uses one of the following methods for parsing the text file data into columns in the worksheet:

- By separator
Also called delimiters, these characters separate data in a text file. Common separators are tabs, commas, spaces, and semicolons.
- By file layout
In non-delimited text files, 1-2-3 guesses how to parse the data based on the file layout. The space between vertically aligned data in the text file indicates how to break the data into columns in the worksheet.
- By putting everything in the text file into a single column in the worksheet

In general, the easiest way to bring data from a text file into a worksheet is to let 1-2-3 automatically parse the data. You can also use the Text Options dialog box to override automatic parsing.

In the Text Options dialog box, you can specify exactly how you want 1-2-3 to break the data into columns, using a particular separator or the file layout. You can also specify the character set you want 1-2-3 to use for interpreting the data.

When opening text files, 1-2-3 can use different character sets, or code pages, to interpret the data. Each code page represents a different national language. Generally, you use either the Windows or DOS code page entries displayed in the Text Options dialog box. You can also modify the list of code pages displayed in this dialog box.

Once you set the text options, they apply to all text files you open until you change the text options again or restart 1-2-3.

To open a text file

1. Choose File Open.
2. Choose Text from the File type drop-down box.
3. Specify the name of the text file in the File name text box.
4. (Optional) To specify further information about how you want 1-2-3 to open the text file, choose Text Options.
5. Choose OK.

Saving data to a text file

When you save worksheet data to a text file, 1-2-3 saves the data only as numbers and labels. For example, 1-2-3 saves formula values as labels in a text file. You cannot save range definitions, styles, versions, queries, charts, or other drawn object to a text file. If you save a chart or drawn object in a text file, 1-2-3 leaves blank lines where the chart or drawn object would have appeared.

To save a file as a text file

1. Choose File Save As.
2. Choose Text from the File type drop-down box.
3. Specify the name of the text file in the File name text box.

4. Choose OK.

1-2-3 separates the data in the text file with tabs and saves it using the Windows character set.

Handling column widths

When saving data to a text file, 1-2-3 uses the column width set in Style Worksheet Defaults or in Style Column Width to determine how much data in each column of the specified range is extracted to the text file.

For example, if 9 is the column width set for the worksheet and a 12-character label is displayed in column A of the specified range, 1-2-3 extracts only the first 9 characters of the label to the text file.

Similarly, if 9 is the column width and the 12-character label entered in column A is displayed as 7 characters in column A and 5 characters extending into column B, 1-2-3 extracts the first 9 characters of the label -- the 7 characters displayed in column A and the first 2 characters extending into column B.

See also

Help

File Commands

File Save

Text Options

Specify the method and character set for bringing data from a text file into columns in the worksheet.

1. Choose [File Open](#).
2. Select a [file](#).
3. Choose Text Options.
4. Under "Bring into columns based on," select an option.

- Separator specifies the type of separator you want 1-2-3 to use for breaking the data from the text file into columns in the worksheet.

You can select a separator from the Separator [drop-down box](#). If the character you want is not in the list or if you want to specify a separator that consists of more than one character, select Other character(s). Then enter from 1 to 3 characters in the [text box](#). Multiple space characters are treated as a single space.

- Layout of file tells 1-2-3 to break the data into columns in the worksheet based on the space between vertically aligned data in the text file.
 - Put everything into one column puts all the data from the text file in a single column in the worksheet.
5. In the Character set text box, specify the code page you want 1-2-3 to use for interpreting data in the text file.

Generally, you use the Windows or DOS code pages. The code page entries in your 123R5.INI file determine the choices of code pages displayed in the Character set list. To change the list of code pages displayed here, see [Modifying Code Page Entries](#).

6. Choose OK.

See also

[File Commands](#)

[Working with Text Files in 1-2-3](#)

Modifying Code Page Entries

You can modify the list of code pages displayed in the [Text Options](#) dialog box. Use Notepad or another text editor to open your 123R5.INI file and edit the code page entries.

To modify code page entries in your 123R5.INI file

1. Open the Windows Notepad or another text editor.
2. Choose File Open.
3. Type c:\windows\123r5.ini in the File Name text box and choose OK.
The 123R5.INI file is always in your Windows directory. Substitute the path to your Windows directory if it is not on your C: drive.
4. Under [TEXT IMPORT], enter the list of the code pages you want to appear in the Text Options dialog box.
This section contains a list of code pages supported by 1-2-3. The character set ID appears in the left column with a description of the ID on the right. For example, the ID GB is in the left column with the description, Chinese code page, in the right column. You use ID to represent any code pages you want to appear in the Text Options dialog box.
 - Precede each code page with ITEM n = where n is the number of the item in the list. For example, ITEM5=GB.
 - Enter one item per line.
 - You can also remove code pages from the list. Remember to change the ITEM numbers if you remove a code page.
5. Save and close the file.

Restart 1-2-3 to see your changes to the list of character sets in the Text Options dialog box.

See also

[File Commands](#)

[File Save](#)

[File Save As](#)

[Working with Text Files in 1-2-3](#)

Get Password (File Open)

Prompts you for the password required to open a file.

1. Enter the password in the Password text box.
2. Choose OK.

See also

[File Open](#)

[File Password Protection](#)

File Open (OK/Cancel)

Indicates that the file you tried to open is already open and reserved by another user, and asks whether you want to open the file with read-only access.

Note If you open the file, 1-2-3 displays the RO (read-only) indicator in the title bar next to the file name. You cannot save changes to the file using the same file name since you do not have the reservation.

1. Choose OK or Cancel.

See also

[File Open](#)

[File Protect](#) to get the file reservation

[File Save As](#) to save a read-only file under another name

[Reserving a File](#)

Opening a File Using the File Manager

You can open a 1-2-3 file using the Windows File Manager.

1. Open the File Manager.
2. Double-click the 1-2-3 file name.

The file you selected becomes the current file in 1-2-3.

Related SmartIcons

Close

Opens an existing file in 1-2-3

Close

Starts the File Manager

See also

Help

File Open to open a file while you are in 1-2-3

User's Guide

Chapter 6, "Worksheet Basics"

Working with Excel Files in 1-2-3 Release 5

In 1-2-3 Release 5 for Windows, you can use [File Open](#) to open .XLS, .XLT, and .XLW files from Microsoft Excel Versions 2.1, 3.0, or 4.0. In 1-2-3, you can open .XLW files only if they are bound notebook files and .XLT files only if they are worksheets or workbooks. You can use [File Save As](#) to save 1-2-3 files in .XLS and .XLW format. You cannot save files in .XLT format. When you save a file in .XLW format, 1-2-3 creates a bound notebook.

If an Excel file is protected with a password, you must remove the password in Excel before you can open the file in 1-2-3. When you save a password-protected 1-2-3 file as an .XLS or .XLW file, the Excel file is not password-protected.

Translation restrictions

When you open an Excel file in 1-2-3 or save a 1-2-3 file as a .XLS or .XLW file, some data is not translated. 1-2-3 does not translate the following Excel information:

- Custom functions and formats
- [OLE](#) links
- Outlining
- Embedded charts and other drawn objects
- Chart (.XLC) files
- Macro (.XLM) files

For detailed information about translation restrictions, see [Translation Restrictions for Excel Files](#).

The Log File

When you open Excel files in 1-2-3 or save 1-2-3 files in .XLS or .XLW format, a translation log file (.LOG) is created. The log file lists all data that could not be translated when you opened the file in 1-2-3 or saved the file in .XLS or .XLW format.

The log file also lists file links in the Excel file that are no longer linked when you open the file in 1-2-3, and other data that requires editing in either 1-2-3 or Excel. For more detailed information about the log file, see [The Excel Log File](#).

Also, for more details about the Excel log file and working with Excel files in 1-2-3, see the file XLREADME.TXT in the \123R5W\PROGRAMS directory.

Note 1-2-3 does not automatically save Excel files even when "Save files every xx minutes" in the [User Setup](#) dialog box is selected.

See also

User's Guide

Appendix C, "Using the Lotus Multibyte Character Set (LMBCS)"

The Excel Log File

When you use 1-2-3 to open an Excel file or save a 1-2-3 file in .XLS or .XLW format, 1-2-3 preserves as much of the original data as possible. If the Excel file you open contains untranslatable information, formulas that require editing, or links to other Excel files, 1-2-3 records their location and current value in a log file. Similarly, when you are saving a 1-2-3 file as an Excel file, information about untranslated data appears in the log file.

For example, if you open DATA.XLS in 1-2-3 and the file contains a function that has no 1-2-3 equivalent, 1-2-3 creates a log file called DATA.LOG that contains information about the untranslated function. You must edit untranslated Excel functions and formulas to use them in 1-2-3. Likewise, you must edit untranslated 1-2-3 @functions to use them in Excel.

Location of the log file

The log file is stored in the same directory as the Excel file being opened or 1-2-3 file being saved. If the directory containing the file being translated is write protected, 1-2-3 puts the log file in the default worksheet directory specified with Tools User Setup. If the directory where 1-2-3 puts the log file already contains a log file with the same name, the new log file replaces the previous one.

The log file dialog box

If the Excel file you open in 1-2-3 or the 1-2-3 file you save as an Excel file contains untranslatable material, a dialog box appears with the name of the translation log file. In this dialog box, do one of the following:

- Choose OK to open the translated file.
- Choose Explain to open the log file.

1-2-3 opens the log file in Notepad or Write. If your computer does not have these applications, open the log file with a word processing program such as Lotus Ami Pro.

For more details about information in the Excel log file, see the XLREADME.TXT file in the \123R5W\PROGRAMS directory.

See also

Help

[Translation Restrictions for Excel Files](#)
[Working with Excel Files in 1-2-3 Release 5](#)

User's Guide

Appendix C, "Using the Lotus Multibyte Character Set (LMBCS)"

Translation Restrictions for Excel Files

When you open an Excel file in 1-2-3 or save a 1-2-3 file as an Excel file, some data does not get translated. This data includes numbers, characters, and functions. Information about untranslated data appears in the [Excel Log File](#).

The file XLREADME.TXT in the \123R5W\PROGRAMS directory contains additional information about translation restrictions.

Translating Excel numbers

Numbers from Excel that are larger than 9.99E+99 (the largest number in 1-2-3) and smaller than 1E-99 (the smallest number in 1-2-3) appear as *** (asterisks) when they are translated to the 1-2-3 file.

Translating characters

When you open an Excel file in 1-2-3, [ANSI](#) characters from the Excel file translate to their [LMBCS](#) equivalent in 1-2-3, and the reverse occurs when you save a 1-2-3 file as an Excel file.

The translation of Excel characters uses the Excel =CHAR function, except when the Excel =CHAR function has as its argument a formula result. In this case, the log file lists the ANSI characters in a message, and you should determine the LMBCS equivalent and then modify the formula to produce the correct code. The 1-2-3 @CODE function returns the LMBCS code.

Translating functions

When you open an Excel file in 1-2-3, Excel functions that have no equivalent in 1-2-3 display in the 1-2-3 worksheet with the following syntax:

@<<XL>>function name(arguments);current value

The current value is the last calculated value saved in Excel before translation.

When you save a 1-2-3 file as an Excel file, 1-2-3 functions that have no equivalent in Excel display in the Excel worksheet as a label:

@function name(arguments);current value

The translation log file also lists untranslated Excel and 1-2-3 functions with the cell location, the function name, and the current value.

If you open an Excel file in 1-2-3 and then save that file again as an Excel file, the functions that did not translate in 1-2-3 must be translated again in Excel.

For example, suppose an Excel file contains the function CONFIDENCE(1-K29,K28,K27). When you open the Excel file in 1-2-3, this function is not translated. It appears in the worksheet as @<<XL>>CONFIDENCE(1-K29,K28,K27);0.692950886085332 and evaluates to ERR.

If you save the 1-2-3 file containing this untranslated function as an Excel file, the function is not translated back to its original form in Excel. Its location appears in the log file followed by the message "Cannot translate @Function", and the current value of the @function appears on the next line.

To use untranslated Excel and 1-2-3 functions, you can

- Write an add-in @function with an add-in development application, such as the Lotus 1-2-3 Release 5 Add-In Development Kit.
- Build a formula in that recreates the untranslated function.
- Use the current value.

Sometimes when you open an Excel file, 1-2-3 translates different Excel functions to the same 1-2-3 @function but changes the arguments. When you save a 1-2-3 file as an Excel file, 1-2-3 can save the same @function as different Excel functions depending on the arguments specified in the @function.

If you use the equivalent 1-2-3 @functions in new calculations, you must adjust any dependent formulas to reflect the way these @functions work in 1-2-3. Cells containing untranslatable functions evaluate to ERR in 1-2-3. If the untranslated Excel function is supported by an add-in that you can use with 1-2-3, it evaluates correctly when you load the add-in.

For functions that return an ANSI character, 1-2-3 annotates the cell containing a translated function. 1-2-3 adds a semicolon after the function, followed by the value of the function as it appears in Excel. For example, if A1 contains =CHAR(A2) and A2 contains the value 181, A1 displays µ in Excel. When you open the file containing this function in 1-2-3, 1-2-3 translates the function to @CHAR(A2);µ. The cell containing the translated function displays Á, the LMBCS equivalent of 181.

1-2-3 translates CHAR to @CHAR and returns the same ANSI character as Excel when you use a value argument. If CHAR takes a cell reference or formula argument, the translated function returns the LMBCS character equivalent to the value in the referenced cell or the formula result.

1-2-3 translates the Excel functions FIND, MATCH, FASTMATCH, and WEEKDAY to equivalent 1-2-3 @functions but alters the results to return the same values as Excel. For example, 1-2-3 translates WEEKDAY to @WEEKDAY but increases the result by a factor of 2 because Excel uses 1 to 7 for Sunday through Saturday, while 1-2-3 uses 0 to 6 for Monday through Sunday.

Some Excel functions use different value arguments than the equivalent 1-2-3 @functions. For example, in Excel, MATCH can take 0, 1, or -1 as an optional type argument while in 1-2-3, @MATCH can take 0, 1, or 2. In such cases, 1-2-3 translates the Excel function and converts its arguments to produce the same result as Excel.

In cases where the value argument in Excel is the result of a formula or cell reference, 1-2-3 converts the argument to the 1-2-3 equivalent and does not retain the formula or cell reference. To translate such functions correctly, make sure you recalculate the Excel file before saving it in Excel and then opening it in 1-2-3.

1-2-3 translates DB to @DB and assumes a value of 12 for the Excel month argument. Because 1-2-3 produces more accurate results, the translated function evaluates differently in 1-2-3.

1-2-3 translates INTERCEPT, RSQ, and STEYX to @REGRESSION. 1-2-3 assumes the x- and y-range values are in columns and that the y-range contains the same number of rows as the x-range. If the x- or y-range data is in rows, @REGRESSION evaluates to ERR. To display the correct result, transpose the x- and y-range data to appear in columns instead of rows.

1-2-3 doesn't have equivalent @functions for MINVERSE or MMULT. Instead, use the Range Analyze Invert Matrix or Range Analyze Multiply Matrix commands.

1-2-3 translates only Excel array functions that take range arguments, such as HLOOKUP, VLOOKUP, and SUMPRODUCT that take range arguments. If an Excel file contains other array functions, 1-2-3 puts @<<XL>>FUNCTION(ARGUMENTS);VALUE in each cell of the array. These cells evaluate to ERR.

Translating 3D ranges

Microsoft Excel Versions 2.1, 3.0, or 4.0 do not support 3D ranges. When you save a .WK4 file in .XLS or .XLW format, any named 3D range from the 1-2-3 file appears in Excel as a named 2D range on each sheet matching the worksheets in the original 3D range.

For example, suppose you have a 1-2-3 file containing a 3D range, A:A1..C:B5, named Hats. If you save this file as an Excel file, sheet A in the Excel file will have a range A:A1..A:B5 named Hats; sheet B will have a range, B:A1..B:B5, named Hats; and sheet C will have a range, C:A1..C:B5, named Hats.

Formulas that referenced the named 3D range in 1-2-3 refer in Excel to each of the named 2D ranges.

Handling rows

A 1-2-3 worksheet can have up to 8,192 rows. An Excel sheet can have up to 16,384 rows. When you open an Excel file in 1-2-3, if a sheet contains more than 8,192 rows, 1-2-3 puts the first 8,192 rows in one worksheet and creates a new worksheet immediately following to contain all rows below 8,192. If

you save this 1-2-3 file as an Excel file, you must save it in .XLW format, and the data, formerly on one sheet in Excel, will now appear in two consecutive sheets.

See also**Help**

[The Excel Log File](#)

[Working with Excel Files in 1-2-3 Release 5](#)

User's Guide

Appendix C, "Using the Lotus Multibyte Character Set (LMBCS)"

File Open Combine 1-2-3 File

Combines data and number formats from a 1-2-3 worksheet (.WK*) or Symphony (.WR*) file on disk into the current file.

Combining formulas with 3D ranges into a file that contains fewer worksheets than are in the 3D ranges may produce unexpected results.

1. Choose File Open.
2. Specify the name of the file.
3. Choose Combine.

The Combine 1-2-3 File dialog box appears.

4. Under Read, select Entire file or Range.
5. Under "Effect in current file," select an option.

- Replace values copies specified data from a file on disk to the current file, beginning at the current cell and writing over existing data.

Note Blank cells from the file on disk will not replace data in corresponding cells in the current file.

- Add to values adds numeric data from a file on disk to values or blank cells in the current file, beginning at the current cell. Add to values adds numeric data to other numeric data only; when the incoming value will overlay a label or formula in the current file, 1-2-3 discards the incoming value and retains the label or formula.

Do not use Add to values to add date or time numbers because the results will not be meaningful.

- Subtract from values subtracts numeric data in a file on disk from numbers or blank cells in the current file, beginning at the current cell. Subtract subtracts numeric data from other numeric data only; when the incoming value will overlay a label or formula in the current file, 1-2-3 discards the incoming value and retains the label or formula.

Do not use Subtract from values to subtract date or time numbers because the results will not be meaningful. If you subtract a positive number from a blank cell, the result is a negative number because a blank cell evaluates to zero.

6. Choose OK.

If the file is protected with a password, 1-2-3 asks you for the password.

Related SmartIcons



Opens a file

See also

Help

[File Open](#)

[Get Password \(File Open Combine\)](#)

[File Password Protection](#)

Get Password (File Open Combine)

Prompts you for the password required to access data in the file on disk.

1. Enter the password in the Password text box.
2. Choose OK.

See also

[File Open](#)

[File Password Protection](#)

File Close

File Close & Return

Closes the current file and moves the cell pointer to the next open file. If you are closing a file that is a 1-2-3 Worksheet object embedded in another application file, you return to that other application.

When you close a file, 1-2-3 removes the file from memory but does not delete the file from disk. To delete a file from disk, use the Windows File Manager.

Note When the Transcript window is active, choose File Close to close it.

1. Make sure that the cell pointer is in the file you want to close and that you save the changes you want to make to the file.
2. Choose File Close -- or File Close & Return, if the current window contains a 1-2-3 Worksheet object embedded in another application.

If the file or worksheet object is new, the File Save As dialog box appears allowing you to specify a new file name.

3. If 1-2-3 indicates that the file has changed and asks whether you want to save the changes, choose Yes, No, or Cancel.

If the file is a 1-2-3 Worksheet object embedded in another application file, and 1-2-3 asks whether you want to update the object in that other application, choose Yes, No, or Cancel.

Closing the only open file

If only one file is open and you choose File Close, 1-2-3 closes the file and displays a blank untitled worksheet.

See also

Help

Deleting a 1-2-3 File

File Commands

Tools Macro Show Transcript/Hide Transcript to hide the Transcript window

User's Guide

Chapter 6, "Worksheet Basics"

File Save
File Save Versions
File Update

Saves the current worksheet file on disk; saves the current version of a shared file; updates a 1-2-3 Worksheet object in another application file.

If the file you save	Then 1-2-3
Is new	Lets you enter a file name before confirming the save.
Already exists	Updates the contents of the file on disk.
Is a shared file	Changes the command from File Save to File Save Versions and saves new <u>versions</u> and <u>scenarios</u> to a Lotus Notes server. See <u>Sharing Files Using Lotus Notes</u> before you use File Save Versions.
Is a 1-2-3 Worksheet object	Changes the command from File Save to File Update and updates the 1-2-3 Worksheet object embedded in another application file.

1. Make sure the cell pointer is in the file you want to save.
2. Choose File Save, File Save Versions, or File Update.

If the file is new, specify the name of the file in the File Save As dialog box.

Note File Save saves worksheet data and associated styles in a single file with the extension .WK4, unless the file already has another file extension.

Related SmartIcons



Equivalent to choosing File Save, File Save Versions, or File Update

See also

Help

Embedding a 1-2-3 Worksheet Object in Another Application
File Commands
File Save As
Tools User Setup to save files automatically

User's Guide

Chapter 6, "Worksheet Basics"
Chapter 25, "Using 1-2-3 with Other Applications"

File Save As

File Save Copy As

Saves a file, or part of a file, on disk with the name you specify, and, optionally, assigns comments and a password to the file.

If you are saving a 1-2-3 Worksheet object that has been embedded in another application file, the command changes to File Save Copy As, and you can save the worksheet as a 1-2-3 Release 5 file or as another file type. A copy of the worksheet is created without affecting the object that is embedded in the other application.

1. Make sure the cell pointer is in the file to save.
2. Choose File Save As or File Save Copy As.

1-2-3 displays the current file name in the File name text box.

For 1-2-3 Worksheet objects, the current file name is that of a temporary file used for creating and editing the 1-2-3 Worksheet object.

3. Specify the new name of the file.
4. To save a file to another file format, select the format you want from the File type drop-down box.

Note: If you save a file as an Excel file, you can only save it in .XLS or .XLW format. You cannot save a file in .XLT format.

For more information about saving files with different file types, see "Saving files in different file formats" below.

5. (Optional) Enter comments about the file in the Comments text box.

These comments appear in the Comments field of the Open File dialog box when you open the file.

Note You can only save comments about a .WK4 or a .WT4 file. If you enter comments and save a file as any file type other than .WK4 or .WT4, the comments are not saved.

6. (Optional) To assign a password to the file, select the "With password" check box.

Note You cannot save a an Excel (.XLS, .XLW), dBASE (.DBF), or Paradox (.DB) file with a password.

7. (Optional) To save a selected range to another file, select the "Selected range only" check box.

You cannot save a selected range to an Excel file (.XLS, .XLT), a shared file (.NS4), or a SmartMaster file (.WT4).

Note When you save a file as a dBASE IV (.DBF) or Paradox (.DB) file, you must select the database table you want to save and select the "Selected range only" check box. 1-2-3 saves the data in the selected database table range but does not save any styles or formats in the range.

8. Choose OK.

If you select the "With password" check box, 1-2-3 prompts for the password. If you select the "Selected range only" check box, the Save Range As dialog box appears.

1-2-3 saves worksheet data and styles in a single file with the extension .WK4, unless you specify another valid worksheet file extension, in which case 1-2-3 saves style data in a separate format file.

For example, if you specify the extension .WK3, 1-2-3 saves the worksheet data in a file with the extension .WK3 and the style data in a format file with the extension .FM3.

Saving files in different file formats

You can use the File type drop-down box when you want to save files in various file formats. As well as saving files in .WK4 format, you can save files in .WK3, .WK1, .WT4, .NS4, .XLW, .XLS, .DBF, and .DB format.

- For information about saving a file in 1-2-3 Release 2 (.WK1) format, see [Working with .WK1 and .WK3 Files in 1-2-3 Release 5](#).
- For information about saving a file as a [shared file](#) (.NS4) on a Lotus Notes server (.NS4), see [Sharing Files Using Lotus Notes](#).
- For information about saving a file as a SmartMaster template (.WT4), see [Working with SmartMaster Files](#).
- For information about saving a file as a text file, see [Working with Text Files in 1-2-3](#).
- For information about saving a file as an Excel file (.XLS, .XLW), see [Working with Excel Files in 1-2-3](#).
- For more information about saving dBASE (.DBF0 and Paradox (.DB) files, see [Working with dBASE and Paradox Files in 1-2-3](#).

Opening a saved 1-2-3 Worksheet object

When you save a copy of a 1-2-3 Worksheet object to a file, you cannot open the file until the 1-2-3 Worksheet object is closed. To open the saved file, close the 1-2-3 Worksheet object in 1-2-3 and then open the file.

Deleting and changing a password

When a file is protected with a password, the "With password" check box contains an X. To remove password protection, select the "With password" check box to remove the X and delete the password.

To change a password, delete the password as described above, choose File Save As again, and select the "With password" check box. Then specify the new password.

See also

Help

[Embedding a 1-2-3 Worksheet Object in Another Application](#)
[File Commands](#)
[File Password Protection](#)
[Naming a 1-2-3 File](#)

User's Guide

Chapter 6, "Worksheet Basics"
Chapter 25, "Using 1-2-3 with Other Applications"

File Doc Info

Lets you enter or display information about the current file, and exchanges data with Lotus Notes if you set up Notes Field Exchange. Applies to .WK4 or .WT4 files only.

1. Choose File Doc Info.

2. Enter a title in the Title text box.

If you save the file as a SmartMaster (a .WT4 file), 1-2-3 displays this title in the File New dialog box.

3. Enter a subject in the Subject text box.

In a Notes Field Exchange, Notes typically uses this information as the title of a Notes document.

4. Enter keywords in the Keywords text box.

Keywords help identify the 1-2-3 file and can supply categories to a Notes form. Separate keywords with a comma if you plan to use them in a Notes Field Exchange.

5. Enter comments in the Comments text box.

Press CTRL+ENTER to start a new line.

1-2-3 displays your comments when you select the file in the Open File and New File (for SmartMaster files) dialog boxes. You can also enter comments in the Save As and Save Copy As dialog boxes.

6. Enter revision notes in the Revisions text box.

7. Choose OK.

See also

[Exchanging Data Between 1-2-3 and Notes](#)

[File Commands](#)

[Setting Up Notes Field Exchange \(Notes/FX\)](#)

Set Password (File Save As / File Save Copy As)

Assigns a password to the current file.

1. Enter a password in the Password text box.
2. Enter the same password again in the Verify text box.
3. Choose OK.

Note If you save the file in the format of a previous release, such as .WK3, 1-2-3 does not assign the password to the format file associated with the worksheet file.

See also

[File Password Protection](#)

[File Save As](#)

Set Password (File Save As Shared)

When you save a file as a shared file(.NS4), 1-2-3 seals the file and prompts you for a password to the seal.

1. Enter a password in the Password text box.
2. Enter the same password again in the Verify text box.
3. Choose OK.

You cannot unseal a shared file. To change the file, use File Save As to save the file as a .WK4 file, then use File Protect to unseal the .WK4 file.

See also

Help

File Password Protection

Sharing Files Using Lotus Notes

User's Guide

Chapter 14, "Protecting Data"

Chapter 17, "Using Version Manager"

File Save Options (Replace/Backup/Cancel)

Cancels or completes the File Save As command when the file you are saving data to already exists on disk.

1. Choose Replace, Backup, or Cancel.

Backup assigns the extension .BAK to the worksheet file, and the extension .FMB to the associated format file, if one exists.

Note If you specify the name of a text file (.TXT), Backup is not available.

Caution When you select Replace, 1-2-3 erases the file you are replacing on disk before it saves the new data in the file. If 1-2-3 displays a message indicating that the disk is full, save the file on another disk.

See also

[File Commands](#)

[File Save As](#)

[File Save Range As](#)

File Save Range As

Saves a range of data from the current file in the following ways.

- Saves the range as a text file (.TXT) on disk.

- Saves the range in a worksheet file (.WK*) on disk.

If you save the range to any .WK* file, 1-2-3 does not copy drawn objects created with the Tools Draw commands. If you save the range to a .WK1 or .WK3 file, 1-2-3 does not copy the styles of the range, except for number formats and alignment.

- Saves a range containing a database table as a dBASE IV (.DBF) or Paradox (.DB) file.

When saving a file as a dBASE IV (.DBF) or Paradox (.DB) file, you must select the range containing the database table you want to save, and you must select the "Selected range only" check box.

1. Select the range.

2. Choose File Save As.

3. Specify the file to which you want to save the range.

To specify a text file, enter the file extension .TXT in the File Name text box.

4. Select the "Selected range only" check box.

5. Choose OK.

If you specified a worksheet file (.WK*) in step 3, the Save Range As dialog box appears.

6. Select Formulas and values or Values only.

7. Choose OK.

Note If you specify the name of a file that already exists, 1-2-3 replaces the data in the file on disk with the newly saved data when you select either Replace or Backup. Backup is not available for text files.

Restrictions on saving ranges

- You cannot create a 1-2-3 for DOS Release 2 (.WK1) file by saving a range from a .WK3 file if the .WK3 file contains more than one worksheet. For more information, see Working with .WK1 and .WK3 Files in 1-2-3 Release 5.
- You cannot save a range from a file sealed with File Protect.

Saving data that contains formulas and their values or values only

- If you save a range of data that contains formulas, be sure to save all the data that is referred to by the formulas. If you save data in a named range, be sure to save the entire named range.
- Saving a range of data that contains formulas with 3D ranges to a file that contains fewer worksheets than are in the 3D ranges may produce unexpected results.
- If you want to save a range of data that contains formula values and the Calc indicator appears in the status bar, press F9 (CALC) to update formulas before you use File Save Range As.

See also

Help

File Commands

Naming a 1-2-3 File

Working with dBASE and Paradox Files in 1-2-3

File Save Range As (Replace/Backup/Cancel)

Cancels or completes the File Save Range As command when the file you are saving data to already exists on disk.

1. Choose Replace, Backup, or Cancel.

Backup assigns the extension .BAK to the worksheet file, and the extension .FMB to the associated format file, if one exists.

Note If you specify the name of a text file (.TXT), Backup is not available.

Caution When you select Replace, 1-2-3 erases the file you are replacing on disk before it saves the new data in the file. If 1-2-3 displays a message indicating that the disk is full, save the file on another disk.

See also

[File Commands](#)

[File Save As](#)

[File Save Range As](#)

Working with .WK1 and .WK3 Files in 1-2-3 Release 5

In 1-2-3 Release 5 for Windows, you can open 1-2-3 for DOS Release 2, 3, and 4 files and 1-2-3 for Windows Release 1 files. You can also save a 1-2-3 Release 5 for Windows (.WK4) file in any of the following 1-2-3 file formats:

Product	File format
1-2-3 for DOS Release 2	.WK1
1-2-3 for DOS Release 3	.WK3
1-2-3 for DOS Release 4	.WK3
1-2-3 for Windows Release 1	.WK3
1-2-3 for Windows Release 4	.WK4

When you save a .WK4 file to .WK1 or .WK3 format, any settings created with 1-2-3 for Windows features that do not exist in 1-2-3 for DOS are lost. If you do not want to lose the information permanently, save the file as a 1-2-3 Release 5 (.WK4) file.

Note To save a 1-2-3 Release 5 for Windows (.WK4) file in 1-2-3 for DOS Release 2 (.WK1) format, specify .WK1 as the extension when you save the file. Note the following special conditions:

If the .WK4 file	Do this
Is <u>sealed</u>	Unseal it with <u>File Protect</u> ; then save it as a .WK1 file
Contains several worksheets	Save the file with the .WK3 file extension; then use the <u>Translate utility</u> to convert the file to .WK1 format

Data changes

The following changes to data occur when you save .WK4 files as .WK1 or .WK3 files.

Styles

- Styles are saved in a format file.
- Styles not recognized in .WK1 and .WK3 files are changed to 1-2-3 for DOS Release 2 and Release 3 default styles.
- When the worksheet contains more than eight fonts, 1-2-3 uses the first eight fonts it identifies. Each remaining font is converted to its closest equivalent in the .WK1 or .WK3 file.
- Colors are converted to their closest equivalents in 1-2-3 for DOS Release 2 and Release 3.
- Patterns are converted to the closest type of shading.
- Left-aligned or centered values display as right-aligned in the .WK3 or .WK1 file.
- Number formats that do not exist in 1-2-3 for DOS Release 2 are changed to default 1-2-3 for DOS Release 2 formats.

Formulas

- Formulas that contain undefined range names evaluate to ERR.
- Formulas that contain more than 240 characters are saved in their entirety. However, if you try to edit such a formula in 1-2-3 for DOS Release 2, Release 2 truncates the formula after the 240th character.
- @Functions that are not available and @functions with unavailable arguments in 1-2-3 for DOS

Release 2 and Release 3 are treated as add-in @functions.

Cells that contain these @functions evaluate to NA in 1-2-3 Release 2, and ERR in 1-2-3 Release 3. If you read a file that contains these @functions back into 1-2-3 for Windows, the original @functions are restored.

DDE links and file references

- DDE links convert to @?<<@123>>DDELINK.
- File references are converted to an @function with the following string argument: @@<<file name>>range.

Drawn objects and charts

- 3D charts become 2D charts in versions of 1-2-3 for DOS Releases 2 and 3 that do not support 3D charts.
- Radar, mixed, and HLCO charts are recognized as line charts in .WK1 and .WK3 files.

Query data

- Query tables are saved as worksheet data in .WK3 and .WK1 files.

Data loss

The following data is lost when you save .WK4 files as .WK1 or .WK3 files.

Formulas

- Formula annotations.

Drawn objects and charts

- Drawn objects, except charts.
- More than six data sets in a chart.

.WK4 files allow up to 23 data sets per chart. When you save the file with the extension .WK3 or .WK1, only the first six data sets of each chart are saved.

Note If you do not edit charts in a .WK3 file in Release 3, you see the previous chart settings when you reopen the file in 1-2-3 Release 5.

Versions and scenarios

When you save a .WK4 file with a .WK1 extension, the current version displayed in the worksheet at that time is the only set of data saved to the .WK1 file.

If you open a .WK3 file in 1-2-3 Release 5 and that file contains a range with versions that is larger than 2000 cells, no versions will appear in the .WK4 file. If you alter the range with versions in the .WK3 file to make it less than 2000 cells, all versions will appear when you open the file in Release 5.

Version and scenario data loss can occur when you do the following sequence of actions:

1. Use 1-2-3 Release 5 for Windows to save a file in .WK3 format.
2. Open the file in 1-2-3 for DOS Release 3 and edit ranges with versions.
3. Open the file again in 1-2-3 Release 5.

While you are working in 1-2-3 for DOS Release 3, if you make a range with versions larger, the new data will not appear when you open the file again in 1-2-3 Release 5.

No version data will appear in 1-2-3 Release 5 if you did any of the following while working in 1-2-3 for DOS Release 3:

- Delete the name of a range with versions
- Make a range with versions smaller
- Redefine a range with versions; for example, change the range from C1..C9 to D1..D9.

You can make all of these types of edits using 1-2-3 Release 4 for DOS and not lose data when you open the file again in 1-2-3 Release 5 for Windows.

Version creation data: You can save versions and scenarios from a .WK4 file in a .WK3 file. The data about who created or modified a version or scenario, the creation or modification date, and any comments are not saved to the .WK3 file. Also, version styles are not saved from the .WK4 file to the .WK3 file, even if you save them with the Retain styles option selected.

Version names: All version names saved from a .WK4 file to a .WK3 file appear in all uppercase in the .WK3 file. Also, if a range in the .WK4 file contains multiple versions with the same name, when you save the file to .WK3 format, 1-2-3 makes each version name unique by appending a digit to the second and subsequent versions with the same name (Best Guess1, Best Guess2, and so on).

Embedded data

- Objects embedded in 1-2-3 from another Windows application.
The objects are not saved in the .WK3 or .WK1 file and are not retrieved even if you resave the file with the extension .WK4.

Worksheet settings

- Perspective view, Group mode, and cell display size settings are lost in .WK3 files.
- Worksheet settings selected under "Show in current file" in View Set View Preferences.

Note If you do not delete or reorder the worksheets in a .WK3 file in 1-2-3 for DOS Release 3, you see the previous worksheet names when you reopen the file in 1-2-3 Release 4 for DOS.

Print settings

- Named page settings are lost in .WK1 files.

Labels

- Labels that contain more than 240 characters (the limit for labels in a .WK1 file) are truncated after the 240th character.

Multiple Currency Types

- If you save a 1-2-3 Release 5 file in .WK3 or .WK1 format, all the currency types in the .WK4 file display as the default currency in the .WK3 or .WK1 file. For example, suppose the default currency for your .WK3 files is US dollars and the .WK4 file you want to save as a .WK3 file contains cells formatted as British pounds, Japanese yen, and US dollars. All these different currency formats from the .WK4 file appear as US dollars when you save the file in .WK3 format.

File Information

- When you create a .WK4 file in 1-2-3 Release 5 for Windows and save it in .WK3 or .WK1 format, the file information entered with File Doc Info or File Save As is lost. This information includes the file title, subject, keywords, revision notes, and comments.

See also

Help

File Commands

User's Guide

Appendix A "Sharing Files and Macros"

File Protect

Controls the reservation for the file and seals the file.

File Protection

Prevents changes to the file reservation status and the use of some commands.

File Reservation

Gets and releases the file reservation and changes the reservation setting. Use this command when you share worksheet files on a network or in another multi-user environment.

See also

Help

File Commands

Reserving a File

User's Guide

Chapter 14, "Protecting Data"

File Protection

Seals and unseals the current file, and protects the seal with a password. When a file is sealed, you cannot

- Change the file reservation setting.
 - Use the Style, Tools Chart, Tools Draw, and New Query commands.
 - Use some Edit, View, Tools, and Range commands.
 - Name and rename worksheets with [worksheet tabs](#).
 - Enter data in ranges that have not been unprotected with [Style Protection](#).
1. Choose File Protect.
 2. Under File Protection, select the Seal file [check box](#).
 3. Choose OK.

A dialog box appears prompting you to supply a [password](#) for the seal.

Changing the file seal password

To change a seal password, choose File Protect and deselect the Seal file check box. 1-2-3 prompts you for the current password. After you enter it, reseal the file and specify the new password when 1-2-3 prompts you for it.

See also

Help

[File Password Protection](#)

[File Protect](#)

User's Guide

Chapter 14 "Protecting Data"

Set Password (File Protect)

When you seal a file using [File Protection](#) under File Protect, 1-2-3 prompts you for a password to the seal.

1. Enter a [password](#) in the Password [text box](#).
2. Enter the same password again in the Verify text box.
3. Choose OK.

Protecting the seal with a password is different from protecting the file with a password. To protect the file with a password, use [File Save As](#).

See also

Help

[File Password Protection](#)

User's Guide

Chapter 14 "Protecting Data"

Get Password (File Protect)

Prompts you, when you unseal the current file, for the password required to unseal the file and disable the file reservation setting.

1. Enter the password in the Password text box.
2. Choose OK.

1-2-3 disables all restrictions on the file.

See also

Help

[File Password Protection](#)

[File Protection](#)

User's Guide

Chapter 14 "Protecting Data"

Protecting Data and Files

To protect a file you create, you can do any of the following:

- Assign a password to a file when you save it with [File Save As](#). When a file is protected with a password, you must supply the password to open the file or combine data from the file.
- [Seal](#) a file's worksheet and reservation settings with [File Protect](#). When a file is sealed, you can read the file into memory, but you cannot change the settings that were sealed in the file. You cannot change data except in cells you explicitly unprotect with Style Protection.

When a file is sealed, you must supply the password to unseal, change, and reseal the file's worksheet and reservation settings.

- Protect the styles applied to a range, but not the data, using [Style Protection](#). Use Style Protection when you intend to seal the file.
- Get the file reservation. To prevent other users from updating a shared file you open on a network, you can get the file reservation with File Protect. When you get a file reservation, other users can open the file with read-only access, but you are the only user who can save changes to the file.

See also

Help

[File Commands](#)

[File Password Protection](#)

[Edit Arrange Lock](#)

[Reserving a File](#)

User's Guide

Chapter 14 "Protecting Data"

File Password Protection

You can protect a file with a password so that only a user who knows the password can open the file or combine data from it into another file.

You can also seal a file's worksheet and reservation settings. When you seal a file, you protect the seal with a password so that only users who know the password can unseal, change, and reseal the settings.

Assigning a password

You can assign a password to a file, and change or delete the password, when you save the file with File Save As.

You protect a seal on a file's worksheet and reservation settings with a password when you seal the settings with File Protect.

See also

Help

File Commands

Protecting Data and Files

User's Guide

Chapter 14 "Protecting Data"

File Reservation

Gets and releases the current file reservation and turns automatic reservation on and off for the file. Use this command when you share a file on a network or in another multi-user environment and need to control how a user gets the file reservation.

To get the reservation

1. Choose File Protect.
2. Under File reservation, choose Get.

This gets the reservation for the current file if it is available and no one saved the file since you read it into memory. When you get the reservation, you are the only person who can save changes to the file.

To release the reservation

Before you release the reservation, be sure you use File Save if you want to save changes you made to the file.

1. Choose File Protect.
2. Under File reservation, choose Release.

To turn automatic reservation on and off

When automatic reservation is turned on for a file, the first user who reads the file into memory gets the file reservation.

The file reservation is automatically released when the user closes the file.

1. Choose File Protect.
2. Select the Get reservation automatically check box.
3. Choose OK.

See also

Help

[File Protect](#)

[File Protection](#) to seal the automatic reservation setting so no one can change it

[File Save](#) to save the automatic reservation setting

[Reserving a File](#)

Reserving a File

When you have the file reservation, you are the only user allowed to save changes to the file. Other users can open the file at the same time you are using it, but 1-2-3 does not let them save the file as long as you have the reservation.

When you try to open a file that is reserved by someone else, 1-2-3 asks whether you want to open the file with read-only access. You can use the file, but you cannot save changes to the file with its current name.

After you open a file with read-only access, you can try to get the file reservation by using [File Protect](#). If someone saved the file since you read it into memory, open the file again to get the reservation for the most up-to-date version.

Getting the file reservation

The file reservation setting determines how a user gets the file reservation. The reservation setting can be automatic or manual and is controlled through File reservation under File Protect. The setting can also be sealed using File Protect, so that no one can change it.

- When the setting is automatic, the first person to read the file into memory gets the file reservation.
- When the setting is manual, no one automatically gets the reservation. To get the reservation, you must use File reservation under File Protect while the file is current.

1-2-3 determines whether the file reservation is available before reading the file into memory and takes different actions depending on what the file reservation setting is and whether the reservation is available:

- If the reservation setting is automatic and the reservation is available, 1-2-3 reads the file into memory with its reservation.
- If the reservation setting is automatic but the reservation is not available, 1-2-3 displays a prompt asking if you want to read the file into memory without a reservation. If you do, 1-2-3 reads the file into memory with read-only access.
- If the reservation setting is manual, 1-2-3 reads the file into memory without the reservation regardless of its reservation status. You can then use File reservation under File Protect while the file is current to try to get the reservation.

Releasing the file reservation

1-2-3 releases the file reservation when you do any of the following:

- Manually release the reservation using File Protect
- Close the file
- End the 1-2-3 session

Events affecting file reservation

- If a power outage or server failure temporarily severs your connection to the file server, some network software may reconnect you to the file automatically. 1-2-3 may not display the RO (read-only) indicator, even though you may have lost the reservation. To see if you still have the reservation, try to use File Save.
- A network user can assign a file read-only status. You cannot get the reservation through 1-2-3 of a file that has been given read-only status through the Windows File Manager, even if no other user has the reservation.

In the Windows File Manager, choose File Properties to remove the read-only attribute from the file. Then return to 1-2-3 and save the file.

See also

[File Commands](#)

[File Open](#)

[File Save As](#)

[Naming a 1-2-3 File](#)

File Print Preview

Displays the current selection as 1-2-3 will format it for printing.











1. Select what you want to preview.
2. Choose File Print Preview.
3. Under Preview, select Current worksheet, All worksheets, or Selected range, chart, or drawn object.
4. Under Pages, specify the pages to preview.
 - From page
 - To
 - In the Starting page number text box, specify a number from 1 through 9999.
5. (Optional) To change page settings, choose Page Setup.
6. Choose OK.

1-2-3 displays the first page in the Print Preview window. The preview pages appear in black and white or color, according to the type of printer you selected using File Printer Setup. Margin settings appear as a solid outline.

7. To zoom a page, click it in the Print Preview window.

You can use the Print Preview window scroll bars to scroll pages vertically and horizontally.

8. You can use the Print Preview icons, as described below:

Click	To
	Display the next page; or press PGDN or ENTER
	Display the previous page; or press PGUP
	Zoom in to enlarge pages
	Zoom out to reduce pages; or press * (asterisk)
	Display a single page
	Display two facing pages
	Display four consecutive pages or, if you click it again, nine consecutive pages
	Set the layout of the printed page
	Display the Print dialog box
	Close the Print Preview window; or press ESC

After you close the Print Preview window, if there was a print range specified, 1-2-3 redisplay the worksheet with a broken gray outline around the print range.

Related SmartIcons

	Preview the print selection
---	-----------------------------

See also

Help

[File Commands](#)
[File Page Setup](#)

File Print

User's Guide

Chapter 13, "Printing Data"

File Page Setup

Sets the layout for a printed page and supplies header and footer text.

Orientation

Determines whether 1-2-3 prints in portrait mode or landscape mode.

Margins

Sets margins for the printed page.

Center

Centers a print selection on a printed page vertically, horizontally, or both vertically and horizontally.

Header

Creates the header, which is printed at the top of each page. Use the Insert buttons to include text like date, time, and page number.

Footer

Creates the footer, which is printed at the bottom of each page. Use the Insert buttons to include text like date, time, and page number.

Size

Shrinks a print selection so printed data is smaller and more data fits on a printed page; or expands a print selection so printed data is larger and less data fits on a printed page.

Show

Prints a range with or without the worksheet frame, grid lines, and drawn objects.

Print Titles

Specifies the columns of data to print at the left of every page and left of every print selection. Also, specifies the rows of data to print at the top of every page and above every print selection.

Save

Saves the current page settings as named page settings in a file on disk.

Retrieve

Retrieves named page settings from a file on disk.

Update

Makes the current settings in the Page Setup dialog box the default page settings for all pages you print from new files.

Restore

Replaces the current settings in the Page Setup dialog box the default page settings.

Related SmartIcons



Set up header, footer, margins, and other page settings



Preview the print selection



Display the Print dialog box



Print the current selection

See also

Help

File Commands

User's Guide

Chapter 13, "Printing Data"

File Page Setup Margins

Sets margins for the printed page.





1. Choose File Page Setup.
2. Under Margins, specify margins in the Top, Bottom, Left, and Right text boxes.

To specify a margin in millimeters or centimeters, type **mm** or **cm** after the number. 1-2-3 automatically converts a centimeter setting to millimeters.

3. Choose OK.

Combined Left and Right margin settings cannot be greater than the width of the paper. Combined Top and Bottom margin settings cannot be greater than the length of the paper.

Related SmartIcons

	Set up header, footer, margins, and other page settings
	Preview the print selection
	Display the Print dialog box
	Print the current selection

See also

Help

[File Page Setup](#)

[File Print](#)

[File Print Preview](#)

[Named Page Settings](#) to make the current page settings the default or named settings

User's Guide

Chapter 13, "Printing Data"

Named Page Settings

You can save the current page settings as the default or the named page settings.

Specifying the default settings

- To make current page settings the default page settings, select File Page Setup Update.
- To replace the currently selected page settings with the default page settings, select File Page Setup Restore.
- If you do not specify File Page Setup Update or Restore, the selected settings are in effect until you change them again or you end the current 1-2-3 session.

Specifying the named settings

- To save the current page settings as named page settings, select File Page Setup Save.
- To make named page settings the current page settings, select File Page Setup Retrieve.

Related SmartIcons



Sets the layout of the printed page

See also

Help

[File Page Setup](#)
[File Print](#)
[File Print Preview](#)

User's Guide

Chapter 13, "Printing Data"

File Page Setup Print Titles

Specifies the columns to print as a vertical heading at the left of every page and print selection, and the rows to print as a horizontal heading at the top of every page and above every print selection.

1. Choose File Page Setup.
2. Under Print titles, specify ranges in the Columns and Rows text boxes.

Indicate only one cell from each of the columns you want to use in the vertical heading, and only one cell from each of the rows you want to use in the horizontal heading.

3. Choose OK.

Note Do not include in your print selection the rows and columns you specified as print titles; otherwise 1-2-3 will print them twice.







Creating print titles

1-2-3 prints print titles, or borders, that correspond only to the rows and columns in your print selection. For example, if you specify D3..D15 as your print selection and column A as your print title, 1-2-3 prints the contents of cells A3 through A15 as the print title.

1-2-3 takes the print title columns and rows from the worksheets that contain the print selection. For example, if you specify A:D3..C:D15 as your print selection and column A as your print title, 1-2-3 prints

- A:A3..A:A15 as the print title for the range A:D3..A:D15
- B:A3..B:A15 as the print title for the range B:D3..B:D15
- C:A3..C:A15 as the print title for the range C:D3..C:D15

Related SmartIcons

	Set up header, footer, margins, and other page settings
	Preview the print selection
	Display the Print dialog box
	Print the current selection
	Set columns as print titles
	Set rows as print titles

See also

Help

[File Page Setup](#)

[File Print](#)

[Named Page Settings](#) to make the current page settings the default or named settings

User's Guide

Chapter 13, "Printing Data"

File Page Setup Header/Footer

Creates the header and footer for printed pages.

1-2-3 does not print any characters that extend beyond the right margin of the printed page.

1-2-3 leaves two blank lines (measured in the current print font) between the header and the printed data and between the printed data and the footer.

1. Choose File Page Setup.
2. Enter header text in one or more of the three Header text boxes, footer text in one or more of the three Footer text boxes.

You can enter up to 79 bytes (most characters and symbols are one byte) in each text box.

Left-align, center, and right-align text in the header or footer by entering it in the left, center, and right text boxes.

3. Click the following buttons to include text:



Current system date, in day-month-year format



Current time, in hour:minutes:seconds format



Page numbers



File name



Cell contents; 1-2-3 inserts a \ (backslash) in the Header or Footer text box, after which you must specify the cell address or range name whose contents you want to insert

4. Choose OK.

Related Smarticons



Set up header, footer, margins, and other page settings



Preview the print selection



Display the Print dialog box



Print the current selection

See also

Help

[File Page Setup](#)

[File Print](#)

[File Print Preview](#)

[Named Page Settings](#) to make the current page settings the default or named settings

[Symbols for Header and Footer Text](#)

User's Guide

Chapter 13, "Printing Data"





Symbols for Header and Footer Text

When you select a button in File Page Setup to enter text in a header or footer, 1-2-3 enters one of the following symbols in the text box.

For	1-2-3 enters
Page numbers	# (pound sign). 1-2-3 numbers the pages in the print selection consecutively.
Print time	+ (plus sign). 1-2-3 uses the time supplied by your computer's internal clock when you print. The format of the time is always hour:minutes:seconds.
Print date	@ (at sign). 1-2-3 uses the date supplied by your computer's internal clock when you print. The format of the date is always day-month-year.
Contents of a cell	<p>\ (backslash) followed by a cell address or range name. For example, \ C:B1 includes the contents of cell C:B1 in the header or footer.</p> <p>If you specify a range as the address, 1-2-3 uses the contents of the first cell of the range only.</p> <p>When you use \ followed by a cell address or range name to specify header or footer text, you cannot enter any other symbols, numbers, or letters as part of the header or footer. The \ followed by a cell address or range name must be used by itself.</p>
File name	^ (caret). 1-2-3 uses the name assigned to the file.

Note To print one of these special symbols as a literal character in the header or footer, precede the symbol with a single quote. For example, Meeting '@ 1:00.

Related SmartIcons

	Preview the print selection
	Display the Print dialog box
	Print the current selection
	Set the layout of the printed page

See also

Help

[File Page Setup Header/Footer](#)

[File Print](#)

[File Print Preview](#)

User's Guide

Chapter 13, "Printing Data"

File Page Setup Size

Shrinks the print selection so printed data is smaller and more data fits on a printed page, or expands the print selection range so printed data is larger and less data fits on a printed page.

Page-break settings are not affected when you shrink or expand printed data.

To shrink or expand a range, collection, query table, or worksheet





1. Choose File Page Setup.
2. Under Size, select an option.
 - Actual size prints the selection starting from the top left corner of the page.
 - Fit all to page
 - Fit columns to page
 - Fit rows to page
 - Manually scale shrinks or expands the print selection according to the percentage you enter, from 15 through 1000.
For example, to shrink the print selection to 75% of its normal size, enter 75.

3. Choose OK.

To shrink or expand a chart or other drawn object

1. Choose File Page Setup.
2. Under Size, select an option.
 - Actual size prints the selection starting from the top left corner of the page.
 - Fill page
 - Fill page but keep proportions shrinks or expands and centers the print selection on the page but retains the proportions, starting from the top left corner of the page.
3. Choose OK.

Related SmartIcons

	Set up header, footer, margins, and other page settings
	Preview the print selection
	Display the Print dialog box
	Print the current selection

See also

Help

[File Page Setup](#)

[File Print](#)

[File Print Preview](#)

[Named Page Settings](#) to make the current page settings the default or named settings

User's Guide

Chapter 13, "Printing Data"

File Page Setup Show

Prints the current selection with or without the worksheet frame, grid lines, and charts or other drawn objects.

1. Choose File Page Setup.
2. Under Show, select one or more of the check boxes for Worksheet frame, Grid lines, or Drawn objects.
3. Choose OK.

Related SmartIcons



Set up header, footer, margins, and other page settings



Preview the print selection



Display the Print dialog box



Print the current selection

See also

Help

[File Page Setup](#)

[File Print](#)

[File Print Preview](#)

[Named Page Settings](#) to make the current page settings the default or named settings

User's Guide

Chapter 13, "Printing Data"

File Page Setup Orientation

Determines whether 1-2-3 prints in portrait mode or in landscape mode.

1. Choose File Page Setup.
2. Under Orientation, select an option.
 - Landscape prints across the length of the paper.
 - Portrait prints across the width of the paper.
3. Choose OK.

Related SmartIcons



Set up header, footer, margins, and other page settings



Preview the print selection



Display the Print dialog box



Print the current selection



Set the orientation of the current selection to landscape mode



Set the orientation of the current selection to portrait mode

See also

Help

[File Page Setup](#)

[File Print](#)

[File Print Preview](#)

[Named Page Settings](#) to make the current page settings the default or named settings

User's Guide










Chapter 13, "Printing Data"

File Page Setup Center

Centers a print selection on a printed page vertically, horizontally, or both vertically and horizontally.

1. Choose File Page Setup.
2. Under Center, select one or both options.
3. Choose OK.

Related SmartIcons

	Center the print selection horizontally on a page
	Center the print selection vertically on a page
	Center the print selection both vertically and horizontally on a page
	Set up header, footer, margins, and other page settings
	Preview the print selection
	Display the Print dialog box
	Print the current selection
	Set the orientation of the current selection to landscape mode
	Set the orientation of the current selection to portrait mode

See also

Help

[File Page Setup](#)

[File Print](#)

[File Print Preview](#)

[Named Page Settings](#) to make the current page settings the default or named settings

User's Guide

Chapter 13, "Printing Data"

File Page Setup Save

Saves the current page settings as named page settings in a file on disk.

1. Choose File Page Setup.

2. Under Named settings, choose Save.

The Save Named Settings dialog box appears.

3. In the File name text box, specify the name of the file to save the settings to. 1-2-3 automatically adds the extension .AL3 to a file containing named page settings unless you enter a different extension.

4. Choose OK.

You return to the File Page Setup dialog box.

5. Choose OK.

Related SmartIcons



Equivalent to choosing File Page Setup

See also

Help

[File Page Setup](#)

[File Page Setup Retrieve](#)

User's Guide

Chapter 13, "Printing Data"

File Page Setup Save (Replace/Cancel)

Cancels or completes the File Page Setup Save command when the file you are saving named settings to already exists on disk.

1. Choose Replace or Cancel.

See also**Help**

[File Page Setup](#)

[File Page Setup Save](#)

User's Guide

Chapter 13, "Printing Data"

File Page Setup Retrieve

Retrieves named page settings from a file on disk. The retrieved settings become the current settings for the file.

1. Choose File Page Setup.
2. Under Named settings, choose Retrieve.
The Retrieve Named Settings dialog box appears.
3. In the File name text box, specify the name of the file that contains the named page settings you want to use.
Files that contain named page settings have a .AL3 extension.
4. Choose OK.
You return to the File Page Setup dialog box, and 1-2-3 updates the current page settings.
5. Choose OK.

Related SmartIcons

 **Close**

Equivalent to choosing File Page Setup

See also

Help

[File Page Setup](#)

[File Page Setup Save](#)

User's Guide

Chapter 13, "Printing Data"

File Page Setup Restore

Replaces the current settings in the Page Setup dialog box with the [default page settings](#).

1. Choose File Page Setup.
2. Under Default settings, choose Restore.
1-2-3 replaces the current settings with the default page settings.
3. Choose OK.

Related SmartIcons



Equivalent to choosing File Page Setup

See also

Help

[File Page Setup](#)

[File Page Setup Update](#)

User's Guide

Chapter 13, "Printing Data"

File Page Setup Update

Makes the current settings in the Page Setup dialog box the default page settings for all pages you print from new files. This command does not change the print settings for the current file or other existing files.

1. Choose File Page Setup.
2. Under Default settings, choose Update.
1-2-3 saves the current settings as the default page settings.
3. Choose OK.

Related SmartIcons

Close

Equivalent to choosing File Page Setup

See also

Help

[File Page Setup](#)

[File Page Setup Restore](#)

User's Guide






Chapter 13, "Printing Data"

File Print

Specifies the data to print, the page numbers to use, and the number of copies to be printed, and sends the data to the printer. File Print also allows you to review and change page settings.

1. Choose File Print.
2. Under Print, select Current worksheet, All worksheets, or Selected range, chart, drawn object, or query table.
3. Under Pages, specify the pages to print.
 - From page
 - To
 - In the Starting page number text box, specify a number from 1 through 9999.
4. (Optional) To review or change the current page settings, choose Page Setup.
5. (Optional) To preview the current selection, choose Print Preview.
6. In the Number of copies text box, specify a number from 1 through 9999.
7. Choose OK.

Related SmartIcons

	Display the Print dialog box
	Print the current selection
	Preview the print selection
	Select the data to print
	Set the layout of the printed page

See also

Help

[File Commands](#)
[Printing Data](#)

User's Guide

Chapter 13, "Printing Data"

File Print Cancel

Indicates that data sent to the printer through 1-2-3 is currently printing, and asks whether you want to cancel printing.

1. To cancel printing, choose Cancel.

See also**Help**

[File Commands](#)

[File Print](#)

User's Guide

Chapter 13, "Printing Data"

Printing Data

You can print the contents of a file and the text of a Help topic in 1-2-3 Release 5. You must, however, first install printers through Windows. If you want to print with installable fonts supported by 1-2-3, Windows, or your printer, you must also first install the fonts.

After printers and fonts are installed, you can use 1-2-3 commands to specify the printers and fonts you want to use.

Printing worksheet contents

To specify the pages to print, and to begin printing, use [File Print](#).

Before you print the contents of a worksheet, you can

- Divide the worksheet into pages by using [Style Page Break](#).
- Set the layout and header and footer text for printed pages by using [File Page Setup](#).
- Specify fonts by using [Style Font & Attributes](#) or [Style Worksheet Defaults Font](#).

If the printer you select cannot use the page settings and options you specify with [File Page Setup](#), 1-2-3 uses the printer settings that are closest to the specified settings. Use [File Print Preview](#) to see how the selected printer will print your selection.

To select a printer and printer settings and options, use [File Printer Setup](#). You can print the worksheet contents to an encoded file.












Printing a Help topic

You can print any 1-2-3 Help topic, or a Help topic in any other Windows Help (.HLP) file. To print a Help topic, display the topic in the Help window and choose [File Print Topic](#) from the Help window File commands.

You can print sections of Help consisting of several related Help topics. For example, you can print a list of all the SmartIcons, or all the database macro commands, or all the financial @functions. For more information, see [Printing Sections of Help](#).

You can use the printer currently selected in Windows or select another printer from the list of installed printers. You can also change printer settings and print options if other settings and options are available for the printer. To select a printer and printer settings and options, choose [File Print Setup](#) from the Help window File commands.

Related SmartIcons

	Display the Print dialog box
	Print the current selection
	Preview the print selection
	Insert a horizontal page break
	Insert a vertical page break
	Center the print selection horizontally on a page
	Center the print selection vertically on a page
	Center the print selection both vertically and horizontally on a page
	Set the orientation of the current selection to landscape mode
	Set the orientation of the current selection to portrait mode
	Select the data to print

Close

Set the layout of the printed page

See also

Help

[File Commands](#)

[Style Commands](#)

User's Guide




Chapter 13, "Printing Data"

File Printer Setup

Selects a default printer from the list of printers installed in Windows and, optionally, changes the printer settings.

1. Choose File Printer Setup.
2. In the Printers list box, select the printer you want to use.
3. (Optional) Choose Setup to change the printer settings.
A Windows dialog box containing settings for the printer appears.
4. (Optional) Change the settings for the selected printer.
5. Choose OK.
You return to the 1-2-3 File Printer Setup dialog box.
6. Choose OK.

Related SmartIcons

	Preview the print selection
	Display the Print dialog box
	Print the current selection

See also

Help

[File Commands](#)
[Printing Data](#)

User's Guide

Chapter 13, "Printing Data"

File Exit

File Exit & Return

Ends the 1-2-3 session. When you end a session, 1-2-3 removes all active files from memory, but does not delete the files from disk. The 1-2-3 window closes and you return to the Windows Program Manager. If you are exiting a worksheet that is a 1-2-3 Worksheet object embedded in another application file, you return to that other application.

1. Choose File Exit -- or File Exit & Return, if the current window contains a 1-2-3 Worksheet object embedded in another application.
2. If 1-2-3 detects that active files changed and asks whether you want to save the changes, or if 1-2-3 detects that the Worksheet object has been modified and asks whether you want to update the object in the other application, choose an option.
 - Yes saves the changes if the file is a worksheet file, or updates the 1-2-3 Worksheet object, and ends the 1-2-3 session.

If the file already exists on disk, and is not a 1-2-3 Worksheet object, 1-2-3 asks whether you want to replace data already in the file with the changed data, create a backup of the file before replacing data in it, or cancel ending the session.

If the file is new, the File Save As dialog box appears allowing you to specify a new file name.
 - No ends the session without saving the changes.
 - Cancel does not end the session.
 - Save All saves all files in memory, or updates all 1-2-3 Worksheet objects.

See also

Help

File Commands

User's Guide

Chapter 3, "Starting and Ending 1-2-3"

File (File Name)

Lists up to five of the most recently opened files and lets you open one directly from the File pull-down.

To display the file path name, highlight the file name. The file path name appears in the title bar of the 1-2-3 window.

1. Choose File.
2. Choose a file from the list at the bottom of the File pull-down.

Related SmartIconsA rectangular button with the word "Close" in a bold, sans-serif font.

Opens a file

See also**Help**

[File Commands](#)

[File Open](#)

[Tools User Setup](#) to set the number of recently opened files that appear on the pull-down

User's Guide

Chapter 6, "Worksheet Basics"

Specifying a File

When you use a 1-2-3 command that requires you to specify a file, you must specify the file path and the file name. To do this, you can

- Enter the path and file name in the File name text box.
- Select the path and file name from the Files and Directories list boxes and the File type and Drives drop-down boxes.

Note If you specify a file type of Shared (.NS4), the Drives drop-down box becomes the Notes Servers drop-down box, and displays available Lotus Notes servers that you are connected to.

- Use the File name text box in combination with one or more of the list boxes and drop-down boxes

The file path

The file path consists of the drive and directory in which the file is located. The file name is the unique name, including the file extension, assigned to the file.

For example, in the following file specification

C:\123\BUDGET.WK4

C:\123 is the path. It identifies C: as the drive and 123 as the directory in which the file named BUDGET.WK4 is located. The file extension is .WK4.

If the file you are specifying is in a subdirectory, the path includes more than one directory name.

For example, in the following file specification

C:\123\FY91\BUDGET.WK4

FY91 is a subdirectory in the directory named 123.

A \ (backslash) must separate one directory from another.

If you do not specify a path for a file, 1-2-3 searches the current directory for the file.

The File name, Files, Directories, File type, and Drives or Notes Servers boxes

By default, the File name text box displays the name of the current file. The other boxes display information as follows:

Box	Displays
Files	All files in the current directory that match the specified file type
Directories	All directories in the current drive
File type	Supported file formats
Drives	All available drives, including network drives, that you are connected to
Notes Servers	All available Notes servers that you are connected to
	Note Appears instead of the Drives drop-down box if you specify a file type of Shared (.NS4)
File information	Date and time when the specified file was created, and its size

The current directory or subdirectory is represented in the Directories list box by .. (two dots). Subdirectories belonging to the current directory are listed under the two dots.

To display all directories for a drive in the Directories list box, select the drive or server from the Drives or Notes Server drop-down box.

Using wildcard characters to list files

You can see a list of files with similar names or extensions in the Files list box by including the wildcard characters * (asterisk) and ? (question mark) in the file name you enter in the File name text box.

For example, to have 1-2-3 list all files with the characters MARCH9 (such as MARCH9.WK4, MARCH90.WK4, and MARCH91.WK4) in the Files list box, type **march9*.*** in the File name text box and press ENTER.

The * wildcard character represents any number of consecutive characters in a file name or extension. For example, to have 1-2-3 list all files with the extension .WK4, type ***.wk4** in the File name text box and press ENTER. To have 1-2-3 list all files that begin with B and have the extension .CGM, type **b*.cgm** and press ENTER. To have 1-2-3 list all files in a directory, type ***.*** and press ENTER.

The ? wildcard character represents any single character in a file name or extension. For example, to have 1-2-3 list all files with a three-character extension that begins with .W, type ***.w??** as the file name in the File name text box and press ENTER.

See also

[Editing Keys](#)

[File Commands](#)

[Naming a 1-2-3 File](#)

[Sharing Files Using Lotus Notes](#)

[Tools User Setup](#)

Naming a 1-2-3 File

Every file in a directory has a unique name. When you create a new 1-2-3 file in memory through File New, 1-2-3 assigns a default name to the file. The first default file name is FILE0001.WK4; the next default file name is FILE0002.WK4, and so on. You can save the file on disk with this default name or with another name that you create.

A file name can contain up to eight characters. You can use any combination of letters, numbers, _ (underscores), and - (hyphens), and you can use uppercase and lowercase letters (they are equivalent in file names). Do not use spaces in a file names. Instead, use _ (underscores); for example, MY_WORK.WK4.

File extensions

When 1-2-3 creates a file, it adds a three-character extension to the file name to identify the file type:

Extension	File Type
.AL3	Named page settings; a file created when you save the current page settings as named page settings with File Page Setup Save.
.BAK	Backup version of a worksheet file (.WK4, .WK3, and .WK1); created when you save a 1-2-3 file as a backup file with File Save As.
.FMB	Backup version of a 1-2-3 format file (.FM3 and .FMT); created when you save a .FM3 or .FMT file as a backup file with File Save As.
.MAC	Macro for a customized icon; a file created when you customize an icon and save it with an associated macro using Tools SmartIcons Edit Icon.
.NS4	1-2-3 <u>shared file</u> ; saved on a Lotus Notes server.
.TXT	Text; created when you save a file as a text file with File Save As.
.WK1	Worksheet; created when you save a file with File Save As as a 1-2-3 for DOS Release 2 worksheet file.
.WK3	Worksheet; created when you save a file with File Save As as a 1-2-3 for Windows Release 1 worksheet file, or 1-2-3 for DOS Release 3 worksheet file.
.WK4	Worksheet; created when you save a file as a 1-2-3 Release 4 or Release 5 for Windows worksheet file with File Save or File Save As.
.WT4	Worksheet; created when you use File Save As to save a file as a SmartMaster template.
.XLW	Excel workbook file; created using File Save As.
.XLT	Excel worksheet file; created using File Save As.
.DBF	dBASE IV file; created when you use File Save As to save a selected range as a dBASE IV file.
.DB	Paradox file; created when you use File Save As to save a selected range as a Paradox file.

You can assign another extension to a file by specifying the extension when you save the file. The extension must begin with a . (period) and contain up to three characters.

For example, you can save a 1-2-3 Release 5 (.WK4) worksheet file as a file with the extension .WK3 (1-2-3 for DOS Release 3 and 1-2-3 for Windows Release 1 worksheet files) or .WK1 (1-2-3 for DOS Release 2 worksheet files) by using File Save As and changing the extension in the file name.

Related SmartIcons

Close

Saves a file

See also

[File Commands](#)

[Named Page Settings](#)

[Sharing Files Using Lotus Notes](#)

[Specifying a File](#)

[Working with .WK1 and .WK3 Files in 1-2-3 for Windows](#)

[Working with dBASE and Paradox files in 1-2-3](#)

[Working with Excel Files in 1-2-3](#)

[Working with SmartMaster Files](#)

[Working with Text Files in 1-2-3](#)

Deleting a 1-2-3 File

To delete a 1-2-3 file, you must be in the Windows Program Manager or at the DOS prompt.

To delete a file from the Windows Program Manager

1. Make the Main window the active window.

2. Choose File Manager.

The Directory Tree window becomes active.

3. Select the drive name of the disk that contains the file to delete.

4. Select the directory that contains the file.

A window displaying the subdirectories and files in the directory becomes active. If the file is in a subdirectory, select the subdirectory.

5. Select the file to delete.

6. Choose File Delete.

The Delete dialog box appears.

7. Choose Delete to remove the selected file, or enter another file name to remove a different file.

The File Manager dialog box appears and asks you to confirm the deletion.

8. Choose Yes.

To delete a file from the DOS prompt

1. Change to the drive and directory that contains the file to delete.

2. Type **del filename**.

3. Press ENTER.

See also

[File Commands](#)

[1-2-3 Release 5 Help Contents](#)

File Send Mail

Uses your mail application to send electronic mail from 1-2-3. You can send ranges, insert ranges, charts, and drawn objects, or attach files to a mail message.

To send a range with a mail message

When you send a range, 1-2-3 creates a 1-2-3 mail file and attaches it to a mail message.

1. Select the range to be included in the mail message.
2. Choose File Send Mail.
3. Choose OK.

The Send Range As dialog box appears.

To insert a selection in a mail message

1. Select the range, drawn object, or chart to be included in the mail message.
2. Choose File Send Mail.
3. If you're inserting a range, select the "Send as picture" check box.
4. Choose OK.

A dialog box from your mail application appears.

To attach a titled file

1. Choose File Send Mail.
2. Select the Attach file option button.
3. Choose OK.

If the file has been modified, 1-2-3 saves the file.

A dialog box from your mail application appears.

To attach a modified and untitled file

1. Choose File Send Mail.
2. Select the Save and attach file option button.
3. Choose OK.

If you did not save previously, the File Save As dialog box appears and lets you name and save the file.

A dialog box from your mail application appears.

To send a mail message

1. Choose File Send Mail.
2. Select the Message only option button.
3. Choose OK.

A dialog box from your mail application appears.

Related button on the status bar



Opens Lotus Notes or cc:Mail if either is currently running and if you indicated in the mail application that you want to know when you receive mail

Related SmartIcons

Close

Equivalent to choosing File Send Mail

See also

[File Commands](#)

[Sending Mail from 1-2-3](#)

[Sending a Range](#) for an overview of sending and receiving ranges

Sending Mail from 1-2-3

You can send mail from 1-2-3 with Lotus Notes, cc:Mail for Windows, a VIM mail application, or a MAPI application.

Lotus Notes

- 1-2-3 Release 5 supports Lotus Notes Release 2.1a or later. To send ranges of worksheet data, you need Lotus Notes Release 3.0 or later.
- If you add the following lines to your WIN.INI file, 1-2-3 uses Lotus Notes as the mail application when you use File Send Mail or {SEND-MAIL}.

```
[LOTUSMAIL]
Application=Notes
Program=c:\notes\notes.exe NoDialogs
```

Substitute your path to Lotus Notes for C:\NOTES, if it is different.

cc:Mail for Windows

- 1-2-3 Release 5 supports cc:Mail for Windows Release 1.11 or later. To send ranges of worksheet data, you need Level 6 of the cc:Mail Post Office.
- If you add the following lines to your WIN.INI file, 1-2-3 uses Lotus cc:Mail for Windows as the mail application when you use File Send Mail or {SEND-MAIL}.

```
[LOTUSMAIL]
Application=wMail
Program=c:\ccmail\wmail.exe SendMail
```

Substitute your path to cc:Mail for Windows for C:\CCMAIL, if it is different.

VIM mail applications

- If you add the following lines to your WIN.INI file, 1-2-3 uses the VIM mail application when you use File Send Mail or {SEND-MAIL}.

```
[MAIL]
SMI=1
```

MAPI mail applications

- If you add the following lines to your WIN.INI file, 1-2-3 uses the MAPI mail application when you use Send Mail or {SEND-MAIL}.

```
[MAIL]
MAPI=1
```

See also

[File Send Mail](#)
[{SEND-MAIL}](#)

Sending a Range

You can send a range of worksheet data to other 1-2-3 Release 5 users who have electronic mail. You can send the range to all recipients at once, or you can route it from one recipient to the next.

For example, suppose you need figures from several different people to complete your department's budget. You tell 1-2-3 who to send the budget to, and in what order, and specify that you want the range returned to you. Your co-workers add their figures to the range and 1-2-3 automatically routes it to the next person on your list. When the range returns to you, 1-2-3 remembers where the range came from and can merge the updated range into your original file.

To send a range

- Decide what range you want to send.
See [File Send Mail](#) for more information.
- Add a message to the recipients of the mail.
See [Setting Up a 1-2-3 Mail File](#) for more information.
- Decide how and to whom you want to send the range.
See [Send](#) for more information.

After you send a range

- Recipients can work with the range and send it on.
See [Receiving a Range of 1-2-3 Data](#) for more information.
- The range can return to you after all recipients work with it. 1-2-3 remembers where the range came from and lets you quickly incorporate the range, or data from the range, into the original file. If you want, 1-2-3 can merge the data as [versions](#).
See [Merge](#) for more information.

See also

[File Send Mail](#)
[Sending Mail from 1-2-3](#)

Send Range As

Specifies whether to convert the formulas in the range to their values.

1. Select an option:

- Formulas and values leaves formulas intact.

Formulas that refer to data outside of the range you are sending will not evaluate correctly until it is merged back into the original file.

- Values only converts formulas in the range to their values.

2. Choose OK.

A [1-2-3 mail file](#) appears.

See also

[File Send Mail](#)

[Sending a Range](#)

Setting Up a 1-2-3 Mail File

The 1-2-3 mail file displays the range you are sending and lets you enter a message to the recipients of the range.

1-2-3 automatically displays your name and the date in the text block.

1. Enter a message in the text block.

The message also appears in the mail message the recipients get in their mail applications.

2. Click Send.

The Send dialog box appears.

See also

[File Send Mail](#)

[Receiving a Range of 1-2-3 Data](#)

[Sending a Range](#)

Send

Lets you specify to whom and in what order you want to send the range.

1. Enter the names of the recipients in the "To" [list box](#).

Separate names with commas, or press ENTER after each name. Each recipient's name can be up to 128 characters long.

Note If you plan to route the range from one recipient to the next, make sure that you enter the names in the order you want them to receive it.

2. Select an option from the [drop-down box](#):

- "Route to addresses in sequence" converts your list to a numbered route list. 1-2-3 routes the range to the first person on the list, then automatically routes it to the second person on the list when the first person clicks the Route button, and so on.

- "Send to all addresses at once" broadcasts the range to all the recipients at the same time.

You can choose Options and select the Return to originator option to include a Reply button in each recipient's [1-2-3 mail file](#). When the recipient clicks Reply, 1-2-3 sends the range back to you.

3. Enter a subject in the Subject [text box](#).

Text you enter here appears as the subject of the mail message the recipients get in their mail applications. The subject also appears in the title bar of the 1-2-3 mail file.

4. (Optional) Choose Address to use your mail application's address book to add names and/or groups to the list, as described below.
5. Choose [Options](#) to select delivery and tracking options.
6. Choose Send.

To use the address book to add names to your list

1. In the Send dialog box, choose Address.

The dialog box expands, displaying the list of people or groups in your mail application's address book.

2. Select the address book from the drop-down box.
3. Select the name and choose Insert Address, or double-click the name.

1-2-3 adds the name to the "To" text box.

See also

[File Send Mail](#)

[Receiving a Range of 1-2-3 Data](#)

[Setting Up a 1-2-3 Mail File](#)

[Sending a Range](#)

Options

Sets options for delivering and tracking ranges sent from 1-2-3.

1. In the [1-2-3 mail file](#), click Send.
2. Choose Options.
3. Select one or both of the following [check boxes](#):
 - Return to originator adds your name to the end of the list of recipients after you send the mail.
When the range returns to you, 1-2-3 adds a [Merge](#) button that lets you incorporate other users' changes into the original range.
If you are sending the range to all recipients at the same time, 1-2-3 adds a Reply button to the worksheet.
 - Return receipt and copy originator sends a confirmation to each sender in a route list when the next person in the list opens his or her mail, and sends a copy of the file to the originator. This helps you track the location of a routed range.
4. (Optional) Select an option from the Delivery priority [drop-down box](#).
5. Choose OK.

See also

[File Send Mail](#)
[Send](#)
[Sending a Range](#)

Receiving a Range of 1-2-3 Data

When someone sends you a range from 1-2-3, you receive a mail message in your mail application. The mail message includes a comment and an icon for the attached 1-2-3 file containing the range.

1. Open the 1-2-3 file. A 1-2-3 mail file appears.
2. Make any changes to the range.
3. Add comments to the last text block. If the range was routed, the text block bears your name.
4. Depending upon how the file was sent, you can do one of the following:
 - Choose Reply to save the file and send it back to the originator.
The Route/Reply dialog box appears and displays the name of the file's originator.
 - Choose Route to save the file and send it to the next person on the route list.
The Route/Reply dialog box appears and displays the name of the next person on the route list.
 - Choose Merge to copy the range or versions of the range into your original file after other users have worked with it.

See also

[File Send Mail](#)
[Sending a Range](#)

Route/Reply

Displays the name of the person who will receive the range next.

1. Choose OK.

1-2-3 saves and mails the file.

See also

[File Send Mail](#)

[Send](#)

[Sending a Range](#)

Merge

When a range of data completes the route, you can merge the range into your original file. When you merge the range, 1-2-3 opens the original file, copies the routed range into the original range, and can create versions for the range.

1. Open the file that was routed to you.
2. (Optional) If you do not want to merge the whole range, select the portion of the range that you want to merge.

You can merge only cells that are within the original range. If the range that you are merging contains cells outside the original range, or if the range is completely outside the original range, 1-2-3 displays a message. You can copy and paste any data outside the range instead.

3. Choose Merge.

If you selected a portion of the range, you can select Whole range to merge the entire range instead.

4. Choose OK.

If the original range contains data, the Merge Options dialog box appears and lets you specify whether to keep both new and existing data as versions, or replace existing data.

See also

[Copying, Moving, and Pasting Data](#)

[File Send Mail](#)

[Sending a Range](#)

Merge Options

Specifies whether to keep both new and existing data as versions or replace existing data.

1. To save both new and existing data as versions of the original range, choose Keep Both.

In your original file, 1-2-3 creates versions of the new and existing data.

2. To replace the original data in the range with new data, choose Replace.

1-2-3 adds to the 1-2-3 mail file a text block with information about the merge. You can merge as many times as you like. Each merge adds an additional text block to the 1-2-3 mail file.

See also

[File Send Mail](#)

[Merge](#)

[Sending a Range](#)

[Version Manager](#)

Tools Map Commands

Creates a map using data in a selected range.

New Map

Creates a map in the current worksheet based on the selected range of data.

Colors & Legend

Changes the colors, legend labels, and values used to group data in bins in the current map.

Patterns & Legend

Changes the patterns, legend labels, and values used to group data in bins in the current map.

Ranges & Title

Changes the range assignments and title of the current map.

Set Redraw Preference

Determines when 1-2-3 redraws a map to reflect changes made to the range of map data.

Redraw

Redraws all maps in the current file.

Lotus Map Viewer

After you create a map, you can also use the Lotus Map Viewer to work with the map. To start the Lotus Map Viewer, do one of the following:

- Double-click a map in the worksheet.
- Choose the Map Viewer command button in Tools Map Colors & Legend, Tools Map Patterns & Legend, or Tools Map Ranges & Title.
- Position the mouse anywhere in the map, click the right mouse button, and choose Edit Object.

Lotus Map Viewer

Zooms in on a section of the map, changes the style and position of the title and legend, adds an overlay to the map, and makes other enhancements to the map.

See also

[Creating a Map](#)

[Mapping Overview](#)

[Tools Commands](#)

[Troubleshooting](#)

Mapping Overview

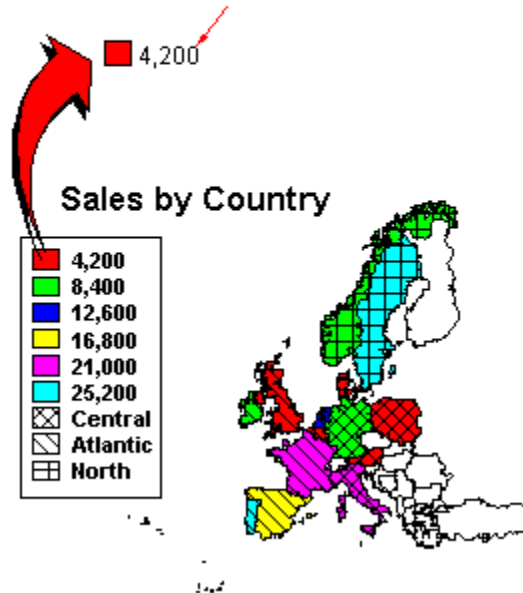
Mapping works like charting: 1-2-3 links data in your worksheet to a graphical representation of that data. Just as you can create a bar chart to illustrate a range of worksheet values, you can create a map that relates data in a range to recognizable geographic regions such as states or countries.

Map codes Color data Pattern data

Country	Sales	Office
Austria	1,297	Central
Belgium	3,297	Atlantic
Denmark	3,269	North
France	20,868	Atlantic
Germany	6,473	Central
Ireland	7,256	Atlantic
Italy	20,745	Central
Luxembourg	6,731	Atlantic
Netherlands	8,733	Atlantic
Norway	4,608	North
Poland	1,641	Central
Portugal	22,862	Atlantic
Spain	16,598	Atlantic
Sweden	24,356	North
United Kingdom	2,471	Atlantic

1-2-3 groups data into bins.

For example, it groups all countries with sales of 4,200 or less in the red bin.



To see an example of a range of map data, select this cross-reference:

Example: Range of map data

Setting up a range of map data

1-2-3 can map two sets of data for the map regions included in the range.


- You must set up a range of data by columns and then select that range before 1-2-3 can create a map.
- Data can be numbers or text.
- Data must be associated with map codes or conventional geopolitical names that 1-2-3 recognizes.

Data is mapped as color or pattern

- The first set of numerical data appears as colors applied to map regions. 1-2-3 can apply as many as six colors to the regions of the map.
- The second set of data appears as patterns applied to the same map regions. 1-2-3 can apply as many as six patterns to the regions of the map.
- You are not limited to six map regions in the range. When the range contains more than six regions, 1-2-3 groups the data into categories, called bins, in a manner similar to the way 1-2-3 creates a frequency distribution. Each bin appears as a color or pattern in the map.
- You can change the colors and patterns used for each bin.
- You can reassign the sets of data. For example, the data that 1-2-3 originally mapped as colors can

be reassigned to appear as patterns.

Pin characters mark specific locations

- You can include another set of data for a map region that lets you mark a location in the map region with a symbol, like , or a label, like "World Headquarters." These symbols or labels are called pin characters.
 - You can define the color of the pin character.

Two places to work on a map: the worksheet and the Lotus Map Viewer

- You create a map as a drawn object in the worksheet. Using the Tools Map commands, you can also change the following elements when you're in the worksheet:
 - The legend labels, the colors and patterns, and the values 1-2-3 uses to create the bins that group the data
 - The text of the map title, and the ranges that contain the map codes, colors, patterns, and pin-character data
- After you create a map, double-click it to start the Lotus Map Viewer, where you can zoom in on a section of the map, change the style and position of the title and legend, add an overlay to the map, and make other enhancements to the map.

1-2-3 provides a selection of maps

1-2-3 provides the following maps.

- World Countries
- USA by State (continental United States)
- Alaska
- Hawaii
- Canada by Province
- Europe by Country
- European Union by Region
- Japan by Prefecture
- Mexico by Estado
- Australia by State
- Taiwan

Many other kinds of maps are available for use in 1-2-3. For information about ordering additional geographic and demographic data, see Purchasing More Maps.

Sample file and data files

In the \SAMPLE\MAPS subdirectory, the sample file MAPS.WK4 contains detailed examples of finished maps, ranges of data for maps, and further instructions on how to set up ranges of data for mapping.

In the \MAPDATA subdirectory, 1-2-3 provides data files (.WK4) for map types. Each file contains some of the following kinds of information:

- Demographic and business data. You can copy this data into a range to use with your own map data.
- Latitude and longitude for selected cities. You can use these coordinates to create pin characters for these cities.
- Map codes and official names for the regions. You can copy the codes or names and paste them into

the worksheet to build a range of map data.

See also

[Creating a Map](#)

[Lotus Map Viewer](#)

[Tools Map Commands](#)

[Troubleshooting](#)

Creating a Map

To create a map, set up data in a range containing at least two columns.

As in a 1-2-3 database table, you must set up the data in columns.

To see an example of a range of map data, select this cross-reference:

Example: Range of map data

1. Enter the conventional geopolitical names of map regions or the regions' map codes in the leftmost column of the range.
1-2-3 uses these codes to link regions in the map to rows of data in the range.
2. In columns to the right of the map codes, enter the data that you want to link to each region.
A column must contain only one kind of data: codes, labels, values, pin characters, pin coordinates, or color values for pin characters.
3. Select the range containing the map data.
Do not include column headings in the range you select.
You can select a single cell within the range. 1-2-3 determines the borders of the range and creates a map based on the data within those borders.
4. Choose Tools Map New Map and click where you want the map to appear in the worksheet.

Note Just click. Dragging the mouse to size the map has no effect.

The sample file MAPS.WK4 contains detailed examples of finished maps, ranges of data for maps, and further instructions on how to set up ranges of data for mapping.

Editing the map

To change	Choose
Map title, type, data ranges	<u>Tools Map Ranges & Title</u>
Color settings	<u>Tools Map Colors & Legend</u>
Pattern settings	<u>Tools Map Patterns & Legend</u>

You can also use the Lotus Map Viewer to edit a map. Double-click the map to open the viewer.

In the viewer, you can zoom in on a section of the map, change the style and position of the title and legend, add an overlay to the map, and make other enhancements to the map.

Changing the size of the map object in the worksheet

Although you can drag the border of the map object to change its size, this may distort the shape of map regions.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.



How does 1-2-3 determine whether data should be mapped as colors or patterns?

Related SmartIcons

Close

Equivalent to choosing Tools Map New Map

See also

[Mapping Overview](#)

[Tools Map Commands](#)

[Troubleshooting](#)

Close

Example: Range of Map Data

When you select a range to create a map, do not include column headings in the selection.

Code	Color data	Pattern data	Pin	Lat	Long	Pin color
Austria	1,297	Central				
Belgium	3,297	Atlantic				
Denmark	3,269	North				
France	20,868	Atlantic	Close	47.04151	2.587789	50
Germany	6,473	Central				
Ireland	7,256	Atlantic				
Italy	20,745	Central				
Luxembourg	6,731	Atlantic				
Netherlands	8,733	Atlantic				
Norway	4,608	North				
Poland	1,641	Central				
Portugal	22,862	Atlantic				
Spain	16,598	Atlantic				
Sweden	24,356	North				
United Kingdom	2,471	Atlantic				

Troubleshooting

What happens if you include only map codes or names in the range?

1-2-3 creates a map without colors or patterns, because no data is linked to any part of the map.

What happens if you use unofficial names, unrecognized names, or nicknames for map regions?

You can use unofficial names, unrecognized names, or nicknames so long as such names correspond to official regions drawn in the map.

For example, states in the United States have nicknames: Massachusetts is called the Bay State; New York, the Empire State; Texas, the Lone Star State. You can use these nicknames because they correspond to recognized geopolitical units.

If you were to try to create a map by selecting a range of these nicknames, 1-2-3 would not recognize them at first, so 1-2-3 does the following:

- Displays the Map Type dialog box so you can select the appropriate map type, in this case, USA by state.
- Displays the Region Check dialog box so you can link the nicknames with the official state names that 1-2-3 recognizes.

What happens if the regions you name do not correspond to official regions drawn in the map?

You cannot produce an accurate rendering of your data if the regions you enter in the leftmost column do not correspond to official regions drawn in any installed map type.

For example, names of alliances, such as NATO, comprise more than one country and so cannot be

used to link data to a map. Traditional regional names, like New England or the Deep South in the United States, do not identify single geopolitical units, so these also cannot be used to link data to a map.

You can, however, use such names to create a color or pattern bin that represents the region.

Where can you find the codes and names that 1-2-3 recognizes?

- You already know many of the names 1-2-3 recognizes. Just enter the name that is usually used for the region; for example, Canada, Japan, Mexico, and so on.
- In the \MAPDATA subdirectory, 1-2-3 provides at least one data file (.WK4) for every map type. You can copy the codes or names from those files and paste them into the worksheet to build a range of map data.
- You can copy codes and names from the Lotus Map Viewer and paste them in the worksheet. For more information, see [Copy Region Code and Copy Region Name](#).

Why doesn't 1-2-3 recognize Alaska or Hawaii in a range of map data for the United States?

Because 1-2-3 correctly scales the geographic distance between map regions, a United States map that included Alaska and Hawaii would display the states so small that the map would be difficult to read.

Therefore, the map type for the United States (USA.TV) shows only the continental United States (including the District of Columbia). 1-2-3 includes separate map types for Alaska (ALASKA.TV) and Hawaii (HAWAII.TV).

That's why the Region Check dialog box appears when the range of map data includes Alaska or Hawaii along with other states, and why Alaska and Hawaii do not appear in the lists of recognized names or codes for the USA by state map type.

To avoid this problem, set up three ranges of map data, one each for the continental United States, Alaska, and Hawaii. Then create three maps.

How does 1-2-3 determine whether data should be mapped as colors or patterns?

When you first create a map, 1-2-3 searches the first row of data in the range of map data from left to right, beginning with the column directly to the right of the map codes.

If you are mapping only one set of data, 1-2-3 converts that data into color bins.

If you are mapping two sets of data, 1-2-3 converts the first column of numeric data it finds into [color bins](#). The second set of data, whether numbers or text, becomes pattern bins.

You can change the way that 1-2-3 links data to the map by using [Tools Map Ranges & Title](#). For example, you can specify that 1-2-3 map labels, instead of values, as colors bins; and values, instead of labels, as patterns.

Why can't you see the map title?

- Start the [Lotus Map Viewer](#) and choose View Set View Preferences. Under "Show in map," be sure that the option to show the map title is selected.
- In [Tools Map Ranges & Title](#), be sure that you entered text in the Title text box. If you entered a cell address instead of text, be sure that the address is correct, that it refers to a cell in the same file as the map, and that there is text in the cell.

What's in the status bar of the Lotus Map Viewer?

- When you place the mouse pointer over a region on the map, the left side of the status bar displays the name and [map code](#) for that region.
- When you use any of the right mouse button Copy commands to copy map information to the [Clipboard](#), the right side of the status bar displays the information you copied.

What do negative coordinates mean?

- The latitude coordinate is negative if the region you clicked is south of the equator.
- The longitude coordinate is negative if the region is west of the Greenwich meridian and east of the International Date Line.

For example, both coordinates are negative for locations in Chile, in South America. Both coordinates are positive for locations in Poland, in Europe.

For locations in Australia, however, the latitude is negative, but the longitude is positive because Australia is east of the Greenwich meridian and west of the International Date Line.

What does an overlay add to a map?

An overlay is simply another map added to your basic map. It can add broader context or more detail to the presentation of the worksheet data that you're mapping.

Note Only the basic map can be linked to data in a worksheet.

- **Broader context:** Suppose you are mapping data about the economic consequences to Canada of the North American Free Trade Agreement (NAFTA). Your basic map is Canada by province, but you want to show your Canadian data in the broader context of all the countries participating in NAFTA. You can do this by adding the overlays for USA by state and Mexico by state. (You could also add the overlays for Alaska and Hawaii.)
- **More detail:** Some overlays are identical in outline to your basic map. They literally lie on top of your basic map and add a different kind of detail to it. For example, you might want to lay a map of the wards of Tokyo over a map of the prefectures of Japan that shows data on rice production.

Overlay files of this type are not available in this copy of 1-2-3. For more information about the variety of maps available for use in 1-2-3, see [Purchasing More Maps](#).

Why can't you see the overlay you added to the map?

1-2-3 correctly scales the distance between an overlay map and your basic map. If they are geographically far away from each other, you may have to use [View Zoom Out](#) in order to see them together in the viewer.

For example, suppose your basic map is Australia (OZ.TV). If you add Japan as an overlay, you are adding an overlay of a country located far north of Australia. You'll need to zoom out considerably to see them together.

What are the results of using Edit Paste or Edit Paste Special when you paste a map from the Clipboard?

The possible results of pasting appear in the following tables.

After using Edit Copy or Edit Cut from the worksheet:

If you paste the map into	Using Edit Paste results in	Using Edit Paste Special results in
Same file	Map linked to the range of map data. You can use all map functionality with the pasted copy.	Picture
Another file	Error message. You cannot do this.	Picture

After using Edit Copy from the Lotus Map Viewer:

If you paste the map into	Using Edit Paste results in	Using Edit Paste Special results in
Same file	Picture	Picture or TvMap Document

- A picture of a map has no links to the range of map data. You cannot change the map in the worksheet or in the Lotus Map Viewer.
- A TvMap Document has no links to the range of map data. You can, however, change the map in the Lotus Map Viewer.

How can you shorten the time needed to redraw maps?

Maps are complex images that require the detailed drawing of many visual elements and sensitivity to changes in worksheet data. Rendering a map that looks good and represents your data accurately can take time.

When you make changes to the data linked to maps, keep the following points in mind:

- Setting the redraw preference to Manual lets you decide when 1-2-3 can redraw a map.
- When your redraw preference is Automatic, 1-2-3 redraws a map after each change you make to the map data. If you need to make several changes to the data, first set the redraw preference to Manual. After you make all the changes, choose Tools Map Redraw, and 1-2-3 redraws the map once to reflect all the changes.
- If you have more than one map linked to the same set of data, and your redraw preference is Automatic, 1-2-3 must redraw each map whenever you change the data. Once again, by setting your redraw preference to Manual, you can reduce the interruption caused by the redrawing of maps.

Adding Pin Characters to a Map

Pin characters are like the annotations or pins you might add to a paper map to flag areas deserving special attention.

Pin characters can be symbols, like , or labels, like "World Headquarters."

To see an example of the ranges needed to create pin characters, select this cross-reference:

[Example: Range of map data](#)

1. In a column to the right of the map codes in the range of map data, enter a pin character for each map region you want to mark.

For example, to insert the flag symbol



type an uppercase O and then apply the WingDings font.

2. In the next two columns, enter the coordinates (that is, the [latitude and longitude](#)) for the pin character.

These coordinates locate the pin character on the map. For example, to anchor a flag symbol in Illinois, enter the latitude 40.15 in one column and the longitude -89.32 in the next column.

3. (Optional) Enter a value in the next column to specify the color of the pin character. Use a value that corresponds to a color in the top row of a color palette.
 - To find the value that corresponds to a color, open a color palette (in, for example, Style Lines & Color), and hold down the mouse button over a color in the top row. The value appears at the bottom of the palette.

Note Your monitor may be able to display other colors besides those in the top row of the palette.
 - If you do not specify a color, the pin character is white.

To add pin characters to a map that already exists

1. Set up the data for the pin characters as described in the steps above.
2. Click the map to select it.
3. Choose [Tools Map Ranges & Title](#).
4. Under "Assign range for," select Coordinates.
5. Specify the range that contains the pin characters, their coordinates, and optionally, their colors.

Using Character Map to find symbols

The WingDings and Zapf Dingbats fonts are good sources of symbols to use as pin characters. An easy way to see the symbols available in these fonts is to start the Microsoft Windows application called Character Map, located in the Accessories program group.

You can copy a character from Character Map to the Clipboard, paste it into a cell, and apply the appropriate font.

See also

[Creating a Map](#)

[Mapping Overview](#)

[Tools Map Commands](#)

Finding the Latitude and Longitude for a Pin Character

You can find the latitude and longitude of any point in a map region by using the Lotus Map Viewer.

1. Double-click the map to start the Lotus Map Viewer.
2. Position the mouse pointer in the map region where you want to locate a pin character.
3. Click the right mouse button.

The viewer displays a menu of available commands.

4. Choose Copy Coordinates.

The latitude and longitude appear, in that order, on the right side of the viewer status bar. The viewer copies the coordinates to the Clipboard.

5. In the worksheet, choose Edit Paste to insert the coordinates in your worksheet.

Data files containing coordinates

In the \MAPDATA subdirectory, 1-2-3 provides data files (.WK4) for map types. Some of these files contain latitude and longitude for selected cities. You can use these coordinates to create pin characters for these cities.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.



What do negative coordinates mean?

See also

[Creating a Map](#)

[Lotus Map Viewer](#)

[Mapping Overview](#)

[Tools Map Commands](#)

Tools Map New Map

Adds a map to the current worksheet based on the data in the selected range.

Before you begin: You must set up a range of map data in the worksheet.

To see an example of a range of map data, select this cross-reference:

[Example: Range of map data](#)

1. Select the range containing map data.

Note Do not include column headings in the range you select.

You can select a single cell within the range. 1-2-3 determines the borders of the range and creates a map based on the data within those borders.

2. Choose Tools Map New Map and move the mouse pointer to the worksheet.

The pointer changes to this shape:

Close

3. Click where you want the map to appear.

Note Just click. Dragging the mouse to size the map has no effect.

After you create the map, you can [move](#) it as you would any other drawn object.

Map Assistant

Appears when you select a single blank cell.

To create a map, 1-2-3 needs at least two columns of data:

- The leftmost column must contain conventional geopolitical names of geographic regions, like India and Finland, or the regions' [map codes](#), for example, IN for India and FI for Finland.
- The next column to the right of the codes can contain the data you want to map. Data can be text or numbers.

Note The sample file MAPS.WK4 contains detailed examples of finished maps, ranges of data for maps, and further instructions on how to set up ranges of data for mapping.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.



What happens if you use unofficial names, unrecognized names, or nicknames for map regions?



What happens if the regions you name do not correspond to official regions drawn in the map?



What happens if you include only map codes or names in the range?

Related SmartIcons

Close

Equivalent to choosing Tools Map New Map

See also

[Creating a Map](#)

[Mapping Overview](#)

Tools Map Commands

Map Type

1-2-3 cannot determine which map to create because of one of the following reasons:

- It cannot find a map code or region name that it recognizes.
- It cannot find a code or name that is unique to one map type.

1. Select the map type most appropriate for the data.
2. Choose OK.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.



Where can you find the codes and names that 1-2-3 recognizes?



What happens if you use unofficial names, unrecognized names, or nicknames for map regions?



What happens if the regions you name do not correspond to official regions drawn in the map?



Why doesn't 1-2-3 recognize Alaska or Hawaii in a range of map data for the United States?

See also

[Creating a Map](#)

[Mapping Overview](#)

Region Check

1-2-3 reads each label in the leftmost column of the map data range and compares it to the list of map codes, names, and custom names for the map type.

When 1-2-3 encounters a map code or name that it does not recognize, the Region Check dialog box appears with the first unknown map region listed in the [information box](#).

If you want to use the unrecognized label, you must link it to a name or code that 1-2-3 recognizes.

1. In the "Region list type" [drop-down box](#), select the kind of list you want to work with:
 - Names lists conventional geopolitical names of map regions, like India and Finland.
 - Codes lists [map codes](#).
 - Custom names lists labels that you previously defined as acceptable substitutes for the recognized codes or names of regions in this map type.
2. In the "Known map region" [list box](#), select the recognized code or name that corresponds to the label 1-2-3 found in the map data range.
3. Select one of the following options:
 - "Replace in cell with" removes the label in the map data range and replaces it with the item you selected from the "Known map region" list.
 - "Add as custom name for" defines the label in the map data range as an acceptable substitute for the item you selected from the "Known map region" list.

For example, you may prefer to use the name Nippon instead of Japan.

When you link a custom name to a recognized code or name, 1-2-3 enters the substitute in the list of custom names for the map type and recognizes the substitute when you use it again.

4. Choose OK.

1-2-3 repeats this procedure until all unknown labels in the map data range have been either replaced or defined as custom names.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.



Where can you find the codes and names that 1-2-3 recognizes?



What happens if the regions you name do not correspond to official regions drawn in the map?



Why doesn't 1-2-3 recognize Alaska or Hawaii in a range of map data for the United States?

See also

[Creating a Map](#)

[Mapping Overview](#)

[Tools Map Commands](#)

Tools Map Colors & Legend

Changes the presentation of data mapped as colors, not the data itself.

Note To change the range of data that is actually mapped as colors, use [Tools Map Ranges & Title](#).

When 1-2-3 first creates a map, it creates [bins](#), or groupings of data, to which it automatically assigns colors, [legend labels](#), and the values that mark the upper limit of each bin. You can change all these in this dialog box.

All settings are Automatic when you first bring up Colors & Legend after creating a map. To change any setting, click its [drop-down box](#) and select Manual or From Range.

Selecting	Has this effect on the setting
Automatic	1-2-3 determines the setting.
Manual	The text boxes or color palettes become available so you can specify data.
From Range	The Range text box becomes available so you can specify a range of data.

1. Select the map.
2. Choose Tools Map Colors & Legend.
3. Under Values, select Automatic, Manual, or From Range.
Values determines the values that 1-2-3 uses to group data into bins.
4. Under "Value is," specify the method that 1-2-3 uses to assign bins.
 - Upper limit specifies that each bin contains values less than or equal to the displayed value.
 - Exact match specifies that only data the same as the bin value be displayed in the map.
5. Under Legend labels, select Automatic, Manual, or From Range.
6. Under Colors, select an option:
 - Automatic
 - Manual
 - From Range: 1-2-3 accepts values from 0 through 255. To find the value that corresponds to a color, open a color palette (in, for example, Style Lines & Color), and hold down the mouse button over the color you want. The value appears at the bottom of the palette.
7. Choose OK.

See also

[Creating a Map](#)
[Mapping Overview](#)
[Tools Map Commands](#)

Tools Map Patterns & Legend

Changes the presentation of data mapped as patterns, not the data itself.

Note To change the range of data that is actually mapped as patterns, use [Tools Map Ranges & Title](#).

When 1-2-3 first creates a map, it creates bins, or groupings of data, to which it automatically assigns patterns, legend labels, and the values that mark the upper limit of each bin. You can change all these in this dialog box.

All settings are Automatic when you first bring up Patterns & Legend after creating a map. To change any setting, click its drop-down box and select Manual or From Range.

Selecting	Has this effect on the setting
Automatic	1-2-3 determines the setting.
Manual	The text boxes or color palettes become available so you can specify data.
From Range	The Range text box becomes available so you can specify a range of data.

1. Select the map.
2. Choose Tools Map Patterns & Legend.
3. Under Values, select Automatic, Manual, or From Range.
Values determines the values that 1-2-3 uses to group data into bins.
4. Under "Value is," specify the method that 1-2-3 uses to assign bins.
 - Upper limit specifies that each bin contains values less than or equal to the displayed value.
 - Exact match specifies that only data the same as the bin value be displayed in the map.
5. Under Legend labels, select Automatic, Manual, or From Range.
6. Under Patterns, select an option:
 - Automatic
 - Manual
 - From Range: 1-2-3 accepts values from 1 through 6.
7. Choose OK.

See also

[Creating a Map](#)

[Mapping Overview](#)

[Tools Map Commands](#)

Tools Map Ranges & Title

For a map that you have already created, changes the map title; changes and adds range assignments for map regions, colors, patterns, and coordinates; and changes the map type.

All ranges linked to a map must be in the same file as the map.

[Changing the Map Title](#)

[Changing Range Assignments for Map Elements](#)

Changing the map type

When the Map Type option appears, you can select another map type suitable to the data of the selected map.

Note 1-2-3 does not display this option if there are no other suitable maps in the maps directory.

See also

[Creating a Map](#)

[Mapping Overview](#)

[Purchasing More Maps](#)

[Tools Map Commands](#)

Changing the Map Title

1. Select the map.
2. Choose Tools Map Ranges & Title.
3. To change the title, do one of the following:
 - In the Title text box, enter the the title. Be sure the Cell check box is not selected.
 - Select the Cell check box and then specify the name or address of a cell that contains a label you want to use for the title.
4. Choose OK.

Making other changes to the title

To make other changes to the title, use the [Lotus Map Viewer](#).

To	Do this in the viewer
Change its position	Drag the title to another position.
Change its font	Choose Edit Font & Attributes .
Hide or redisplay it	Choose View Set View Preferences

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.



Why can't you see the map title?

See also

[Creating a Map](#)
[Mapping Overview](#)
[Tools Map Ranges & Title](#)

Changing Range Assignments for Map Elements

1. Select the map.
2. Choose Tools Map Ranges & Title.
3. Under "Assign range for," select an option from the list box:
 - Map Regions is the range that contains the map codes or names linked to data.
 - Colors is the set of map data that 1-2-3 maps as colors.
 - Patterns is the set of map data that 1-2-3 maps as patterns.
 - Coordinates is the set of map data that 1-2-3 uses to create pin characters: the pin character itself, its latitude and longitude, and optionally, its color value.
4. Specify a range for the option in the Range text box.
5. Choose OK.

The following table gives examples of what you can do by changing or adding range assignments:

To	Specify a range for option(s)
Add data for new regions	Map Regions, extending the former range to include the new map codes or names. Then specify a range for the kind of data you're adding: Colors, Patterns, or Coordinates.
Add a new set of map data	Colors or Patterns, whichever is not already defined for the regions you are mapping.
Turn color data into patterns	Patterns, using the range that was formerly assigned to Colors. Then delete the range assignment from Colors.
Turn pattern data into colors	Colors, using the range that was formerly assigned to Patterns. Then delete the range assignment from Patterns.
Add pin characters	Coordinates. This requires a range of at least three columns.

See also

[Adding Pin Characters to a Map](#)
[Creating a Map](#)
[Mapping Overview](#)
[Tools Map Ranges & Title](#)

Tools Map Set Redraw Preference

Determines when 1-2-3 redraws a map to reflect changes made to the range of map data in the worksheet.

Note Regardless of the redraw preference you choose in this dialog box, changes you make with the Tools Map and Lotus Map Viewer commands occur when you complete the command.

1. Choose Tools Map Set Redraw Preference.
2. Select one of the following:
 - Automatic: 1-2-3 redraws all maps in the active file whenever you change any map data in the worksheet.
 - Manual: 1-2-3 redraws maps only when you choose Tools Map Redraw.
3. Choose OK.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.

Close

How can you shorten the time needed to redraw maps?

Related SmartIcons

Close

Equivalent to choosing Tools Map Redraw

Close

Sets redraw preference to Automatic for this file

Close

Sets redraw preference to Manual for this file

See also

[Creating a Map](#)

[Lotus Map Viewer Commands](#)

[Mapping Overview](#)

[Tools Map Commands](#)

Tools Map Redraw

Redraws all maps in your current file to reflect changes made to the range of map data in the worksheet.

This command is available only when the [redraw preference](#) for the file is set to Manual.

Note Even when the redraw preference is Manual, changes you make with the Tools Map and Lotus Map Viewer commands occur when you complete the command.

1. Choose Tools Map Redraw.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.

Close

How can you shorten the time needed to redraw maps?

Related SmartIcons

Close

Equivalent to choosing Tools Map Redraw

Close

Sets redraw preference to Automatic for this file

Close

Sets redraw preference to Manual for this file

See also

[Creating a Map](#)

[Mapping Overview](#)

[Tools Map Commands](#)

Purchasing More Maps

Many more maps are available than could be included in each copy of 1-2-3.

Besides more maps, you can also purchase files containing demographic data similar to the data files included in the \MAPDATA subdirectory.

To order additional geographic and demographic data, or to find out the location of your nearest distributor, contact:

Strategic Mapping, Inc.
3135 Kifer Road
Santa Clara, CA 95051

Telephone contact

Country	Voice	Fax
United States, Canada, Mexico	1-800-764-3228	1-408-644-2011
Australia	03-602-5088	03-602-5050
United Kingdom	0800 132 901	0800 132 902
France	0590 6530	0590 6531
Germany	0130 818 904	0130 818 905
Other European countries	+ 353 1 706 3954	+ 353 1 295 7566
All other countries (Ask for an international line)	408-970-9600	408-970-9999

Lotus Map Viewer Help Contents

In the Lotus Map Viewer, you can zoom in on a section of the map, change the style and position of the title and legend, add an overlay to the map, and make other enhancements to the map.

The Lotus Map Viewer is an OLE2 server of 1-2-3. Changes you make in the server show up in the client application (1-2-3).

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Closing the Lotus Map Viewer

To close the viewer, do one of the following:

- Choose File Exit & Return.
- Choose Close from the Control menu.

Starting the Lotus Map Viewer

To start the viewer, do one of the following:

- Double-click a map in the worksheet.
- Choose the Map Viewer button in Tools Map Colors & Legend, Tools Map Patterns & Legend, or Tools Map Ranges & Title.
- Position the mouse anywhere in the map, click the right mouse button, and choose Edit Object.

See also

[Creating a Map](#)

[Editing an OLE Embedded Object in a 1-2-3 File](#)

[Mapping Overview](#)

[Tools Map Commands](#)

[Troubleshooting](#)

What Can You Do in the Lotus Map Viewer?

Changes you make in the viewer show up in 1-2-3 when you choose [File Update](#) or [File Exit & Return](#).

- **Focus on a map area where data is concentrated.**

You can do this by

[CTRL+dragging](#) a rectangle around an area so as to exclude extraneous parts of the map.

[Zooming in](#) on an area of the map in order to enlarge that area.

[Recentring](#) the entire map so that an area deserving attention is in the center of the map.

- **[Hide the title and legend, and change their font and attributes.](#)**

- **[Move the title and legend, and the map itself.](#)**

- **[Add or remove overlays.](#)**

- **Copy information about map regions to the Clipboard.**

You can then paste the information into a range of map data.

[Region name](#), which you can use in a map data range to identify the region.

[Map code](#), which you can use in a range of map data to identify the region.

[Coordinates](#), which are the latitude and longitude of a point on the map. You can use these to create [pin characters](#).

- **[Copy the map to the Clipboard.](#)**

Closing the Lotus Map Viewer

To close the viewer, do one of the following:

- Choose File Exit & Return.
- Choose Close from the Control menu.

Starting the Lotus Map Viewer

To start the viewer, do one of the following:

- Double-click a map in the worksheet.
- Choose the Map Viewer button in Tools Map Colors & Legend, Tools Map Patterns & Legend, or Tools Map Ranges & Title.
- Position the mouse anywhere in the map, click the right mouse button, and choose Edit Object.

See also

[Editing an OLE Embedded Object in a 1-2-3 File](#)

[Lotus Map Viewer Commands](#)

[Mapping Overview](#)

[Tools Map Commands](#)

[Troubleshooting](#)

Lotus Map Viewer Commands

Right Mouse Button Commands

The following commands are available only when you click the right mouse button on a map region:

- [Recenter](#)
- [Copy Region Code](#)
- [Copy Region Name](#)
- [Copy Coordinates](#)

File Commands

- [Update](#)
- [Exit & Return](#)

Edit Commands

- [Undo](#)
- [Copy](#)
- [Clear](#)
- [Font & Attributes](#)

View Commands

- [Zoom In](#)
- [Zoom Out](#)
- [Reset](#)
- [Set View Preferences](#)

Map Commands

- [Add Overlay](#)
- [Remove Overlay](#)

Help Commands

- [Contents](#)
- [About the Lotus Map Viewer](#)

See also

- [Creating a Map](#)
- [Editing an OLE Embedded Object in a 1-2-3 File](#)
- [Mapping Overview](#)
- [Tools Map Commands](#)
- [Troubleshooting](#)
- [What Can You Do in the Lotus Map Viewer?](#)

Recenter (Lotus Map Viewer)

Repositions the map so that the location you click becomes the center point of the map.

1. In the viewer, position the mouse pointer over the location that is to become the center of the map.
2. Click the right mouse button and choose Recenter.

See also

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Copy Region Code**Copy Region Name (Lotus Map Viewer)**

Copy Region Code places a map code on the Clipboard.

Copy Region Name places a region name on the Clipboard.

1. In the viewer, position the mouse pointer over a map region.

The name and code appear on the left side of the status bar; the code is in parentheses.

2. Click the right mouse button and choose either Copy Region Code or Copy Region Name.

In the worksheet, use Edit Paste to insert the code or name in a cell.

See also

[Creating a Map](#)

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Copy Coordinates (Lotus Map Viewer)

Places a copy of the latitude and longitude of the location under the mouse pointer on the Clipboard. You need these coordinates to create pin characters.

1. In the viewer, position the mouse pointer over a location in the map.
2. Click the right mouse button and choose Copy Coordinates.

The latitude and longitude you copied appear, in that order, on the right side of the status bar.

In the worksheet, use Edit Paste to insert the coordinates in a range of map data.

See also

[Adding Pin Characters to a Map](#)

[Creating a Map](#)

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

File Update (Lotus Map Viewer)

Updates the map in the worksheet with changes you make in the viewer. The viewer remains open.

1. In the viewer, choose File Update.

See also

[Editing an OLE Embedded Object in a 1-2-3 File](#)

[Lotus Map Viewer Commands](#)

[Mapping Overview](#)

[What Can You Do in the Lotus Map Viewer?](#)

File Exit & Return (Lotus Map Viewer)

Updates the map in the worksheet with changes you make in the viewer, and then closes the viewer.

1. In the viewer, choose File Exit & Return.

See also

[Editing an OLE Embedded Object in a 1-2-3 File](#)

[Lotus Map Viewer Commands](#)

[Mapping Overview](#)

[What Can You Do in the Lotus Map Viewer?](#)

Edit Undo (Lotus Map Viewer)

Reverses the effects of the most recently executed map command or action that you can undo.

1. In the viewer, choose Edit Undo.

See also

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Edit Copy (Lotus Map Viewer)

Places a copy of the map on the [Clipboard](#).

1. In the [viewer](#), choose Edit Copy.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.

Close

What are the results of using Edit Paste or Edit Paste Special when you paste a map from the Clipboard?

See also

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Edit Clear (Lotus Map Viewer)

Hides the title or legend.

1. In the viewer, click the title or legend.
2. Choose Edit Clear or press DEL.

To redisplay the title or legend

1. In the viewer, choose View Set View Preferences.
2. Select the check box of the item you want to redisplay.

See also

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Edit Font & Attributes (Lotus Map Viewer)

Applies a font to the title or legend, and adds color, bold, and other attributes.

1. In the viewer, select the text you want to change.
2. Choose Edit Font & Attributes.
3. To change the font, do one or both of the following:
 - Select a typeface from the Font list box.
 - Select a point size from the Size list box.
4. In the Font Style list box, select an option to add bold and italics, or select Regular to remove bold and italics.
5. Select the Strikeout or Underline check box to add these effects.
6. Select a color from the Color drop-down box.
7. Choose OK.

Changing the text of a title or legend

- You change the text of a title in the worksheet. Choose Tools Map Ranges & Title.
- You change the text of a legend in the worksheet.
 - To change the legend explaining colors, choose Tools Map Colors & Legend.
 - To change the legend explaining patterns, choose Tools Map Patterns & Legend.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.

Close

Why can't you see the map title?

See also

- Lotus Map Viewer Commands
- What Can You Do in the Lotus Map Viewer?

Moving Map Elements (Lotus Map Viewer)

You can move the map title and legend, and the map itself.

1. Start the viewer. Be sure the viewer is maximized before you move an element.
2. Click the element you want to move.
Handles appear around the edge of the element.
3. Drag the title, legend, or map to its new position.
4. To be sure the new position is saved, choose File Update.

See also

[Lotus Map Viewer Commands](#)

[Recenter](#) to make any point on the map its center

[What Can You Do in the Lotus Map Viewer?](#)

View Zoom In (Lotus Map Viewer)

Increases the display size of the map in both the viewer and the worksheet.

Each time you select Zoom In, the display increases by 100%.

1. In the viewer, choose View Zoom In.

To focus on an area of the map

1. In the viewer, hold down CTRL and then drag the mouse to form a rectangle around an area of the map.

When you release the mouse button and key, 1-2-3 expands the rectangle to fill the viewer.

See also

[Lotus Map Viewer Commands](#)

[Recenter](#) to make any point in the map its center

[View Zoom Out](#)

[View Reset](#)

[What Can You Do in the Lotus Map Viewer?](#)

View Zoom Out (Lotus Map Viewer)

Decreases the display size of the map.

Each time you select Zoom Out, the display decreases by 50%.

1. In the viewer, choose View Zoom Out.

See also

[Lotus Map Viewer Commands](#)

[Recenter](#) to make any point in the map its center

[View Zoom In](#)

[View Reset](#)

[What Can You Do in the Lotus Map Viewer?](#)

View Reset (Lotus Map Viewer)

Resets the display size of the map to the default display size.

1. In the viewer, choose View Reset.

See also

[Lotus Map Viewer Commands](#)

[View Zoom In](#)

[View Zoom Out](#)

[What Can You Do in the Lotus Map Viewer?](#)

View Set View Preferences (Lotus Map Viewer)

Controls the display of the map and the viewer.

1. In the viewer, choose View Set View Preferences.
2. Under Show in map, select the check box of one or more of the following options: Title, Color Legend, Pattern Legend.
3. Select the Status Bar check box.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.

Close

What's in the status bar of the Lotus Map Viewer?

Close

Why can't you see the map title?

See also

[Edit Clear \(Lotus Map Viewer\)](#)

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Map Add Overlay (Lotus Map Viewer)

Displays an overlay in the current map.

Note Only your basic map can be linked to worksheet data.

1. In the viewer, choose Map Add Overlay.
2. Specify the overlay file (.TV).
Overlay files are in the \MAPDATA subdirectory of 1-2-3.
3. Choose OK.

Troubleshooting

Click the icon below to go to the answer to the question. To come back here after you read the answer, select Back.

Close

What does an overlay add to a map?

Close

Why can't you see the overlay you added to the map?

See also

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Map Remove Overlay (Lotus Map Viewer)

Removes an overlay from the current map.

1. In the viewer, choose Map Remove Overlay.
2. Specify the overlay to remove.
3. Choose OK.

See also

[Lotus Map Viewer Commands](#)

[What Can You Do in the Lotus Map Viewer?](#)

Range Fill

Enters a sequence of numbers, dates, times, or percentages in a range.

1. Select the range.

Caution 1-2-3 writes over any existing data in the range, including hidden columns.

2. Choose Range Fill.

3. Enter numbers, dates, times, formulas, range names, or cell addresses for the start, increment, and stop values.

- Start specifies the first value 1-2-3 enters in the fill range.
- Increment specifies the increment between each of the values in the range.
- Stop specifies the limit of the sequence. If you specify a negative increment value, you must specify a stop value that is less than the start value.

4. (Optional) If you are entering dates or times, select an interval for the increment value.

For example, to fill the range with times in half-hour increments, enter an increment value of 30 and select Minute.

5. Choose OK.

1-2-3 fills the cells in the range from top to bottom in a column and from left to right. If you specify a multiple-sheet fill range, 1-2-3 fills the range in the first worksheet, continues the sequence on the second worksheet, and so on until 1-2-3 reaches the stop value or the end of the range.

Using date and time start, increment, and stop values

Enter dates or times as start or stop values using any 1-2-3 Date or Time format except Short International. For example, 08-Jan-93 and 10:30 AM are valid start and stop values.


Note When entering a time for a stop value, specify a time slightly greater than the desired last value by an amount less than the increment value.


If you select an interval of In the Start text box, 1-2-3 displays

Year	Current month and year, for example Apr-93
Quarter	Current month and year, for example Apr-93
Month	Current month and year, for example Apr-93
Week	The current date, for example 22-Apr-93
Day	The current date, for example 22-Apr-93
Hour	00:00
Minute	00:00
Second	00:00:00

Note If you select an interval of Year, Quarter, or Month, then change your mind and select Week or Day instead, 1-2-3 displays the first day of the current month, for example 01-Apr-93, in the Start text box.

Related SmartIcons

 Equivalent to choosing Range Fill

 Fills the highlighted range with a sequence of data whose pattern is based on data you enter in the range

See also

Help

[Range Commands](#)

[Range Fill by Example](#)

[Using Drag-and-Fill to Enter a Data Sequence in a Range](#)

Range Fill by Example

Fills a range with a sequence of data. 1-2-3 creates a pattern for the sequence, based on data you include in the range. The following table shows examples of sequences 1-2-3 creates:

Data already in range	Sequence created
A	B, C, D, E...
3, 6	9, 12, 15, 18...
January	February, March, April...
Q1	Q2, Q3, Q4, Q1...
MON	TUE, WED, THU, FRI...

You can also create your own fill sequences. See [Creating custom fill sequences](#), below.

To create a fill sequence

1. Select the range to fill.

- To create a sequence with an increment-value of 1 (for example, Jan, Feb, Mar), make sure the first cell in the range contains the data you want 1-2-3 to use to calculate the sequence.
- To create a sequence with an increment-value other than 1 (for example, 5, 10, 15), make sure the first two cells in the range contain the data you want 1-2-3 to use to calculate the sequence.

If 1-2-3 cannot recognize a connection between the data in the first and second cells in the range (for example, Monday, February), it uses only the data in the first cell to calculate the sequence. If no custom sequence is found, 1-2-3 fills the range with the contents of the first cell. If the custom sequence is shorter than the range to be filled, the sequence is repeated until the range is filled.

Caution 1-2-3 writes over any existing data in the range, including hidden columns.

2. Choose Range Fill by Example.

1-2-3 fills the cells in the range from top to bottom in a column and from left to right. If you specify a multiple-sheet range, 1-2-3 fills the first worksheet in the range, continues the sequence on the second worksheet, and so on.

Creating custom fill sequences

Example

Custom Fill Sequence in FILLS.INI

You can create custom fill sequences that contain up to a maximum of 100 items. You can use these fill sequences to name a series of worksheets and to fill ranges.

For example, suppose you frequently enter the following list of cities in your worksheets:

New York
Los Angeles
London
Brussels
Tokyo
Seoul
Singapore

You can create a custom sequence so that when any city in the list is in the first cell in a range, 1-2-3 automatically enters the other cities, in the order they appear in the list. For example, if New York is in the first cell in a range, 1-2-3 enters Los Angeles, London, and so on. If Seoul is in the first cell in a range, 1-2-3 enters Singapore, New York, Los Angeles, and so on.

In the same way, you can use this custom fill sequence to enter a series of worksheet names, as described in [Naming worksheets automatically](#).

To create a custom fill sequence

You enter the custom-sequence lists in a file named FILLS.INI.

1. Open the Windows Notepad.
2. Choose File Open.
3. Enter c:\123r5w\program\fills.ini in the File Name text box and choose OK.
Substitute the path to your 1-2-3 Release 5 directory if it is not C:\123R5W.
Node users: Substitute the path to your personal directory.
4. Under [SET 1], enter a list of items you want to appear in a custom series.
 - Precede each item with ITEMx= where x is the number of the item in the list. For example, ITEM1=New York.
 - Enter one item per line.
 - 1-2-3 treats each item as a label.
 - To make 1-2-3 enter the data in the same combination of uppercase and lowercase letters that appear in the list, enter CASE=EXACT on a separate line anywhere in the list.
 - If a list does not contain CASE=EXACT, 1-2-3 determines case based on the label in the first cell of the range you want to fill. If all the letters in the label are uppercase, 1-2-3 enters the items from the list in all uppercase letters. If all the letters in the label are lowercase, 1-2-3 enters the items from the list in all lowercase letters. If the letters in the label are any combination of uppercase and lowercase, 1-2-3 enters the items from the list in proper case.
5. Repeat step 4 for each list you want to enter.

Enter the second list under [SET 2], the third list under [SET 3], and so on. You can enter up to a maximum of 100 lists in FILLS.INI. Be sure each list has a unique identifying number. For example, you should not identify two separate lists as [SET 3].

Related SmartIcons



Equivalent to choosing Range Fill by Example



Fills the highlighted range with a sequence of values

See also

[Range Commands](#)

[Range Fill](#)

[Using Drag-and-Fill to Enter a Data Sequence in a Range](#)

Close

Example of Custom Fill Sequence in FILLS.INI

The following is a sample list you could enter in FILLS.INI.

```
[SET 1]
ITEM1=Mercury
ITEM2=Venus
ITEM3=Earth
ITEM4=Mars
ITEM5=Jupiter
ITEM6=Saturn
ITEM7=Uranus
ITEM8=Neptune
ITEM9=Pluto
```

Range Sort

Arranges data in a range in the order you specify.

1. Select the range.

Note If you are sorting records in a database table, do not include the field names.

2. Choose Range Sort.
3. Under Sort by, specify one cell in the column by which you want to sort data.
4. Select an option.
 - Ascending sorts A - Z, and smallest to largest values.
 - Descending sorts Z - A, and largest to smallest values.
5. (Optional) If two or more records have the same entry for the sort key you selected, specify another sort key. Choose Add Key and repeat steps 3 and 4.


For example, if the Last_Name field is the first sort key you specified, select the First_Name field as the second sort key.


7. Choose OK.

The order in which 1-2-3 sorts different types of labels is determined by the sort order specified when you installed 1-2-3. 1-2-3 uses the Numbers First sort order if you do not select a different one when you install 1-2-3.

To change the sort order and the country driver, double-click the Country Sorting icon in the program group that contains 1-2-3 for Windows Release 5, and specify the sort order and country driver you want.

Related SmartIcons

 Sorts a database table in ascending order using the selected column as the key. Equivalent to choosing Range Sort Ascending.

 Sorts a database table in descending order using the selected column as the key. Equivalent to choosing Range Sort Descending.

See also

Help

[Clearing Sort Ranges and Keys](#)

[Range Commands](#)

[Sort Order](#)

User's Guide

Chapter 21 "Working with 1-2-3 Databases"

Clearing Sort Ranges and Keys

To clear all sort ranges and keys

1. Choose Range Sort.
2. Choose Reset.

To clear extra sort keys

1-2-3 ignores duplicate sort keys when you sort data, so to clear an extra sort key, make it match a key that precedes it.

1. Choose Range Sort.
2. In the All keys list box, select the sort key you want to clear.
3. Specify the cell address that matches the preceding sort key.

For example, if you are removing the sixth sort key, specify the same cell you defined for the fifth sort key.

4. Specify the sort order you specified for the preceding sort key.

For example, if you are removing the sixth sort key and the sort order for the fifth sort key is ascending, specify ascending sort order.

5. Choose OK.

See also

[Range Sort](#)

Close

Sort Order

The sort order determines the order in which 1-2-3 sorts different types of labels when you use Range Sort or Query Sort. The following table shows the three sort orders in ascending order. If you use descending order, the sequences shown here are reversed.

Numbers Last	Numbers First	ASCII
Blank cells	Blank cells	Blank cells
Labels beginning with <ul style="list-style-type: none">- a space- letters (in alphabetical order, lowercase letters before uppercase)- numbers (in numerical order)- other characters (in LMBCS code order)	Labels beginning with <ul style="list-style-type: none">- a space- numbers (in numerical order)- letters (in alphabetical order, lowercase letters before uppercase)- other characters (in LMBCS code order)	Labels characters evaluated in <u>LMBCS</u> code order Values in numerical order
Values in numerical order	Values in numerical order	

1-2-3 ignores apostrophes and hyphens when these characters appear in entries. For example, 1-2-3 places Olden before O'Leary.

1-2-3 uses the Numbers First sort order if you do not select a different one when you install 1-2-3. To change the country driver and the sort order, double-click the Country Sorting icon in the program group that contains 1-2-3 for Windows Release 5, and specify the sort order and country driver you want.

Range Parse

Converts long labels from an imported text file into separate columns of data of one or more types (values, dates, times, and labels).

To separate text into columns of data

1. Select the range that contains the long labels you want to parse.
2. Choose Range Parse.

Note If the first cell of the input column already contains a format line, this format line appears in the Format line text box, where you can edit it. 1-2-3 writes over the existing format line with the one you edited when you choose OK. 1-2-3 creates only one format line for each Input column.

3. Choose Create.

1-2-3 enters the format line in the Format line text box and displays up to five lines of long labels below it. The symbols in the format line reflect the type of data and the width of each block of data in the first cell of the Input column.

4. Use the scroll bar below the text box to scroll horizontally and compare the format line to the data. If the format line does not accurately represent the type of data or length of entries in a data block located in the lines below it, edit the format line
5. In the Output range text box, specify the range for the parsed data.

Specify either the entire range or only the first cell.

Caution 1-2-3 writes over any existing data in the Output range, including hidden columns.

6. Choose OK.

1-2-3 inserts a row, enters the format line in the worksheet above the Input column, and enters the parsed data in the Output range. If 1-2-3 cannot parse an entry using the format specified, 1-2-3 parses the entry as a label.

To clear the input column and output range settings

1. Choose Range Parse.
2. Choose Reset.

See also

[Format Line \(Range Parse\)](#)

[Working with Text Files in 1-2-3](#)

Format Line (Range Parse)

The format line tells 1-2-3 how to parse, or separate, data and enter it in a worksheet.

When 1-2-3 creates the format line for Range Parse, it enters a symbol in the format line for each data block in the first line of the Input column.

The format line begins with a | (vertical bar) label-prefix character, and can contain the following symbols:

- L Represents the beginning of a label block.
- V Represents the beginning of a value block.
- D Represents the beginning of a date block.
- T Represents the beginning of a time block.
- S Tells 1-2-3 to ignore the data block below the S when it parses the data. You enter this symbol when you edit a format line.
- > Represents any character in a data block after the first character.
- * Represents a blank space that can become part of a data block if that block requires extra characters.

Example

The format line below divides a long label into two labels and a date. The format line has a sufficient number of undefined spaces (> and *) to accommodate the width of data entered in the rows below the format line.

```
L>>>>*L>>>>***D>>>>>
Smith Arthur 5/23/89
Aubry Lisa 4/12/87
Howard Janet 2/6/84
Mosley Liz 6/7/90
McAfee Kathy 11/3/88
```

1-2-3 enters the parsed data in separate columns in the Output range.

```
A: --- A ----- B ----- C --
11 Smith Arthur 32651
12 Aubry Lisa 31879
13 Howard Janet 30718
14 Mosley Liz 33031
15 McAfee Kathy 32450
```

Note When 1-2-3 parses dates, it enters date numbers in the worksheet. Use Style Number Format to display the dates in a date format.

See also

[Range Parse](#)

[Range Commands](#)

Range Transpose

Copies data in a range, transposing the copied data and replacing any copied formulas with their current values. When you transpose data to a single-sheet range, 1-2-3 changes the data from a horizontal arrangement to a vertical arrangement or vice versa.

1. If the CALC indicator appears in the status line, press F9 (CALC) to update formulas. If there are linked formulas in the range you want to transpose, you also need to use Edit Links to make sure the values are up to date.
2. Select the range to transpose.
3. Choose Range Transpose.
4. To change the range displayed in the From text box, specify a new range.
5. In the To text box, specify the range you want to copy the transposed data to.

You need to specify only the first cell of the To range. If you are transposing a 3D range, be sure there are enough worksheets in the To range to fit the transposed data.

Caution 1-2-3 writes over any existing data in the To range, including hidden columns. Specifying overlapping From and To ranges may result in data loss.

6. Choose OK.

If you specify a 3D range in the From or To text box, 1-2-3 displays the Range Transpose (Options) dialog box so you can indicate how you want the data transposed.

To copy a range without transposing data or converting formulas to values, use Edit Copy.

To copy a range and convert formulas to values without transposing data, use Edit Copy, then Edit Paste Special.

See also

Range Commands

Range Name

Add

Creates range names.

Use Labels

Creates range names for single-cell ranges, using labels in adjacent cells as the range names.

Delete

Deletes range names in the current file.

Delete All

Deletes all range names in the current file.

See also

Help

[Conventions for Naming Ranges, Charts, Query Tables, and Worksheets](#)
[Range Commands](#)

User's Guide

Chapter 9, "Working with Range Names"

Range Name Add

Assigns a range name to a range address.

1. Select the range.
2. Choose Range Name.
3. Specify a name in the Range name text box according to range name conventions.
4. If you want to create another range name, choose Add and repeat steps 1 and 3.
5. Choose OK.

If you select an existing range name, 1-2-3 displays the range address to which the name is currently assigned in the Range text box. To assign the name to a different range, select a range or enter the new range in the Range text box.

When you save a file, 1-2-3 saves the range names with the file.

See also

Help

[Conventions for Naming Ranges, Charts, Query Tables, and Worksheets](#)
[Range Names in Formulas](#)

User's Guide

Chapter 9, "Working with Range Names"

Naming Conventions for Ranges, Charts, Query Tables, and Worksheets

Length: Names for ranges, charts, query tables and worksheets can be up to 15 characters long.

Case: 1-2-3 does not distinguish between uppercase and lowercase letters in these names.

Character restrictions: Do not start a name with ! (exclamation point). Do not include any of the following:

, (comma)	+ (plus sign)	< (less than)
; (semicolon)	- (minus sign)	> (greater than)
. (period)	* (asterisk)	@ (at sign)
? (question mark)	/ (slash)	# (pound sign)
(space)	& (ampersand)	{ (left curly brace)

Naming restrictions: Do not create names that look like cell addresses, such as P12 or EX100, or names that begin with numbers, such as 20DEC. Do not use @function names, key names, or macro command keywords as range names.

See also

Help

[Chart Name](#)

[Query Name](#)

[Naming a Worksheet](#)

[Range Name](#)

[Range Names in Formulas](#)

User's Guide

Chapter 9, "Working with Range Names"

Range Names in Formulas

Formula evaluates to ERR

- If you enter a formula that contains a range name you have not yet assigned to a range, the formula evaluates to ERR until you define the range name with Range Name Add or Range Name Use Labels.
- If you use Range Name Delete to delete a range name, 1-2-3 substitutes any occurrences of that range name in formulas with the cell address of the named range.

Formula changes depending on whether range name is defined

- In formulas that use a range address to refer to a cell you subsequently named, 1-2-3 replaces the range address with the corresponding range name. For example, if you assign the name APRIL to B5..B35, @MAX(B5...B35) becomes @MAX(APRIL).
- In formulas that refer to a range name you delete, 1-2-3 replaces the deleted range name with its range address. For example, if SALES is defined as B14..H14 and you subsequently delete the range name SALES, the formula @SUM(SALES) becomes @SUM(B14..H14).

Range names as absolute references

To have 1-2-3 treat a range name in a formula as an absolute reference, precede the range name with a \$ (dollar sign).

See also

Help

[Range Commands](#)

[Range Name](#)

User's Guide

Chapter 9, "Working with Range Names"

Range Name Use Labels

Assigns an existing label as the range name for a single cell immediately above, below, to the right of, or to the left of the label.

1. Select the range that contains the labels you want to use to name the ranges.
The labels must be adjacent to the cells you want to name.
2. Choose Range Name.
3. Select a direction from the For cells drop-down box.
 - To the left names cells to the left of the labels (for example, labels in column B become names for adjacent cells in column A).
 - To the right names cells to the right of the labels (for example, labels in column A become names for adjacent cells in column B).
 - Above names cells above the labels (for example, labels in row 2 become names for cells in row 1).
 - Below names cells below the labels (for example, labels in row 1 become names for cells in row 2).
4. Choose Use Labels.
5. Choose OK.

See also

Help

[Range Commands](#)

[Range Name](#)

User's Guide

Chapter 9, "Working with Range Names"

Range Name Delete

Deletes defined range names in the current file, but leaves the data in each range unchanged.

Note If you undefine a range, all versions associated with that range are lost.

To delete individual range names

1. Choose Range Name.
2. In the Name text box, specify the range name to delete or select an item from the list box.
3. Choose Delete.

Note Choosing Delete removes the range name. If you select Cancel after selecting delete 1-2-3 does not restore the deleted range name.

4. Choose OK.

To delete all range names

1. Choose Range Name.
2. Choose Delete All.

Note Choosing Delete All removes the all range names. If you select Cancel after selecting delete 1-2-3 does not restore the deleted range names.

3. Choose OK.

See also

Help

[Range Commands](#)

[Range Name](#)

[Range Names in Formulas](#)

User's Guide

Chapter 9, "Working with Range Names"

Range Analyze

Solves what-if problems, performs matrix analysis, performs regression analysis, and calculates frequency distribution.

What-if Table

Calculates one or more formulas many times, each time substituting different values in the formula(s).

Solver

Answers what-if problems by finding values for formulas and other cells in a worksheet using constraints you define.

Backsolver

Calculates a formula to achieve a given value by changing one of the variables that affects the result of the formula.

Distribution

Counts the number of values in the values range that fall within numeric intervals specified in the bin range.

Regression

Performs multiple linear regression analysis and also calculates the slope of the line that best illustrates the data.

Invert Matrix

Creates the inverse of a square matrix.

Multiply Matrix

Multiplies the columns of one matrix by the rows of a second matrix and creates a third matrix that contains the results of the multiplication.

Range Analyze What-if Table

Calculates one or more formulas many times, each time substituting different values in the formula(s). 1-2-3 enters one value in the what-if table for each solution to the formula.

1 Variable

Substitutes values for one variable in one or more formulas.

2 Variables

Substitutes values for two variables in one formula.

3 Variables

Substitutes values for three variables in one formula.

Reset

Clears the ranges and input-cell settings for all what-if tables in the current file.

See also

Help

Range Commands

User's Guide

Chapter 19, "Solving What-if Problems"

Range Analyze What-if Table: 1 Variable

Substitutes values for one variable in one or more formulas and enters the results in a table.

You can use a what-if table to perform two kinds of data analysis, sensitivity analysis and cross-tabulation.

[Sensitivity Analysis: 1 Variable](#)

[Cross-Tabulation: 1 Variable](#)

Note Using Tools Database New Query and Query Aggregate to create aggregate columns is quicker and more efficient than using Range Analyze What-if Tables for cross-tabulating data in database tables.

See also

Help

[Range Analyze What-if Table](#)

[Range Analyze What-if Table: 2 Variables](#)

[Range Analyze What-if Table: 3 Variables](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Sensitivity Analysis: 1 Variable

Substitute one set of values in one or more formulas when all the formulas share the same variable.

Example

Sensitivity Analysis: 1 Variable

To set up a 1-variable table for sensitivity analysis

1. Place the input cell outside of the table range.
Label the input cell by putting text in the cell to its left.
2. Set up the table range.
 - a. Enter a formula in the second cell of the first row of the table range.
The formula must refer to the input cell.
 - b. If you want to use more than one formula, place each additional formula at the top of an adjacent column, all in the same row. Each formula must refer to the input cell.
3. Enter the input values for the input cell in the first column of the table range, beginning with the second cell in the column.

To calculate a 1-variable table for sensitivity analysis

1. Choose Range Analyze What-if Table.
 2. Select 1 in the Number of variables drop-down box
 3. Specify the table range in the Table range text box.
Include only the formulas and input values in the table range. Do not include the input cell.
 4. Specify the input cell in the Input cell 1 text box.
 5. Choose OK.
- 1-2-3 calculates the 1-variable table by substituting the input values in the input cell, one at a time. 1-2-3 calculates the formula with each value and enters the results in the table range.

See also

Help

[Database @Functions](#)
[Query Aggregate](#)
[Range Analyze What-if Table](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Cross-Tabulation: 1 Variable

Substitutes one set of values from a [database table](#) in one or more database @functions.

Note Using Tools Database New Query to create aggregate columns is quicker and more efficient than using Range Analyze What-if Table for cross-tabulating data in database tables.

Example

Cross-Tabulation: 1 Variable

To set up a 1-variable table for cross-tabulation

1. Identify the database table you want to use.
2. Set up the criteria range.
 - a. Copy one [field name](#) from the database table to a blank row.
 - b. Label the cell below the field name as the [input cell](#).
3. Set up the table range separate from the criteria range.
 - a. Enter one or more database @functions in the first row of the table range.

The database @function must refer to the database table as the [input range](#), a field name enclosed in " " (quotation marks) for the values you want to calculate, and the criteria range (two rows deep).

To use an [external database table](#), specify the range name of the external table as the input range in the database @function.
 - b. In the first column of the table range, beginning in the second cell, enter the input values you want 1-2-3 to use in the formula(s).

The input values are labels or values from the fields you used in the criteria range. When 1-2-3 calculates the data table, it uses these values or labels as the criteria to determine which records to include in calculations. For example, if the range contains a field called Name, the input values must be entries from the database under Name.

Leave the cell in the top left corner of the table blank.

To calculate a 1-variable table for cross-tabulation

1. Choose Range Analyze What-if Table.
 2. Select 1 in the Number of variables [drop-down box](#)
 3. Specify the table range in the Table range [text box](#).

Do not include the criteria range in the table range.
 4. Specify the input cell in the Input cell 1 text box.

The input cell must be located below the field name in the criteria range.
 5. Choose OK.
- 1-2-3 calculates the 1-variable table by substituting the input values in the input cell, one at a time. 1-2-3 calculates the formula with each value and enters the results in the table range.

See also

Help

[About Criteria](#)
[Database @Functions](#)

Query Aggregate

Range Analyze What-if Table

User's Guide

Chapter 19, "Solving What-if Problems"

Close

Example: Sensitivity Analysis: 1 Variable

Use Range Analyze What-if Table with one variable with @PMT to calculate the monthly payments on a 30-year loan at 12% interest with different loan amounts.

```
A: ----- A ----- B -----
1      Loan -->                [input]
2
3                @PMT(B1, .12/12, 30*12)
4      $100,000                1028.61
5      $110,000                1131.47
6      $120,000                1234.34
7      $130,000                1337.20
```

The table range is A3..B7.

The @PMT formula (in B3) refers to the input cell (B1).

The input values (the loan amounts) are in A4..A7.

The results in B4..B7 show the monthly payments on the loan.

For example, the monthly payment on a \$110,000 loan for 30 years at 12% interest is \$1,131.47.

Close

Example: Cross-Tabulation: 1 Variable

Use Range Analyze What-if Table with 1 variable with @DSUM to sum the sales for Smith and Mintz from the database table named Q2SALES in A2..C7.

```
A: -- A -- ----- B ----- C ---
1
2      Name      Month      Sales
3      Mintz      May       2800
4      Smith      May       2100
5      Smith      June      1400
6      Mintz      June      1500
7      Smith      June      1600

A:---- - K ----- L -
1
2
3
4      @DSUM(Q2SALES,"Sales",L1..L2)
5      Mintz      4300
6      Smith      5100
```

The criteria range is L1..L2.

The table range is K4..L6.

The @DSUM formula in L4 refers to the database table (Q2SALES), a field (Sales) in the database table, and the criteria range (L1..L2).

The input cell is E2.

Range Analyze What-if Table: 2 Variables

Substitutes values for two variables in one formula and enters the results in a table.

You can use a what-if table to perform two kinds of data analysis, sensitivity analysis and cross-tabulation.

[Sensitivity Analysis: 2 Variables](#)

[Cross-Tabulation: 2 Variables](#)

Note Using Tools Database New Query to create aggregate columns is quicker and more efficient than using Range Analyze What-if Table for cross-tabulating data in database tables.

See also

Help

[Database @Functions](#)

[Query Aggregate](#)

[Range Analyze What-If Table](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Sensitivity Analysis: 2 Variables

Substitutes two different sets of values in one formula.

Example

Sensitivity Analysis: 2 Variables

To set up a 2-variable table for sensitivity analysis

1. Decide where to put the table range.
2. Place the two input cells outside of the table range.
Label the input cells by putting text in the cells to their left.
3. Set up the table range.
 - a. Enter the formula in the top left cell of the table range.
The formula must refer to both input cells.
 - b. Enter the input values for input cell 1 in the first column of the table range, beginning with the second cell in the column.
 - c. Enter the input values for input cell 2 in the first row of the table range, beginning with the second cell in the row.

To calculate a 2-variable table for sensitivity analysis

1. Choose Range Analyze What-if Table.
2. Select 2 in the Number of variables drop-down box
3. Specify the table range in the Table range text box.
Include only the formula and input values in the table range. Do not include the input cells.
4. Specify input cell 1 in the Input cell 1 text box.
Input cell 1 always represents the input values you entered in the first column of the table range.
5. Specify input cell 2 in the Input cell 2 text box.
Input cell 2 always represents the input values you entered in the first row of the table range.
6. Choose OK.

1-2-3 calculates the 2-variable table by substituting pairs of input values in the input cells. 1-2-3 then calculates the formula with each pair of values and enters the results in the table range.

See also

Help

Range Analyze What-If Table

User's Guide

Chapter 19, "Solving What-if Problems"

Cross-Tabulation: 2 Variables

Substitutes two different sets of values from a database table in one database @function.

Note Using Tools Database New Query to create aggregate columns is quicker and more efficient than using Range Analyze What-if Table for cross-tabulating data in database tables.

Example

Cross-Tabulation: 2 Variables

To set up a 2-variable table for cross-tabulation

1. Identify the database table you want to use.
2. Set up the criteria range.
 - a. Copy two field names from the database table to a blank row.
 - b. Label the cells below the field names as the input cells.
3. Set up the table range separate from the criteria range.
 - a. Enter one database @function in the top left cell of the table range.

The database @function must refer to the database table as the input range, a field name enclosed in " " (quotation marks) for the values you want to calculate, and the criteria range (two rows deep).

To use an external database table, specify the range name of the external table as the input range in the database @function.
 - b. In the column under the database @function, enter the input values.

The input values are labels or values from a field in the database table.

For example, if the criteria range contains a field called Name, the input values must be entries from the database table under Name.
 - c. In the cells to the right of the database @function, enter the input values from another field in the database table.

For example, if the criteria range contains a field called Month, the input values must be entries from the database table under Month.

To calculate a 2-variable table for cross tabulation

1. Choose Range Analyze What-if Table.
 2. Select 2 in the Number of variables drop-down box.
 3. Specify the table range in the Table range text box.

Do not include the criteria range in the table range.
 4. Specify input cell 1 in the Input cell 1 text box.

Input cell 1 must be located in the criteria range below a field name. The entries in the first column of the table range must be from this field in the database table.
 5. Specify input cell 2 in the Input cell 2 text box.

Input cell 2 must be located in the criteria range below a different field name. The entries in the first row of the table range must be from this field in the database table.
 6. Choose OK.
- 1-2-3 calculates the 2-variable table by substituting pairs of input values in the input cells. 1-2-3 then calculates the formula with each pair of values and enters the results in the table range.

See also**Help**

[About Criteria](#)

[Database @Functions](#)

[Query Aggregate](#)

[Range Analyze What-If Table](#)

[Range Commands](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Close

Example: Sensitivity Analysis: 2 Variables

Use Range Analyze What-if Table with two variables with @PMT to calculate the monthly payments on a 30-year loan with different loan amounts and interest rates.

A:	-----	A	-----	B	-----	C	--
1		Loan	-->	[input 1]			
2		Interest	-->	[input 2]			
3							
4		@PMT (B1, B2/12, 30*12)		12.0%		12.5%	
5		\$100,000		1028.61		1067.26	
6		\$110,000		1131.47		1173.98	
7		\$120,000		1234.34		1280.71	
8		\$130,000		1337.20		1387.44	

The table range is A4..C8.

The @PMT formula (in A4) refers to the input cells (B1 and B2).

The input values (loan amounts and interests rates) are in A5..A8 and B4..C4.

The result of each calculation is located at the intersection of a column and row.

For example, the monthly payment on a \$120,000 loan for 30 years at 12.5% interest is \$1,280.71.

Close

Example: Cross-Tabulation: 2 Variables

Use Range Analyze What-if Table with two variables with @DSUM to sum the sales for Smith and Mintz for May and June from a database table named Q2SALES (in A2..C7).

```
A: -- A ----- B ----- C ---D-----E-----F
1
2      Name      Month      Sales      Name      Month
3      Mintz     May       2800     [input1]  [input2]
4      Smith     May       2100
5      Smith     June      1400
6      Mintz     June      1500
7      Smith     June      1600
```

```
A:----- K ----- L ----- M ---
4  @DSUM(Q2SALES,"Sales",E1..F2)    May    June
5  Mintz                            2800   1500
6  Smith                             2100   3000
```

The criteria range is E1..F2.

The table range is in K4..M6.

The @DSUM formula in K1 refers to the database table (Q2SALES), a field (Sales) in the database table, and the criteria range (E1..F2).

The input cells are E2 and F2.

Range Analyze What-if Table: 3 Variables

Substitutes values for three variables in one formula and enters the results in a table. A 3-variable table is similar to a 2-variable table except you enter the formula outside the table range and you use more than one worksheet for the table range.

You can use a what-if table to perform two kinds of data analysis, sensitivity analysis and cross-tabulation.

[Sensitivity Analysis: 3 Variables](#)

[Cross-Tabulation: 3 Variables](#)

Note Using Tools Database New Query to create aggregate columns is quicker and more efficient than using Range Analyze What-if Table for cross-tabulating data in database tables.

See also

Help

[Database @Functions](#)

[Query Aggregate](#)

[Range Analyze What-If Table](#)

[Range Commands](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Sensitivity Analysis: 3 Variables

Substitutes three different sets of values in one formula. A 3-variable table extends across two or more worksheets.

Example

Sensitivity Analysis: 3 Variables

To set up a 3-variable table for sensitivity analysis

1. Decide where to put the table range in contiguous worksheets.
The table range will span two or more worksheets depending on the number of input values you use for the third variable. For example, if you use three input values, the table range will span three worksheets.
2. Insert the appropriate number of worksheets using Edit > Insert.
3. Place three input cells outside of the table range.
4. In a cell outside of the table range, enter the formula you want to analyze.
The formula must refer to all three input cells.
5. Enter input values in the table range.
 - a. In the top left cell of the table range in each worksheet, enter different values related to input cell 3. 1-2-3 will use these values in the formula for input cell 3. The number of input values for this variable determines the number of worksheets you will need for the table range.
 - b. In the first column of the table range in the first worksheet, enter the values related to input cell 1. 1-2-3 will use these values in the formula for input cell 1. Copy these values to all worksheets in the table range.
 - c. In the first row of the table range in the first worksheet, enter the values related to input cell 2. 1-2-3 will use these values in the formula for input cell 2. Copy these values to all worksheets in the table range.

To calculate a 3-variable table for sensitivity analysis

1. Choose Range Analyze What-if Table.
 2. Select 3 in the Number of variables drop-down box.
 3. Specify the table range in the Table range text box.
Do not include the formula or input cells in the table range.
 4. Specify input cell 1 in the Input cell 1 text box.
Input cell 1 always represents the input values you entered in the first column of the table range.
 5. Specify input cell 2 in the Input cell 2 text box.
Input cell 2 always represents the input values you entered in the first row of the table range.
 6. Specify input cell 3 in the Input cell 3 text box.
Input cell 3 always represents the input values you entered in the top left cell of the table range.
 7. Specify the cell that contains the formula for the 3-way table in the Formula cell text box.
 8. Choose OK.
- 1-2-3 calculates the 3-variable table by substituting values from the first column, top row, and top left cell in the input cells. 1-2-3 then calculates the formula using each set of values and enters the result of each calculation at the intersection of the appropriate rows and columns in the table range.

See also**Help**

[Range Analyze What-If Table](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Cross-Tabulation: 3 Variables

Calculates a 3-variable table by substituting three sets of values from a database table in one database @function. A 3-variable table extends across two or more worksheets.

A 3-variable table is similar to a 2-variable table except you enter the formula outside the table range, you use three input cells in the criteria range, and you use two or more worksheets for the table range. The number of worksheets you use depends on the number of input values you use for the third variable.

Before you can calculate a 3-variable table, you must set up a criteria range, enter a database @function, and set up the table range with three sets of input values.

Example

Cross-Tabulation: 3 Variables

To set up a 3-variable table for cross-tabulation

1. Identify the database table you want to use.
2. Decide where to put the 3-variable table range in contiguous worksheets.

The table range will span two or more worksheets depending on the number of input values you use for the third variable. For example, if you use three input values, the table range will span three worksheets.
3. Insert the appropriate number of worksheets using Edit Insert.
4. Set up the criteria range.
 - a. Copy three field names from the database table to a blank row.
 - b. Label the cells below the field names as the input cells.
5. In a cell outside the table range and the criteria range, enter a database @function.

The database @function must refer to the database table as the input range, a field name enclosed in " " (quotation marks) for the values you want to calculate, and the criteria range (two rows deep).

To use an external database table, specify the range name of the external table as the input range in the database @function.
6. Set up the table range.
 - a. In the top left cell of the table range in each worksheet, enter different values related to input cell 3. The number of input values for this third variable determines the number of worksheets you need for the table range.
 - b. In the first column of the table range in the first worksheet, enter the values related to input cell 1. Copy these values to all worksheets in the table range.
 - c. In the first row of the table range in the first worksheet, enter the values related to input cell 2. Copy these values to all worksheets in the table range.

To calculate a 3-variable table for cross-tabulation

1. Choose Range Analyze What-if Table.
2. Select 3 in the Number of variables drop-down box
3. Specify the table range in the Table range text box.

Do not include the formula or criteria range in the table range.
4. Specify input cell 1 in the Input cell 1 text box.

Input cell 1 must be located in the criteria range below a field name. The entries in the first column of

the table range must be from this field in the database table.

5. Specify input cell 2 in the Input cell 2 text box.

Input cell 2 must be located in the criteria range below a field name. The entries in the first row of the table range must be from this field in the database table.

6. Specify input cell 3 in the Input cell 3 text box.

Input cell 3 must be located in the criteria range below a field name. The entries in the top left corner of the table range must be from this field in the database table.

7. Specify the cell that contains the formula for the 3-way table in the Formula cell text box.

8. Choose OK.

1-2-3 calculates the 3-variable table by substituting values in the first column, top row, and top left cell in the input cells. 1-2-3 then calculates the formula using each set of values and enters the result of each calculation at the intersection of the appropriate rows and columns in the table range.

See also**Help**

[About Criteria](#)

[Database @Functions](#)

[Query Aggregate](#)

[Range Analyze What-If Table](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Close

Example: Sensitivity Analysis: 3 Variables

Use Range Analyze What-if Table with three variables with @PMT to calculate the monthly payments on a loan with three variables, the loan amount, the interest rate, and the term.

Sheet A:

```
A: -- A ----- B ----- C --
1  Loan          -->  [input 1]
2  Interest      -->  [input 2]
3  Term (years)  -->  [input 3]
4
5  @PMT(B1, B2/12, B3*12)
```

Input cell 1 is B1.

Input cell 2 is B2.

Input cell 3 is B3.

The @PMT formula (in A5) refers to all three input cells (B1, B2 and B3).

Sheets B, C and D:

```
D: ---- A ----- B ----- C ----
1
2          30      12.0%    12.5%
3  $100,000  1028.61    1067.26
4  $110,000  1131.47    1173.98
5  $120,000  1234.34    1280.71
6  $130,000  1337.20    1387.44

C: ---- A ----- B ----- C ----
1
2          20      12.0%    12.5%
3  $100,000  1101.09    1136.14
4  $110,000  1211.19    1249.75
5  $120,000  1321.30    1363.37
6  $130,000  1431.41    1476.98

B: ----- A ----- B ----- C -----
1
2          15      12.0%    12.5%
3  $100,000  1200.17    1232.52
4  $110,000  1320.18    1355.77
5  $120,000  1440.20    1479.03
6  $130,000  1560.22    1602.28
```

The table range is B:A2..D:C6.

The input values in the first column (loan amounts) and row (interest rates) are the same in each worksheet.

The input values in the top left corner cell of the table range (term of the loan: 15, 20, 30) are different in each sheet.

1-2-3 calculates the 3-variable table by substituting three sets of input values in the formula and entering the results in the table. For example, the monthly payment on a 20-year loan of \$120,000 at 12% interest is \$1,321.30.

Close

Example: Cross-Tabulation: 3 Variables

Use Range Analyze What-if Table with three variables with @DSUM to sum the sales for Smith and Mintz for May and June for three different accounts in the database table named Q2SALES in A:A1..D9.

Sheet A:

```
A:---- A ---- B ----- C ----- D ----
1   Name      Month   Sales   Accounts
2   Mintz     May     2200   Art Etc
3   Mintz     May     1400   Dance Corp
4   Smith     May     2100   Photo Show
5   Mintz     May     1200   Photo Show
6   Mintz     June    1450   Art Etc
7   Smith     June    1400   Dance Corp
8   Smith     June    2400   Photo Show
9   Mintz     June    1700   Dance Corp
10
11  Name      Month   Accounts
12  [input 1] [input 2] [input 3]
13
14  @DSUM(Q2SALES,"SALES",A:A11..A:C12)
```

The criteria range is A11..C12.

The @DSUM formula in A14 refers to the database table (Q2SALES), a field (Sales) in the database table, and the criteria range (A11..C12).

Input cell 1 is A12.

Input cell 2 is B12.

Input cell 3 is C12.

Sheets B, C and D:

```
D: ----- A ----- B ----- C --
1
2   Photo Show   May   June
3   Mintz        1200  0
4   Smith        2100  2400

C: ----- A ----- B ----- C --
1
2   Dance Corp   May   June
3   Mintz        1400  1700
4   Smith        0     1400

B: --- A ----- B ---- C -
1
2   Art Etc     May   June
3   Mintz       2200  1450
4   Smith       0     0
```

The table range is B:A2..D:C4.

The input values in the first row and column are the same in each worksheet.

The input values in the top left corner cell of the table range are different in each sheet.

1-2-3 calculates this 3-variable table by substituting three input values in the criteria range and entering the results in the table range. Each sheet sums sales for a different account for Mintz and Smith in May and June. The results are at the intersection of a column and a row. For example, in sheet D, June sales to Photo Show for Smith were \$2,400.

Range Analyze What-if Table Reset

Clears the settings for the table range and input cell ranges for all what-if tables in the current file.

1. Make sure the [cell pointer](#) is in the file containing the table and input cells settings you want to clear.
2. Choose Range Analyze What-if Table.
3. Choose Reset.

See also

Help

[Range Analyze What-If Table](#)

User's Guide

Chapter 19, "Solving What-if Problems"

Range Analyze Distribution

Counts the number of values in the values range that fall within numeric intervals specified in the bin range.

Example

Distribution

1. Enter the intervals for the bin range in ascending order in a column.

Do not include labels or blank cells in the bin range.

The column to the right of the bin range must be blank.

2. Select the range that contains the values to analyze (the values range).
3. Choose Range Analyze Distribution.
4. Specify the bin range in the Bin range text box.

The bin range is the range that contains the values you entered in step 1.

5. Choose OK.

The values in the column to the right of the bin range represent how many entries in the values range are less than or equal to the adjacent value in the bin range. The last number in this column is the number of values that exceed the largest bin value. 1-2-3 ignores blank cells and labels in the values range.

See also

Help

Range Commands

User's Guide

Chapter 18, "Performing Statistical Analysis"

Close

Example: Frequency Distribution

You want to see how the sales are distributed for the month of June. You specify JUNE, the range containing June sales data, as the values range.

You create the bin range (F2..F5), and 1-2-3 enters the results next to the bin range in column G. The results might look like this:

```
A: -- F ----- G -  
1  Sales      Number  
2  2000        1  
3  3000        6  
4  4000        4  
5
```

The numbers in column G (the frequency distribution) indicate how many sales are less than or equal to the numbers in column F (the bin range). In this example, the values range contains one sale less than \$2,000, six sales between \$2,000 and \$3,000, four sales between \$3,000 and \$4,000, and three sales over \$4,000.

Range Analyze Regression

Performs multiple linear regression analysis and also calculates the slope of the line that best illustrates the data.

1. Choose Range Analyze Regression.

2. Specify the X-range, the independent variables.

The X-range can contain up to 75 columns, each of which represents an independent variable. The columns must be adjacent to one another. The X-range must contain the same number of rows as the Y-range.

3. Specify the Y-range, the set of values for the dependent variable.

The Y-range must be in a single column and must contain the same number of rows as the X-range.

4. (Optional) Under Y-intercept, select an option.

- Compute causes 1-2-3 to calculate the y-axis intercept.
- Set to zero causes 1-2-3 to use zero as the y-axis intercept. Do not select this unless your data is such that if all the independent variables equaled zero, the dependent variable would also equal zero.

5. Specify the range for the results of the regression analysis in the Output range text box.

Specify either the entire range or only the first cell.

Caution 1-2-3 writes over any existing data in the Output range, including hidden columns.

6. To clear all ranges and options, choose Reset.

7. Choose OK.

Results of Range Analyze Regression

1-2-3 enters the following statistics in the output range:

Constant

The y-axis intercept.

Degrees of freedom

The number of observations, minus the number of independent variables, minus 1 (calculated intercept); or the number of observations, minus the number of independent variables (zero intercept).

Number of observations

The number of rows of data in the X and Y ranges.

R² value

The reliability of the regression. Values closer to 1 indicate a stronger correlation.

Note If 1-2-3 displays a value less than zero, you specified a zero intercept when it was not appropriate to do so. Use Range Analyze Regression Y-Intercept Compute and then choose OK to recalculate the regression and adjust this value accordingly.

Standard error of the x coefficients

The standard error of each of the x coefficients.

Standard error of the y estimate

The standard error of the estimated y value.

X coefficients

The slope for each independent variable.

See also

Help

Range Commands

User's Guide

Chapter 18, "Performing Statistical Analysis"

Range Analyze Invert Matrix

Creates the inverse of a square matrix.

Note Matrix inversion algorithms by their nature propagate small errors. Inverting an ill-conditioned matrix (a matrix that contains numbers differing widely in magnitude) may result in large errors.

The matrix range must have the same number of columns as rows and can contain up to 80 columns and 80 rows.

1. Select the range.
2. Choose Range Analyze Invert Matrix.
3. Specify the range for the inverted matrix in the To text box.

Specify either the entire range or only the first cell.

Caution 1-2-3 writes over any existing data in the To range, including hidden columns.

4. Choose OK.

If you specify a 3D range to invert, 1-2-3 inverts the matrix in each worksheet of the range and enters the results in the To range in that worksheet.

See also

Help

[Range Commands](#)

[Range Analyze Multiply Matrix](#)

User's Guide

Chapter 18, "Performing Statistical Analysis"

Range Analyze Multiply Matrix

Multiplies the columns of one matrix with the rows of a second matrix and creates a third matrix that contains the results of the multiplication.

The number of columns in the first matrix must equal the number of rows in the second matrix, and the matrix can contain up to 80 columns and 80 rows.

1. Choose Range Analyze Multiply Matrix.
2. Specify the first and second matrixes in the text box for each.
3. Specify the range for the results in the Resulting matrix text box.

Specify either the entire range or only the first cell.

Caution 1-2-3 writes over any existing data in the Resulting matrix range, including hidden columns.

4. Choose OK.

1-2-3 creates a matrix that contains the number of rows in the first matrix and the number of columns in the second matrix.

If you specified a 3D range to multiply, 1-2-3 multiplies the first and second matrixes in each worksheet together and enters the results in the resulting matrix range in that worksheet.

See also

Help

[Range Analyze Invert Matrix](#)

[Range Commands](#)

User's Guide

Chapter 18, "Performing Statistical Analysis"

Tools Spell Check

Checks for unknown and duplicate words.

1. To limit the area in which 1-2-3 checks spelling, select a range.
 2. Choose Tools Spell Check.
 3. Under Check, select an option:
 - Entire file checks the spelling in all worksheets, charts, query tables, and text blocks in the file. Select this option to check the spelling in charts.
 - Current worksheet checks the spelling in all cells, query tables, and text blocks in the current worksheet.
 - Range checks the spelling in all cells, query tables, and text blocks within the selected range.
 4. (Optional) Choose Options to specify how 1-2-3 checks words.
 5. Choose OK.
- 1-2-3 does not check version and scenario notes, hidden objects, and 1-2-3 worksheet objects.

Related SmartIcons

Close

Equivalent to choosing Tools Spell Check

See also

Help

[Correcting an Unknown or Duplicate Word](#)

[Tools Commands](#)

[Tools Spell Check Edit Dictionary](#) to add and delete words in the user dictionary

[Tools Spell Check Language Options](#) to select a different language dictionary

User's Guide

Chapter 8, "Entering and Editing Data"

Correcting an Unknown or Duplicate Word

1-2-3 checks for duplicate words and words that do not appear in the dictionary or user dictionary.

1. Do one of the following for each word that 1-2-3 does not recognize.
 - To correct a word, enter the change in the "Replace with" text box, or select an alternative, and then choose Replace All (for all occurrences) or Replace.
 - To keep a word, choose Skip All (for all occurrences) or Skip.
 - To add a word to the user dictionary, choose Add to Dictionary.
 - To delete a duplicate word, press DEL and then choose Replace.
2. Choose OK in the Spell check complete dialog box.

If you choose Close while 1-2-3 checks spelling, 1-2-3 stops checking spelling and saves all corrections made up to that point.

Related SmartIcons



Checks spelling

See also

Help

[Tools Spell Check](#)

[Tools Spell Check Options](#)

User's Guide

Chapter 8, "Entering and Editing Data"

Tools Spell Check Options

Specifies options for Tools Spell Check.

1. Choose Tools Spell Check.

2. Choose Options.

The Tools Spell Check Options dialog box appears.

3. Select the check box of one or more options.

- Check for duplicate words (for example, the the Spell Check).
- Check words with numbers (for example, heading2 or 31 Pine Street).
- Check words with initial caps (for example, Sandra or Madrid).
- Include user dictionary alternatives displays words from the user dictionary as alternative spellings.
- Include macro/@function keywords, punctuation

Refers to a dictionary of macro keywords and @function names so that 1-2-3 recognizes the spelling of these words.

Recognizes argument separators as acceptable punctuation.

4. Choose OK.

You return to the Tools Spell Check dialog box.

5. Choose OK.

Related SmartIcons

Close

Checks spelling

See also

Help

[Tools Spell Check Edit Dictionary](#)

User's Guide

Chapter 8, "Entering and Editing Data"

Tools Spell Check Edit Dictionary

Lets you edit the user dictionary. The user dictionary contains words that are not in the language dictionary, but that you want 1-2-3 to recognize as correctly spelled. The language dictionary is the default dictionary that 1-2-3 uses when it checks spelling.

1. Choose Tools Spell Check.
2. Choose Edit Dictionary.
The Edit Dictionary dialog box appears.
3. To add a word, enter it in the New word text box and choose Add.
4. To delete a word, select it in the Current words list box and choose Delete.
5. Choose OK.

Word order

Words appear in the following order in the Current words list box: symbols, numbers, capitalized words in alphabetical order, lowercase words in alphabetical order.

Related SmartIcons

Close

Checks spelling

See also

Help

[Tools Spell Check](#)

[Tools Spell Check Language Options](#) to select a different language dictionary.

User's Guide

Chapter 8, "Entering and Editing Data"

Tools Spell Check Language Options

Lets you select the language dictionary that 1-2-3 uses when it checks spelling.

1. Choose Tools Spell Check.
2. Choose Language Options.

The Language Options dialog box appears.

3. Enter the directory that contains the dictionary in the Directory path text box.
4. Select the dictionary you want to use in the Language drop-down box.
5. Choose OK.

Related SmartIcons

Close

Checks spelling

See also

Help

[Tools Spell Check](#)

[Tools Spell Check Edit Dictionary](#)

User's Guide

Chapter 8, "Entering and Editing Data"

Style Number Format

Sets the display of values. Changing the number format affects only the display of values, not the values themselves. Style Number Format overrides the default number format set with Style Worksheet Defaults Number Format.

1. Select the range, collection, chart, or query table.
2. Choose Style Number Format.
3. Select a format from the Format list box.

The default format is Automatic. Use Tools User Setup to change the default format for new worksheets to General.

- Fixed
 - Scientific
 - Currency
 - ,Comma
 - General
 - +/-
 - Percent
 - Text
 - Hidden
 - Automatic
 - Label
 - Date formats
 - Time formats
4. If you select Currency, Scientific, Percent, Comma, or Fixed, specify the number of decimal places (0 through 15) in the Decimal places text box.
 5. If you select Currency, select the type of currency from the Currency list box.

To specify a currency other than the ones listed, select Other country. You can set the currency symbol or code for Other country using Modify Symbol, as described in the next step.

Note If you open a 1-2-3 Release 5 file in 1-2-3 Release 4 or 4.01, all of the currency types in the Release 5 file display as the default currency. For example, suppose a 1-2-3 Release 5 file contains cells formatted as British pounds, Japanese yen, and US dollars. If you open this file in 1-2-3 Release 4 and the default currency format is US dollars, all the different currency formats from the Release 5 file appear as US dollars.
 6. To change the symbol or International Standards Organization (ISO) code for a currency and the position of the symbol or code, select the currency from the Currency list box and choose Modify Symbol.
 7. To add the selected format to the format selector on the status bar, select the Show in status bar check box.

Note When the number format is Automatic, 1-2-3 automatically formats only the currency types displayed in the format selector on the status bar.
 8. To enclose all numeric values in parentheses, select the Parens check box. Applies only to selected ranges.
 9. Choose OK.

If a column is not wide enough to display a value in the format you selected, 1-2-3 fills the cell with *** (asterisks).

To widen a column to display a value

1. To widen a column to redisplay a value, do one of the following:
 - Choose [Style Column Width](#).
 - Move the [mouse pointer](#) to the border on the right of the column letter so that the mouse pointer changes to a black two-headed horizontal arrow.
Then [drag](#) to the right until the column is the width you want, or [double-click](#) to adjust the column to the width of its largest entry.

To reset a selection's format

1. To reset the format of the [current selection](#) to the current default format specified in Style Worksheet Defaults, choose Style Number Format.
2. Choose Reset.

Related SmartIcons

Close

Format values in the current selection as % (percent) with two decimal places

Close

Format values in the current selection with the default thousands separator and no decimal places

Close

Format values with the default currency symbol, the default thousands separator, and the default number of decimal places

Close

Format values with the US dollar currency symbol, the default thousands separator, and two decimal places

Close

Format values with the British pound currency symbol, the default thousands separator, and two decimal places

Close

Format values with the Japanese yen currency symbol, the default thousands separator, and zero decimal places

See also

Help

[Style Commands](#)

[Style Lines & Color](#) to set the display color to red for negative values

[Style Worksheet Defaults Number Format](#) to set the default number format for the current worksheet

[Date Formats](#)

[Time Formats](#)

[Tools User Setup International](#) to set the default currency and whether to display currency symbols or ISO codes

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Modify Symbol

Modifies the symbol or International Standards Organization (ISO) code for a selected currency and the position of the symbol or code. These changes affect current and future sessions of 1-2-3 and are stored in the 123R5.INI file as default settings. They are specific to your copy of 1-2-3 and are not transferred when you give a file to someone else.

1. Choose Style Number Format or Style Worksheet Defaults Number Format.
2. Select Currency from the list of number formats.
3. In the Currency list box, select the type of currency whose symbol or ISO code you want to modify.
4. Choose Modify Symbol.
5. Enter the symbol or code in the Symbol text box.

To enter a symbol character that you cannot type directly from your keyboard, you can use a compose sequence starting with ALT+F1 (COMPOSE). For example, to enter the character £ (British pound sterling symbol), press ALT+F1 (COMPOSE) and type L=.

Another way to enter extended characters, including symbol characters not found on most keyboards, is to hold down ALT and, on the number pad, type the code number of the symbol you want. For example, to enter the yen symbol, hold down ALT and type 157 on the number pad. For more information about extended characters, see your Microsoft Windows documentation.

Note You cannot enter a symbol or code that is already being used for another currency. Also, if you leave the Symbol text box blank, the symbol for the selected currency reverts to the system default.

6. To change the position of the currency symbol or code, select an option under Position.
7. Choose OK.

See also

Style Commands

Tools User Setup International to set the default currency and whether to display currency symbols or ISO codes

Date Formats

In 1-2-3, dates are represented by values from 1 (the date number for January 1, 1900) through 73050 (the date number for December 31, 2099).

A date number does not look like a date unless you format the cell where it appears. After you format the cell, the date appears in the cell, and the date number continues to appear in the edit line.

The default cell format is Automatic. If the cell format is Automatic and you enter a date that resembles day-month-year, day-month, or Long International Date format, 1-2-3 automatically formats the date.

For example, if you enter 31-Dec-90, 1-2-3 stores the entry as the date number 33238 and formats the cell as day-month-year.

You can enter the year as two digits or as four digits. For example, you can enter 31-Dec-90 or 31-Dec-1990. For dates in the 21st century, enter a four digit year; for example, 09-Apr-2001.

If the cell format is not Automatic, do one of the following to display a value as a date:

- Enter a date number in the worksheet. For example, to enter the date number for March 1, 1993, type 34029.
- Enter an @function that calculates a date number, such as @DATE, @NOW, or @TODAY.

Then format the cell to display the date.

Use Tools User Setup International to change the Long International and Short International Date formats.

See also

Help

Style Number Format

Time Formats

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Time Formats

In 1-2-3, time is represented by a decimal value from .00000000 (the time number for 12:00 midnight) through .99998843 (the time number for 11:59:59 PM).

A time number does not look like a time unless you format the cell where it appears. After you format the cell, the time appears in the cell, the time number continues to appear in the edit line.

If the cell format is Automatic and you enter a time that resembles any format except Short International Time hour.minutes, 1-2-3 automatically formats the cell in the format used for the entered time.

For example, if you enter 11:59 PM, 1-2-3 stores the entry as the time number .999306 and formats the cell as hour:minutes.

If the cell format is not Automatic, do one of the following:

- Enter a time number in the worksheet. For example, type .9993 to enter the time number for 11:59:00 p.m.
- Enter an @function that calculates a time number, such as @NOW or @TIME.

Then format the cell to display the time.

Use Tools User Setup International to change the Long International and Short International Time formats.

See also

Help

Date Formats

Style Number Format

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Font & Attributes







Applies a font to the current selection and adds color, bold, italics, and underlining to data in the selection.

1. Select the range, collection, query table fields, chart element, macro button, or text block.
2. Choose Style Font & Attributes.
3. Select a typeface from the Face list box.
4. Select a point size from the Size list box.
5. To add boldface, italics, or underlining, select the Bold, Italics, or Underline check box.
6. If you select Underline, select a line style from the Underline drop-down box.
7. To apply a color to the data in the current selection, select a color from the Color drop-down box.
8. Choose OK.

To reset attributes

1. Select the range, collection, chart element, query table fields, macro button, or text block.
2. Choose Style Font & Attributes.
3. Under Attributes, select the Normal check box to remove bold, italics, or underline.
4. Choose OK.

Related SmartIcons

	Change the font, color, and attributes of data
	Add bold to data in a selection
	Add italics to data in a selection
	Add double underlining to data in a selection
	Add underlining to data in a selection
	Remove boldface, italics, and underlining from a selection

See also

Help

[Edit Clear](#) to reset styles in the current selection to the worksheet defaults
[Style Commands](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"
Chapter 15, "Working with Charts and Maps"

Style Lines & Color

Adds colors, lines, frames, and patterns.

Style Lines & Color

For cells, ranges, collections, and [query tables](#).

Style Lines & Color

For freehand drawings, drawn lines, arcs, and chart lines including line [data series](#), grid lines, and axes.

Style Lines & Color

For entire charts, chart elements (plot frames, solid data series, titles, legends, and footnotes), [text blocks](#), enclosed drawn objects, [OLE](#) objects, and pictures created in other Windows applications.

Related SmartIcons



Equivalent to choosing Style Lines & Color

See also

Help

Style Commands

[View Set View Preferences](#) to change the color of worksheet grid lines or turn them off

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Lines & Color

For cells, ranges, collections, and [query tables](#): Adds color, patterns, lines, and frames.

1. Select the cell, [range](#), [collection](#), or [query table](#).
2. Choose Style Lines & Color.
3. For colors and patterns, select one or more [drop-down boxes](#) under Interior.
 - Background color
 - Pattern specifies the pattern overlaid on the background.
 - Pattern color
 - Text color
4. To display negative values in red, select the "Negative values in red" [check box](#).
5. For borders, select one or more check boxes under Border.
 - Outline draws a line around the outside edge of the [current selection](#).
 - Left, Right, Top, and Bottom draw lines along the indicated edge of each cell.
 - All draws a line along all edges of each cell.
6. To apply a style to a line, [click](#) the sample line next to one of the check boxes and select a style from the Line style drop-down box.
7. To apply a color to a line, select the sample line next to one of the check boxes and select a color from the Line color drop-down box.
8. For cells, ranges, and collections only: Select a frame from the Designer frame drop-down box.
9. For cells, ranges, and collections only: Select a color from the Frame color drop-down box.
10. Choose OK.

Related SmartIcons



Equivalent to choosing Style Lines & Color



Adds a border around a selection



Adds a border around a selection and draws a drop shadow below and to the right

See also

Help

[Edit Clear](#) to reset styles in the current selection to the worksheet defaults

[Style Commands](#)

[Style Font & Attributes](#) to underline data in a selection

[View Set View Preferences](#) to change the color of worksheet grid lines or turn them off

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"






Style Lines & Color

For freehand drawings, drawn lines, arcs, and chart lines including line [data series](#), grid lines, and axes: Changes the color, width, and style of lines.

For open drawn objects, including arcs, freehand drawings and polyline shapes: Adds interior color and patterns.

1. Select the [object](#).
2. Choose Style Lines & Color.
3. For interior color and patterns of freehand drawings, arcs, and polyline shapes, select one or more [drop-down boxes](#) under Interior.
 - Background color
 - Pattern specifies the pattern overlaid on the background
 - Pattern color
4. For the style, width, and color of the line, select one or more drop-down boxes under Line.
5. For drawn lines and arcs only: Select an arrowhead from the Arrowhead drop-down box.
6. For lines plotting data in a chart only: Select a symbol to mark data points from the Symbol drop-down box.
7. Choose OK.

Related SmartIcons

	Equivalent to choosing Style Lines & Color
	Draws an arc
	Draws a double-headed arrow
	Draws a forward-pointing arrow
	Draws a line

See also

Help

[Edit Clear](#) to reset styles in the current selection to the worksheet defaults

[Style Commands](#)

[View Set View Preferences](#) to change the color of worksheet grid lines or turn them off

User's Guide

Chapter 15, "Working with Charts and Maps"

Chapter 16, "Working with Graphics"

Style Lines & Color

For entire charts, chart elements (plot frames, solid [data series](#), titles, legends, and footnotes), [text blocks](#), enclosed drawn objects, [OLE](#) objects, and pictures created in other Windows applications: Adds color, patterns, lines, and frames.

1. Select the [object](#).
2. Choose Style Lines & Color.
3. For colors and patterns, select one or more [drop-down boxes](#) under Interior.
 - Background color
 - Pattern specifies the pattern overlaid on the background.
 - Pattern color
4. For chart titles, legends, and footnotes only: Select a color from the Text color drop-down box.
5. For the style, width, and color of the edges of the [current selection](#), select one or more drop-down boxes under Edge.
6. For rectangles, squares, text blocks, entire charts, and chart elements (titles, footnotes, and legends only): Select a frame from the Designer frame drop-down box.
7. Select a color from the Frame color drop-down box.
8. Choose OK.

Related SmartIcons



Equivalent to choosing Style Lines & Color



Adds a border around a selection and draws a drop shadow below and to the right

See also

Help

[Edit Clear](#) to reset styles in the current selection to the worksheet defaults

[Style Commands](#)

[View Set View Preferences](#) to change the color of worksheet grid lines or turn them off

User's Guide

Chapter 15, "Working with Charts and Maps"

Chapter 16, "Working with Graphics"

Style Alignment

Changes the alignment of labels and values.

Style Alignment

For data in ranges and query tables.

Style Alignment

For data in text blocks.

Related SmartIcons



Centers data in a selection



Evenly aligns data with both the left and right edges of a selection



Center text across columns



Left-aligns data in a selection



Right-aligns data in a selection

See also

Help

[Style Commands](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Alignment

Changes the alignment of labels and values in ranges and query tables. You can align data within a cell or across the columns of a range.







1. Select the range, collection, or query table.
2. Choose Style Alignment.
3. Under Horizontal, select an option.
 - General aligns labels to the left and values to the right.
 - Left
 - Center aligns data within individual cells.
 - Right
 - Evenly spaced stretches data within the cell by expanding the space between words and between the letters in words. Even has no effect on labels that end with a . (period), ! (exclamation point), ? (question mark), or : (colon).
4. For ranges only: Select the Across columns check box to align the text in the leftmost cell over the columns within the range, according to your selection under Horizontal. For example, if you select Right and the Across columns check box, text in the leftmost cell aligns with the rightmost column of the range.
5. Select the Wrap text check box to wrap data within a cell. The row height adjusts accordingly.
6. Under Vertical, select Top, Center, or Bottom to align data within a cell whose height is bigger than the largest typeface in the current selection.
7. Select an orientation from the Orientation drop-down box.
8. (Optional) If you select the angled orientation in step 7, specify a rotation angle, from 0 to 90 degrees, in the Rotation text box.

Note Rotated text that uses a printer internal font prints at an angle only if both the printer and printer driver support rotation of internal fonts. For example, rotated text that uses the Hewlett-Packard internal fonts CG Times or Univers prints horizontally on a Laserjet III.

9. Choose OK.

1-2-3 assigns to the data a label-prefix character that corresponds to the horizontal alignment you selected.

Related SmartIcons

	Centers data in a selection
	Evenly aligns data with both the left and right edges of a selection
	Center text across columns
	Left-aligns data in a selection
	Right-aligns data in a selection
	Rotates data in a selection

See also

Help

Edit Clear to reset styles in the current selection to the worksheet defaults
Style Commands

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Alignment

Changes the alignment of labels and values in text blocks.

1. Select the text block.
2. Choose Style Alignment.
3. Under Align all text, select an option.
 - Left
 - Center
 - Right
 - Evenly spaced stretches data within the text block by expanding the space between words and between the letters in words. Evenly spaced has no effect on data that ends with a . (period), ! (exclamation point), ? (question mark), or : (colon).
4. Choose OK.

Related SmartIcons

Close

Centers data in a selection

Close

Evenly aligns data with both the left and right edges of a selection

Close

Left-aligns data in a selection

Close

Right-aligns data in a selection

See also

Help

[Edit Clear](#) to reset styles in the current selection to the worksheet defaults

[Style Commands](#)

[Tools Draw Text](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Gallery

Formats ranges and collections with one of 14 style templates available in 1-2-3.

1. Select the range or collection.
2. Choose Style Gallery.
3. Select a style template from the Template list box.
4. Choose OK.

Related SmartIcons

Close

Equivalent to choosing Style Gallery

See also

Help

Edit Clear to reset styles in the current selection to the worksheet defaults

Style Commands

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Named Style

Defines a cell's styles as a named style and applies a named style to the current selection.

To define a named style

1. Select a cell whose styles you want to define as a named style.
 2. Choose Style Named Style.
 3. Enter a name for the named style in the Style name text box.
1-2-3 lets you enter up to 35 characters.
 4. Choose Define.
-

To apply a named style

1. Select the range.
2. Choose Style Named Style.
3. Select the named style from the Existing styles list box.
4. Choose OK.

The appearance of a range using a named style changes when you alter the characteristics of the named style.

To apply a named style from the status bar

1. Select the range or collection.
 2. Click the style selector on the status bar at the bottom of the 1-2-3 window.
If the status bar is not visible, use View Set View Preferences to display it.
 3. Select the style from the list.
-

To remove a named style

1. Choose Style Named Style.
2. Select a named style under the Existing styles list box.
3. Choose Clear.

Ranges that use the deleted named style retain the styles.

Related SmartIcons



Equivalent to choosing Style Named Style



Copies a range's styles to another range

See also

Help

Edit Clear to reset styles in the current selection to the worksheet defaults
Style Commands

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Column Width

Sets the width of one or more selected columns, or resets columns to the default column width.

1. Select the range, collection, or query table.
2. Choose Style Column Width.
3. Select an option.
 - "Set width to" adjusts the column width.
Specify a number from 1 through 240 in the characters text box.
 - "Fit widest entry" adjusts columns to the width of the widest entries in the current selection.
 - "Reset to worksheet default" adjusts the columns to the default width defined with Style Worksheet Defaults Column Width.
4. Choose OK.

Effect of column width on values

When a column is too narrow to display an entire value as it is formatted, 1-2-3 displays *** (asterisks) instead of the value. To display the value, the column must be one character wider than the length of the value as formatted.

To allow more room for data in a column, you can do one of the following:

- Enter a value in the "Set width to" text box to widen the column.
- Select the "Fit widest entry" option.
- Use Style Number Format to change the value's number format to one requiring fewer characters.
- Use Style Font & Attributes to reduce the point size.

Effect of column width on labels

If a label is longer than the cell it occupies and the cells to the right are blank, 1-2-3 displays the label across the blank cells. If the cells to the right contain data, 1-2-3 displays only the part of the label that fits in the cell where it is entered. Use the "Set width to" option to widen the column.

Close

To set column widths

1. When 1-2-3 is in Ready mode, move the mouse pointer to the border on the right of the column letter.
The mouse pointer changes to a black two-headed horizontal arrow.
2. Do one of the following:
 - Drag to the right until the column is the width you want.
 - Double-click to adjust the column to the width of its widest entry.

Related SmartIcons

Close

Sizes columns to fit the widest entries in the current selection

See also

Help

Style Commands

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Row Height

Sets selected rows to a specified height or resets each one to the height of the largest font in that row. You cannot hide a row.

1. Select the range or query table.
2. Choose Style Row Height.
3. Select an option.
 - "Set height to" adjusts row height.
Specify a height from 1 through 255 points in the points text box.
When you set the row height to a specific number of points, it no longer adjusts automatically to match the largest text font in the row.
 - Fit largest font resets the row height to accommodate the height of the largest font in the row, or the orientation selected using Style Alignment.
4. Choose OK.

Effects of fonts on row heights

If you change the data in a range to a smaller font using Style Font & Attributes, and a larger font does not exist in the row beyond the selected range, the row height becomes shorter, according to the new font height.

If you change the range height to a smaller height using Style Row Height, the font height remains unchanged.

Close

To set row heights

1. When 1-2-3 is in Ready mode, move the mouse pointer to the lower row border.
The mouse pointer changes to a black two-headed vertical arrow.
2. Do one of the following:
 - Drag down until the row is the height you want.
 - Double-click to adjust the row to the height of its largest entry.

See also

Help

Edit Clear to reset styles in the current selection to the worksheet defaults
Style Commands

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Protection

Allows changes to cell contents in the current selection, but not to styles, after you seal the file using File Protect. Sealing a file deactivates the Style Commands, including Style Protection, so use this command before you seal the file.

Use Style Protection, for example, if you want users to be able to enter data on a worksheet used as an entry form.

1. Select the range, collection, or query table.
2. Choose Style Protection.
3. Select the check box to allow changes to cell contents after the file is sealed.
4. Choose OK.
5. Seal the file using File Protect.

When the cell pointer is on a protected cell in a sealed file, 1-2-3 displays Pr in the status bar.

To reprotect cell contents in a sealed file

1. Unseal the file using File Protect.
2. Select the range or collection whose cell contents you want to reprotect.
3. Choose Style Protection.
4. Deselect the check box.
5. Choose OK.
6. Seal the file using File Protect.

See also

User's Guide

Chapter 14, "Protecting Data"

Style Hide

Hides columns or entire worksheets to prevent display and printing of data.

1. Select a range that includes only one cell in each of the columns or worksheets you want to hide or select the entire columns or worksheets.

2. Choose Style Hide.

If you select an entire column or worksheet, the Hide dialog box does not appear and 1-2-3 completes the command immediately. If you select a range, the Hide dialog box appears.

3. Select Column or Sheet.
4. Choose OK.

Effects of Style Hide

- You cannot move the cell pointer to hidden columns or worksheets in Ready mode, and you cannot enter data in them.

Caution Commands that put new data in the worksheet enter and write over data in hidden columns and sheets.

File Open Combine, Edit Copy Right, Edit Copy Up, Edit Copy Forward, Edit Paste, Range Fill, Range Fill by Example, Range Parse, and Range Transpose are examples of these types of commands.

- When you apply styles to a range, any data in hidden columns or worksheets is also affected by those styles.
- Formulas in hidden columns or worksheets and formulas that refer to data in hidden columns and worksheets continue to work correctly.

To redisplay columns or worksheets

1. Select the range.

For example, to redisplay hidden columns C and D, select at least one cell in columns B and E.

To redisplay hidden column A, specify a cell address, for example A1, in the Range text box.

2. Choose Style Hide.
3. Select Column or Sheet.
4. Choose Show.
5. If you are redisplaying column A, press HOME.

To unhide data in a range whose number format is Hidden, select another format in Style Number Format.

To unhide data in a worksheet whose default number format is Hidden, select another format in Style Worksheet Defaults Number Format.

Close

To hide columns

1. Move the mouse pointer to the border, right of the column letter, of the rightmost column you want to hide.

The mouse pointer changes to a black two-headed horizontal arrow.

2. Drag to the left until the mouse pointer is on the left column border of the leftmost column you want to hide.

Close

To display a column

1. Move the mouse pointer to the left border of the column letter that is to the right of the hidden column.
The mouse pointer changes to a black two-headed horizontal arrow.
 2. Drag to the right until the hidden column is redisplayed.
-

See also

Help

[Style Commands](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Page Break

Inserts or removes page breaks.

A page break overrides page lengths set using [File Print](#) or [File Page Setup](#).

1. Select a cell below the row or to the right of the column where you want the page to break.
2. Choose Style Page Break.
3. Select the check box of one or both options.
 - Row inserts a horizontal page break above the row containing the selected cell.
 - Column inserts a vertical page break to the left of the column containing the selected cell.
4. Choose OK.

To remove a page break

1. Select a cell below the row and to the right of the column where you no longer want the page to break.
2. Choose Style Page Break.
3. Deselect the Row check box, the Column check box, or both check boxes.
4. Choose OK.

Related SmartIcons



Sets a horizontal page break



Sets a vertical page break

See also

[Style Commands](#)

[View Set View Preferences](#) to display page-break lines

Style Worksheet Defaults

Controls the following default settings for the current worksheet.

Font

Sets the default typeface and point size.

Column Width

Sets the default column width.

Group Mode

Turns Group mode on or off.

Alignment

Sets the default data alignment.

Number Format

Sets the way values are displayed.

Colors

Sets default colors for data, cell background, worksheet tab, and negative values.

See also

Style Commands

Style Worksheet Defaults Font

Sets a default font and point size for the current worksheet.

Note New worksheets use the 1-2-3 [default font](#).

1. Choose Style Worksheet Defaults.
2. Select a typeface from the Face [list box](#).
3. Select a point size from the Size list box.
4. Choose Make Default if you want to make the selected typeface and point size the default font for all new worksheets created without using a [SmartMaster](#) template.
5. Choose OK.

Related SmartIcons



Changes the font and attributes of a selection



Copies a range's styles to another range

See also

Help

[Label Mode](#)

[Style Alignment](#) to change the alignment of data in a selection

[Style Font & Attributes](#) to change the typeface and point size of data in a selection

[Style Worksheet Defaults](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Worksheet Defaults Column Width

Sets the default width of columns in the current worksheet.

1. Choose Style Worksheet Defaults.
2. Specify a number from 1 through 240 in the Column width text box.
3. Choose OK.

Related SmartIcons

Close

Sizes columns to fit the widest entries in the current selection

See also

Help

[Style Column Width](#) to set the width of columns in a selection

[Style Worksheet Defaults](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Worksheet Defaults Alignment

Sets the default data alignment for new entries on the current worksheet.

Note Existing entries retain their current alignment.

1. Choose Style Worksheet Defaults.
2. Under Other, select Left, Center, or Right from the Alignment drop-down box.

Related SmartIcons



Centers data in a selection



Evenly aligns data with both the left and right edges of a selection



Center text across columns



Left-aligns data in a selection



Right-aligns data in a selection

See also

Help

[Label Mode](#)

[Style Alignment](#) to change the alignment of data in a selection

[Style Worksheet Defaults](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Worksheet Defaults Group Mode

Turns Group mode on or off for the current file.

When Group mode is on, changes you make to the current worksheet using [Style Worksheet Defaults](#) and any other Style command affect all worksheets in the file.

Caution Turning on Group mode makes permanent changes to the settings for all worksheets in the file. Turning off Group mode does not reverse those changes.

1. Choose Style Worksheet Defaults.
2. Under Other, select the Group mode [check box](#).
3. Choose OK.

1-2-3 displays the Group mode indicator in the status bar at the bottom of the 1-2-3 window. If the status bar is not visible, use [View Set View Preferences](#) to display it.

See also

Help

[Style Commands](#)

User's Guide

Chapter 6, "Worksheet Basics"

Style Worksheet Defaults Number Format

Sets the default number format for the current worksheet.

1. Choose Style Worksheet Defaults.
2. Under Number format, select a format from the Format drop-down box

The default format is Automatic. Use Tools User Setup to change the default format for new worksheets to General.

- Fixed
- Scientific
- Currency
- , Comma
- General
- +/-
- Percent
- Text
- Hidden
- Automatic
- Label
- Date formats
- Time formats

3. If you select Currency, Scientific, Percent, Comma, or Fixed, specify the number of decimal places (0 through 15) in the Decimals text box.
4. If you select Currency, select the type of currency from the Currency list box.

To specify a currency other than the ones listed, select Other country. You can set the currency symbol or code for Other country using Modify Symbol, as described in the next step.

Note If you open a 1-2-3 Release 5 file in 1-2-3 Release 4 or 4.01, all of the currency types in the Release 5 file display as the default currency. For example, suppose a 1-2-3 Release 5 file contains cells formatted as British pounds, Japanese yen, and US dollars. If you open this file in 1-2-3 Release 4 and the default currency format is US dollars, all the different currency formats from the Release 5 file appear as US dollars.

5. To change the symbol or International Standards Organization (ISO) code for a currency and the position of the symbol or code, select the currency from the Currency list box and choose Modify Symbol.
6. To indicate whether 1-2-3 displays a zero, a label, or nothing in cells that contain either the number zero or a formula that evaluates to zero: Select the "Display zeros as" check box, and then enter the value or text you want zeros to be displayed as in the "Display zeros as" text box.
7. To enclose in parentheses all values in cells set to the default number format, select the Parentheses check box.
8. Choose OK.

If a column is not wide enough to display a value in the format you selected, 1-2-3 fills the cell with *** (asterisks).

To widen a column to display a value

1. To widen a column to redisplay a value, do one of the following:

- Choose [Style Column Width](#).
- Move the [mouse pointer](#) to the border on the right of the column letter so that the mouse pointer changes to a black two-headed horizontal arrow.

Then [drag](#) to the right until the column is the width you want, or [double-click](#) to adjust the column to the width of its largest entry.

Related SmartIcons

Close

Format values in the current selection as % (percent) with two decimal places

Close

Format values in the current selection with the default thousands separator and no decimal places

Close

Format values with the default currency symbol, the default thousands separator, and the default number of decimal places

Close

Format values with the US dollar currency symbol, the default thousands separator, and two decimal places

Close

Format values with the British pound currency symbol, the default thousands separator, and two decimal places

Close

Format values with the Japanese yen currency symbol, the default thousands separator, and zero decimal places

See also

Help

[Style Lines & Color](#) to set the display color to red for negative values of a selected range

[Style Number Format](#) to change the format of data in a selection

[Style Worksheet Defaults](#)

[Tools User Setup International](#) to set the display of negative values, the default currency, and whether to display currency symbols or ISO codes

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Worksheet Defaults Colors

Sets the default colors for data, cell background, worksheet tab, and negative values for the current worksheet.

Initially, 1-2-3 displays data using the default colors set on your Windows Control Panel Color Palette, but previews and prints using black text on white background.

1. Choose Style Worksheet Defaults.
2. To display, preview, and print in colors other than the default Windows colors, select a color from the Text and Cell background drop-down boxes.
3. To change the color of the worksheet tab, select a color from the Worksheet tab drop-down box.
4. To display negative values in red, select the Negative values in red check box.
5. To display data and background in the colors set on your Windows Control Panel Color Palette, select the Display Windows defaults check box.

Note If you use a color printer, 1-2-3 prints the worksheet using the colors in the Text and Cell background drop-down boxes, regardless of the colors set on your Windows Control Panel Color Palette.

6. Choose OK.

Related SmartIcons

Close

Adds a color, pattern, border, and frame to a selection

See also

Help

[Style Lines & Color](#) to change the colors of data, cell background, and negative values of a selection
[Style Worksheet Defaults](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Style Fast Format

Copies the styles of the current range into other ranges you select.

1. Select the range whose styles you want to copy.
2. Choose Style Fast Format.

The mouse pointer changes from an arrowhead to a paintbrush:

Close

3. Select the range you want to format.
4. To format other ranges, repeat step 3.
5. To turn off fast formatting, choose Style Fast Format or press ESC.

Related SmartIcons



Turns fast formatting on and off

See also

Help

[Style Commands](#)
[Style Named Style](#)

User's Guide

Chapter 12, "Changing the Worksheet's Appearance"

Tools Chart

Draws a chart, using the selected range.

1. Select the range or collection that contains the data you want to chart.
You can include text for the chart title and legend entries in your range or collection.
2. Choose Tools Chart.
3. Do one of the following to specify the location of the chart:
 - Click anywhere on the worksheet to have 1-2-3 place and size the chart.
 - Hold down the mouse button and drag across the worksheet where you want the chart to appear.

Related SmartIcons

Close

Equivalent to choosing Tools Chart

See also

Help

[Chart Commands](#)

User's Guide

Chapter 15, "Working with Charts and Maps" for information about how 1-2-3 plots the selected data

Tools SmartIcons

Selects a set of SmartIcons; adds, removes, and moves icons in a set; positions the set in the work area; and turns icon descriptions on and off.

Tools SmartIcons also gives you access to commands that save and delete sets of SmartIcons, create and modify icons, and assign a macro to an icon.

1. Select a cell, range, query table, or drawn object.

Note The icons and sets of icons available in Tools SmartIcons vary according to what is currently selected.

2. Choose Tools SmartIcons.
3. Select a set of SmartIcons from the drop-down box.
4. Adding an icon to the set: Drag an icon from the Available icons list box on the left to a location in the selected set on the right.
5. Removing an icon from the selected set: Drag the icon until it is outside the set and then release the mouse button.
6. Separating icons in the selected set: Drag the Spacer icon from the Available icons list box and position it between the icons you want to separate.
7. Moving an icon within the selected set: Drag the icon to its new position in the set.
8. Changing the position of the set in the work area: Select an option from the Position drop-down box.
 - Floating lets you move and size the set of SmartIcons.
 - Left
 - Top
 - Right
 - Bottom
9. Turning icon descriptions on and off: select or deselect the "Show icon descriptions" check box.

If "Show icon descriptions" is selected, when you point at any icon in the SmartIcons bar, a description appears in a text bubble below the icon. If "Show icon descriptions" is not selected, point to an icon and hold down the right mouse button to make the text bubble appear.
10. Choose OK or Save Set to save the changes.
 - OK saves the changes to the current set of SmartIcons.
 - Save Set saves the changes to a new set with the name you specify.

The following commands are available in Tools SmartIcons:

Edit Icon

Modifies an icon, creates a custom icon, paints an icon, or assigns a macro to an icon.

Save Set

Saves a set of icons.

Delete Set

Deletes a set of icons.

Icon Size

Changes the default size used to display icons.

Related button in the status bar

Close

Hides and displays the set of SmartIcons and lets you select a set from a list of available sets

Related SmartIcons

Close

Equivalent to choosing Tools SmartIcons

Close

Selects the next set of SmartIcons

See also

Help

[SmartIcons Reference](#)

[Tools Commands](#)

[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Using SmartIcons

SmartIcons are mouse shortcuts for 1-2-3 commands and macros. When you first load 1-2-3, SmartIcons appear in a set at the top of the work area.

To	Do this
Use an icon	Click the icon.
Learn what an icon does	If "Show icon descriptions" in the <u>Tools SmartIcons</u> dialog box is selected, when you point at any icon in the SmartIcons bar, a description appears in a text bubble below the icon. If "Show icon descriptions" is not selected, point to an icon and hold down the right mouse button to make the text bubble appear.
Move an icon in the set	Hold down CTRL and drag the icon to its new position. Dragging the icon off the palette places it at the end of the palette.


The set of SmartIcons

You can display only one set of icons at a time.

The set of icons that appears in the work area changes depending on what is currently selected. For example, the set of icons that appears when a range is selected is different from the set that appears when a chart is selected.

You can modify a set of icons, and you can create your own sets of icons. After you create a set, it becomes available from the SmartIcons selector in the status bar.

The sets that are available vary according to what is currently selected.


 This button in the status bar hides and shows the set of SmartIcons and lets you select a set from a list of available sets.


Storing SmartIcons and sets

1-2-3 stores SmartIcons as bitmap files (.BMP) and sets of SmartIcons as SmartIcons files (.SMI). 1-2-3 uses the following subdirectories of the 1-2-3 directory to store files for SmartIcons:

Subdirectory	Stores SmartIcons and sets available when
\SHEETICO	A cell, range, or collection is selected
\DQAICO	A query table is selected
\DRAWICO	A drawn object is selected
\GRAPHICO	A chart is selected
\PREVICO	A print range is selected
\TRANSICO	The Transcript window is selected

Related SmartIcons

 Equivalent to choosing Tools SmartIcons

 Selects the next set of SmartIcons

See also

Help

[SmartIcons Reference](#)

Tools SmartIcons

User's Guide

Chapter 23, "Customizing SmartIcons"

Tools SmartIcons Edit Icon

Modifies an existing custom icon, creates a new icon, paints an icon, or assigns a macro to a custom icon.

If the icon you want to work on comes from outside 1-2-3, copy it to the Clipboard before you choose Tools SmartIcons.

Modifying an Existing Custom Icon

Modify an existing custom icon by changing its colors or the macro assigned to it.

Creating a New Icon

Create a new icon by editing an existing icon and saving it to another file name, or by creating a bitmap.

Painting an Icon

Paint an icon to change its appearance.

Assigning a Macro to an Icon

Assign a macro to a new icon or change a macro assigned to an existing icon.

See also

Help

SmartIcons Reference

Tools SmartIcons

Using SmartIcons

User's Guide

Chapter 23, "Customizing SmartIcons"

Modifying an Existing Custom Icon

Modify an existing custom icon by changing its colors or the macro assigned to it.

Note You cannot modify the standard 1-2-3 SmartIcons.

1. Select a cell, range, chart, drawn object, or query table.

Note The icons and sets of icons available in Tools SmartIcons vary according to what is currently selected.

2. Choose Tools SmartIcons.
3. Choose Edit Icon.
4. Select the icon in the Available icons list box.

An enlarged view of the icon appears.

5. Paint the icon.
6. Modify the macro assigned to the icon.
7. Choose OK.

1-2-3 returns you to the Tools SmartIcons dialog box, and the modified icon appears in the Available icons list box.

See also

Help

[SmartIcons Reference](#)
[Tools SmartIcons Edit Icon](#)
[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Creating a New Icon

You create a new icon by editing an existing icon and saving the changes to a new file with the .BMP file extension. You can also create a new icon by creating a new bitmap.

If you want to work on an existing bitmap that comes from outside 1-2-3, copy it to the Clipboard before you choose Tools SmartIcons.

1. Select a cell, range, chart, drawn object, or query table.

Note The icons and sets of icons available in Tools SmartIcons vary according to what is currently selected.

2. Choose Tools SmartIcons.

3. Select a set of SmartIcons from the drop-down box.

4. Choose Edit Icon.

5. Do one of the following:

- To create a new icon that is based on an existing 1-2-3 icon, select an icon from the Available icons list box, choose Save As, specify a file name in the Save new icon as text box, and choose OK.

Note If you select a standard 1-2-3 icon from the Available icons list box, 1-2-3 displays the Create New SmartIcon dialog box. To create a new icon based on the standard 1-2-3 icon, specify a file name in the File name text box and choose OK. You do not need to choose Save As to save the icon.

- To create a new custom icon, choose New Icon, specify a file name in the Save new icon as text box, and choose OK.

1-2-3 displays a blank icon button. If you copied an existing bitmap to the Clipboard, choose Paste Icon.

6. Paint the icon.

7. Assign a macro to the icon.

8. Choose OK.

1-2-3 returns you to the Tools SmartIcons dialog box, and the new icon appears in the Available icons list box.

See also

Help

[SmartIcons Reference](#)

[Tools SmartIcons](#)

[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Save as a New Icon

Saves an existing 1-2-3 icon as a new icon.

1. Specify a file name in the "Save new icon as" text box.
2. Choose OK.

1-2-3 returns you to the Tools SmartIcons Edit Icon dialog box, where the file name of the new icon appears. You can then paint the icon and assign a macro to it.

See also

Help

[SmartIcons Reference](#)

[Tools SmartIcons](#)

[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Painting an Icon

You paint an icon to change its appearance.

1. Assigning colors to the mouse buttons: To change the color assigned to the left mouse button, click a color with the left mouse button; to change the color assigned to the right mouse button, click a color with the right mouse button.
2. Changing available colors: Display the color palette drop-down, click a color in the top row, and click a color in the drop-down box to change the color assigned to the selected box in the top row.
3. Painting the icon: In the enlarged view of the icon, click the bits you want to paint, using the left or right mouse button.
4. Choose OK.

1-2-3 returns you to the Tools SmartIcons dialog box, and the modified icon appears in the Available icons list box.

See also

Help

[SmartIcons Reference](#)

[Tools SmartIcons](#)

[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Assigning a Macro to an Icon

Assign a macro to a new icon or change a macro assigned to an existing icon.

If you want to assign an existing macro to an icon, copy it to the [Clipboard](#) before you choose Tools SmartIcons.

1. To assign a macro to the icon, enter the macro in the "Enter macro here" [text box](#) or choose Paste Macro if you copied an existing macro to the Clipboard.
2. To change the macro description, edit the entry in the Description text box.
3. Choose OK.

1-2-3 returns you to the Tools SmartIcons dialog box.

See also

Help

[SmartIcons Reference](#)

[Tools SmartIcons](#)

[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Writing Macros for Custom Icons and Buttons

When you write macros for custom icons, keep the following in mind:

- To copy an existing macro to the "Enter macro here" [text box](#), use Edit Copy to copy the cell that contains the macro to the [Clipboard](#) before you choose Tools SmartIcons. Choose Paste Macro to paste the macro text into the text box.
- Macro instructions you copy to the text box cannot exceed 512 characters. If you want custom icons to run longer macros, have the macro instructions in the text box [branch](#) to macros in the worksheet.
- All macro commands and macro keys work the same way when executed from an icon as they do when executed from the worksheet. Exceptions:

{subroutine} Subroutine calls can only be made to macros in the worksheet; they cannot be made to macro instructions you copy to the "Enter macro here" text box.

{Branch}, **{Dispatch}**, and **{Menu-Branch}** Macro instructions you copy to the Macro text box can only branch to macro routines in the worksheet; they cannot branch to macro instructions you copy to the text box.

{Onerror} Both *branch-location* and *message-location* must be located in the worksheet; they cannot be part of any macro instructions you copy to the text box.

See also

Help

[Assigning a Macro to an Icon](#)

[SmartIcons Reference](#)

[Tools SmartIcons](#)

[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Tools SmartIcons Save Set

Saves a set of SmartIcons to a file (.SMI).

1. Select a cell, range, chart, drawn object, or query table.

Note The icons and sets of icons available in Tools SmartIcons vary according to what is currently selected.

2. Choose Tools SmartIcons.
3. Select a set of SmartIcons.
4. Add, move, or remove icons to create the set you want.
5. Choose Save Set.

The Save SmartIcon Set dialog box appears.

6. Specify a name for the set of SmartIcons in the "Name of set" text box.

The name of a set of SmartIcons can contain up to 15 characters, including spaces and punctuation. This is the name that appears in Tools SmartIcons and in the SmartIcons selector in the status bar.

7. Specify a file name for the set of SmartIcons in the File name text box.

1-2-3 adds an .SMI extension to the file name.

8. Choose OK.

1-2-3 saves the set of SmartIcons and puts the .SMI file in the subdirectory according to what is currently selected. 1-2-3 returns you to the Tools SmartIcons dialog box.

9. Choose OK.

See also

Help

[SmartIcons Reference](#)

[Tools SmartIcons](#)

[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Tools SmartIcons Delete Set

Deletes a set of SmartIcons.

1. Select a cell, range, chart, drawn object, or query table.

Note The icons and sets of icons available in Tools SmartIcons vary according to what is currently selected.

2. Choose Tools SmartIcons.
3. Choose Delete Set.

The Delete Sets dialog box appears.

4. Select the sets of SmartIcons you want to delete.
5. Choose OK.

1-2-3 deletes the selected sets of SmartIcons and returns you to the Tools SmartIcons.

6. Choose OK.

If you delete the set of SmartIcons that was displayed on the screen, 1-2-3 uses the next set in the current SmartIcons default directory. If the current default directory does not contain any .SMI files, 1-2-3 displays the default set.

If 1-2-3 can not find the default set, SmartIcons display as blank buttons. You can either specify another directory that contains .SMI files as the default SmartIcons directory, or copy .SMI files from another directory to the current default SmartIcons directory.

See also

Help

[SmartIcons Reference](#)
[Tools SmartIcons](#)
[Using SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Tools SmartIcons Icon Size

Changes the default display size for SmartIcons.

1. Choose Tools SmartIcons.

2. Choose Icon Size.

The Icon Size dialog box appears.

3. Select Medium (VGA) or Large (Super VGA), depending on the type of display adaptor and monitor you use.

4. Choose OK.

1-2-3 returns you to the Tools SmartIcons dialog box.

5. Choose OK.

See also

Help

[SmartIcons Reference](#)

[Tools SmartIcons](#)

User's Guide

Chapter 23, "Customizing SmartIcons"

Tools User Setup

Changes settings that affect the display and behavior of 1-2-3 in the current and in future sessions. Except for Recalculation, these settings are stored in the 123R5.INI file as default settings and take effect automatically whenever you start 1-2-3.

1. Choose Tools User Setup.
2. Under Options, select one or more options.
 - Skip Welcome dialog box tells 1-2-3 not to display the Welcome to 1-2-3 dialog box when you start 1-2-3.
 - Skip New File dialog box tells 1-2-3 not to display the New File dialog when you choose File New. In this case, 1-2-3 creates a plain worksheet file when you choose File New.
 - Drag-and-drop cells lets you move, copy, clear, and fill cells with the mouse.
 - Confirm drag-and-drop tells 1-2-3 to display a message if dragging and dropping will write over existing data, or if displaying a version or scenario will write over existing data.
 - Use Automatic format sets the 1-2-3 default format to Automatic.
To change the default format for new worksheets to General, select this option to remove the check mark.
 - Save files every: xx minutes automatically saves all active files, according to the time interval you specify.
Note 1-2-3 does not automatically save Excel, dBASE, and Paradox files even if you have selected this option and specified a time.
 - Undo turns Edit Undo on or off.
 - Run autoexecute macros tells 1-2-3 to run autoexecute macros when you open files that contain the macros.
Note Before you create a file using a SmartMaster, for optimal display, make sure that the "Run autoexecute macros" is selected.
Note If you select multiple files to open and more than one contains an autoexecute macro, 1-2-3 runs only the last autoexecute macro; the one in the last file to open that contains an autoexecute macro.
 - Beep on error sets the computer's bell to sound when errors occur or when the {Beep} command is executed in a macro.
Note Sound must be enabled on the Windows Control Panel.
 - Refresh file links automatically tells 1-2-3 to refresh file links in all active files when you open a file.
3. Specify a number in the "Number of recent files to show" text box indicating how many of the most recently opened files you want listed on the File pull-down menu. You can open a file directly from the pull-down.
4. Enter your email or network user name associated with versions and scenarios in the Name text box.
5. Enter the default directory for 1-2-3 files in the Worksheet directory text box.
If you make this text box blank, 1-2-3 uses the directory specified as the working directory in the Windows Program Manager. If there is no working directory specified in the Windows Program Manager, 1-2-3 uses \123R5\PROGRAMS as the default directory.
6. Choose International to change international format, file, character, and currency settings.
7. Choose Recalculation to change how 1-2-3 recalculates formulas.

8. Choose OK.

See also

[Tools Commands](#)

Tools User Setup International

Changes settings that affect the display and behavior of 1-2-3. These settings are stored in the 123R5.INI file as default settings and take effect automatically whenever you start 1-2-3.

Format

Sets the Long and Short International Date formats and the Long and Short International Time formats.

File translation

Sets the way 1-2-3 reads and saves characters in 1-2-3 for DOS Release 2 (.WK1) files.

Style

Sets the appearance of decimal points, thousands separators, argument separators, and negative numbers.

Currency

Sets the default currency and whether 1-2-3 displays currencies using symbols or International Standards Organization (ISO) codes.

See also

Tools User Setup

Tools User Setup International Format

Sets the long and short international Date formats and Time formats that appear as options in Style Number Format and Style Worksheet Defaults. These settings are stored in the 123R5.INI file as default settings and take effect automatically whenever you start 1-2-3.

1. Choose Tools User Setup.
2. Choose International.
The International dialog box appears.
3. Under Format, select a date, time or both from the drop-down boxes.
4. Choose OK.
The User Setup dialog box reappears.
5. Choose OK.

If the long form is	The short form is
12/31/93	12/31
31/12/93	31/12
31.12.93	31.12
93-12-31	12-31
23:59:59	23:59
23.59.59	23.59
23,59,59	23,59
23h59m59s	23h59m

See also

Tools User Setup

Tools User Setup International File Translation

Sets the way 1-2-3 Release 5 reads and saves characters in 1-2-3 for DOS Release 2 (.WK1) files. These settings are stored in the 123R5.INI file as default settings and take effect automatically whenever you start 1-2-3.

1. Choose Tools User Setup.
2. Choose International.

The International dialog box appears.

3. Under File translation, select a setting from the drop-down box of one or both of the options.
 - 1-2-3 Rel 2 sets the way 1-2-3 Release 5 reads and saves characters in 1-2-3 for DOS Release 2 (.WK1) worksheet files (ASCII or LICS).
Select ASCII if you are reading or saving 1-2-3 for DOS Release 2 files that were created with, or will be used with, the Universal Text Display - ASCII - No LICS text-display driver (available in 1-2-3 for DOS Release 2.01 and later). Otherwise, select LICS.
 - Text file sets the way 1-2-3 translates internal character strings, such as range names and database table names.
Select Country to have 1-2-3 use the IBM character set supported for your country (for example, Code Page 437 [Extended ASCII] for the U.S.) when translating characters in text files.
Select International only if you have configured your system to run the IBM Code Page 850 character set and you want 1-2-3 to translate characters using that character set.

4. Choose OK.

The User Setup dialog box reappears.

5. Choose OK.

See also

[Style Number Format](#)

[Text Options](#) for setting column separator, text file layout, and code page when opening text files

[Tools User Setup](#)

[Working with .WK1 and .WK3 Files in 1-2-3 for Windows](#)

[Working with Text files in 1-2-3](#)

Tools User Setup International Style

Sets the appearance of decimal points, thousands separators, argument separators, and negative numbers. These settings are stored in the 123R5.INI file as default settings and take effect automatically whenever you start 1-2-3.

1. Choose Tools User Setup.

2. Choose International.

The International dialog box appears.

3. Under Style, select a setting from the drop-down box of one or both of the options.

- Punctuation sets the characters 1-2-3 uses as the decimal point and thousands separator for numbers, and the argument separator for @functions and macro commands.
- Negative values sets whether 1-2-3 uses () (parentheses) or - (minus sign) for negative values in Currency and Comma formats.

4. Choose OK.

The User Setup dialog box reappears.

5. Choose OK.

See also

[Style Number Format](#)

[Tools User Setup](#)

Tools User Setup International Currency

Sets the default currency and whether 1-2-3 displays currencies using symbols or International Standards Organization (ISO) codes. These settings are stored in the 123R5.INI file as default settings and take effect automatically whenever you start 1-2-3. They are specific to your copy of 1-2-3 and are not transferred when you give a file to someone else.

1. Choose Tools User Setup.
2. Choose International.

The User Setup International dialog box appears.

3. Under Currency, select a currency from the Default drop-down box.

The default currency appears selected in the list of currencies in the Style Number Format and Style Worksheet Defaults dialog boxes.

4. Under Currency, select Currency symbols or ISO codes from the "Display currencies using" drop-down box.
5. Choose OK.

The User Setup dialog box reappears.

6. Choose OK.

See also

[Modify Symbol](#)

[Style Number Format](#)

[Style Worksheet Defaults Number Format](#)

[Tools User Setup](#)

Tools User Setup Recalculation

Controls when and in what order 1-2-3 recalculates formulas and how many recalculation passes it performs each time it recalculates formulas in active files.

1. Choose Tools User Setup.

2. Choose Recalculation.

The Recalculation dialog box appears.

3. Under Recalculation, select an option.

- Automatic recalculates all formulas that have been affected by changes made to the contents of a cell. Automatic recalculation occurs in the background, so you can continue working while 1-2-3 performs the recalculation.
- Manual recalculates formulas only when you press F9 (CALC) or use the {CALC} macro. Manual recalculation occurs in the foreground, so you must wait for 1-2-3 to complete it before continuing your work.

4. Under Order of recalculation, select an option.

- Natural recalculates all formulas that the current formula depends on before recalculating that formula.
- By column recalculates all formulas, left to right, starting in A:A1 of the first active file, column by column, moving through each worksheet in each active file.
- By row recalculates all formulas, top to bottom, starting in A:A1 of the first active file, row by row, moving through each worksheet in each active file.

5. Specify a number from 1 to 50 in the Iterations text box.

Iterations sets the number of recalculation passes 1-2-3 makes only when the order is by column or by row, or when the order is Natural and a circular reference exists.

6. Choose OK.

The User Setup dialog box reappears.

7. Choose OK.

8. 1-2-3 stores recalculation settings with the file. To save the recalculation settings, use File Save.

The recalculation settings affect all active files. When you use File Open to read a file into memory, 1-2-3 uses the recalculation settings of the new file for all active files during that session.

The recalculation settings do not update formulas that link to data in files on disk. Use Edit Links Update All to update those formulas.

Related SmartIcons



Recalculates the worksheet

See also

Help

Tools User Setup

User's Guide

Chapter 10, "Calculating with Formulas"

Tools Macro

Starts [macros](#), starts Step mode, opens the Macro Trace window so you can debug a macro, records and plays back keystrokes and mouse actions, opens the Transcript window, and assigns a macro to a button in the worksheet.

Run

Starts a macro.

Single Step

Starts Step mode and opens the Macro Trace window so you can find errors in a macro.

Trace

Displays the Macro Trace window.

Record/Stop Recording

Records (or suspends) keystrokes and mouse actions without opening the Transcript window.

Show Transcript/Hide Transcript

Opens (or hides) the Transcript window so you can edit, delete, or play back recorded keystrokes and mouse actions.

Assign to Button

Assigns a macro to a button.

See also

Help

[Macro Basics](#)

[Tools Commands](#)

[Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Tools Macro Run

Runs a [macro](#).

1. Choose Tools Macro Run.
2. Select a macro from the All named ranges [list box](#), enter the macro name or address in the Macro name [text box](#), or [click](#) the first cell of the macro.

The list box displays all range names in the current file.

3. If the macro is in another active file, select the name of that file from the "In file" [drop-down box](#) to see the range names from that file. Then select the macro name from the list.
4. Choose OK.

Related SmartIcons

 **Close**

Equivalent to choosing Tools Macro Run

See also

Help

[Tools Macro](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Tools Macro Single Step

Starts and ends Step mode so you can find errors in a macro. Step mode executes a macro one instruction at a time.

1. Choose Tools Macro Single Step.

Note You can also press ALT+F2 (STEP) to start Step mode.

To end Step mode

1. Choose Tools Macro Single Step.

Note You can also press ALT+F2 (STEP) to end Step mode.

See also

Help

[Tools Macro](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Tools Macro Trace

Displays the Macro Trace window. The Macro Trace window shows the current macro command about to be executed and, if the macro fails, shows which step failed.

1. Choose Tools Macro Trace.

To close the Macro Trace window

1. Choose Tools Macro Trace.

Related SmartIcons



Equivalent to choosing Tools Macro Trace

See also

Help

[Tools Macro](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Tools Macro Record

Tools Macro Stop Recording

Records (or suspends) keystrokes and mouse actions without opening the Transcript window.

To record keystrokes

1. Choose Tools Macro Record.
The mode indicator Rec appears in the status bar.
 2. Enter the keystrokes or perform the mouse actions you want to record.
-

To stop recording keystrokes

1. Choose Tools Macro Stop Recording.

Related SmartIcons



Equivalent to choosing Tools Macro Record/Stop Recording

See also

Help

[Tools Macro Show Transcript](#)
[Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Tools Macro Show Transcript
Tools Macro Hide Transcript

Opens the Transcript window so you can edit, delete, or play back recorded keystrokes and mouse actions.

To show the Transcript window

1. Choose Tools Macro Show Transcript.

The Transcript window appears. If you select the Transcript window to make it active, the Transcript option appears on the menu bar.

To hide the Transcript window

1. Choose Tools Macro Hide Transcript.

The Transcript window is hidden, and, if the Transcript window was active, the Transcript option is removed from the menu bar.

Related SmartIcons



Equivalent to choosing Tools Macro Show/Hide Transcript



Plays back the contents of the Transcript window

See also

Help

[Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Assign to Button

Assigns a macro to a button. This lets you run a macro by clicking a button in your worksheet.

To create a button from a worksheet

1. Draw the button using [Tools Draw Button](#).
The Assign to Button dialog box appears.
2. In the Assign macro from [drop-down box](#), select an option.
 - Range assigns the macro in the range specified in the Range [text box](#) or Existing named ranges [list box](#) to the button.
 - Button assigns the macro you enter in the "Enter macro here" text box to the button.
3. (Optional) Enter a button label in the "Button text" text box.
4. Choose OK.

To create a button from recorded commands

1. Draw the button using [Transcript Make Button](#).
The Assign to Button dialog box appears.
2. (Optional) Edit the macro commands in the "Enter macro here" text box.
3. (Optional) Enter a button label in the "Button text" text box.
4. Choose OK.

To add or change the macro in a button

1. Select the button by holding down SHIFT or CTRL and clicking the button.
2. Choose Tools Macro Assign to Button.
3. Make any of the following changes:
 - Edit the macro commands
 - Assign a different macro
 - Change the button label
4. Choose OK.

See also

Help

[Macro Basics](#)

[Tools Macro](#)

[Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Transcript Playback

Plays back commands from the Transcript window as a macro.

Before you open the Transcript window, make sure the cell pointer is in a location that you want the keystrokes to affect.

1. Select the keystrokes in the Transcript window to play back.
2. Choose Transcript Playback.

See also

Help

[Tools Macro Show Transcript
Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Transcript Make Button

Creates a macro button from recorded commands displayed in the [Transcript window](#).

1. Record a macro using [Tools Macro Record](#).
2. Choose [Tools Macro Show Transcript](#) to make the Transcript window active.
3. Select the macro commands you want to copy to the button.
4. Choose Transcript Make Button.
5. Do one of the following:
 - To create the macro button in the default size, click the worksheet where you want the macro to appear.
 - To size the macro button, [drag](#) across the worksheet and release the mouse button when the macro button is the size you want.



The Assign to Button dialog box appears.

6. (Optional) Edit the macro commands in the "Enter macro here" text box.
7. (Optional) Enter a button label in the "Button text" text box.
8. Choose OK.

To run a macro with a button

1. Make sure the worksheet containing the button is the current worksheet. If the macro is in a range, make sure the file containing that range is active.
2. Click the button.

Related SmartIcons

	Equivalent to choosing Transcript Make Button
	Equivalent to choosing Tools Macro Run

See also

Help

[Tools Draw Button](#)
[Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Transcript Record Relative

Transcript Record Absolute

Records range selections as offsets of the current cell or as cell addresses.

To record range selections as offsets of the current cell

1. Choose Transcript Record Relative.

After you choose this command, 1-2-3 uses the {SELECT-RANGE-RELATIVE} command to record range selections.

To record range selections as cell addresses

1. Choose Transcript Record Absolute.

After you choose this command, 1-2-3 uses the {SELECT} command to record range selections.

See also

Help

[Tools Macro Show Transcript](#)
[Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Transcript Minimize on Run

Reduces the Transcript window to an icon and makes it inactive when you play back commands with Transcript Playback.

1. Choose Transcript Minimize on Run.

After you choose this command the first time, a check mark appears next to the command in the menu. The Transcript window retains the current setting for this command until you turn it off or leave 1-2-3.

To turn off Minimize on Run, choose Transcript Minimize on Run again.

To restore the Transcript window to its original size, choose Restore from the Transcript window Control menu or double-click the Transcript window icon.

Note If you do not use Minimize on Run, the Transcript window becomes inactive when it plays back commands as a macro, but it is not reduced to an icon.

See also

Help

[Tools Macro Show Transcript](#)

[Transcript Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Tools Add-in

Reads [add-ins](#) into memory and removes add-ins from memory.

Load

Reads an add-in into memory.

Remove

Removes a specified add-in from memory.

Remove All

Removes all loaded add-ins from memory.

See also

[Add-in Files](#)

[Tools Commands](#)

[Using Add-in @Functions and Macro Commands](#)

Tools Add-in Load

Reads an add-in into memory.

1. Choose Tools Add-in.
2. Choose Load.

The Load dialog box appears.

3. Specify the name of the add-in you want to read into memory.

You can edit the file name in the File name text box, or you can use the Files and Directories list boxes and the Drives drop-down box to select the file you want. For more information about using these list boxes, see Specifying a File.

4. Choose OK.

If the add-in is an application, access to the application may be through a menu. Refer to the documentation of the add-in for information about accessing the application.

See also

Tools Add-in

Tools Add-in Remove

Removes a specified add-in from memory.

1. Choose Tools Add-in.
2. Specify the add-in to remove in the "Add-ins" list box.
3. Choose Remove.

Any formulas that contain references to @functions from a closed add-in file evaluate to ERR.

See also

Tools Add-in

Tools Add-in Remove All

Removes all add-ins from memory.

1. Choose Tools Add-in.
2. Choose Remove All.

Any formulas that contain references to @functions from a closed add-in file evaluate to ERR.

See also

[Tools Add-in](#)

Add-in Files

1-2-3 add-in files can contain add-in applications, @functions, or macro commands.

- Add-in applications perform a specific task in 1-2-3.
- Add-in @functions work like the 1-2-3 @functions. You use add-in @functions in formulas in 1-2-3 just as you use 1-2-3 @functions.
- Add-in macro commands work like 1-2-3 macro commands. You use add-in macro commands in macros just as you use 1-2-3 macro commands.

Each add-in file can contain any combination of @functions, macro commands, and applications.

See also

[Tools Add-in](#)

[Using Add-in @Functions and Macro Commands](#)

Using Add-in @Functions and Macro Commands

You use add-in @functions and macro commands just as you use 1-2-3 @functions and macro commands.

Add-in @function format

Add-in @functions have the same format as any 1-2-3 @function:

@FUNCTION

or

@FUNCTION(*arg1, arg2, ..., argn*)

@FUNCTION represents the name of the @function. It tells 1-2-3 which calculation to perform.

arg1, arg2, ..., argn represent arguments. Arguments supply the information 1-2-3 needs to complete the @function calculation. For example, when 1-2-3 encounters the function @SUM(B4..B25), the argument B4..B25 tells 1-2-3 to add the values in the range B4..B25.

File references in add-in @functions

When you use an add-in @function, 1-2-3 automatically adds the name of the add-in file to the @function name.

For example, if you use the @function @MEDIAN in the file STATS.ADW, 1-2-3 displays the @function as @<<STATS>>MEDIAN.

However, if you use an add-in @function that has the same name as a 1-2-3 @function or an @function in another add-in file, you must precede the @function with the name of its add-in file enclosed in << >> (double angle brackets). If you do not, 1-2-3 may not choose the intended @function.

For example, to use the add-in @function @COOL from the file WILD.ADW, use @<<WILD>>COOL.

You cannot have more than one add-in @function with the same name in memory at the same time, even if the add-in @functions are located in different files. 1-2-3 always chooses the @function from the first add-in file you read into memory.

Add-in macro command format

Add-in macro commands have the same format as any 1-2-3 macro command:

{Keyword}

or

{Keyword *arg1, arg2, ..., argn*}

Keyword represents the verb in the macro command. It tells 1-2-3 which action to perform.

arg1, arg2, ..., argn represent arguments. Arguments supply the information 1-2-3 needs to complete the command.

File references in add-in macro commands

If you use an add-in macro command that has the same name as a 1-2-3 macro command or a macro command in another add-in file, you must precede the command with the name of its add-in file enclosed in <<>> (double angle brackets). If you do not, 1-2-3 may not choose the intended macro command.

For example, in the macro {<<SAVEMAC>>Save *file*}, SAVEMAC is the file name and Save is the macro command.

If you use more than one macro command with the same name and do not precede the command with a file name, 1-2-3 chooses the 1-2-3 macro command with that name, if there is one, or the macro command from the last add-in file you read into memory that contains that command name.

See also

[@Function Basics](#)

[Macro Basics](#)

[Tools Add-in](#)

Range Analyze Solver

Analyzes formulas in a worksheet and returns a number of possible answers to a problem you define. An answer satisfies constraints you specify. If you specify an optimal cell, 1-2-3 finds answers that maximize or minimize the value of that cell.

You set up a Solver problem by creating a worksheet model that contains formulas and values you want to experiment with. 1-2-3 then solves the problem and lets you view and save the results.

Solving a problem

In Solver, 1-2-3 finds sets of values for the adjustable cells that satisfy each of the constraints. Each set of such values is an answer.

If 1-2-3 cannot find any answers that satisfy all constraints, it produces attempts that satisfy some but not all of the constraints.

The following Solver dialog boxes appear at different stages in the process of solving a problem:

- Solver Definition specifies the adjustable cells, constraint cells, the number of answers you want, and an optional optimal cell.
- Solver Progress informs you of progress being made in solving a problem.
- Solver Guess specifies new values for adjustable cells if 1-2-3 cannot find answers to the problem as you defined it.

Viewing and saving Solver answers or attempts

The following Solver dialog boxes let you view and save the solutions to a problem:

- Solver Answer lets you display answers or attempts in the worksheet, save answers or attempts as scenarios, or restore the original values to the worksheet.
- Solver Reports displays options for reporting information about answers and attempts.

Related SmartIcons

Close

Equivalent to choosing Range Analyze Solver

See also

Help

[Modifying a Solver Problem](#)
[Restoring Original Values After Using Solver](#)
[Saving a Solver Table Report](#)
[Setting Up a Solver Problem](#)

User's Guide

Chapter 19, "Solving What-if Problems"
Chapter 20, "Using Solver"

Solver Definition

Defines the problem for Solver. Before you define the problem here, you must set up the problem in a worksheet.

1. Open the file that contains the problem you want to solve.
2. Choose Range Analyze Solver.
3. In the Adjustable cells text box, specify the cells containing values that 1-2-3 can change.
Separate each address or range name with a valid argument separator.
4. In the Constraint cells text box, specify the cells containing the logical formulas that each answer must satisfy.
5. (Optional) In the Optimal cell text box, specify the cell for which you want Solver to find the highest or lowest value, and then select an option: Max or Min.
Specifying an optimal cell automatically selects the Optimal cell check box.
The optimal cell must depend directly or indirectly on the value of one or more adjustable cells.
6. (Optional) In the No. of Answers text box, enter the approximate number of answers you want (from 1 through 999).
If you do not specify otherwise, 1-2-3 finds one answer.
1-2-3 may find more or fewer answers than you request.
7. Choose Solve.

The Solver Progress dialog box appears while 1-2-3 analyzes the problem and looks for answers. When 1-2-3 finishes solving, the Solver Answer dialog box appears.

Note The more complex the problem, the more time 1-2-3 may need to solve it. Remember, you cannot do other tasks in 1-2-3 while it is solving.

Related SmartIcons

Close

Equivalent to choosing Range Analyze Solver

See also

Help

Modifying a Solver Problem

Range Analyze Commands

Range Analyze Solver

User's Guide

Chapter 20, "Using Solver"

Solver Progress

Informs you of the progress being made in solving the problem and lets you cancel solving.

Note The more complex the problem, the more time 1-2-3 may need to solve it. Remember, you cannot do other tasks in 1-2-3 while it is solving.

1. To stop Solver, choose Stop or press CTRL+BREAK.

The Solver Answer dialog box appears if 1-2-3 has found one or more answers or attempts when you choose Stop.

The Solver Definition dialog box appears if 1-2-3 has not found any answers or attempts.

1-2-3 may find more than one answer to a problem. It stops searching for answers when it reaches the limit you specified in Solver Definition or when it finds all of the answers that satisfy the constraints.

See also

Help

Range Analyze Solver

User's Guide

Chapter 20, "Using Solver"

Solver Answer

Provides information about the [answers](#) or [attempts](#) 1-2-3 finds and displays the answers or attempts in the worksheet.

1-2-3 numbers the answers or attempts and then displays the first one in the worksheet. If you specified an [optimal cell](#), the first answer 1-2-3 displays is always the [optimal answer](#) or the [best answer found](#).

Caution If you make changes in the worksheet that cause 1-2-3 to recalculate the file containing the Solver problem, Solver discards all answers or attempts it found. If you want to use [Save](#) to save an answer or attempt as a [scenario](#), or [Reports](#) to create reports on answers or attempts, do so before making changes in the worksheet.

To view answers or attempts

1. To view answers or attempts, choose an option.
 - Next displays the next answer or attempt.
 - First displays the optimal answer (if any), the best answer found, or the first answer or attempt.
 - Original displays the values that were in the worksheet before you ran Solver.

1-2-3 changes the values in [adjustable cells](#) as you go from one answer or attempt to the next. As a result, cells that contain dependent formulas may also change.

2. (Optional) To save an answer or attempt as a scenario, choose [Save](#).
3. (Optional) To search for more answers, choose Solve.

The number of additional answers 1-2-3 finds is approximately equal to the value you specified in [Solver Definition](#). If there are no more answers when you choose Solve, 1-2-3 displays a message.

The [information box](#) displays the number and type of the answer or attempt. The information box may also display a [roundoff message](#).

Types of answers

- Optimal Answer is the mathematically optimum answer.
- Best Answer Found is the best answer 1-2-3 found; it may or may not be the mathematically optimum answer. 1-2-3 may find a better answer if you specify a higher number in the No. of Answers [text box](#) in Solver Definition or if you choose Solve again.
- Answer (#x of n) is any other answer 1-2-3 found that satisfies the constraints you specify.

Types of attempts

- "No answers found. Attempt (#x of n)" indicates that 1-2-3 cannot pursue this attempt further.
- "Guesses required" indicates that 1-2-3 can pursue this attempt and possibly return an answer. If guesses are required, the Guess command appears in the dialog box.

See also

Help

[Range Analyze Solver](#)

[Solver Definition](#)

[Solver Guess](#) to specify guess values for an attempt

[Solver Reports](#) to create reports on answers or attempts

User's Guide

Chapter 20, "Using Solver"

Solver Save As Scenario

Saves an answer or attempt as a scenario.

1. In Solver Answer, choose Next until the answer or attempt that you want to save as a scenario appears in the worksheet.

2. Choose Save.

The Save As Scenario dialog box appears.

3. In the Scenario name text box, enter a name for the scenario.

4. (Optional) In the Note text box, enter a note for the scenario.

The default note consists of the contents of the information box in the Solver Answer dialog box.

5. Choose OK.

1-2-3 does the following:

- Creates a named range for each range that you specified in the Adjustable cells text box. Each range is assigned a default name beginning with ADJ (for example, ADJ0, ADJ1, and so on).
- Creates a version for each named range. Each version is assigned a default name consisting of the scenario name you specify.
- Creates a scenario with the name and note you specify, consisting of all of the newly created versions.

See also

Help

Range Version for information about versions and scenarios

Solver Reports to create reports on answers or attempts

User's Guide

Chapter 17, "Using Version Manager"

Chapter 20, "Using Solver"

Solver Guess

Prompts you to supply guess values for adjustable cells and uses these values to try to find an answer.

Solver Guess displays the following information:

Cell	Displays the cell address and name of the current adjustable cell that requires a guess value. To name each cell, Solver uses either the range name, if it has one, or the labels to the left and above the cell.
Initial guess	Displays the value you entered for the cell before you last attempted to solve the problem.
Current value	Displays the value for the current <u>attempt</u> .

1. In Solver Answer, choose Next until the attempt that most closely approximates a reasonable solution to the problem appears in the worksheet.

If the message "Guesses required" and the Guess command appear, 1-2-3 may be able to find an answer if you specify guess values for one or more adjustable cells.

2. Choose Guess.

The Solver Guess dialog box appears.

3. Accept the value provided in the New guess text box, or enter a new value for the current adjustable cell.
4. Choose Next Cell to move to the next adjustable cell that requires a guess value.
5. After entering all guess values, choose Solve.

1-2-3 tries to solve the problem using the new guess values. 1-2-3 looks for a single answer, not the number of answers specified in Solver Definition. If 1-2-3 is successful, it discards all other attempts it previously found, displays the Solver Answer dialog box, and places the answer in the worksheet.

See also

Help

[Range Analyze Solver](#)

[Solver Definition](#)

[Solver Progress](#)

User's Guide

Chapter 20, "Using Solver"

Solver Reports

Creates reports on [answers](#) and [attempts](#). Select one of the following topics for a description of the report and instructions for creating a Solver cell report or a Solver table report.

Answer Table

Provides information about all the answers or attempts 1-2-3 found for a problem. The report includes the values of all the [adjustable cells](#), the [optimal cell](#) (if any), and any other cells used to solve the problem.

Cells Used

Lists the adjustable, constraint, and optimal cells used to solve the problem.

Differences

Compares two answers or two attempts and reports cells used whose values differ by at least the amount you specify.

How Solved

Lists the information used to find an answer or attempt.

Inconsistent Constraints

Provides information about the constraint cells that were not satisfied (returned a value of 0) for the current attempt.

Nonbinding Constraints

Provides information about the constraint cells that were not binding for the current answer or attempt.

What-if Limits

Lists the amount the adjustable cells can change and still satisfy all the constraints for the current answer.

See also

Help

[Range Analyze Solver](#)

[Saving a Solver Table Report](#)

[Solver Definition](#)

[Solver Save As Scenario](#)

User's Guide

Chapter 20, "Using Solver"

Solver Reports: Answer Table

Provides information about all the answers or attempts 1-2-3 found for a problem.

The report lists

- Highest and lowest values across all answers or attempts for all cells in the problem (except constraint cells)
- The value for the optimal cell (if specified) for each answer or attempt
- The values for the adjustable cells for each answer or attempt
- The values for all other cells, called supporting formula cells, that contain values or formulas required to compute the value of the optimal cell or one or more constraint cells

1. Select Reports in Solver Answer or Solver Definition.

The Solver Reports dialog box appears.

2. Select Answer table in the list box.

3. Choose Table.

1-2-3 creates a Solver table report in a new file with a unique name beginning with ANSWER (for example, ANSWER01.WK4).

To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

4. Choose Close.

See also

Help

[Range Analyze Solver](#)

[Saving a Solver Table Report](#)

[Solver Definition](#)

[Solver Save As Scenario](#)

User's Guide

Chapter 20, "Using Solver"

Solver Reports: Cells Used

Lists the adjustable and constraint cells, and the optimal cell (if any) used to solve the problem.

1. Select Reports in Solver Answer or Solver Definition.

The Solver Reports dialog box appears.

2. Select Cells used in the list box.

3. Choose one of the following:

- Cell displays the items of the report one at a time in a Solver Cell Report dialog box.
- Table creates a Solver table report in a new file with a unique name beginning with CELLS (for example, CELLS001.WK4).

To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

4. Choose Close.

See also

Help

Range Analyze Solver

Saving a Solver Table Report

Solver Definition

User's Guide

Chapter 20, "Using Solver"

Solver Reports: Differences

For two answers or two attempts you specify, calculates the amount and percentage by which the values for each adjustable and supporting formula cell in the problem differ, and displays the results for all cells where the difference exceeds an amount you specify.

To produce the Differences report, you must enter the number assigned to each answer or attempt. Use the [Answer table](#) report to list these numbers.

1. Select Reports in Solver Answer or Solver Definition.

The [Solver Reports](#) dialog box appears.

2. Select Differences in the [list box](#).

3. Choose one of the following:

- Cell displays the items of the report one at a time in a [Solver Cell Report](#) dialog box.
- Table creates a Solver table report in a new file with a unique name beginning with DIFFS (for example, DIFFS001.WK4).

To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

The Solver Report Differences dialog box appears.

4. In the Compare answers [text boxes](#), enter the numbers 1-2-3 assigned to the two answers or attempts you want to compare.

5. In the "For differences >=" text box, enter the number to use for the comparison value.

For example, enter 25 to display cells that differ by 25 or more.

6. Choose Report.

7. Choose Close.

See also

Help

[Range Analyze Solver](#)

[Saving a Solver Table Report](#)

[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Solver Reports: How Solved

Provides information about the currently displayed answer or attempt.

The report lists the following for the current answer or attempt:

- The optimal cell (if any) and its value
- All adjustable cells and their values
- All binding constraints
- All nonbinding constraints
- All inconsistent constraints (for attempts only)
- All cells that require guess values (for attempts that require guesses only)

1. Select Reports in Solver Answer or Solver Definition.

The Solver Reports dialog box appears.

2. Select How solved in the list box.

3. Choose Table.

1-2-3 creates a Solver table report in a new file with a unique name beginning with HOW (for example, HOW00001.WK4).

To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

4. Choose Close.

See also

Help

[Range Analyze Solver](#)

[Saving a Solver Table Report](#)

[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Solver Reports: Inconsistent Constraints

Lists the cells that contain inconsistent constraints for the currently displayed attempt. For each inconsistent constraint, 1-2-3 also displays a revised logical formula that would return 1 (true).

1. Select Reports in Solver Answer or Solver Definition.

The Solver Reports dialog box appears.

2. Select Inconsistent constraints in the list box.

3. Choose one of the following:

- Cell displays the items of the report one at a time in a Solver Cell Report dialog box.
- Table creates a Solver table report in a new file with a unique name beginning with INCONS (for example, INCONS01.WK4).

To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

4. Choose Close.

See also

Help

[Range Analyze Solver](#)
[Saving a Solver Table Report](#)
[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Solver Reports: Nonbinding Constraints

Lists constraints that were nonbinding for the currently displayed answer or attempt and suggests a revision of the constraint that would make it binding for the answer.

A constraint is nonbinding when other constraint cells are more restrictive for the current answer or attempt. For example, if the problem has two constraints, $+B1 \leq 10$ and $+B1 \leq 12$, the second constraint is always nonbinding.

For each nonbinding constraint, Solver reports how to change the logical formula so the constraint would become binding for the answer.

1. Select Reports in Solver Answer or Solver Definition.

The Solver Reports dialog box appears.

2. Select Nonbinding constraints in the list box.

3. Choose one of the following:

- Cell displays the items of the report one at a time in a Solver Cell Report dialog box.
- Table creates a Solver table report in a new file with a unique name beginning with NBIND (for example, NBIND001.WK4).

To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

4. Choose Close.

See also

Help

[Range Analyze Solver](#)

[Saving a Solver Table Report](#)

[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Solver Reports: What-if Limits

Lists a range of the possible values an adjustable cell can have in the currently displayed answer and still satisfy all the constraints.

The report displays the highest and lowest values for the adjustable cell for all the answers, and the approximate range of values for the adjustable cell that would satisfy all the constraints for this answer, assuming no other adjustable cell values are changed.

1. Select Reports in Solver Answer or Solver Definition.

The Solver Reports dialog box appears.

2. Select What-if limits in the list box.

3. Choose one of the following:

- Cell displays the values for each adjustable cell one at a time in a Solver Cell Report.
- Table creates a Solver table report in a new file with a unique name beginning with LIMITS (for example, LIMITS01.WK4).

To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

4. Choose Close.

See also

Help

[Range Analyze Solver](#)

[Saving a Solver Table Report](#)

[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Solver Cell Report

Displays the report information you requested in [Solver Reports](#) for each cell in the problem, one at a time. To name each cell, 1-2-3 uses either the range name, if it has one, or the labels to the left and above the cell.

1. Choose Next to display information about the next cell in the problem.
2. Choose Cancel to return to Solver Reports.

See also

Help

[Range Analyze Solver](#)

[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Saving a Solver Table Report

A Solver table report appears in a file that 1-2-3 creates. The file is like any other 1-2-3 file.

1. If necessary, choose Close to close the Solver dialog box.
2. Make the worksheet containing the Solver table report the current worksheet.
3. Choose File Save As.
4. Accept the current file name or specify a new name in the File name text box.
5. Choose OK.

See also

Help

[Range Analyze Solver](#)

[Solver Definition](#)

[Solver Reports](#)

User's Guide

Chapter 20, "Using Solver"

Setting Up a Solver Problem

Before 1-2-3 can solve a problem, you must set up the problem in a worksheet. 1-2-3 Release 5 includes a sample file, SOLVER.WK4, that contains several examples of Solver problems.

1. Build a worksheet model to describe a problem that you want to solve.

For example, the "Basic Profit-Loss Statement" problem on worksheet D of SOLVER.WK4 is an income worksheet model that lists, among other things, sales, cost of goods sold, and gross profit. You want to see the effects of changes in number of units sold on gross profit.

2. Determine which cells contain values that 1-2-3 may change when finding answers to the problem. The cells that contain these values are the adjustable cells.

In the "Basic Profit-Loss Statement" problem you can adjust the number of women's hats and men's hats in the cells named PL_MEN and PL_WOMEN (cells D:C8 and D:C9).

3. Determine the requirements you want each Solver answer to satisfy. These requirements become the constraints for the problem.

In the "Basic Profit-Loss Statement" problem you know that you can sell no more than 4500 men's hats.

4. Create a series of logical formulas in the worksheet that describe the requirements. The cells that contain these formulas are the constraint cells.

In the "Basic Profit-Loss Statement" problem, the constraint to sell no more than 4,500 men's hats is expressed as the logical formula $+PL_MEN \leq 4500$ in cell D:C18.

5. (Optional) Determine the single cell for which you want 1-2-3 to find the highest or lowest value it can. This is the optimal cell.

In the "Basic Profit-Loss Statement" problem you want to see the maximum value for the cell named PL_PROFIT (cell D:C16), which contains gross profit.

6. Choose Range Analyze Solver. The Solver Definition dialog box appears. Specify the addresses or range names of the adjustable cells, constraint cells, and the optimal cell (if any). If you specify an optimal cell, select Max or Min.

In the "Basic Profit-Loss Statement" problem you specify cells D:C8 and D:C9 as the adjustable cells, cells D:C18 through D:C20 as the constraint cells, and cell D:C16 as the optimal cell. To find the highest value of the optimal cell, select Max.

See also

Help

[@Functions in Solver Problems](#)

[Modifying a Solver Problem](#)

[Range Analyze Solver](#)

[Solver Definition](#)

Modifying a Solver Problem

After you view [answers](#) or [attempts](#), you may want to modify the problem.

Caution If you make changes in the worksheet that cause 1-2-3 to recalculate the file containing the Solver problem, Solver discards all answers or attempts it found. If you want to use [Save](#) to save an answer or attempt as a [scenario](#), or [Reports](#) to create reports on answers or attempts, do so before making changes in the worksheet.

1. Make the worksheet containing the Solver problem current.
2. Change the Solver problem as necessary.
3. Choose Range Analyze Solver.
4. Add or modify the cell addresses in the Adjustable cells, Constraint cells, and Optimal cell [text boxes](#).
5. Choose Solve.

The [Solver Progress](#) dialog box appears while Solver analyzes and solves the problem, and the [Solver Answer](#) dialog box appears when it finishes.

See also

Help

[Range Analyze Solver](#)

[Restoring Original Values After Using Solver](#)

[Setting Up a Solver Problem](#)

[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Restoring Original Values After Using Solver

You can restore values that were in the worksheet before you last solved the problem.

1. Choose Original in [Solver Answer](#).

Caution If you make changes in the worksheet that cause 1-2-3 to recalculate the file containing the Solver problem, Solver discards all answers or attempts if found, and discards the original values unless they are in the worksheet. If you use [Edit Undo](#) to restore the original values in the worksheet, Solver discards all answers or attempts it found. If you want to restore the original values, do so before making changes in the worksheet.

See also

Help

[Range Analyze Solver](#)
[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

Roundoff Messages in Solver

When "Roundoff error" or "Minor roundoff" appears in [Solver Answer](#), 1-2-3 has found an answer, but one of the following conditions pertains to the current answer:

- One or more constraint cells return 0 (false) after rounding off the constraint to 5 decimal places (for "Roundoff error") or 16 decimal places (for "Minor roundoff"). In most cases, roundoff errors of this magnitude should not affect how you use the answer that 1-2-3 found.
- A mathematically valid Solver answer recalculates to [ERR](#) when displayed in the worksheet. In most cases, roundoff errors of this type should not affect how you use the answer that 1-2-3 found.
- A cell used to solve the problem contains a [circular reference](#). Use [Tools Audit](#) to find and eliminate the circular reference and solve the problem again.
- [Tools User Setup Recalculation](#) is not set to Natural. Reset the recalculation order to Natural and solve the problem again.

Use the [Inconsistent constraints](#) report to see which constraint cells the message "Roundoff error" refers to.

See also

Help

[Range Analyze Solver](#)
[Solver Definition](#)

User's Guide

Chapter 20, "Using Solver"

@Functions in Solver Problems

The list below shows @functions you can always use in a formula in any Solver problem.

In addition, 1-2-3 can solve problems containing formulas that use any other 1-2-3 for Windows @function, as long as that @function is not used, directly or indirectly, to compute the result of a constraint cell or the optimal cell.

If you are unsure whether a Solver problem contains @functions Solver cannot use, try solving the problem anyway. If Solver detects an @function it cannot use, it displays a message indicating which cell contains the @function.

@Functions you can always use in a Solver problem

<u>@ABS</u>	<u>@PI</u>
<u>@ACOS</u>	<u>@PMT</u>
<u>@ASIN</u>	<u>@PUREAVG</u>
<u>@ATAN</u>	<u>@PURECOUNT</u>
<u>@ATAN2</u>	<u>@PUREMAX</u>
<u>@AVG</u>	<u>@PUREMIN</u>
<u>@CHOOSE</u>	<u>@PURESTD</u>
<u>@COLS</u>	<u>@PUREVAR</u>
<u>@COS</u>	<u>@PURESTDS</u>
<u>@COUNT</u>	<u>@PUREVARS</u>
<u>@CTERM</u>	<u>@PV</u>
<u>@DB</u>	<u>@PVAL</u>
<u>@DDB</u>	<u>@RATE</u>
<u>@EXP</u>	<u>@ROUND</u>
<u>@FALSE</u>	<u>@ROWS</u>
<u>@FV</u>	<u>@SHEETS</u>
<u>@FVAL</u>	<u>@SIN</u>
<u>@GRANDTOTAL</u>	<u>@SLN</u>
<u>@HLOOKUP</u>	<u>@SQRT</u>
<u>@IF</u>	<u>@STD</u>
<u>@INDEX</u>	<u>@STDS</u>
<u>@INT</u>	<u>@SUBTOTAL</u>
<u>@IRR</u>	<u>@SUM</u>
<u>@ISNUMBER</u>	<u>@SUMPRODUCT</u>
<u>@LN</u>	<u>@SYD</u>
<u>@LOG</u>	<u>@TAN</u>
<u>@MAX</u>	<u>@TERM</u>
<u>@MIN</u>	<u>@TRUE</u>
<u>@MOD</u>	<u>@VAR</u>

[@NPER](#)

[@VARS](#)

[@NPV](#)

[@VDB](#)

[@PAYMT](#)

[@VLOOKUP](#)

See also

Help

[@Function Basics](#)

[Range Analyze Solver](#)

[Setting Up a Solver Problem](#)

[Solver Definition](#)

User's Guide

Chapter 11, "Calculating with @Functions"

Chapter 20, "Using Solver"

Range Analyze Backsolver

Finds values for one or more cells that make the result of a formula equal to a value you specify.

Caution Backsolver replaces the current values of the cells you specify in the "By changing cells" text box with the solved values. You may want to use [Version Manager](#) to create [versions](#) of these cells before using Backsolver, or use [Edit Undo](#) to restore the original values in the worksheet.

1. Determine the following:

- The formula for which you want to get a specific result
- The specific result you want
- The cells that contain values that 1-2-3 can change

The formula for which you want to get a specific result must depend directly or indirectly on these cells.

2. Choose Range Analyze Backsolver.

3. In the "Make cell" [text box](#), specify the cell containing the formula.

4. In the "Equal to value" text box, enter the specific result you want for the formula.

5. In the "By changing cell(s)" text box, specify the cells containing the values you want to change.

6. Choose OK.

1-2-3 replaces the values in the cells entered in "By changing cell(s)" with values that cause the formula to equal the result you want.

If you specify multiple cells in "By changing cell(s)," 1-2-3 changes the values of the cells proportionally; that is, it changes the value in each cell by the same percentage of its original value. If you want 1-2-3 to change values in more than one cell, but you don't want the values changed proportionally, use [Range Analyze Solver](#).

See also

Help

[Range Analyze Commands](#)

User's Guide

Chapter 19, "Solving What-If Problems"

View Zoom In

Increases the display size of cells. Each time you select Zoom In, the display increases by 10%. You can set the display size of cells to as much as 400%.

1. Choose View Zoom In.

Related SmartIcons

Close

Equivalent to choosing View Zoom In

Close

Decreases the display size of cells

See also

Help

[View Commands](#)

[View Custom](#) to reset cells to the default display size

[View Set View Preferences](#) to change the default display size

[View Zoom Out](#)

User's Guide

Chapter 6, "Worksheet Basics"

View Zoom Out

Decreases the display size of cells. Each time you select Zoom Out, the display decreases by 10% to as small as 25% of the normal size.

1. Choose View Zoom Out.

Related SmartIcons

Close

Equivalent to choosing View Zoom Out

Close

Increases the display size of cells

See also

Help

[View Commands](#)

[View Custom](#) to reset cells to the default display size

[View Set View Preferences](#) to change the default display size

[View Zoom In](#)

User's Guide

Chapter 6, "Worksheet Basics"

View Custom

Resets the display size of cells to the default display size.

1. Choose View Custom.

The percent you enter for Custom zoom % in Set View Preferences appears next to View Custom on the pull-down menu.

Related SmartIcons

Close

Equivalent to choosing View Custom

Close

Decreases the display size of cells

Close

Increases the display size of cells

See also

Help

[View Commands](#)

[View Set View Preferences](#) to change the default display size

[View Zoom In](#)

[View Zoom Out](#)

User's Guide

Chapter 6, "Worksheet Basics"

View Freeze Titles

View Clear Titles

Freezes (or unfreezes) columns along the top of the worksheet, rows along the left edge of the worksheet, or both. Column and row titles remain in view as you scroll through the worksheet.

To freeze titles

1. Position the cell pointer one cell below the rows you want to freeze, one cell to the right of the columns you want to freeze, or, if you want to freeze both rows and columns, in the cell that is below the rows and to the right of the columns you want to freeze.
2. Choose View Freeze Titles.
3. Select Rows, Columns, or Both.
4. Choose OK.

If after you freeze titles, you reduce the Worksheet window to a size that causes the cell pointer to disappear, 1-2-3 automatically clears the frozen titles. To restore them, increase the size of the Worksheet window and repeat this procedure.

To clear frozen titles

1. Choose View Clear Titles.

Moving the cell pointer into the title area

If 1-2-3 is in Ready mode, use F5 (GOTO) to move the cell pointer into the title area. Specifying a cell in a row or column title then displays a second set of titles immediately below or to the right of the titles. Use this second set to edit the titles. To clear the second set of titles, press PG DN and then PG UP (for rows), or CTRL+RIGHT and then CTRL+LEFT (for columns).

If you move the cell pointer into the title area when you specify a range during a command or while entering a formula (in Point mode), 1-2-3 temporarily displays a second set of titles. When you return 1-2-3 to Ready mode, the second set disappears.

See also

Help

[F5 \(GOTO\)](#)

[View Commands](#)

User's Guide

Chapter 6, "Worksheet Basics"

View Split

View Clear Split

Divides a Worksheet window horizontally or vertically into two panes, or displays three contiguous worksheets in perspective view.

To divide a Worksheet window

1. Position the cell pointer in the row or column at which you want to split the window.
2. Choose View Split.
3. Under Type, select an option.
 - Horizontal and Vertical create panes.
 - Perspective displays the same area of three contiguous worksheets and hides worksheet tabs.
4. (Optional) Select the Synchronize scrolling check box to cause views to scroll together.
5. Choose OK.

1-2-3 saves a file's window settings when you save the file.

If after you divide a Worksheet window, you reduce it to a size that causes the cell pointer to disappear, 1-2-3 automatically clears the split. To restore the split, increase the size of the Worksheet window and repeat this procedure.

To restore a Worksheet window

1. Choose View Clear Split.

Close

Dividing a window into panes

To divide a window horizontally, move the mouse pointer to the horizontal splitter at the top of the right scroll bar. When the shape of the mouse pointer changes to a black two-headed vertical arrow, drag the mouse pointer to the row at which you want to divide the window.

To divide a window vertically, move the vertical splitter at the far left of the bottom scroll bar.

Working in panes

- To move the cell pointer between panes using the keyboard, press F6 (PANE) in Ready or Point mode.
- To move the cell pointer between panes using the mouse, click a cell in the pane you want to move to.
- Changes to column widths, hidden and displayed columns, and worksheet titles in one pane are not reflected in the other.
- When you clear a view with horizontal or vertical panes, 1-2-3 uses the settings from the top or left pane.

Working in perspective view

- To move between worksheets in perspective view, press F6 (PANE).
- To move the previous or next worksheet into view, press CTRL+PG DN or CTRL+PG UP.
- To move the first worksheet into view, press CTRL+HOME.
- To move the last worksheet into view, press END+CTRL+HOME.

Related SmartIcons

Close	Displays three contiguous worksheets in perspective view
Close	Goes to the next worksheet
Close	Goes to the previous worksheet

See also

Help

[ALT+F6 \(ZOOM PANE\)](#) to increase the size of panes
[View Commands](#)

User's Guide

Chapter 6, "Worksheet Basics"

View Set View Preferences

Controls view preferences for the current file and for sessions of 1-2-3, and sets default view preferences for new files.

1. Choose View Set View Preferences.
2. Under "Show in current file," select the check box of one or more of the following options: Worksheet frame, Worksheet tabs, Grid lines, Scroll bars, Page breaks, and Charts, drawings, and pictures.
3. To change the worksheet frame, select a frame type from the drop-down box.
4. To change the color of grid lines, select a color from the drop-down box.
5. To change the default display size of cells, specify a new size in Custom zoom %.
1-2-3 displays the percent you specify next to View Custom on the pull-down menu.
6. Choose Make Default if you want to make the settings under "Show in current file" the default settings for all new files created without using a SmartMaster template.
Note Choosing Make Default does not affect the view settings in any existing files.
7. Under "Show in 1-2-3," select the check box of one or more of the following options: SmartIcons, Edit line, and Status bar.
Note Selections under "Show in 1-2-3" become the default settings for all files in memory and for new files.
8. Choose OK.

See also

[View Commands](#)

Window Tile

Sizes open windows (Worksheet and Transcript) and places them side by side.

1. Choose Window Tile.

Places the active window in the upper left corner of the work space.

Related Smarticons



Equivalent to choosing Window Tile.



Sizes open windows. Arranges them one on top of the other. Equivalent to Window Cascade.

See also

Help

[Window Cascade](#)

[Window Commands](#)

User's Guide

Chapter 4, "Managing the 1-2-3 Windows"

Window Cascade

Sizes open windows (Worksheet and Transcript). Arranges them one on top of the other, with just the title bars showing.

1. Choose Window Cascade.

Places the active window in front.

Related SmartIcons



Equivalent to choosing Window Cascade.



Sizes open windows and places them side by side. Equivalent to Window Tile.

See also

Help

[Window Commands](#)

[Window Tile](#)

User's Guide

Chapter 4, "Managing the 1-2-3 Windows"

Window (Window Name)

Lists up to nine open windows (Worksheet and Transcript). Displays a check mark next to the active window.

The listed names are the names displayed in the title bar of each open window.

Use this list, or the More Windows list, to make a window active.

1. Select a window from the list.

To make a window active

Close

Move the mouse pointer to the window and click the window.

Close

Press CTRL+F6 to move the cell pointer to the window.

See also

Help

[Window Cascade](#)

[Window Commands](#)

[Window More Windows](#)

[Window Tile](#)

User's Guide

Chapter 4, "Managing the 1-2-3 Windows"

Window More Windows

When more than nine windows are open in 1-2-3, lists additional open windows. Window More Windows appears on the Window pull-down menu after the ninth open window.

Use Window More Windows to make a window active.

1. Choose Window More Windows.
2. Specify a window in the Window list box.
3. Select OK.

See also

Help

[Window Cascade](#)

[Window Commands](#)

[Window Tile](#)

[Window \(Window Name\)](#)

User's Guide

Chapter 4, "Managing the 1-2-3 Windows"

@Functions

What Are @Functions?

Descriptions of Individual @Functions

@Function Categories

@Function Selector

To see an alphabetical listing of all @functions in 1-2-3

1. Type @ (at sign).
2. Press F3 (NAME).
The @Functions dialog box appears.
3. Highlight the name of an @function.
4. Do one of the following:
 - Press F1 (HELP) or click the ? button to see a description of the @function.
 - Choose OK to enter the @function in the current cell.

See also

User's Guide

Chapter 10, "Calculating with Formulas"

Chapter 11, "Calculating with @Functions"

What Are @Functions?

1-2-3 @functions are built-in formulas that perform specialized calculations automatically.

Some @functions perform simple calculations; for example, @SUM adds the values in a range. @SUM(D1..D7) adds the values in the range D1..D7, and that makes a simple calculation even simpler; without the @function, you would have to type the formula +D1+D2+D3+D4+D5+D6+D7.

Many @functions, however, simplify your work by performing complex calculations; for example, @NPV calculates the net present value of a series of future cash-flow values.

Many @functions require you to supply data to work on. This data is called an argument. In the @function @SUM(D1..D7), the range address enclosed in parentheses is the argument.

You can use an @function by itself as a formula, combine it with other @functions and formulas, or use it in a macro.

See also

Help

[@Functions](#)

[@Function Selector](#)

User's Guide

Chapter 11, "Calculating with @Functions"

@Function Categories

For an alphabetical list of all @functions, click the @Function selector in the [edit line](#) and then choose List All.

Calendar

Calculate values that represent dates and times.

Database

Perform statistical calculations and queries in [database tables](#).

Engineering

Perform engineering calculations and advanced mathematical operations.

Financial

Analyze investments, annuities, and securities; determine depreciation; and calculate cash flows and loans.

Information

Return information about cells, ranges, the operating system, and some 1-2-3 tools; or mark places where information is missing or incorrect.

Logical

Calculate the results of [logical formulas](#).

Lookup

Find the contents of a cell.

Mathematical

Simplify various mathematical operations, such as calculating square roots, and replace complex trigonometric calculations.

Statistical

Perform calculations on lists of values.

Text

Provide information about text in cells and perform other operations on text.

See also

Help

[@Functions](#)

[@Function Selector](#)

User's Guide

Chapter 11, "Calculating with @Functions"

Close

Calendar @Functions

Calendar @functions calculate values that represent dates and times.

Date calculations

@DATE

Calculates the date number for a set of year, month, and day values.

@DATEDIF

Returns the number of years, months, or days between two dates.

@DATEINFO

Returns information about a date.

@DATESTRING

Converts a date number to its equivalent date and displays it as a label.

@DATEVALUE

Converts text that looks like a date into its equivalent date number.

@D360

Calculates the number of days between two date numbers, based on a 360-day year (12 months; each with 30 days).

@DAY

Calculates the day of the month in a date number.

@DAYS

Calculates the number of days between two date numbers, using a specified basis.

@DAYS360

Calculates the number of days between two date numbers, based on a 360-day year. (This conforms to the 1990 modifications to the Securities Industry Association's 1986 *Standard Securities Calculation Methods*.)

@MONTH

Calculates the month in a date number.

@NETWORKDAYS

Calculates the number of days between two date numbers, excluding weekends and holidays.

@NEXTMONTH

Calculates the date that is a specified number of months before or after a specified date.

@WEEKDAY

Calculates the day of the week in a date number.

@WORKDAY

Calculates the date the specified number of days before or after a specified date, excluding weekends and holidays.

@YEAR

Calculates the year in a date number.

Time calculations

@HOUR

Calculates the hour in a time number.

@MINUTE

Calculates the minutes in a time number.

@SECOND

Calculates the seconds in a time number.

@TIME

Calculates the time number for a set of hours, minutes, and seconds.

@TIMEVALUE

Converts text that looks like a time into its equivalent time number.

Current date and time calculations

@NOW

Calculates the value that corresponds to the current date and time on the computer's clock.

@TODAY

Calculates the date number that corresponds to the current date on the computer's clock.

Close

Database @Functions

Database @functions perform statistical calculations or queries, based on criteria you specify, in database tables in both worksheets and external databases.

@DAVG

Averages values in a field.

@DCOUNT

Counts nonblank cells in a field.

@DGET

Finds the contents of a cell in a field.

@DMAX

Finds the largest value in a field.

@DMIN

Finds the smallest value in a field.

@DPURECOUNT

Counts all cells that contain values in a field.

@DQUERY

Gives you access to a function of an external database and uses the result of the function with criteria you specify.

@DSTD

Calculates the population standard deviation of values in a field.

@DSTDS

Calculates the sample standard deviation of values in a field.

@DSUM

Sums values in a field.

@DVAR

Calculates the population variance of values in a field.

@DVARs

Calculates the sample variance of values in a field.

Database @Function Arguments

Database @functions scan one or more database tables, select the records that match the specified criteria, and then perform calculations on the selected records in the field you specify.

Note A database @function that refers to external database tables is recalculated each time any value in the worksheet changes. A database @function that refers only to database tables in the worksheet file is recalculated only when a value the @function depends on changes.

All database @functions except @DQUERY use three arguments: *input*, *field*, and *criteria*.

The *input* argument

input is the name or address of a range that contains a database table, the name of an external table, or the name of a query table. Enclose query table names in " " (quotation marks).

There is no limit to the number of tables you can use in *input*, providing the total number of characters in the cell that contains the @function does not exceed 512.

Note You can use only one query table as an *input* argument, but you can combine it with other tables.

To use more than one table as an *input* argument, separate them with valid argument separators. When 1-2-3 calculates a database @function, it reads the arguments from right to left. 1-2-3 uses the last argument in the @function as the *criteria*, the next to last argument as the *field*, and the remaining arguments as *input* tables.

For example, @DAVG(SALES;INVENTORY;"PRICE";+PRODUCT="FILTERS") has a *criteria* formula (+PRODUCT="FILTERS"), a *field* name ("PRICE"), and two *input* tables (SALES and INVENTORY).

The *field* argument

field is the field name, enclosed in " " (quotation marks).

If *input* is an external table, *field* must be a field name from the external table.

Note If you use more than one table as an *input* argument (either in the worksheet or from an external database table) and *field* is not a unique field name (it appears in more than one of the *input* tables), *field* must be the name of the table followed by a period and the field name, enclosed in quotation marks.

For example, if the field name COST appears in two tables, GOTHAM and MAYFAIR, "GOTHAM.COST" refers to the field name COST in the table GOTHAM.

The *criteria* argument

criteria is a criteria formula, or the name or address of a range that contains a criteria formula.

If you use only one table as an *input* argument, you can omit *criteria*. If you omit *criteria*, 1-2-3 includes all records from *input*.

Database @functions that refer to the multiple-row criteria ranges used in other releases of 1-2-3 continue to work in 1-2-3 Release 5.

The *criteria* argument for @DPURECOUNT

You must include *criteria* in an @DPURECOUNT formula.

criteria must be the name or address of a range that contains at least two rows. The first row lists some or all of the field names from a database table; the second and any subsequent rows contain the criteria. The criteria range cannot be a 3D range. Criteria are values, labels, formulas, @functions, or logical expressions.

For example, a criteria range that specifies all employees who work in the Finance department might look like this:

DEPT

Finance

A criteria range that specifies all employees who work in the Finance department and earn more than \$30,00 per year might look like this:

DEPT	SALARY
Finance	>30000

See also

Help

[Database Basics](#)

[Database @Functions](#)

[Entering Criteria in Database @Functions](#)

[Referring to Multiple Tables in Criteria](#)

User's Guide

Chapter 21, "Working with 1-2-3 Databases"

Close

Engineering @Functions

Engineering @functions perform engineering calculations and advanced mathematical operations.

@BESSELI

Calculates the modified Bessel function $I_n(x)$.

@BESSELJ

Calculates Bessel function $J_n(x)$.

@BESSELK

Calculates the modified Bessel function $K_n(x)$.

@BESSELY

Calculates the Bessel function $Y_n(x)$.

@BETA

Calculates the Beta function.

@BETAI

Calculates the incomplete Beta function.

@DECIMAL

Converts a hexadecimal string to a signed decimal value.

@ERF

Calculates the error function.

@ERFC

Calculates the complementary error function.

@ERFD

Calculates the derivative of the error function.

@GAMMA

Calculates the gamma function.

@GAMMAI

Calculates the incomplete gamma function.

@GAMMALN

Calculates the natural logarithm of the gamma function.

@HEX

Converts a signed decimal value to a hexadecimal string.

@SERIESSUM

Calculates the sum of a power series.

Close

Financial @Functions

Financial @functions analyze investments, securities, and annuities; determine depreciation; and calculate cash flows and loans.

Annuities

@FV

Calculates the future value of a series of equal payments.

@FVAL

Calculates the future value of a series of equal payments, either for an ordinary annuity or for an annuity due.

@IPAYMT

Calculates the cumulative interest portion of the periodic payment for an investment.

@IRATE

Calculates the periodic interest rate necessary for an annuity to grow to a future value.

@NPER

Calculates the number of compounding payment periods of an investment.

@PAYMT

Calculates the periodic payment amount needed to pay off a loan, either for an ordinary annuity or for an annuity due.

@PMT

Calculates the amount of periodic payment needed to pay off a loan.

@PMTIC

Calculates the amount of periodic payment needed to pay off a loan, based on Canadian conventions.

@PPAYMT

Calculates the cumulative principal portion of the periodic payment for an investment.

@PV

Calculates the present value of a series of equal payments.

@PVAL

Calculates the present value of a series of equal payments, either for an ordinary annuity or for an annuity due.

@TERM

Calculates the number of payment periods of an investment.

Bonds

@ACCRUED

Calculates the accrued interest for a bond.

@DURATION

Calculates the annual duration for a bond.

@MDURATION

Calculates the modified annual duration for a bond.

@PRICE

Calculates the price of a bond as a percentage of par.

@YIELD

Calculates the yield at maturity for a bond.

Capital-budgeting tools

@IRR

Calculates the internal rate of return for a series of cash flows.

@MIRR

Calculates the modified internal rate of return for a series of cash flows.

@NPV

Calculates the net present value of a series of cash flows.

Depreciation

@DB

Calculates the declining-balance depreciation allowance of an asset for one period.

@DDB

Calculates the double-declining balance depreciation allowance of an asset.

@SLN

Calculates the straight-line depreciation allowance of an asset for one period.

@SYD

Calculates the sum-of-the-years'-digits depreciation allowance of an asset.

@VDB

Calculates depreciation using the double-declining balance method and allows the percentage of straight-line depreciation to be a value other than 200%.

Single-sum compounding

@CTERM

Calculates the number of compounding periods necessary for an investment to grow to a future value.

@RATE

Calculates the periodic interest rate necessary for an investment to grow to a future value.

Close

Information @Functions

Information @functions return information about cells, ranges, the operating system, Solver, and Version Manager; or mark places where information is missing or incorrect.

Cell and range information

@CELL

Returns information about a cell or its contents.

@CELLPOINTER

Returns information about the current cell or its contents.

@COLS

Counts the columns in a range.

@COORD

Creates an absolute, mixed, or relative cell reference from values you specify for a worksheet, column, and row.

@RANGENAME

Returns the name of the range in which a cell is located.

@REFCONVERT

Converts the 1-2-3 column or worksheet letters A through IV to numbers from 1 through 256, and numbers from 1 through 256 to their corresponding column or worksheet letters.

@ROWS

Counts the rows in a range.

@SHEETS

Counts the worksheets in a range.

System and session information

@INFO

Returns information for the current 1-2-3 session.

@SCENARIOINFO

Returns information about the attributes of a scenario.

@SCENARIOLAST

Returns the name of the last displayed scenario.

@SOLVER

Returns information about the status of Solver.

@VERSIONCURRENT

Returns the name of the version currently displayed in a named range.

@VERSIONDATA

Returns the contents of a cell in a version.

@VERSIONINFO

Returns information about the attributes of a version.

Error checking

@ERR

Returns the value ERR.

@NA

Returns the value NA.

Close

Logical @Functions

Logical @functions calculate the results of logical formulas.

@FALSE

Returns the logical value 0 (false).

@IF

Takes one action if a condition is true; another if the condition is false.

@ISAAF

Returns 1 (true) for a defined add-in @function; 0 (false) for any other entry.

@ISAPP

Returns 1 (true) for a currently loaded add-in; 0 (false) for any other entry.

@ISEMPTY

Returns 1 (true) for a blank cell; 0 (false) for any other entry.

@ISERR

Returns 1 (true) for the value ERR; 0 (false) for any other entry.

@ISFILE

Returns 1 (true) for the name of a file on disk or in memory; 0 (false) for any other entry.

@ISMACRO

Returns 1 (true) for a defined add-in macro command; 0 (false) for any other entry.

@ISNA

Returns 1 (true) for the value NA; 0 (false) for any other entry.

@ISNUMBER

Returns 1 (true) for a value or a blank cell; 0 (false) for any other entry.

@ISRANGE

Returns 1 (true) for a defined range name or valid range address; 0 (false) for any other entry.

@ISSTRING

Returns 1 (true) for text enclosed in " " (double quotation marks), a text formula, or the address or name of a cell that contains a label; 0 (false) for a value or blank cell.

@TRUE

Returns the logical value 1 (true).

Close

Lookup @Functions

Lookup @functions find the contents of a cell.

@@

Returns the contents of the cell whose name or address is specified in another cell.

@CHOOSE

Finds a specified value or label in a list of values and/or labels.

@HLOOKUP

Finds the contents of a cell in a specified row in a horizontal lookup table.

@INDEX

Finds the contents of a cell in a specified row, column, and worksheet in a range.

@MATCH

Finds the relative position of a cell with specified contents.

@MAXLOOKUP

Returns the address of the cell that contains the largest value in one or more ranges.

@MINLOOKUP

Returns the address of the cell that contains the smallest value in one or more ranges.

@VLOOKUP

Finds the contents of a cell in a specified column in a vertical lookup table.

@XINDEX

Finds the contents of a cell specified by its column, row, and worksheet headings.

Close

Mathematical @Functions

Mathematical @functions simplify various mathematical operations, such as calculating square roots, and replace complex trigonometric calculations.

Conversion

@DEGTORAD

Converts degrees to radians.

@RADTODEG

Converts radians to degrees.

General

@ABS

Calculates the absolute (positive) value of a value.

@EXP

Calculates the number *e* raised to a specified power.

@EXP2

Calculates the number *e* raised to the negative of a specified power squared.

@FACT

Calculates the factorial of a value.

@FACTLN

Calculates the natural logarithm of the factorial of a value.

@INT

Returns the integer portion of a value.

@LARGE

Finds the *n*th largest value in a range.

@LN

Calculates the natural logarithm (base *e*) of a value.

@LOG

Calculates the common logarithm (base 10) of a value.

@MOD

Calculates the remainder (modulus) of a division of two values. The sign of the result is always the same as the sign of the dividend.

@MODULO

Calculates the remainder (modulus) of a division of two values. The sign of the result is always the same as the sign of the divisor.

@QUOTIENT

Divides one value by another and truncates the answer to an integer.

@RAND

Generates a random value between 0 and 1.

@SIGN

Returns 1 for a positive value, 0 for the value 0, and -1 for a negative value.

@SMALL

Finds the *n*th smallest value in a range.

@SQRT

Calculates the positive square root of a value.

@SQRTPI

Calculates the positive square root of a value times π (calculated at 3.14159265358979324).

Hyperbolic

@ACOSH

Calculates the inverse hyperbolic cosine of a value.

@ACOTH

Calculates the inverse hyperbolic cotangent of a value.

@ACSCH

Calculates the inverse hyperbolic cosecant of a value.

@ASECH

Calculates the inverse hyperbolic secant of a value.

@ASINH

Calculates the inverse hyperbolic sine of a value.

@ATANH

Calculates the inverse hyperbolic tangent of a value.

@COSH

Calculates the hyperbolic cosine of an angle.

@COTH

Calculates the hyperbolic cotangent of an angle.

@CSCH

Calculates the hyperbolic cosecant of an angle.

@SECH

Calculates the hyperbolic secant of an angle.

@SINH

Calculates the hyperbolic sine of an angle.

@TANH

Calculates the hyperbolic tangent of an angle.

Rounding Values

@EVEN

Rounds a value away from 0 to the nearest even integer.

@ODD

Rounds a value away from 0 to the nearest odd integer.

@ROUND

Rounds a value to a specified number of decimal places.

@ROUNDDOWN

Rounds a value down to the nearest multiple of the power of 10 specified by n .

@ROUNDM

Rounds a value to the nearest multiple.

@ROUNDUP

Rounds a value up to the nearest multiple of the power of 10 specified by n .

@TRUNC

Truncates a value to a specified number of decimal places.

Trigonometric

@ACOS

Calculates the inverse cosine of a value.

@ACOT

Calculates the inverse cotangent of a value.

@ACSC

Calculates the inverse cosecant of a value.

@ASEC

Calculates the inverse secant of a value.

@ASIN

Calculates the inverse sine of a value.

@ATAN

Calculates the inverse tangent of a value.

@ATAN2

Calculates the four-quadrant inverse tangent of two values.

@COS

Calculates the cosine of an angle.

@COT

Calculates the cotangent of an angle.

@CSC

Calculates the cosecant of an angle.

@PI

Returns the value π (calculated at 3.14159265358979324).

@SEC

Calculates the secant of an angle.

@SIN

Calculates the sine of an angle.

@TAN

Calculates the tangent of an angle.

Close

Statistical @Functions

Statistical @functions perform calculations on lists of values.

Forecasting

@REGRESSION

Performs multiple linear regression analysis.

General

@AVEDEV

Calculates the mean deviation of the values in a list of values.

@AVG

Averages a list of values.

@CORREL

Calculates correlation coefficient of values in two ranges.

@COUNT

Counts the nonblank cells in a list of ranges.

@COV

Calculates either the population or sample covariance of values in two ranges.

@DEVSQ

Calculates the sum of squared deviates of a list of values.

@GEOMEAN

Calculates the geometric mean of a list of values.

@GRANDTOTAL

Calculates the sum of all cells in a list that contain @SUBTOTAL in their formulas.

@HARMEAN

Calculates the harmonic mean of a list of values.

@KURTOSIS

Calculates the kurtosis of a list of values.

@MAX

Finds the largest value in a list of values.

@MEDIAN

Calculates the median of a list of values.

@MIN

Finds the minimum value in a list of values.

@PRODUCT

Calculates the product of a list of values.

@PUREAVG

Averages a list of values, ignoring text, labels, and

@PURECOUNT

Counts the nonblank cells in a list of ranges, ignoring text and labels.

@PUREMAX

Finds the largest value in a list, ignoring text and labels.

@PUREMIN

Finds the smallest value in a list, ignoring text and labels.

@PURESTD

Calculates the population standard deviation of a list of values, ignoring text and labels.

@PURESTDS

Calculates the sample standard deviation of a list of values, ignoring text and labels.

@PUREVAR

Calculates the population variance of a list of values, ignoring text and labels.

@PUREVARS

Calculates the sample variance of a list of values, ignoring text and labels.

@SEMEAN

Calculates the standard error of the sample mean for the values in a list.

@SKEWNESS

Calculates the skewness of values in a list.

@STD

Calculates the population standard deviation of a list of values.

@STDS

Calculates the sample standard deviation of a list of values.

@SUBTOTAL

Adds a list of values. Use @SUBTOTAL to indicate which cells @GRANDTOTAL should sum.

@SUM

Adds a list of values.

@SUMNEGATIVE

Sums only the negative values in a list of values.

@SUMPOSITIVE

Sums only the positive values in a list of values.

@SUMPRODUCT

Sums the products of corresponding elements in multiple ranges.

@SUMSQ

Sums the squares of a list of values.

@SUMXMY2

Subtracts the values in corresponding cells in two ranges, squares the differences and then sums the results.

@VAR

Calculates the population variance of a list of values.

@VARS

Calculates the sample variance of a list of values.

@WEIGHTAVG

Calculates the weighted average of a list of values.

Probability

@BINOMIAL

Calculates cumulative binomial distribution or the binomial probability mass function.

@CHIDIST

Returns information about the chi-square distribution.

@COMBIN

Calculates the binomial coefficient.

@CRITBINOMIAL

Returns the smallest integer for which the cumulative binomial distribution is greater than or equal to a specified value.

@FDIST

Calculates the cumulative distribution function or its inverse for *F*-distributions.

@NORMAL

Returns information about the normal distribution.

@PERMUT

Calculates the number of ordered sequences (permutations) of *r* objects that can be selected from a total of *n* objects.

@POISSON

Returns information about the Poisson distribution.

@TDIST

Returns information about the Student's *t*-distribution.

Ranking

@PERCENTILE

Calculates the *x*th sample percentile among the values in range.

@PRANK

Finds the percentile of *x* among the values in range.

@RANK

Calculates the position of a value in a range relative to other values in the range, ranked in either ascending or descending order.

Significance tests

@CHITEST

Performs a chi-square test on the data in two ranges.

@FTEST

Performs an *F*-test on the data in two ranges.

@TTEST

Performs a Student's *t*-test on the data in two ranges.

@ZTEST

Performs a z-test on either one or two populations.

Statistical @Function Arguments

Many statistical @functions perform calculations on lists of values, which are represented by the argument named *list*.

list can contain any of the following, in any combination: numbers, numeric formulas, and addresses or names of ranges that contain numbers or numeric formulas. Separate elements of list with argument separators.

Labels in *list*

Labels within ranges in *list* do not cause statistical @functions to evaluate to ERR. With the exception of @COUNT and the statistical @functions that begin with @PURE, 1-2-3 assigns the value 0 to all labels in *list* (either in a range or listed individually) and includes them in calculations.

For example, if you use @AVG to calculate the average of the values in a range and the range contains a label, 1-2-3 considers the label to have the value 0 when it calculates the average.

If you do not use the @PURE statistical @functions, always check for labels in the ranges you use in statistical @functions to guard against unexpected results.

Blank cells in *list*

1-2-3 ignores blank cells in multiple-cell ranges in *list*, but does not ignore references to blank cells listed individually. For example, if you use @AVG to average the values in a range that spans four cells (A1..A4), and the range contains a blank cell, 1-2-3 divides the sum by three to find the correct average. If you list those four cells individually, however (A1;A2;A3;A4), 1-2-3 divides the sum by four.

See also

[Statistical @Functions](#)

Close

Text @Functions

Text @functions provide information about text in cells and perform other operations on text.

@CHAR

Returns the character that a Lotus Multibyte Character Set (LMBCS) code produces.

@CLEAN

Removes nonprinting characters from text.

@CODE

Returns the LMBCS code that corresponds to the first character in text.

@EXACT

Returns 1 (true) if two *text* arguments are the same; 0 (false) if the arguments are different.

@FIND

Calculates the position of the first occurrence of one *text* argument within another *text* argument.

@LEFT

Returns a specified number of characters from the beginning of a *text* argument.

@LENGTH

Counts the characters in a *text* argument.

@LOWER

Converts all the letters in a *text* argument to lowercase.

@MID

Returns a number of characters in a *text* argument, starting at a specified character.

@N

Returns the value in the first cell in a range or 0 if the cell contains a label.

@PROPER

Converts the first letter in each word in a *text* argument to uppercase and the rest of the letters in each word to lowercase.

@REPEAT

Duplicates a *text* argument a specified number of times.

@REPLACE

Replaces characters in a *text* argument with characters from a different *text* argument.

@RIGHT

Returns a specified number of characters from the end of a *text* argument.

@S

Returns the label in the first cell in a range or an empty string if the cell contains a value or is blank.

@SETSTRING

Returns text aligned within a specified number of spaces.

@STRING

Converts a value into a label with a specified format.

@TRIM

Removes leading, trailing, and consecutive spaces from a *text* argument.

@UPPER

Converts all the letters in a *text* argument to uppercase.

@VALUE

Converts a label or text that looks like a number into a value.



@Function Selector

Enters an @function in the worksheet and lets you add @functions to the @functions pull-down menu.

To enter an @function

1. Select the cell where you want to enter the @function.
2. Click the @function selector.
3. If the @function you want appears on the @function menu, choose it.
If not, choose List All and continue to step 4.
The @Function List box appears.
4. If you know the category of the @function you want, select it from the Category drop-down box.
If not, select All from the Category drop-down box to see an alphabetical list of all the @functions.
5. Select the @function you want from the @Functions list box.
6. Choose OK.
In the edit line, 1-2-3 enters the @function name, placeholders for required and optional arguments, and argument separators.
7. Replace argument placeholders with the appropriate argument.
8. Click the Confirm button, or press ENTER.

The result, not the @function, appears in the cell.

To customize the @function pull-down

Adding frequently used @functions to the pull-down saves time because you can choose and enter them without displaying the @Function List dialog box.

1. Click the @function selector.
2. Choose List All.
3. Choose Add to Menu.
The @Function List dialog box expands to display the current menu and three commands: Add, Remove, and Separator.
4. Adding an @function: Select the @function from the @Functions list box and choose Add.
1-2-3 appends the @function to the Current menu list.
5. Separating @functions: In the Current menu list box, select the @function you want the separator to appear below, and then choose Separator.
6. Removing an @function: In the Current menu list box, select the @function and choose Remove.
7. Choose OK.

See also

Help

[@Functions](#)

User's Guide

Chapter 11, "Calculating with @Functions"

Macros

[What Are Macros?](#)

[Descriptions of Individual Macro Commands](#)

[Info Components](#)

[Macro Command Categories](#)

[Using a Dialog Box Created with the Lotus Dialog Editor](#)

To see an alphabetical listing of all macro commands in 1-2-3

1. Type { (open brace).
2. Press F3 (NAME).
The Macro Keywords dialog box appears.
3. Highlight the name of a macro command.
4. Do one of the following:
 - Press F1 (HELP) or click the ? button to see a description of the macro command.
 - Choose OK to enter the macro keyword in the current cell.

See also

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

What Are Macros?

A macro is a series of instructions that speeds up repetitive or complex tasks:

- Macros can automate procedures you normally perform from the keyboard, such as using commands.
- Macros can perform complex tasks and programming procedures, such as [loops](#) and [if-then-else](#) statements.
- Macros can guide users who are unfamiliar with 1-2-3 through tasks and applications that you create and control.

You can use macros from any open worksheet file.

See also

Help

[Descriptions of Individual Macro Commands](#)

[Macro Command Categories](#)

[Macros](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Macro Command Categories

Chart

Correspond to the Chart commands.

Data manipulation

Enter data, edit existing entries, erase entries, and recalculate formulas.

Database

Correspond to the Database and Query commands.

DDE and OLE

Manipulate conversation-level (low-level) and link-level (high-level) links between 1-2-3 and other Windows applications.

Edit

Correspond to the Edit commands.

File

Correspond to the File commands.

Flow-of-control

Direct the path of macro execution, using branches, subroutine calls, loops, and conditional processing.

Keystroke Equivalents

Replicate actions of the nonprinting keys.

Navigation

Scroll to or select ranges, query tables, charts or other drawn objects.

Range

Correspond to Range commands.

SmartIcons

Correspond to several frequently-used SmartIcons.

Solver

Correspond to the Range Analyze Solver commands.

Style

Correspond to the Style commands.

Text file manipulation

Work with text files.

Tools

Correspond to Tools commands.

User Environment

Suspend macro execution for user input, control macro interruption and the timing of macro execution, and create custom menus.

Version Manager

Correspond to the Range Version Manager commands.

Window and Screen Display

Control different parts of the screen display, including the mode indicator and the worksheet window, and activate, move, and size 1-2-3 windows.

See also

Help

[Descriptions of Individual Macro Commands](#)

Info Components
Macros
What Are Macros?

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Close

Chart Macro Commands

{CHART-ASSIGN-RANGE}

Assigns all data ranges for the current chart.

{CHART-AXIS-INTERVALS}

Changes the intervals between X-axis, Y-axis, or 2nd Y-axis tick marks in the current chart.

{CHART-AXIS-LIMITS}

Creates, for the current chart, a scale for the X-axis, Y-axis, or 2nd Y-axis that displays only the data that falls between (and includes) *upper-limit* and *lower-limit*.

{CHART-AXIS-SCALE-TYPE}

Specifies the type of scale to use for an axis in the current chart.

{CHART-AXIS-TICKS}

Is used to specify major and minor tick marks for an axis in the specified chart.

{CHART-AXIS-TITLE}

Changes an axis title in the current chart.

{CHART-AXIS-UNITS}

Changes the magnitude of the axis units and the axis-unit titles for the current chart.

{CHART-COLOR-RANGE}

Sets the color for each value in a data series in the current chart, using values in a range.

{CHART-DATA-LABELS}

Creates labels for data points or bars in the current chart, using data in *label-range* as the labels.

{CHART-FOOTNOTE}

Adds chart footnotes to the current chart.

{CHART-GRID}

Displays or hides grid lines for an axis in the current chart.

{CHART-LEGEND}

Creates legend labels that identify the colors, symbols, or patterns of the current chart's data range.

{CHART-NEW}

Draws a chart at *location*, using data from the currently selected range.

{CHART-PATTERN-RANGE}

Sets the pattern for each value in a data series in the current chart, using values in a range.

{CHART-PIE-LABELS}

Creates labels for the current pie chart.

{CHART-PIE-SLICE-EXPLOSION}

Explodes slices in the current pie chart.

{CHART-RANGE}

Sets the data range, series type and 2nd-Y axis flag for a data series in the current chart.

{CHART-RANGE-DELETE}

Deletes the *series* from the current chart.

{CHART-RENAME}

Renames a chart.

{CHART-SET-PREFERRED}

Defines current chart's type as the default chart type and defines the selected chart's grid settings as the default grid settings.

{CHART-TITLE}

Adds chart titles to the current chart.

{CHART-TYPE}

Changes the current chart to the default chart type and changes the current chart's grid settings to the default grid settings.

{CHART-USE-PREFERRED}

Applies the preferred chart settings to the current chart.

Close

Data Manipulation Macro Commands

Data manipulation commands enter data, edit existing entries, erase entries, and recalculate formulas.

{APPENDBELOW}

Copies data in one range to the bottom of another range, automatically extending the destination range to include the copied data.

{APPENDRIGHT}

Copies data in one range to the right of another range, automatically extending the destination range to include the copied data.

{BLANK}

Erases a cell or range.

{CONTENTS}

Copies the contents of one cell to another cell as a label.

{LET}

Enters a label or number in a cell.

{PUT}

Enters a label or number in a range.

{RECALC}

Recalculates formulas in a range row by row.

{RECALCCOL}

Recalculates formulas in a range column by column.

Close

Database Macro Commands

Database macro commands correspond to the Database and Query commands.

{COMMIT}

Commits pending external database transactions.

{CROSSTAB}

Creates a cross-tabulation table.

{DATABASE-APPEND}

Adds new records to a database-table.

{DATABASE-CONNECT}

Establishes a connection to an external database table so you can use the table with other 1-2-3 commands.

{DATABASE-CREATE-TABLE}

Sets up the structure for and connects to a new table in an external database.

{DATABASE-DELETE}

Deletes the records from a database-table that meet criteria you specify.

{DATABASE-DISCONNECT}

Disconnects an external table, ending all data exchange between 1-2-3 and the external table.

{DATABASE-FIND}

Locates and selects records from the a database-table that meet criteria you specify.

{DATABASE-SEND-COMMAND}

Sends a command to an external database.

{QUERY-ADD-FIELD}

Adds a field to the currently selected query table.

{QUERY-AGGREGATE}

Performs calculations on groups of data from a query table. For example, you can calculate sales by salesperson, by month of sale, or by account.

{QUERY-CHOOSE-FIELDS}

Specifies the fields that you want to appear in a query table.

{QUERY-COPY-SQL}

Copies to the Clipboard the SQL command equivalent to the current query.

{QUERY-CRITERIA}

Specifies criteria to determine which records appear in a new or currently selected query table.

{QUERY-DATABASE-TABLE}

Specifies a database table or changes the database table without changing the criteria, sort settings, aggregate, or the location of the query table if the new database table contains all the fields in the current table.

{QUERY-JOIN}

Allows you to query multiple database tables that contain a common field.

{QUERY-NAME}

Assigns a new name to the currently selected query table.

{QUERY-NEW}

Creates a query table that contains the records you extract from a database table.

{QUERY-OPTIONS}

Specifies options for manipulating data in the current query table.

{QUERY-REFRESH}

Updates records in the currently selected query table to reflect changes made to the database table, query options, criteria, aggregate, or field names.

{QUERY-REMOVE-FIELD}

Removes a field from the currently selected query.

{QUERY-SHOW FIELD}

Specifies an alias field name for field to display in a query table. Doing so does not change the field name in the database table, but only changes the field name in the query table.

{QUERY-SORT}

Arranges data in the currently selected query table in the order you specify.

{QUERY-SORT-KEY-DEFINE}

Defines a sort key to be used in by a subsequent {QUERY-SORT} command.

{QUERY-SORT-RESET}

Clears all query table sort keys.

{QUERY-UPGRADE}

Upgrades a query created with /Data commands in a previous version of 1-2-3 so that it works with the Query commands.

{QUERY-UPDATE}

Applies any changes you made to records in the currently selected query table to the corresponding database table.

{ROLLBACK}

Cancels pending external database transactions.

{SEND-SQL}

Sends an SQL syntax command string to an external database driver, against the database that contains the specified external database table.

Close

DDE and OLE Macro Commands

DDE commands manipulate conversation-level (low-level) links between 1-2-3 and other Windows applications. Link macro commands manipulate link-level (high-level) links between 1-2-3 and other Windows applications. OLE macro commands create, edit, and update OLE embedded objects.

DDE commands

{DDE-ADVISE}

Specifies the macro that is executed when data changes in the server application.

{DDE-CLOSE}

Terminates a conversation with a Windows application.

{DDE-EXECUTE}

Sends a command to an application.

{DDE-OPEN}

Initiates a conversation with a Windows application, making that the current conversation.

{DDE-POKE}

Sends data to an application.

{DDE-REQUEST}

Transfers data from an application.

{DDE-TABLE}

Creates a table of conversations associated with all active files that were created with {DDE} commands.

{DDE-UNADVISE}

Terminates a {DDE-ADVISE} command.

{DDE-USE}

Selects the current conversation that is used by other DDE macro commands.

Link commands

{LINK-ASSIGN}

Specifies a destination range for a link.

{LINK-CREATE}

Creates a DDE link to another Windows application.

{LINK-DEACTIVATE}

Turns off a specified link.

{LINK-DELETE}

Deletes a DDE link previously created between 1-2-3 and another Windows application.

{LINK-REMOVE}

Removes the currently used destination range for a link.

{LINK-TABLE}

Creates a table of links.

{LINK-UPDATE}

Refreshes a manual DDE link.

OLE commands

{EDIT-OBJECT}

Executes either the primary or secondary verb for the currently selected OLE embedded object.

{INSERT-OBJECT}

Creates and places in the worksheet an OLE embedded object.

{UPDATE-OBJECT}

Updates a 1-2-3 OLE object embedded in another application.

Close

Edit Macro Commands

Edit macro commands correspond to the Edit commands.

{DELETE-COLUMNS}

Deletes all or part of specified columns.

{DELETE-ROWS}

Deletes all or part of specified rows.

{DELETE-SHEETS}

Deletes specified worksheets.

{EDIT-CLEAR}

Deletes selected types of data (cell contents, cell format, formatting, or graphs) permanently without using the Clipboard.

{EDIT-COPY}

Copies data and related formatting from the worksheet to the Clipboard.

{EDIT-COPY-FILL}

Copies the contents of one row, column or worksheet in a range to all of the range.

{EDIT-CUT}

Cuts data and related formatting from the worksheet to the Clipboard.

{EDIT-FIND}

Finds the first instance of specified characters in labels, formulas, or both.

{EDIT-FIND?}

Displays the Edit Find & Replace dialog box.

{EDIT-PASTE}

Pastes data and related formatting from the Clipboard into the worksheet.

{EDIT-PASTE-LINK}

Creates a [link](#) between the current worksheet file and the file referred to on the Clipboard.

{EDIT-PASTE-SPECIAL}

Pastes data on the Clipboard into the worksheet.

{EDIT-QUICK-COPY}

Copies data and related formatting from the source range to the destination range, without using the Clipboard.

{EDIT-QUICK-MOVE}

Moves data and related formatting from the source range to the destination range, without using the Clipboard.

{EDIT-REPLACE}

Finds the first instance of specified characters in labels, formulas, or both, and replaces them.

{EDIT-REPLACE-ALL}

Finds all instances of specified characters in labels, formulas, or both, and replaces them.

{FILE-UPDATE-LINKS}

Recalculates formulas in the current file that refer to data in files on disk.

{INSERT-COLUMNS}

Inserts entire blank columns in the current file, or inserts only parts of columns.

{INSERT-ROWS}

Inserts entire blank rows in the current file, or inserts only parts of rows.

{INSERT-SHEETS}

Inserts one or more blank worksheets.

Close

File Macro Commands

File macro commands correspond to the File commands.

{FILE-CLOSE}

Closes the current file.

{FILE-COMBINE}

Combines data from a 1-2-3 file on disk with data in the current file, starting at the current cell.

{FILE-EXIT}

Ends the 1-2-3 session.

{FILE-EXTRACT}

Saves a range to another file.

{FILE-GET-RESERVATION}

Gets the reservation for the current file if it is available and no one saved the file since you read it into memory.

{FILE-IMPORT}

Copies data from a text file on the disk into the current file, starting at the current cell.

{FILE-NEW}

Creates a new file on the disk and in memory, places the new file in a window, makes the window current, and displays a blank worksheet with the cell pointer in cell A1.

{FILE-OPEN}

Reads a file into memory, makes it the current file, and moves the cell pointer to the cell it was in when you last saved the file.

{FILE-OPEN?}

Displays the File Open dialog box.

{FILE-RELEASE-RESERVATION}

Releases the reservation for the current file.

{FILE-RETRIEVE}

Replaces the current file in memory with a file from disk, and moves the cell pointer to the cell it was in when you last saved the file.

{FILE-SAVE}

Saves the current file.

{FILE-SAVE-ALL}

Saves all active files.

{FILE-SAVE-AS?}

Displays the File Save As dialog box.

{FILE-SEAL}

Controls the reservation for the current file and seals the file.

{FILE-SEAL-NETWORK-RESERVATION}

Seals only the network reservation of the current file.

{FILE-UNSEAL}

Unseals the current file and releases its networking reservation setting.

{PRINT}

Prints the current file according to the current page settings.

{PRINT?}

Displays the File Print dialog box.

{PRINT-NAME-ADD}

Assigns a name to the current page settings , and saves them with that name.

{PRINT-NAME-USE}

Makes the specified named page settings the current page settings.

{PRINT-RESET}

Restores the default settings for all the current file's Print Info components.

{SEND-MAIL}

Sends a mail message, using your mail application, while you are working in 1-2-3. The mail can contain text, the contents of the clipboard and the current file.

{SEND-RANGE}

Sends a range of worksheet data to other 1-2-3 Release 5 users who have electronic mail. You can broadcast the range to all recipients at once, or you can route it from one recipient to the next.

{SEND-RANGE-LOGIN}

Automatically logs in to your mail application.

Close

Flow-of-Control Macro Commands

Flow-of-control commands direct the path of macro execution.

{-- comment}

Puts a comment into a macro. This macro keyword is two - (hyphens) with no spaces between them.

{BRANCH}

Performs a branch.

{DEFINE}

Evaluates and stores arguments that you pass to a subroutine in a *{subroutine}* command.

{DISPATCH}

Performs an indirect branch by directing 1-2-3 to a cell that contains the name or address of the branch location.

{FOR}

Creates a for loop, that is, repeats a subroutine a specified number of times.

{FORBREAK}

Cancels a for loop.

{IF}

Sets up a condition that 1-2-3 evaluates to determine whether to continue with the macro instructions that follow {IF} in the same cell or to go directly to the instructions in the next cell.

{LAUNCH}

Starts a Windows application.

{LOTUS-LAUNCH}

Starts a Lotus Windows application.

{ONERROR}

Performs a branch if an error occurs while a macro is running, so macro execution continues instead of terminating in an error.

{QUIT}

Ends a macro, returning control to the user.

{RESTART}

Keeps 1-2-3 from returning to the location from which the subroutine call was issued after completing the instructions in a subroutine.

{RETURN}

Ends a subroutine and returns control to the instruction following the command that called the subroutine. In a for loop, ends the current repetition immediately and starts the next repetition.

{SET}

Sets a specified Info component to a specified value.

{subroutine}

Performs a subroutine call.

{SYSTEM}

Temporarily suspends the 1-2-3 session and executes the operating system command you specify. When the operating system command is completed, automatically resumes the 1-2-3 session and continues the macro.

Close

Keystroke Equivalents

The table below lists the macro key names that correspond to the 1-2-3 function keys, pointer-movement keys, and a few keyboard keys.

1-2-3 Key	Macro Instruction
~ (tilde)	{~}
{ (open brace)	{}
} (close brace)	}
/ (slash) or < (less than)	/, <, or {MENU}
ALT+F6 (ZOOM)	{ZOOM}
BACKSPACE	{BACKSPACE} or {BS}
CTRL+END	{FILE}
CTRL+END CTRL+PG DN	{PREVFILE}, {PF}, or {FILE}{PS}
CTRL+END CTRL+PG UP	{NEXTFILE}, {NF}, or {FILE}{NS}
CTRL+END END	{LASTFILE}, {LF}, or {FILE}{END}
CTRL+END HOME	{FIRSTFILE},{FF}, or {FILE}{HOME}
CTRL+HOME	{FIRSTCELL} or {FC}
CTRL+LEFT	{BACKTAB} or {BIGLEFT}
CTRL+PG UP	{NEXTSHEET} or {NS}
CTRL+PG DN	{PREVSHEET} or {PS}
CTRL+RIGHT	{BIGRIGHT}
DEL	{DELETE} or {DEL}
DOWN	{DOWN} or {D}
END	{END}
END CTRL+HOME	{LASTCELL} or {LC}
ESC	{ESCAPE} or {ESC}
ESC in 1-2-3 Classic edit line	{CLEARENTRY} or {CE}
F1 (HELP)	{HELP}
F2 (EDIT)	{EDIT}
F3 (NAME)	{NAME}
F4 in Ready mode	{ANCHOR}
F4 (ABS)	{ABS}
F5 (GOTO)	{GOTO}
F6 (PANE)	{WINDOW}
F7 (QUERY)	{QUERY}
F8 (TABLE)	{TABLE}
F9 (CALC)	{CALC}

HOME	{HOME}
INS	{INSERT} or {INS}
LEFT	{LEFT} or {L}
PG DN	{PGDN}
PG UP	{PGUP}
RIGHT	{RIGHT} or {R}
SHIFT+CTRL+LEFT	{SELECT-BIGLEFT}
SHIFT+CTRL+RIGHT	{SELECT-BIGRIGHT}
SHIFT+DOWN	{SELECT-DOWN}
SHIFT+CTRL+HOME	{SELECT-FIRSTCELL}
SHIFT+HOME	{SELECT-HOME}
END SHIFT+CTRL+HOME	{SELECT-LASTCELL}
SHIFT+LEFT	{SELECT-LEFT}
SHIFT+CTRL+PG UP	{SELECT-NEXTSHEET}
SHIFT+PG DN	{SELECT-PGDN}
SHIFT+PG UP	{SELECT-PGUP}
SHIFT+CTRL+PG DN	{SELECT-PREVSHEET}
SHIFT+RIGHT	{SELECT-RIGHT}
SHIFT+UP	{SELECT-UP}
TAB	{TAB}
UP	{UP} or {U}

Note 1-2-3 does not have macro key names for the following keys: ALT+BACKSPACE (UNDO), ALT+F1 (COMPOSE), ALT+F2 (STEP), ALT+F3 (RUN), CAPS LOCK, NUM LOCK, PRINT SCREEN, SCROLL LOCK, and SHIFT. Therefore, you cannot use these keystrokes in a macro.

Close

Navigation Macro Commands

Navigation macro commands scroll to or select ranges, query tables, charts or other drawn objects.

{CELL-ENTER}

Enters *data* in *target-location*.

{EDIT-GOTO}

Selects all or part of a range, chart, drawn object, or query table and scrolls to it.

{SCROLL-COLUMNS}

Scrolls horizontally by column in the current worksheet.

{SCROLL-ROWS}

Scrolls vertically by row in the current worksheet.

{SCROLL-TO-CELL}

Scrolls in the current worksheet so that the first cell of *location* is in the top left corner of the worksheet window.

{SCROLL-TO-COLUMN}

Scrolls left or right in the current worksheet so that the leftmost column of *location* is the leftmost column of the worksheet window.

{SCROLL-TO-OBJECT}

Scrolls to a range, chart, query table, or drawn object on the current worksheet.

{SCROLL-TO-ROW}

Scrolls up or down in the current worksheet so that the top row of *location* is the top row in the worksheet window.

{SELECT}

Selects all or part of a range, chart, query table, or drawn object. Any items in the same file that were previously selected become unselected.

{SELECT-ALL}

Selects one of the following: All sheets in the current file. All charts or drawn objects on the current worksheet. The active area of the current worksheet.

{SELECT-APPEND}

Selects a range, chart, sheet, or drawn object without deselecting those currently selected.

{SELECT-RANGE-RELATIVE}

Moves the cell pointer and then selects a range whose address is represented by offsets of the current cell.

{SELECT-REMOVE}

Removes a range, chart, sheet, or drawn object from the currently selected collection.

{SELECT-REPLACE}

Replaces *old-item* with *new-item* in a collection or group of items.

Close

Range Macro Commands

Range macro commands correspond to the Range commands.

{DATA-TABLE-1}

Substitutes values for one variable in one or more formulas and enters the results in a range.

{DATA-TABLE-2}

Substitutes values for two variables in one formula and enters the results in a range.

{DATA-TABLE-3}

Substitutes values for three variables in one formulas and enters the results in a range.

{DATA-TABLE-RESET}

Clears the ranges and input-cell settings for all what-if tables in the current file.

{DISTRIBUTION}

Creates a frequency distribution.

{FILL}

Enters a sequence of values in a specified range.

{FILL-BY-EXAMPLE}

Fills a range with a sequence of data. 1-2-3 creates a pattern for the sequence, based on data you include in the range.

{MATRIX-INVERT}

Inverts a square matrix.

{MATRIX-MULTIPLY}

Multiplies the columns of one matrix with the rows of a second matrix and creates a third matrix that contains the results of the multiplication.

{PARSE}

Converts long labels from an imported text file into separate columns of data of one or more types (values, dates, times, and labels).

{RANGE-NAME-CREATE}

Assigns a name to a range address.

{RANGE-NAME-DELETE}

Deletes a range name in the current file.

{RANGE-NAME-DELETE-ALL}

Deletes a range name in the current file.

{RANGE-NAME-LABEL-CREATE}

Assigns an existing label as the range name for a single cell immediately above, below, to the right of, or to the left of the label.

{RANGE-NAME-TABLE}

Creates a two-column table with the names of all defined ranges in the current file listed alphabetically in the left column, and the corresponding range addresses listed in the right column.

{RANGE-TRANSPOSE}

Copies data in a range, transposing the copied data and replacing any copied formulas with their current values.

{RANGE-VALUE}

Copies contents and styles from one range to another, and replaces all copied formulas with their current values.

{REGRESSION}

Performs multiple linear regression analysis and also calculates the slope of the line that best illustrates

the data.

{SHEET-NAME}

Names a 1-2-3 worksheet.

{SHEET-NAME-DELETE}

Deletes the name of a 1-2-3 worksheet.

{SORT}

Arranges data in a range in the order you specify.

{SORT-KEY-DEFINE}

Defines a sort key to be used by a subsequent {SORT} command.

{SORT-RESET}

Clears all sort keys for sorting range data.

Close

SmartIcons Macro Commands

SmartIcons macro commands correspond to the functions of commonly-used SmartIcons.

Icon	Corresponding macro command
------	-----------------------------

Close

{SMARTSUM} sums values in the selected or adjacent range, if you include empty cells below or to the right of the range.

Close

{SORT-ASCENDING} sorts a range or database table in ascending order (A - Z and smallest to largest values), using the selected column as the key.

Close

{SORT-DESCENDING} sorts a range or database table in descending order (Z - A and largest to smallest values), using the selected column as the key.



{TOGGLE-OUTLINE} adds or removes a border.

Close

{TOGGLE-SHADOW} draws or removes an outline around a cell or range and adds or removes a drop shadow.

Close

Solver Macro Commands

Solver macro commands correspond to the Range Analyze Backsolver and Solver commands.

{BACKSOLVE}

Finds values for one or more cells that make the result of a formula equal to a value you specify.

{SOLVER-ANSWER}

Displays in the worksheet the answers or attempts 1-2-3 finds.

{SOLVER-ANSWER-SAVE}

Saves the current answer or attempt as a scenario.

{SOLVER-DEFINE}

Analyzes formulas in a worksheet and returns a number of possible answers to a problem you define.

{SOLVER-DEFINE?}

Displays the Solver Definition dialog box, optionally displaying defaults you specify.

{SOLVER-REPORT}

Creates a new .WK4 file that contains a report based on the current answer.

Close

Style Macro Commands

Style macro commands correspond to the Style commands.

{COLUMN-WIDTH}

Adjusts each column in a range to a specified width in the default font and size.

{COLUMN-WIDTH-FIT-WIDEST}

Adjusts each column in a range to the width of the widest entry in that column.

{COLUMN-WIDTH-RESET}

Returns each column in a range to the default width defined with Style Worksheet Defaults Column Width.

{HIDE-COLUMNS}

Hides all columns in *range*.

{HIDE-SHEETS}

Hides all sheets in a range.

{NAMED-STYLE-USE}

Applies a named style to a range or query table.

{PAGE-BREAK-COLUMN}

Inserts or deletes a vertical page break to the left of the column containing the current cell.

{PAGE-BREAK-ROW}

Inserts or deletes a horizontal page break above the row containing the current cell.

{PROTECT}

Turns protection back on for a range that has been unprotected.

{UNPROTECT}

Turns protection off for a range.

{ROW-HEIGHT}

Adjusts each row in a range to a specified height in points.

{ROW-HEIGHT-FIT-LARGEST}

Adjusts each row in a range to the height of the largest font in that row.

{SHOW-COLUMNS}

Redisplays all hidden columns in a range.

{SHOW-SHEETS}

Redisplays all hidden worksheets in a range.

{STYLE-ALIGN-HORIZONTAL}

Changes the horizontal alignment of labels and values in a range, collection, or query table.

{STYLE-ALIGN-ORIENTATION}

Changes the orientation of data in range.

{STYLE-ALIGN-VERTICAL}

Aligns text within a cell whose height is bigger than the largest typeface.

{STYLE-BORDER}

Controls borders for *range* or the current selection.

{STYLE-EDGE}

Changes the color, style, and width of the edge of a drawn object, chart, or an item in a chart, such as a bar in a bar chart.

{STYLE-FONT}

Assigns a font to a range.

{STYLE-FONT-ALL}

Assigns a font and adds bold, italic, and underlining to a range.

{STYLE-FONT-ATTRIBUTES}

Adds bold, italic, or underlining to a range.

{STYLE-FONT-RESET}

Restores the worksheet default font, font size, attributes and color to a range.

{STYLE-FONT-SIZE}

Assigns a point size to the fonts in a range.

{STYLE-FRAME}

Controls frames for a range.

{STYLE-GALLERY}

Formats a range with one of fourteen style templates available in 1-2-3.

{STYLE-INTERIOR}

Adds colors and patterns to a range.

{STYLE-LINE}

Changes the color, style, and width of the selected line.

{STYLE-NUMBER-FORMAT}

Sets the display of values in a range, query table, or chart axis.

{STYLE-NUMBER-FORMAT-RESET}

Resets the format of a range to the current default format specified in Style-Worksheet-Defaults.

Close

Text File Manipulation Macro Commands

Text file manipulation macro commands work with text files.

{CLOSE}

Closes the open text file.

{FILESIZE}

Records in a cell the number of bytes in the open text file.

{GETPOS}

Records in a cell the location in the open text file at which data is read from or written to.

{OPEN}

Opens a new or existing text file so you can use other file manipulation commands with that text file.

{READ}

Copies a series of bytes from the open text file to a cell.

{READLN}

Copies an entire line from the open text file to a cell.

{SETPOS}

Changes the location in the open text file at which data is read from or written to.

{WRITE}

Writes text to the open text file.

{WRITELN}

Writes text to the open text file and adds an end-of-line sequence.

Working with Text Files

Observe the following rules when you write macros that work with text files.

- You must open a text file with `{OPEN}` before using any other text-file manipulation commands.
- Only one text file can be open at a time. If a text file is open when 1-2-3 reaches an `{OPEN}` command, 1-2-3 automatically closes that text file before opening the new one. If a text file is open when a macro ends, however, 1-2-3 does not automatically close the text file. You must include a `{CLOSE}` command in the macro to close the file.
- After it successfully executes a text-file manipulation command, 1-2-3 goes directly to the next cell in the macro, ignoring any macro instructions after the command in the same cell. If the command returns an error, the macro continues in the same cell as the command.
- Although some text-file manipulation commands change the contents of cells, 1-2-3 does not automatically recalculate formulas after executing these commands when worksheet recalculation is set to Automatic. To force recalculation after a text-file manipulation command, follow the command with `{CALC}`.
- The first byte-pointer position in a text file is reported as 0, not 1.

See also

Help

[Macros](#)

[Text File Manipulation Macro Commands](#)

User's Guide

Chapter 24, "Using Macros to Automate Your Work"

Close

Tools Macro Commands

Tools macro commands correspond to the Tools commands.

{ADDIN-VOKE}

Starts an add-in application.

{ADDIN-LOAD}

Reads an add-in into memory.

{ADDIN-REMOVE}

Removes an add-in from memory.

{ADDIN-REMOVE-ALL}

Removes all add-ins from memory.

{AUDIT}

Highlights or produces a report of all formulas, or the relationships of values and formulas, in the current file or in all active files, also highlights or produces a report on circular references, file links, or DDE links.

{MAP-NEW}

Draws a map, using data from the currently selected range.

{MAP-REDRAW}

Redraws all maps in the current file.

{REGISTER}

Registers a procedure in a Dynamic Load Library (DLL) as an add-in @function, and loads the DLL into memory.

{SMARTICONS-USE}

Selects a set of SmartIcons to use with 1-2-3.

{SPELLCHECK?}

Displays the Tools Spell Check dialog box.

{UNREGISTER}

Unregisters a procedure in an add-in @function that was registered with {REGISTER}, and removes the DLL from memory.

Close

User Environment Macro Commands

User Environment macro commands suspend macro execution for user input, control macro interruption and the timing of macro execution, and create custom menus.

{?}

Suspends macro execution to let you move the cell pointer or enter data.

{ALERT}

Displays a message box and waits for the user to choose OK or Cancel.

{BEEP}

Sounds the computer's bell.

{BREAKOFF}

Disables CTRL+BREAK while a macro is running, protecting the macro from interruption.

{BREAKON}

Restores the use of CTRL+BREAK, undoing a {BREAKOFF}.

{CHOOSE-FILE}

Displays a Windows common dialog box that contains a list of files and waits for the user to select one.

{CHOOSE-ITEM}

Displays a dialog box that contains a list of data items, waits for the user to select one and then choose OK or Cancel, and enters the index number for the user's choice in the worksheet.

{CHOOSE-MANY}

Displays a dialog box and waits for the user to select one or more check boxes and then choose OK or Cancel.

{CHOOSE-ONE}

Displays a dialog box and waits for the user to select an option and then choose OK or Cancel; then runs the macro associated with the option.

{DIALOG}

Displays a dialog box created with the Lotus Dialog Editor.

{DIALOG?}

Displays a 1-2-3 dialog box and waits for you to choose OK or press ENTER.

{FORM}

Suspends macro execution so you can enter data in a specified range.

{FORMBREAK}

Ends a {FORM} command.

{GET}

Suspends macro execution until you press a key, and then records that key in a cell.

{GET-FORMULA}

Displays a dialog box and waits for the user to enter a formula; then enters the formula in a cell.

{GET-LABEL}

Displays a dialog box and waits for the user to enter data; then enters the data in a cell as a label.

{GET-NUMBER}

Displays a dialog box and waits for the user to enter a formula or a number; then evaluates the formula and enters the result in a cell as a number.

{GET-RANGE}

Displays a dialog box and waits for the user to enter a range name or address; then enters the name or address in a cell as a number.

{LOOK}

Checks for keystrokes made during noninteractive parts of a macro and enters the first keystroke (if any) in a cell.

{MENUBRANCH}

Displays a customized menu in a dialog box, waits for you to select a menu item, and then branches to the macro instructions associated with that menu item.

{MENUCALL}

Displays a customized menu in a dialog box, waits for you to select a menu item, and then performs a subroutine call to the macro instructions associated with that menu item.

{MENU-COMMAND-ADD}

Adds a command to a custom pull-down menu.

{MENU-COMMAND-DISABLE}

Disables a command in a custom menu. Disabled commands appear dimmed.

{MENU-COMMAND-ENABLE}

Enables a command disabled with {MENU-COMMAND-DISABLE}.

{MENU-COMMAND-REMOVE}

Removes a command from a custom pull-down menu.

{MENU-CREATE}

Replaces the current 1-2-3 menu bar with a customized menu bar.

{MENU-INSERT}

Adds a custom pulldown menu to the default 1-2-3 menu bar, between the Tools and Window commands.

{MENU-RESET}

Displays the default 1-2-3 menu bar.

{MODELESS-DISMISS}

Closes the open modeless dialog box.

{MODELESS-DISPLAY}

Displays a modeless dialog box until 1-2-3 reaches another {MODELESS-DISPLAY} command, a {MODELESS-DISMISS} command, or the end of the macro.

{PLAY}

Plays a .WAV file.

{WAIT}

Suspends macro execution and displays the WAIT indicator until a specified time.

Close

Version Manager Macro Commands

Version Manager macro commands correspond to Range Version Manager commands.

{RANGE-VERSION?}

Gives you access to Version Manager.

{SCENARIO-ADD-VERSION}

Adds a version to a scenario.

{SCENARIO-CREATE}

Creates a scenario.

{SCENARIO-DELETE}

Deletes a scenario

{SCENARIO-INFO}

Lets you modify the comment and sharing options for a scenario.

{SCENARIO-REMOVE-VERSION}

Removes versions from a scenario.

{SCENARIO-SHOW}

Displays in the worksheet the selected scenario.

{VERSION-CREATE}

Creates a new version.

{VERSION-DELETE}

Deletes the specified version.

{VERSION-INDEX-COPY}

Copies the information in the Index to the Clipboard.

{VERSION-INDEX-MERGE}

Copies versions and scenarios from a file into versions and scenarios in the active file.

{VERSION-INFO}

Lets you modify style retention and sharing options.

{VERSION-REPORT}

Creates reports showing selected versions and their effect on the outcome of a formula.

{VERSION-SHOW}

Displays in the version the selected version.

{VERSION-UPDATE}

Updates an already existing version with new data you enter in its named range.

Close

Window and Screen Display Macro Commands

Window and screen display macro commands control different parts of the screen display, including the mode indicator and the worksheet window, and activate, move, and size 1-2-3 windows.

{APP-ADJUST}

Moves and changes the size of the 1-2-3 window.

{APP-STATE}

Minimizes, maximizes, or restores the 1-2-3 window.

{BREAK}

During data entry or selection of a 1-2-3 command, returns 1-2-3 to Ready mode.

{FRAMEOFF}

Turns off display of the worksheet frame.

{FRAMEON}

Restores display of the worksheet frame, undoing {FRAMEOFF}.

{INDICATE}

Changes the mode indicator to the text you specify or restores the standard mode indicator.

{PANELOFF}

Freezes the control panel and status bar either in their current states or after clearing them.

{PANELON}

Unfreezes the control panel and status bar, undoing {PANELOFF}.

{VIEW-ZOOM}

Decreases or increases the display size of cells, or restores their default display size.

{WINDOW-ACTIVATE}

Makes a window the active window.

{WINDOW-ADJUST}

Moves and changes the size of the active window.

{WINDOW-ARRANGE}

Sizes open windows (Worksheet and Transcript) and either places them side by side or arranges them one on top of the other, with just the title bars showing.

{WINDOW-STATE}

Minimizes, maximizes, or restores the active window.

{WINDOWSOFF}

Freezes the worksheet window.

{WINDOWSON}

Unfreezes the worksheet window, undoing {WINDOWSOFF}.

{WORKSHEET-TITLES}

Freezes (or unfreezes) columns along the top of the worksheet, rows along the left edge of the worksheet, or both.

Sample DDE Macros

These macros provide concrete examples of DDE concepts presented elsewhere in Help.

Note These examples show how you might write 1-2-3 macros that use DDE. The files used in these macros are not sample files included with either 1-2-3 or Ami Pro.

Using {DDE} Macros: Examples 1, 2, and 3

These three examples use the {DDE} macro commands to work with conversation-level (low-level) DDE. By letting you work with conversation-level DDE, the {DDE} macro commands let you take advantage of the full range of DDE functionality. You can create and manage data links in any open 1-2-3 file, you can also perform more sophisticated operations such as executing Ami Pro macros, or executing a particular 1-2-3 macro each time an item of data in another application changes.

When you use the {DDE} macro commands to create a link, you can only access that link by using the {DDE} macro commands. You cannot access the link through the [Edit Links](#) dialog box.

Example 1: AMI_LINK sends commands to another application and retrieves data from that application using the {DDE} macro commands.

Example 2: AMI_AUTO_LINK creates an automatically updated link using the {DDE} macro commands.

Example 3: AMI_EXIST_LINK creates an automatically updated link more efficiently; it launches Ami Pro only if it is not already active and opens a file only if it is not already open.

Using {LINK} Macros: Examples 4 and 5

These two examples use the {LINK} macro commands to work with link-level (high-level) links. By letting you work with high-level links, the {LINK} macro commands provide easy automation of the same functionality that is available through the Edit Links dialog box. These commands provide better control of links than the {DDE} macro commands, but they don't provide access to other DDE functions, such as the ability to execute Ami Pro macros from 1-2-3, and they don't let you create links in other active 1-2-3 files.

When you use the {LINK} commands to create a link, you can access the link by using the Edit Links dialog box. You can also use the {LINK} commands to manage links that you create using Edit Links.

Example 4: AMI_HOT_LINK creates an automatically updated link using the {LINK} macro commands.

Example 5: AMI_COLD_LINK creates a manually updated link using the {LINK} macro commands.

See also

[DDE and OLE Macro Commands](#)

[Edit Links Create](#)

[Macros](#)

[Overview of DDE and OLE in 1-2-3](#)

DDE Macro Example 1: AMI_LINK

```
AMI_LINK      {LAUNCH "D:\AMIPRO\AMIPRO"}
              {DDE-OPEN "AMIPRO";"SYSTEM"}
              {DDE-EXECUTE "[FileOpen( ""D:\AMIPRO\DOCS\LOAN.SAM"",1,"" "" )]" }{ERROR 1}{QUIT}
              {DDE-EXECUTE "[FilePrint(1,1,9999,1537)]"}{ERROR 2}{QUIT}
              {DDE-CLOSE}
              {DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"}{ERROR 3}{QUIT}
              {DDE-REQUEST LOANPAYMENT;"PAYMENT"}
              {DDE-CLOSE}

ERROR        {DEFINE ERR_CODE}
              {IF ERR_CODE=1}{LET MESSAGE;"FileOpen failed"}
              {IF ERR_CODE=2}{LET MESSAGE;"FilePrint failed"}
              {IF ERR_CODE=3}{LET MESSAGE;"DDE-OPEN failed"}
              {DDE-CLOSE}
```

This macro performs the following tasks:

SUMMARY: The macro starts Ami Pro and then opens and prints the file D:\AMIPRO\DOCS\LOAN.SAM. It then transfers data from a bookmark named PAYMENT in LOAN.SAM to a range named LOANPAYMENT in the current 1-2-3 file.

{LAUNCH "D:\AMIPRO\AMIPRO"} starts an Ami Pro session.

{DDE-OPEN "AMIPRO";"SYSTEM"} initiates a conversation with Ami Pro, with "system" as the topic. Since no Ami Pro file is open, you must begin with a system-topic conversation.

{DDE-EXECUTE "[FileOpen(""D:\AMIPRO\DOCS\LOAN.SAM"",1,"" "")]" } opens the Ami Pro file D:\AMIPRO\DOCS\LOAN.SAM. The extra quotes around the arguments to the FileOpen statement prevent 1-2-3 from interpreting the quotes as the end of the literal string to pass to Ami Pro.

{DDE-EXECUTE "[FilePrint(1,1,9999,1537)]"} prints the file. If 1-2-3 cannot open or print the file, the subroutine **ERROR** displays an error message and terminates the conversation.

{DDE-CLOSE} terminates the system-topic conversation.

{DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"} initiates a conversation with Ami Pro, with the file D:\AMIPRO\DOCS\LOAN.SAM as the topic. If 1-2-3 cannot open the conversation, subroutine **ERROR** displays an error message and terminates the conversation.

{DDE-REQUEST LOANPAYMENT;"PAYMENT"} transfers data from a bookmark named PAYMENT in LOAN.SAM to the range named LOANPAYMENT in the current 1-2-3 file.

{DDE-CLOSE} terminates the file-topic conversation.

See also

[Sample DDE Macros](#)

DDE Macro Example 2: AMI_AUTO_LINK

```
AMI_AUTO_LINK {LAUNCH "D:\AMIPRO\AMIPRO"}
               {DDE-OPEN "AMIPRO";"SYSTEM"}
               {DDE-EXECUTE "[FileOpen(\"D:\AMIPRO\DOCS\LOAN.SAM\",1,\"\"")]"}
               {DDE-CLOSE}
               {DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"}
               {REQUEST}
               {DDE-ADVISE REQUEST;"PAYMENT"}

REQUEST       {DDE-REQUEST LOANPAYMENT;"PAYMENT"}
               {IF LOANPAYMENT>2000}{LET MESSAGE;"Payment exceeds limit"}{BREAKLINK}{QUIT}

BREAKLINK    {DDE-UNADVISE "PAYMENT"}
               {DDE-CLOSE}
```

This macro performs the following tasks:

SUMMARY: The macro starts Ami Pro, opens the file D:\AMIPRO\DOCS\LOAN.SAM, and transfers data from a bookmark named PAYMENT in LOAN.SAM to a range named LOANPAYMENT in the current 1-2-3 file. It then updates the data in the range LOANPAYMENT whenever the data in PAYMENT changes. If the amount in PAYMENT exceeds 2000, the macro displays a message and breaks the link.

{LAUNCH "D:\AMIPRO\AMIPRO"} starts an Ami Pro session.

{DDE-OPEN "AMIPRO";"SYSTEM"} initiates a conversation with Ami Pro, with "system" as the topic.

{DDE-EXECUTE "[FileOpen(\"D:\AMIPRO\DOCS\LOAN.SAM\",1,\"\"")]} opens the Ami Pro file D:\AMIPRO\DOCS\LOAN.SAM.

{DDE-CLOSE} terminates the system-topic conversation.

{DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"} initiates a conversation with Ami Pro, with the file D:\AMIPRO\DOCS\LOAN.SAM as the topic.

{REQUEST} calls the subroutine **REQUEST**, which transfers data from Ami Pro into 1-2-3.

{DDE-ADVISE REQUEST;"PAYMENT"} branches to the subroutine **REQUEST** each time the data in PAYMENT changes.

{DDE-REQUEST LOANPAYMENT;"PAYMENT"} transfers data from a bookmark named PAYMENT in LOAN.SAM to the range named LOANPAYMENT in the current 1-2-3 file.

{IF LOANPAYMENT>2000} tests the contents of LOANPAYMENT. If the cell contains a value greater than 2000, the macro continues to the next instruction following {IF} in the same cell; in this case the instructions display a message, call the subroutine **{BREAKLINK}**, which ends the **{DDE-ADVISE}** command and terminates the conversation, and quit the macro.

See also

[Sample DDE Macros](#)

DDE Macro Example 3: AMI_EXIST_LINK

```
AMI_EXIST_LINK {OPEN_FILE}
                {DDE-REQUEST LOANPAYMENT;"PAYMENT"}
                {DDE-ADVISE ;"PAYMENT";;LOANPAYMENT}

OPEN_FILE      {DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"}{OPEN_SYS}

OPEN_SYS       {DDE-OPEN "AMIPRO";"SYSTEM"}{BRANCH OPEN_LAUNCH}
                {DDE-EXECUTE "[FileOpen(]"D:\AMIPRO\DOCS\LOAN.SAM"",1,"""]"}{ERROR}
                {DDE-CLOSE}
                {DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"}

OPEN_LAUNCH    {LAUNCH "D:\AMIPRO\AMIPRO"}
                {OPEN_SYS}
```

This macro performs the following tasks:

SUMMARY: The macro creates an automatically updated link from a bookmark named PAYMENT in LOAN.SAM to the range named LOANPAYMENT in the current 1-2-3 file. The macro starts Ami Pro only if it is not already running, and opens LOAN.SAM only if it is not already open.

{OPEN_FILE} calls subroutine OPEN_FILE, which initiates a conversation with Ami Pro with the file D:\AMIPRO\DOCS\LOAN.SAM as the topic.

{DDE-REQUEST LOANPAYMENT;"PAYMENT"} transfers data from a bookmark named PAYMENT in LOAN.SAM to the range named LOANPAYMENT in the current 1-2-3 file.

{DDE-ADVISE ;"PAYMENT";;LOANPAYMENT} transfers the data in PAYMENT to LOANPAYMENT each time the data in PAYMENT changes.

{DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"}{OPEN_SYS} initiates a conversation with Ami Pro, with the file D:\AMIPRO\DOCS\LOAN.SAM as the topic, or calls the subroutine OPEN_SYS if the {DDE-OPEN} command fails.

{DDE-OPEN "AMIPRO";"SYSTEM"}{BRANCH OPEN_LAUNCH} initiates a conversation with Ami Pro, with "system" as the topic, or branches to the subroutine OPEN_LAUNCH if the {DDE-OPEN} command fails.

{DDE-EXECUTE "[FileOpen(]"D:\AMIPRO\DOCS\LOAN.SAM"",1,"""]"}{ERROR} opens the Ami Pro file D:\AMIPRO\DOCS\LOAN.SAM, or calls the subroutine ERROR if the {DDE-EXECUTE} command fails.

{DDE-CLOSE} terminates the system-topic conversation.

{DDE-OPEN "AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM"} initiates a file-topic conversation.

{LAUNCH "D:\AMIPRO\AMIPRO"} starts Ami Pro.

{OPEN_SYS} calls subroutine OPEN_SYS.

See also

[Sample DDE Macros](#)

DDE Macro Example 4: AMI_HOT_LINK

```
AMI_HOT_LINK {LINK-CREATE "AMILINK1";"AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM";"PAYMENT"}
              {LINK-ASSIGN "AMILINK1";LOANPAYMENT}
              {IF LOANPAYMENT>2000}{END_LINK}{QUIT}

END_LINK     {LET MESSAGE;"Payment exceeds limit"}
              {LINK-DEACTIVATE "AMILINK1"}
```

This macro performs the following tasks:

SUMMARY: The macro creates an automatically updated link from a bookmark named PAYMENT in LOAN.SAM to the range named LOANPAYMENT in the current 1-2-3 file.

{LINK-CREATE "AMILINK1";"AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM";"PAYMENT"} creates an automatically updated link between the current worksheet file and Ami Pro. The name of the link is AMILINK1. The topic is the file name D:\AMIPRO\DOCS\LOAN.SAM and the item is a bookmark named PAYMENT from that file. Since no update mode is specified, 1-2-3 uses automatic. If Ami Pro is not open, 1-2-3 will launch Ami Pro if it is on the path, or if you specify a path.

{LINK-ASSIGN "AMILINK1";LOANPAYMENT} specifies the range named LOANPAYMENT as the destination range. Whenever the Ami Pro data specified by PAYMENT changes, 1-2-3 updates the contents of the range LOANPAYMENT with the new data.

{IF LOANPAYMENT>2000} tests the contents of LOANPAYMENT. If the cell contains a value greater than 2000, the macro continues to the next instruction following {IF} in the same cell; in this case the instruction is **{END_LINK}**, which displays a message and deactivates the link AMILINK1. Note that this test is only performed once. If the value in LOANPAYMENT later changes, and the new value exceeds 2000, subroutine END_LINK is not called.

See also

[Sample DDE Macros](#)

DDE Macro Example 5: AMI_COLD_LINK

```
AMI_COLD_LINK {LINK-CREATE "LINK2";"AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM";"PAYMENT";"TEXT";"MANUAL"}  
              {LINK-ASSIGN "LINK2";LOANPAYMENT}
```

This macro performs the following tasks:

SUMMARY: The macro creates a link from a bookmark named PAYMENT in LOAN.SAM to the range named LOANPAYMENT in the current 1-2-3 file. This link does not update automatically. You can use the {LINK-UPDATE} command or Edit Links Update/Update All to update the link.

{LINK-CREATE "LINK2";"AMIPRO";"D:\AMIPRO\DOCS\LOAN.SAM";"PAYMENT";"TEXT";"MANUAL"} creates a link between the current 1-2-3 file and Ami Pro. The name of the link is LINK2. The topic is the file name D:\AMIPRO\DOCS\LOAN.SAM and the item is a bookmark named PAYMENT from that file. Since manual is the specified update mode, you must use {LINK-UPDATE} or Edit Links Update/Update All to update this link. If Ami Pro is not open, 1-2-3 will launch Ami Pro if it is on the path, or if you specify a path.

{LINK-ASSIGN "LINK2";LOANPAYMENT} specifies the range named LOANPAYMENT as the destination range.

See also

[Sample DDE Macros](#)

{ADDIN} is reserved for internal use only.

{BORDERSOFF} is reserved for internal use only.

{BORDERSON} is reserved for internal use only.

{GRAPH}, {GRAPHOFF}, and {GRAPHON} are reserved for internal use only.

{IFKEY} is reserved for internal use only.

{APP4} is reserved for internal use only.

{EDIT-COPY-GRAPH} is reserved for internal use only.

1-2-3 for Macintosh macro command

You can use this macro command in both 1-2-3 Release 5 and 1-2-3 for Macintosh Release 1.

Some macro commands may produce different results depending on the features that are supported.

See also

User's Guide

Appendix A, "Sharing Files and Macros"

Using Help

Help provides information about all aspects of 1-2-3.

Selecting a Help topic

When 1-2-3 is in Ready mode, choose a Help command in the 1-2-3 Help pull-down menu to gain access to broad categories of Help topics, such as Keyboard and How Do I?

To select a Help topic using the mouse, point to green text with a solid underline. When the mouse pointer changes to a hand icon, click the mouse button. Using the keyboard, press TAB until the topic is highlighted, and then press ENTER.

Viewing a definition

To view the definition of a term using the mouse, point to green text with a dotted underline. When the mouse pointer changes to a hand icon, click the mouse button. Using the keyboard, press TAB until the definition is highlighted, and then press ENTER.

The definition appears in a pop-up box and stays visible until you click the mouse button or press a key.

F1 (HELP)

When you are not in the Help window, press F1 (HELP) to open the Help window and get Help on what you are doing in 1-2-3.

Note When the Help window is the active window, pressing F1 (HELP) closes 1-2-3 Help and opens Windows Help. To return to the 1-2-3 Release 5 Help Contents, press **t** or click History and then select 123W: 1-2-3 Release 5 Help Contents; or, press **b** or click Back to go back to the previous topic.

Help Icon



Click on the question mark icon in the top right corner of any 1-2-3 dialog box to open the 1-2-3 Help window.

Multiple Help Files

1-2-3 Release 5 Help includes three main Help files: 1-2-3 Release 5 Help (123W.HLP), @Function Help (123WFUNC.HLP), and Macro Help (123WMAC.HLP).

The 1-2-3 Install program automatically loads 123W.HLP and gives you the option to load 123WFUNC.HLP and 123WMAC.HLP. If you do not load these files during initial installation, you can return to Install later to load them.

Help features

Cross-References

You can select a Help topic that gives information related to the current topic.

Definitions and Examples

You can view definitions and examples in pop-up boxes throughout Help.

Displaying 1-2-3 and Help Together on the Screen

You can keep Help visible while you work in 1-2-3.

Help Buttons

You can use Help buttons to go directly to the Help Contents, backtrack through Help topics you viewed, browse through sets of related Help topics, and search for information.

Help Window Commands

You can print Help topics and open the Help of other Windows applications; copy Help topics to the Clipboard; add notes to Help topics; and add Help topics to a pull-down menu so you can get to them quickly.

Search

You can use Search to find topics in the current Help file associated with the keyword or phrase you specify.

See also

Basics

Help Keys

Installing Help

Multiple Help Files

1-2-3 Release 5 Help Contents

Multiple Help Files

1-2-3 Release 5 Help includes three main Help files:

File	Title and contents
123W.HLP	1-2-3 Release 5 Help: Help for all commands and dialog boxes; general information about 1-2-3; Help for messages; 1-2-3 Classic; and short descriptions of @functions and macro commands.
123WFUNC.HLP	@Function Help: Detailed descriptions of @functions, including notes and examples.
123WMAC.HLP	Macro Help: Detailed descriptions of macro commands, including notes and examples.

The 1-2-3 Install program automatically loads 123W.HLP and gives you the option to load 123WFUNC.HLP and 123WMAC.HLP. If you don't load these files during initial installation, you can return to Install later to load them.

For information about the effect of multiple Help files on Search, see [Using Search](#).

See also

Help

[Help Window Commands](#)

[Installing Help](#)

User's Guide

Chapter 1, "Before You Begin"

Installing Help

1-2-3 Help uses the Windows 3.1 WINHELP.EXE file, which controls the appearance and functionality of the Help window.

If you previously used Windows 3.0, you will notice the following changes in the Help window:

- Using the History Help Button, you can select a previously viewed topic.
- Using Edit Copy, you can select and copy part of the current Help topic.
- No icons appear on the Help Buttons.

See also

Help Window Commands

Multiple Help Files for information about installing multiple Help files

Displaying 1-2-3 and Help Together on the Screen

You can arrange the 1-2-3 window and the Help window so that they overlap as little as possible and both windows remain fully visible while you work.

In Windows 3.1

1. In the Help window, choose Help Always on Top.

The Help window remains in the foreground even when it is not active.

When the command is in effect, a check mark appears in the pull-down menu. To remove the check mark and turn off Help Always on Top, choose the same command again.

Manually arranging 1-2-3 and the Help window

It's likely that at some point in the procedures below, the Help window will be partly or completely hidden. Choose File Print Topic in the Help window to print this topic for reference.

Note 1-2-3 window is the term used to refer to the window whose title bar contains the name of the application: 1-2-3 Release 5. You must manipulate the 1-2-3 window -- not a Worksheet or Transcript window -- in the following procedures.

Close

1. If the Help window fills the whole screen, click the Restore button.

If the Maximize button of the Help window is visible, skip this step.

2. Move the Help window to the left side of the screen by pointing to its title bar and dragging it.
3. Resize the Help window to fill the left half of the screen.

Drag a top, bottom, or side border to resize in one direction only. Drag a corner of the border to resize vertically and horizontally at the same time. The mouse pointer changes to a white two-headed arrow when you are pointing to a border.

4. Click the 1-2-3 window to make it the active window.

The active window always appears in the foreground, so the 1-2-3 window may now hide part or all of the Help window.

5. If the 1-2-3 window fills the whole screen, click the Restore button.
- If the Maximize button of the 1-2-3 window is visible, skip this step.

6. Move the 1-2-3 window to the right side of the screen by pointing to its title bar and dragging it.
7. Resize the 1-2-3 window to fill the right half of the screen.

Close

1. If the Help window fills the whole screen, restore the Help window to a smaller size by pressing ALT+SPACEBAR to open the Control menu and then choosing Restore.

If the Maximize button of the Help window is visible, skip this step.

2. Move the Help window to the left side of the screen.

Choose Move in the Control menu, use the arrow keys to move the outline of the window, and then press ENTER.

3. Resize the Help window to fill the left half of the screen.

Choose Size in the Control menu, press an arrow key to indicate which border you want to move, use the arrow keys to move the border, and then press ENTER.

4. Make the 1-2-3 window the active window by pressing ALT+ESC until the 1-2-3 window is the active window.

The active window always appears in the foreground, so the 1-2-3 window may now hide part or all of the Help window.

5. If the 1-2-3 window fills the whole screen, restore it to a smaller size by pressing ALT+SPACEBAR to open the Control menu and then choosing Restore.

If the Maximize button of the 1-2-3 window is visible, skip this step.

6. Move the 1-2-3 window to the right side of the screen.

Choose Move in the Control menu, use the arrow keys to move the outline of the window, and then press ENTER.

7. Resize the 1-2-3 window to fill the right half of the screen.

Choose Size in the Control menu, press an arrow key to indicate which border you want to move, use the arrow keys to move the border, and then press ENTER.

See also

[Help Commands](#)

[Help Window Commands](#)

[1-2-3 Release 5 Help Contents](#)

[Using Help](#)

Using Search

Use Search to find topics in the current Help file associated with a keyword or phrase.

Search and Multiple Help Files

1-2-3 Release 5 Help includes three main Help files: 1-2-3 Release 5 Help (123W.HLP), @Function Help (123WFUNC.HLP), and Macro Help (123WMAC.HLP).

The title of the current Help file appears in the Help window title bar. Search locates only topics that exist in the current Help file.

For example, if you are searching for detailed information about a macro command, but the title of the current Help file is 1-2-3 Release 5 Help (123W.HLP), you must open 123WMAC.HLP and use Search in that file to find the Help topic containing the detailed information you need.

To use Search in the current Help file

1. Choose Search.

2. Specify a word or phrase from the keywords in the list box.

If you type a letter in the text box, the list box scrolls to the keyword that most closely matches what you are typing.

For example, if you type z in the text box, the list box scrolls to the first keyword beginning with the letter z (or to the closest match alphabetically).

3. Choose Show Topics.

In the bottom list box, Help displays all the topics associated with the selected keyword.

4. Select the topic you want to view.

If necessary, use the scroll bar to view more topics.

5. Choose Go To or press ENTER.

Help displays the topic you selected.

To use Search in another Help file

1. Choose File Open.

2. Specify the name of the Help file you want to search.

3. Choose OK.

4. Use Search as described in the previous procedure to search the new file.

See also

[Multiple Help Files](#) to learn about installing multiple Help files and about the contents of each Help file
[Using Help](#)

Displaying Definitions and Examples

In Help topics you see words and phrases that are green and have a dotted underline: Help provides definitions for these words and phrases.

You also see the word Example followed by a word or phrase that is green and has a dotted underline: Help provides an example of the item under discussion.

Close

To display a definition or example

1. Point to a term with a dotted underline.

The mouse pointer changes to a hand icon.

2. Click the mouse button.

The pop-up box that contains the definition or example appears and stays visible until you click the mouse button.

Close

To display a definition or example

1. Press TAB to highlight a term with a dotted underline.
2. Press ENTER.

The pop-up box appears and stays visible until you press a key.

See also

Using Help

Using Cross-References

In Help topics, you will often see words and phrases that are green and have a solid underline: These words or phrases are cross-references to Help topics related to the current topic.

Close

To go to a cross-reference

1. Point to a word or phrase with a solid underline.

The mouse pointer changes to a hand icon.

2. Click the mouse button.

The topic for the underlined word or phrase replaces the current topic in the Help window.

Close

To go to a cross-reference

1. Press TAB to highlight a word or phrase with a solid underline.
2. Press ENTER.

The topic for the underlined word or phrase replaces the current topic in the Help window.

Note Choose Back or press **b** to go back to the original topic.

See also

Using Help

Help Buttons

Help buttons are located below the Help menu bar. If the feature is not available, the button is dimmed.

To choose a Help button, click it or press the underlined letter in the Help button's name.

Contents

Displays a list of 1-2-3 Help categories.

Search

Lists all the keywords included in the current Help file. By typing or selecting a keyword, you can search for and go to specific Help topics.

Back

Displays the last topic you viewed. Help moves back one topic at a time in the order you viewed each topic until you return to the first topic you viewed. Then the button is dimmed. The record of which topics you have viewed is erased each time you minimize or close the Help window.

History

Lists the last 40 topics you viewed. The most recently viewed topic is listed first. To return to a topic, double-click it.

<<

Displays the previous topic in a series of related topics until you reach the first topic in the series. Then the button is dimmed.

>>

Displays the next topic in a series of related topics until you reach the last topic in the series. Then the button is dimmed.

See also

[Using Help](#)

Help Keys

The following is a list of the keys you use in 1-2-3 Release 5 Help.

ALT+F4

Closes the Help window. Help saves any annotations or bookmarks you created, and saves the current size and position of the Help window.

ALT+SPACEBAR

Opens the Control menu for the Help window.

BACKSPACE

Returns you to the previous Help topic you viewed.

CTRL+ END

Scrolls to the end of the Help topic.

CTRL+HOME

Scrolls to the beginning of the Help topic.

CTRL+INS

Copies text of a Help topic onto the Clipboard so you can paste it into a worksheet file or another Windows application.

ESC

Closes Help. ESC is equivalent to File Exit.

F1 (HELP)

Starts 1-2-3 Release 5 Help and displays the 1-2-3 Help Contents, or displays Help about what you are doing in 1-2-3. If Help is an icon, pressing F1 (HELP) restores Help to a window and displays the last topic you viewed.

Note When the Help window is the active window, pressing F1 (HELP) closes 1-2-3 Help and opens Windows Help). To return to the 1-2-3 Release 5 Help Contents, press **t** or click History and then select 123W: 1-2-3 Release 5 Help Contents.

HOME

Returns you to 1-2-3 Release 5 Help Contents.

LEFT

Scrolls to the previous Help topic in the current series of related topics.

RIGHT

Scrolls to the next Help topic in the current series of related topics.

See also

[Using Help](#)

Help Window Commands

File Commands

[Open](#)

[Print Topic](#)

[Print Setup](#)

[Exit](#)

Edit Commands

[Copy](#)

[Annotate](#)

Bookmark Commands

[Define](#)

[\(Bookmark Name\)](#)

[More](#)

Help Commands

[How to Use Help](#)

[Always on Top](#)

[About Help](#)

See also

[Help Buttons](#)

[Help Commands](#) (1-2-3 main menu)

File Open (Help Window)

Opens a Help file (.HLP) in the Help window, replacing the Help you previously had open.

You can open any 1-2-3 Help file or the Help file for any application that uses Windows Help. You do not have to be using the application to open its Help file.

1. Choose File Open.
2. Specify the name of the Help file you want to open.

You can enter the name of the Help file in the File name text box, or you can use the Files and Directories list boxes to select the file you want.

3. Choose OK.

See also

[Help Commands](#)

[Help Window Commands](#)

[Multiple Help Files](#)

File Print Topic (Help Window)

Prints the topic in the Help window.

1. Choose File Print Topic.

See also

[File Print Setup](#)

[Help Commands](#)

[Help Window Commands](#)

File Print Setup (Help Window)

Identifies the printer for Help and sets the printer options.

1. Choose File Print Setup.
2. Under Printer, select an option.
 - Default printer prints to the printer you set up in Windows, in Control Panel Printers.
 - Specific printer lets you select from among the non-default printers set up in Windows.
3. To print to a non-default printer, select a printer from the drop-down box.
4. Under Orientation, select Portrait or Landscape.
5. Under Paper, select options from the Size and Source drop-down boxes.
6. Choose Options to change the printer's default options.

The Options dialog box appears.
7. Select the options you want, and then choose OK.

The Print Setup dialog box reappears.
8. Choose OK.

When you choose File Print Topic, Help will use the printer and options you specified.

See also

[Help Commands](#)

[Help Window Commands](#)

File Exit (Help Window)

Closes Help. Help saves any [annotations](#) or [bookmarks](#) you created, and saves the current size and position of the Help window.

1. Choose File Exit.

See also

[Help Commands](#)

[Help Window Commands](#)

Edit Copy (Help Window)

Copies the selected text of the current Help topic to the [Clipboard](#).

From the Clipboard, you can paste the text into a worksheet file or another Windows application by using [Edit Paste](#).

1. Choose Edit Copy.
2. Select the text you want to copy.

If you select no text, the entire Help topic is copied to the Clipboard.

3. Choose Copy.

See also

[Help Commands](#)

[Help Window Commands](#)

Edit Annotate (Help Window)

Adds a note to the current Help topic. Annotations are marked with a paper clip icon.

1. Choose Edit Annotate.
 2. Enter the text you want to add in the Annotation text box.
 3. Choose Save.
-

To view an annotation

1. Go to the topic that contains the annotation.
 2. Click the paper clip icon, or press TAB to highlight the paper clip icon and then press ENTER.
 3. Choose Cancel to close the Annotate dialog box.
-

To remove an annotation

1. Go to the topic that contains the annotation.
 2. Click the paper clip icon, or press TAB to highlight the paper clip icon and then press ENTER.
 3. Choose Delete.
-

To copy an annotation to the Clipboard

1. Go to the topic that contains the annotation.
 2. Click the paper clip icon, or press TAB to highlight the paper clip icon and then press ENTER.
 3. Choose Copy.
-

To paste text to the annotation

1. Go to the topic that contains the annotation.
 2. Click the paper clip icon, or press TAB to highlight the paper clip icon and then press ENTER.
 2. Choose Paste.
-

See also

[Help Commands](#)

[Help Window Commands](#)

Bookmark Define (Help Window)

Places a bookmark at the current topic or removes a bookmark from any topic. Once you have placed a bookmark at a topic, you can get that topic quickly from the Bookmark menu.

1. Choose Bookmark Define.

2. Specify the name of the bookmark in the Bookmark Name text box.

You can accept the name of the current topic as it appears in the text box, or you can enter a name you create.

3. Choose OK.

The bookmark name you specified now appears in the Bookmark pull-down menu.

To remove a bookmark

1. Choose Bookmark Define.

2. Select the bookmark you want to remove.

3. Choose Delete.

4. Choose OK.

See also

[Bookmark \(Bookmark Name\)](#)

[Bookmark More](#)

[Help Commands](#)

[Help Window Commands](#)

Bookmark (Bookmark Name) (Help Window)

Replaces the current Help topic with the bookmarked topic. A bookmark name appears only after you have defined a bookmark with [Bookmark Define](#). As many as nine bookmark names can appear in the Bookmark pull-down menu.

1. Choose Bookmark.
2. In the Bookmark pull-down, select the bookmark name of the topic you want to see.

See also

[Bookmark More](#)

[Help Commands](#)

[Help Window Commands](#)

Bookmark More (Help Window)

Displays the complete list of names given to bookmarked topics. Bookmark More appears only when you have defined more than nine bookmarks.

1. Choose Bookmark More.
2. Select the topic you want in the Go To Bookmark list box.
3. Choose OK.

See also

[Bookmark \(Bookmark Name\)](#)

[Bookmark Define](#)

[Help Commands](#)

[Help Window Commands](#)

Help How to Use Help (Help Window)

Closes 1-2-3 Release 5 Help and opens Windows How to Use Help. Choosing this command is the same as pressing F1 (HELP) while in 1-2-3 Help.

1. Choose Help How to Use Help.

Returning to 1-2-3 Help

- Choose Back to go back one screen at a time.
- Choose History to see a list of the previous topics you have viewed and select a 1-2-3 Help topic from that list.
- Choose File Open and specify 123W.HLP as the file you want to open.

See also

[Help Buttons](#)

[Help Commands](#)

[Help Window Commands](#)

Help Always on Top (Help Window)

Keeps the Help window in the foreground even when it is not active.

Note This feature is available only if you use 1-2-3 with Windows 3.1.

1. In the Help window, choose Help Always on Top.

When the command is in effect, a check mark appears in the pull-down menu. To remove the check mark and turn off Help Always on Top, choose the same command again.

See also

[Displaying 1-2-3 and Help Together on the Screen](#)

[Help Commands](#)

[Help Window Commands](#)

Help About Help (Help Window)

Displays information about Windows Help, including the version number and copyright notice.

1. Choose Help About Help.
2. Choose OK.

See also

[Help Commands](#)

[Help Window Commands](#)

For Upgraders

If you are upgrading from a previous release of 1-2-3 read Chapter 2 "What's New for Upgraders" in the *User's Guide*, for a complete introduction to 1-2-3 Release 5.

New Features

Provides an overview of the new features in 1-2-3 Release 5.

1-2-3 Release 5 User Interface

Provides an overview of the improved user interface in 1-2-3 Release 5.

1-2-3 Classic

Provides tables of command equivalents between 1-2-3 for DOS Release 3.1 and 1-2-3 Release 5.

Parts of the 1-2-3 Window

Provides information on the control panel, work area, and status bar in the 1-2-3 window.

New Features

Some of the new features of 1-2-3 Release 5 are described below. For tables and descriptions of all the new 1-2-3 Release 5 features, see Chapter 2 "What's New for Upgraders" in the *User's Guide*.

Mapping The new Mapping feature lets you link worksheet data to geographical maps of the world, countries, or states. For example, you can draw a map of the world showing the amount of your company's sales in each country.

Range routing You can send a range of worksheet data to other 1-2-3 Release 5 users who use electronic mail. You can send the range simultaneously to everyone in a group, or you can route the range sequentially from one individual to the next in a mailing list. 1-2-3 remembers who sent the range and lets you merge changes into the original file using [Version Manager](#).

Exchanging data between 1-2-3 and Lotus Notes [Notes/FX](#) lets you combine the power of a Notes database with a 1-2-3 template. If you have Lotus Notes 3.0 or later, you can create applications that use a 1-2-3 worksheet as a template and then store spreadsheet data in a Notes database.

Information sharing You can use drag-and-drop to copy or move data between 1-2-3 and other applications that support OLE 2.

File information [File Doc Info](#) lets you enter information for identifying and tracking files. You can assign a file title, include keywords and comments, and track who creates and modifies each file. You can also use the File Doc Info command to exchange data with Lotus Notes if you set up Notes/FX.

Using Lotus Approach with 1-2-3 If you have Lotus Approach Release 3.0 or later, you can use it to analyze and manage worksheet data without leaving 1-2-3. Explore new ways of working with your data using Approach forms, reports, dynamic crosstabs, and mailing labels.

SmartMaster templates When you create a new file, you can base it on a [SmartMaster](#) or a plain worksheet. 1-2-3 Release 5 includes a variety of SmartMaster templates for creating budgets, tracking expenses, preparing invoices, and more. There's also a SmartMaster shell file you can use to create your own customized SmartMaster template files.

Multiple currencies You can format numbers as different currencies in the same worksheet. For example, you can format one range as US dollar and another as Japanese yen. There are more than 40 different currency types available.

@Functions and macros 1-2-3 Release 5 has new macro commands to help you create custom applications in the graphical Windows environment. New @functions let you perform calculations quickly. You can choose the @function you want from a the @Function pull-down menu.

Working with different file types You can open Excel, dBASE, and Paradox files in 1-2-3, and you can save 1-2-3 files in Excel, dBASE, and Paradox format. You can also open text files in 1-2-3, and the advanced parsing feature makes it easy to separate data from text files into columns in the worksheet.

Printing sections of Help You can print sections of Help consisting of many related Help topics. For example, you can print a list of all the 1-2-3 SmartIcons, or sections of Help describing all the database macro commands, or all the financial @functions.

Multiple-page print preview When you preview printed pages, you can see one page, two facing pages, four pages at a time, or nine pages at a time.

Fast formatting The 1-2-3 Release 5 fast formatting feature lets you copy all your formats from one range to other ranges with just one click.

Dragging to fill a range or clear data With drag-and-fill, you can drag from the corner of a cell and fill a range with a sequence of data based on the data in the cell. Drag-and-clear lets you use the mouse to clear data in a range.

Icon descriptions When you point to one of the SmartIcons, a description appears in a text bubble below the icon.

Colored worksheet tabs Organize your spreadsheets and enhance their appearance by giving different

colors to your worksheet tabs.

Naming worksheets automatically 1-2-3 can automatically name new worksheets based on the name of an existing sheet. For example, if you have a worksheet named January, when you insert two new sheets after January, 1-2-3 automatically names them February and March.

See also

[1-2-3 Classic](#)

[1-2-3 Release 5 User Interface](#)

[Parts of the 1-2-3 Window](#)

1-2-3 Release 5 User Interface

The 1-2-3 Release 5 user interface makes the product more intuitive and easy to use. These ease-of-use features include:

Streamlined menus

1-2-3 Release 5 consolidates similar commands from previous 1-2-3 releases into a single command. For example, File Open lets you open an existing file, combine a file on disk, and import data from a text file. File Open also lets you add the contents of a .CGM or.PIC file to the current worksheet.

Context-sensitive menus

The main menu contains a command that changes depending on whether you are working with a range, a chart, data extracted from a database table, or the Transcript window. For example, if you select a range of cells, the main menu displays the Range commands. If you select a chart, the Chart commands replace the Range command.

Interactive status bar

With the click of a mouse you can perform tasks such as changing the font or point size, styling to your data, or displaying a custom set of SmartIcons.

Editing in cells

Now you can edit data directly in a cell. Double-click anywhere in a cell to display the insertion point. If needed, the cell contents expand to the right edge of the window.

Quick menus

To apply frequently used commands to a selection, press the right mouse button. For example, if you select a range and then press the right mouse button, you see a floating menu with commands such as Cut, Copy, Paste, Clear, Insert, Delete, Number Format, and so on. If you select a drawn object, you see different commands.

See also

[1-2-3 Classic](#)

[New Features](#)

[Parts of the 1-2-3 Window](#)

1-2-3 Classic

1-2-3 Classic is the command menu of 1-2-3 for DOS Release 3.1, available in 1-2-3 Release 5.

Using 1-2-3 Classic

When 1-2-3 is in Ready mode and the active window is a Worksheet window, press / (slash) or < (less-than symbol) to use 1-2-3 Classic. To use Wysiwyg commands, press : (colon). To use add-ins, press ALT+F10.

Note Wysiwyg is read into memory automatically whenever you start 1-2-3.

1-2-3 Classic window

The 1-2-3 Classic window contains the following:

- Title bar. Use the Control menu box on the left to move 1-2-3 Classic and to switch to another Windows application. For more information, see Control Menu.
- Control panel. The 1-2-3 Classic control panel is the 1-2-3 for DOS Release 3.1 control panel. However, you enter and edit data in the edit line of the graphical interface. For information, see Entering Data.

When you complete a command, 1-2-3 Classic disappears. To close the 1-2-3 Classic window without completing a command, do one of the following:

- Press ESC until you reach the main menu, and then press ESC again.
- Press CTRL+BREAK.

1-2-3 Classic commands

You work with 1-2-3 Classic commands just as you work when you use 1-2-3 for DOS Release 3.1.

Some Release 3.1 commands do not operate in 1-2-3 Release 5. When you highlight a command that is not operable, the following message appears below the 1-2-3 Classic menu: Obsolete menu option -- has no effect in 1-2-3 Release 5.

Running 1-2-3 for DOS Release 3.1 macros

1-2-3 Release 5 can execute all Release 3.1 keystroke macros by using 1-2-3 Classic. 1-2-3 Release 5 ignores inoperable commands in a macro, but continues execution of the macro. For more information about running macros created in other releases of 1-2-3, see Appendix A, "Sharing Files and Macros" in the *User's Guide*.

Pressing F1 (HELP) in 1-2-3 Classic

When you press F1 (HELP) in 1-2-3 Classic, the Help window opens and displays a table.

In the left column of the table, find the command you chose in 1-2-3 Classic. In the right column, is information telling you how to complete this command in 1-2-3 Release 5.

To view a table without opening the 1-2-3 Classic window, select a main menu, Wysiwyg, or add-in command from the lists that follow. After selecting a command from the lists that follow, you can browse to the next topic by pressing > or clicking >> in the Help button bar. Browse to the previous topic by pressing < or clicking <<.

Main menu

/Worksheet

/Range

/Copy

/Move

/File

[/Print](#)
[/Graph](#)
[/Data](#)
[/System](#)
[/Quit](#)

Wysiwyg commands

[:Worksheet](#)
[:Format](#)
[:Graph](#)
[:Print](#)
[:Display](#)
[:Special](#)
[:Text](#)
[:Named-Style](#)
[:Quit](#)

Add-in commands

[Add-in Commands](#)

See also

Help

[New Features](#)
[1-2-3 Release User Interface](#)
[Parts of the 1-2-3 Window](#)

1-2-3 Classic Main Menu

To select a Help topic using the mouse, point to green text with a solid underline. When the mouse pointer changes to a hand icon, click the mouse button. Using the keyboard, press TAB until the topic is highlighted, and then press ENTER.

Worksheet commands

Range commands

Copy command

Move command

File commands

Print commands

Graph commands

Data commands

System command

Quit command

See also

Help

New Features

1-2-3 Release 5 User Interface

1-2-3 Classic

Parts of the 1-2-3 Window

/Copy

You chose /Copy. In 1-2-3 Release 5, choose Edit Copy, select a destination range, and choose Edit Paste.

/Data

You chose /D

In 1-2-3 Release 5, choose

Distribution

Range Analyze Distribution

External

Tools Database Connect to External

Fill

Range Fill

Matrix

Range Analyze Invert Matrix and Range Analyze Multiply Matrix

Parse

Range Parse

Query

Tools Database New Query

Regression

Range Analyze Regression

Sort

Range Sort and Query Sort

Table

Range Analyze What-if Table

/Data External

You chose /DE

In 1-2-3 Release 5, choose

Create	<u>Tools Database Create Table</u>
Delete	<u>/Data External Delete</u>
List Fields	<u>Query Choose Fields</u>
List Tables	<u>/Data External List Tables</u>
Other Command	<u>Tools Database Send Command</u>
Other Refresh	<u>/Data External Other Refresh</u>
Other Translation	<u>/Data External Other Translation</u>
Quit	<u>/Data External Quit</u>
Reset	<u>Tools Database Disconnect</u>
Use	<u>Tools Database Connect to External</u>

/Data Matrix

You chose /DM

In 1-2-3 Release 5, choose

Invert

Range Analyze Invert Matrix

Multiply

Range Analyze Multiply Matrix

/Data Query

You chose /DQ

In 1-2-3 Release 5, choose

Criteria	<u>Tools Database New Query and Query Set Criteria</u>
Del	<u>Tools Database Delete Records</u>
Extract	<u>Tools Database New Query</u>
Find	<u>Tools Database Find Records</u>
Input	<u>Query Set Database Table</u>
Modify	<u>Query Update Database Table</u>
Output	<u>Tools Database New Query</u>
Quit	<u>/Data Query Quit</u>
Reset	<u>Tools Database New Query</u>
Unique	<u>Query Set Options</u>

/Data Query Modify

You chose /DQM

In 1-2-3 Release 5, choose

Cancel

/Data Query Modify Cancel

Extract

Tools Database New Query

Insert

Tools Database Append Records

Replace

Query Update Database Table

/Data Table

You chose /DT

In 1-2-3 Release 5, choose

1	<u>Range Analyze What-if Table: 1 Variable</u>
2	<u>Range Analyze What-if Table: 2 Variables</u>
3	<u>Range Analyze What-if Table: 3 Variables</u>
Labeled	<u>/Data Table Labeled</u>
Reset	<u>Range Analyze What-if Table Reset</u>

/File

You chose /F

In 1-2-3 Release 5, choose

Admin	<u>/File Admin</u> for more information
Combine	<u>File Open</u>
Dir	<u>Tools User Setup</u>
Erase	<u>/File Erase</u>
Import	<u>File Open</u>
List	<u>/File List</u>
New	<u>File New</u>
Open	<u>File Open</u>
Retrieve	<u>File Open</u>
Save	<u>File Save/File Update</u> and <u>File Save As/File Save Copy As</u>
Xtract	<u>File Save As/File Save Copy As</u>

/File Admin

You chose /FA

In 1-2-3 Release 5, choose

Link-Refresh

Edit Links Update/Edit Links Update All

Reservation

File Protect

Seal

File Protect

Table

/File Admin Table

/File Import

You chose /FI

In 1-2-3 Release 5, choose

Numbers

File Open

Text

File Open

/Graph

You chose /G

In 1-2-3 Release 5, choose

A - F

Chart Ranges

Group

Chart Ranges

Name

/Graph Name for more information

Options

/Graph Options for more information

Quit

Obsolete

Reset

Edit Clear.

Save

Obsolete

Type

Chart Type or Chart Ranges

View

Edit Go To

X

Chart Ranges

/Graph Name

You chose /GN

In 1-2-3 Release 5, choose

Create

Chart Name

Delete

Edit Clear

Reset

Edit Clear

Table

Obsolete

Use

Edit Go To

/Graph Options

You chose /GO

In 1-2-3 Release 5, choose

Advanced	<u>/Graph Options Advanced</u> for more information
B&W	<u>Obsolete</u>
Color	<u>Obsolete</u>
Data-Labels	<u>/Graph Options Data-Labels</u> for more information
Format	<u>Chart Type</u>
Grid	<u>Chart Grids</u>
Legend	<u>Chart Legend</u>
Quit	<u>/Graph Options Quit</u>
Scale	<u>Chart Axis</u> and <u>Style Number Format</u>
Titles	<u>/Graph Options Titles</u> for more information

/Graph Options Advanced

You chose /GOA

Colors

Hatches

Quit

Text

In 1-2-3 Release 5, choose

Chart Numeric Color and Style Font & Attributes

Chart Numeric Color

/Graph Options Advanced Quit

Style Font & Attributes

/Graph Options Data-Labels

You chose /GOD

In 1-2-3 Release 5, choose

A - F

Chart Data Labels

Group

Chart Data Labels

Quit

/Graph Options Data-Labels Quit

/Graph Options Titles

You chose /GO

In 1-2-3 Release 5, choose

Titles

Chart Headings

Chart Axis

/Graph Type Features

You chose /GTF

In 1-2-3 Release 5, choose

Drop-Shadow

Chart Type

Frame

Style Lines & Color

Horizontal

Chart Type

100%

Chart Axis

Quit

/Graph Type Features Quit

Stacked

Chart Type

2Y-Ranges

Chart Ranges

3D

Chart Type

Table

Chart Type

Vertical

Chart Type

Y-Ranges

Chart Ranges

/Move

You chose /Move. In 1-2-3 Release 5, choose Edit Cut, select the destination range, and choose Edit Paste.

/Print

Note To make any /Print command effective in 1-2-3 Release 5, you must complete the entire print operation using only /Print commands.

You chose /P	In 1-2-3 Release 5, choose
Cancel	<u>Windows Print Manager</u>
Encoded	<u>Windows Control Panel Printers Configure</u>
File	<u>File Printer Setup</u>
Printer	<u>File Print</u>
Quit	<u>/Print Quit</u>
Resume	<u>Windows Print Manager</u>
Suspend	<u>Windows Print Manager</u>

/Print [Encoded, File, Printer]

Note To make any /Print command effective in 1-2-3 Release 5, you must complete the entire print operation using only /Print commands.

You chose /P [E,F,P]

In 1-2-3 Release 5, choose

Align	<u>/Print [E,F,P] Align</u>
Clear	<u>File Page Setup Restore</u>
Go	<u>File Print</u>
Hold	<u>Windows Print Manager</u>
Image	<u>Obsolete</u>
Line	<u>/Print [E,F,P] Line</u>
Options	<u>/Print [E,F,P] Options</u> for more information
Page	<u>/Print [E,F,P] Page</u>
Quit	<u>/Print [E,F,P] Quit</u>
Range	<u>File Print</u>
Sample	<u>Obsolete</u>

/Print [Encoded, File, Printer] Options

Note To make any /Print command effective in 1-2-3 Release 5, you must complete the entire print operation using only /Print commands.

You chose /P [E,F,P]O

In 1-2-3 Release 5, choose

Advanced AutoLF	<u>/Print [E,P] Options Advanced AutoLF</u>
Advanced Quit	<u>/Print [E,P] Options Advanced Quit</u>
Borders	<u>File Page Setup Print Titles</u>
Footer	<u>File Page Setup Header/Footer</u>
Header	<u>File Page Setup Header/Footer</u>
Margins	<u>File Page Setup Margins</u>
Name	<u>File Page Setup Save</u> and <u>File Page Setup Retrieve</u>
Other	<u>/Print [E,F,P] Options Other</u>
Pg-Length	<u>File Printer Setup</u> ; then choose Setup
Quit	<u>/Print [E,F,P] Options Quit</u>
Setup	<u>/Print [E,P] Options Setup</u>

/Quit

You chose /Quit. In 1-2-3 Release 5, choose File Exit/File Exit & Return

/Range

You chose /R

In 1-2-3 Release 5, choose

Erase	<u>Edit Clear</u>
Format	<u>Style Number Format</u>
Input	<u>/Range Input</u>
Justify	<u>/Range Justify</u>
Label	<u>Style Alignment</u>
Name	<u>Range Name</u>
Prot	<u>Style Protection</u>
Search	<u>Edit Find & Replace</u>
Trans	<u>Range Transpose</u>
Unprot	<u>Style Protection</u>
Value	<u>Edit Copy</u> and <u>Edit Paste Special</u>

/Range Name

You chose /RN

Create

Delete

Labels

Note

Reset

Table

Undefine

In 1-2-3 Release 5, choose

Range Name Add

Range Name Delete

Range Name Use Labels

/Range Name Note

Range Name Delete All

/Range Name Table

/Range Name Undefine

/System

You chose /System. This 1-2-3 Classic command has no equivalent in the graphical interface. You can choose this command only from 1-2-3 Classic. Help is not available for this command.

/Worksheet

You chose /W

In 1-2-3 Release 5, choose

Column	<u>/Worksheet Column</u> for more information
Delete	<u>/Worksheet Delete</u> for more information
Erase	<u>File Close</u>
Global	<u>/Worksheet Global</u> for more information
Hide	<u>/Worksheet Hide</u> for more information
Insert	<u>Edit Insert</u>
Page	<u>Style Page Break</u>
Status	<u>Obsolete</u>
Titles	<u>View Freeze Titles/View Clear Titles</u>
Window	<u>/Worksheet Window</u> for more information

/Worksheet Column

You chose /WC

Column-Range

Display

Hide

Reset-Width

Set-Width

In 1-2-3 Release 5, choose

Style Column Width

Style Hide

Style Hide

Style Column Width

Style Column Width

/Worksheet Delete

You chose /WD

In 1-2-3 Release 5, choose

Column

Edit Delete

File

File Close

Row

Edit Delete

Sheet

Edit Delete

/Worksheet Global

You chose /WG

In 1-2-3 Release 5, choose

Col-Width	<u>Style Worksheet Defaults Column Width</u>
Default	<u>/Worksheet Global Default</u> for more information
Format	<u>Style Worksheet Defaults Number Format</u>
Group	<u>Style Worksheet Defaults Group Mode</u>
Label	<u>Style Worksheet Defaults Alignment</u>
Prot	<u>Style Protection</u>
Recalc	<u>Tools User Setup Recalculation</u>
Zero	<u>Style Worksheet Defaults Number Format</u>

/Worksheet Global Default

You chose /WGD

In 1-2-3 Release 5, choose

Autoexec	<u>Tools User Setup</u>
Dir	<u>Tools User Setup</u>
Ext	<u>/Worksheet Global Default Ext</u>
Graph	<u>/Worksheet Global Default Graph</u>
Other	<u>/Worksheet Global Default Other</u> for more information
Printer	<u>File Page Setup</u> or <u>File Printer Setup</u>
Quit	<u>/Worksheet Global Default Quit</u>
Status	<u>Obsolete</u>
Temp	<u>Obsolete</u>
Update	<u>Tools User Setup</u>

/Worksheet Global Default Other

You chose /WGDO

In 1-2-3 Release 5, choose

Beep

Tools User Setup

Clock

Obsolete

Help

Obsolete

International

Tools User Setup International

Undo

Tools User Setup

/Worksheet Hide

You chose /WH

In 1-2-3 Release 5, choose

Enable

Style Hide

Disable

Style Hide

/Worksheet Window

You chose /WW

In 1-2-3 Release 5, choose

Clear	<u>View Split/View Clear Split</u>
Display	<u>Obsolete</u>
Graph	<u>Obsolete</u>
Horizontal	<u>View Split/View Clear Split</u>
Map	<u>Obsolete</u>
Perspective	<u>View Split/View Clear Split</u>
Sync	<u>View Split/View Clear Split</u>
Unsync	<u>View Split/View Clear Split</u>
Vertical	<u>View Split/View Clear Split</u>

Wysiwyg Commands

To select a [Help topic](#) using the mouse, point to green text with a solid underline. When the mouse pointer changes to a [hand icon](#), click the mouse button. Using the keyboard, press TAB until the topic is highlighted, and then press ENTER.

[:Worksheet commands](#)

[:Format commands](#)

[:Graph commands](#)

[:Print commands](#)

[:Display commands](#)

[:Special commands](#)

[:Text commands](#)

[:Named-Style commands](#)

[:Quit command](#)

See also

[1-2-3 Classic](#)

:Display

You chose :D

In 1-2-3 Release 5, choose

Colors	<u>View Set View Preferences</u> and <u>Style Worksheet Defaults Colors</u>
Default	<u>Obsolete</u>
Font-Directory	<u>Obsolete</u>
Mode	<u>Obsolete</u>
Options	<u>:Display Options</u> for more information
Quit	<u>:Display Quit</u>
Rows	<u>Obsolete</u>
Zoom	<u>View Set View Preferences</u> , <u>View Zoom In</u> , and <u>View Zoom Out</u>

:Display Options

You chose :DO

In 1-2-3 Release 5, choose

Cell-Pointer

Obsolete

Frame

View Set View Preferences

Grid

View Set View Preferences

Intensity

Obsolete

Page-Breaks

View Set View Preferences

Quit

:Display Options Quit

:Format

You chose :F

In 1-2-3 Release 5, choose

Bold	<u>Style Font & Attributes</u>
Color	<u>Style Lines & Color</u>
Font	<u>Style Font & Attributes</u>
Italics	<u>Style Font & Attributes</u>
Lines	<u>Style Lines & Color</u>
Quit	<u>:Format Quit</u>
Reset	<u>Edit Clear</u>
Shade	<u>Style Lines & Color</u>
Underline	<u>Style Font & Attributes</u>

:Graph

You chose :G

In 1-2-3 Release 5, choose

Add	<u>:Graph Add</u> for more information
Compute	<u>Obsolete</u>
Edit	<u>Obsolete</u>
Goto	<u>Edit Go To</u>
Move	<u>Obsolete</u>
Quit	<u>:Graph Quit</u>
Remove	<u>Edit Clear</u>
Settings	<u>View Set View Preferences and Style Lines & Color</u>
View	<u>Edit Go To</u>
Zoom	<u>:Graph Zoom</u>

:Graph Add

You chose :GA

In 1-2-3 Release 5, choose

Blank

:Graph Add Blank

Current

:Graph Add Current

Metafile

File Open

Named

:Graph Add Named

PIC

File Open

:Graph Edit

You chose :GE

In 1-2-3 Release 5, choose

Add	:Graph Edit Add for more information
Color	Style Font & Attributes and Style Lines & Color
Edit	:Graph Edit Edit for more information
Options	:Graph Edit Options for more information
Quit	:Graph Edit Quit
Rearrange	:Graph Edit Rearrange for more information
Select	Obsolete
Transform	:Graph Edit Transform for more information
View	:Graph Edit View for more information

:Graph Edit Add

You chose :GEA

In 1-2-3 Release 5, choose

Arrow

Tools Draw Arrow

Ellipse

Tools Draw Ellipse

Freehand

Tools Draw Freehand

Line

Tools Draw Line

Polygon

Tools Draw Polygon

Rectangle

Tools Draw Rectangle

Text

Tools Draw Text

:Graph Edit Edit

You chose :GEE

In 1-2-3 Release 5, choose

Arrowheads

Style Lines & Color

Centering

Obsolete

Font

Style Font & Attributes

Line-Style

Style Lines & Color

Smoothing

Obsolete

Text

Obsolete

Width

Style Lines & Color

:Graph Edit Options

You chose :GEO

In 1-2-3 Release 5, choose

Cursor

:Graph Edit Options Cursor

Font-Magnification

Style Font & Attributes

Grid

Chart Grids

:Graph Edit Rearrange

You chose :GER

In 1-2-3 Release 5, choose

Back

Edit Arrange Send to Back

Copy

Edit Copy

Delete

Edit Clear

Front

Edit Arrange Bring to Front

Lock

Edit Arrange Lock/Edit Arrange Unlock

Move

Obsolete

Restore

Edit Undo

Unlock

Edit Arrange Lock/Edit Arrange Unlock

:Graph Edit Transform

You chose :GET

In 1-2-3 Release 5, choose

Clear	<u>Obsolete</u>
Horizontal	<u>Obsolete</u>
Quarter-Turn	<u>Edit Arrange Rotate</u>
Rotate	<u>Edit Arrange Rotate</u>
Size	<u>Obsolete</u>
Vertical	<u>Obsolete</u>
X-Flip	<u>Edit Arrange Flip Top-Bottom</u>
Y-Flip	<u>Edit Arrange Flip Left-Right</u>

:Graph Edit View

You chose :GEV

In 1-2-3 Release 5, choose

Down

Obsolete

Full

Obsolete

In

Obsolete

Left

Obsolete

-

Obsolete

Pan

Obsolete

+

Obsolete

Right

Obsolete

Up

Obsolete

:Named-Style

You chose :N

In 1-2-3 Release 5, choose

Define

Style Named Style

1 - 8

Style Named Style

:Print

You chose :P

In 1-2-3 Release 5, choose

Configuration

:Print Configuration for more information

File

Windows Control Panel Printers Configure

Go

File Print

Info

:Print Info

Layout

File Page Setup

Preview

File Print Preview

Quit

:Print Quit

Range

File Print and File Print Preview

Settings

:Print Settings for more information

:Print Configuration

You chose :PC

In 1-2-3 Release 5, choose

Bin	<u>File Printer Setup</u> ; then choose Setup
1st-Cart	<u>File Printer Setup</u> ; then choose Setup
Interface	<u>Windows Control Panel Printers</u>
Orientation	<u>File Page Setup Orientation</u> and <u>File Printer Setup</u> ; then choose Setup
Printer	<u>File Printer Setup</u>
Quit	<u>:Print Configuration Quit</u>
Resolution	<u>File Printer Setup</u> ; then choose Setup
2nd-Cart	<u>File Printer Setup</u> ; then choose Setup

:Print Settings

You chose :PS

In 1-2-3 Release 5, choose

Begin	<u>File Print</u> and <u>File Print Preview</u>
End	<u>File Print</u> and <u>File Print Preview</u>
Frame	<u>File Page Setup Show</u>
Grid	<u>File Page Setup Show</u>
Quit	<u>:Print Settings Quit</u>
Reset	<u>File Page Setup Restore</u>
Start-Number	<u>File Print</u> and <u>File Print Preview</u>
Wait	<u>Obsolete</u>

:Special

You chose :S

In 1-2-3 Release 5, choose

Copy

Edit Copy and Edit Paste Special

Export

:Special Export

Import

:Special Import

Move

Edit Cut and Edit Paste Special

:Text

You chose :T

In 1-2-3 Release 5, choose

Align

Style Alignment

Clear

:Text Clear

Edit

Tools Draw Text

Reformat

/Range Justify

Set

:Text Set

:Worksheet

You chose :W

In 1-2-3 Release 5, choose

Column

Style Column Width

Page

Style Page Break

Row

Style Row Height

:Quit

You chose :Quit. The 1-2-3 Classic command you chose has no equivalent in the graphical interface. You can choose this command only from 1-2-3 Classic. Help is not available for this command.

Add-in Commands

To select a Help topic using the mouse, point to green text with a solid underline. When the mouse pointer changes to a hand icon, click the mouse button. Using the keyboard, press TAB until the topic is highlighted, and then press ENTER.

You chose ALT+F10	In 1-2-3 Release 5, choose
--------------------------	-----------------------------------

Clear	<u>Tools Add-in Remove All</u>
Invoke	<u>ALT+F10 Invoke</u>
Load	<u>Tools Add-in Load</u>
Quit	<u>ALT+F10 Quit</u>
Remove	<u>Tools Add-in Remove</u>
Settings	<u>ALT+F10 Settings</u>
Table	<u>ALT+F10 Table</u>
Table Applications	<u>ALT+F10 Table Applications</u>
Table @Functions	<u>ALT+F10 Table @Functions</u>
Table Macros	<u>ALT+F10 Table Macros</u>

This command has no effect in 1-2-3 Release 5.

See also

[1-2-3 Classic](#)

The 1-2-3 Classic command you chose has no equivalent in the graphical interface. You can use this command only in 1-2-3 Classic.

Help is not available for this command.

See also

[1-2-3 Classic](#)

For more information about Windows operations, see your Microsoft documentation, or choose Help in the group or program item window.

See also

[Control Menu](#)
[For Upgraders](#)

Printing Sections of 1-2-3 Main Help

You can print sections of Help about all of the general areas listed below. To print a Help section, click a general area, and then click the Help section you want to print. For example, click 1-2-3 Quick Reference, and then click SmartIcons to print a list of all the 1-2-3 SmartIcons.

Basics

Macro Basics

@Function Basics

1-2-3 Quick Reference

Working with Numbers and Formulas

Working with Text

Styling and Formatting

Working with Databases

Using Version Manager

Using DDE/OLE Links

Working with Maps

Charting

Printing

Using Help

Printing



Previewing and Printing Data



Printing Data, Drawn Objects, and Help Topics



Setting Up the Layout for a Printed Page

1-2-3 Quick Reference



Commands



SmartIcons



Parts of the 1-2-3 Window



Mode Indicators



Status Indicators



Using the Mouse



Using the Keyboard

Working with Numbers and Formulas



Entering Numbers



Formatting and Styling Numbers



Entering Formulas and @Functions



Editing Numbers and Formulas



Copying and Moving Numbers and Formulas



Analyzing and Finding Formulas



Printing and Previewing Numbers and Formulas

Working with Text



Entering Text



Editing Text



Styling Text



Copying and Moving Text



Printing and Previewing Text

Working with Maps



Creating a Map



Editing a Map

Charting



Creating a Chart



Setting up a 1-2-3 Chart

Close

Setting up Colors or Patterns

Close

Creating Headings and Labels for a Chart

Close

Chart Axis and Grid Information

Using Help

Close

Overview of Help

Close

Help Commands

Close

Helpful Features

Working with Databases

[Close](#)

Creating a Database Table

[Close](#)

Modifying the Contents of a Database Table

[Close](#)

Finding the Information You Want in a Database Table

[Close](#)

Viewing the Data the Way You Want in a Database Table

[Close](#)

Working with Data from External Database Tables

Styling and Formatting

[Close](#)

Colors, Shading, Lines, and Shadows

[Close](#)

Changing the Appearance of Data

[Close](#)

Hiding and Displaying Data

[Close](#)

Using Style Templates and Named Styles

[Close](#)

Formatting Numbers

Using DDE/OLE Links

[Close](#)

Overview of DDE and OLE in 1-2-3

[Close](#)

Edit Commands for DDE and OLE

[Close](#)

Notes Field Exchange (Notes/FX)

[Close](#)

Sample DDE Macros

[Close](#)

DDE and OLE Terms

Using Version Manager

[Close](#)

Version Manager Basics

Close

Working with Versions of Ranges

Close

Working with Scenarios

Close

Working with the Manager

Close

Working with the Index

Close

Sharing Files Using Version Manager

Basics

Close

Learning About 1-2-3 Release 5

Close

Entering Data

Close

Using the Mouse

Close

Copying, Moving, and Pasting Data

Close

Selecting the Data You Want to Work On

Close

Enhancing the Appearance of a Worksheet

Close

Creating a Chart

Close

Creating Drawn Objects

Close

Keeping Records in a 1-2-3 Database Table

Close

Setting Up 1-2-3 to Look and Act the Way You Want

Close

Writing a Formula

Close

Printing Data, Drawn Objects, and Help Topics

Close

Sending Mail from 1-2-3

Macro Basics

Close

Macro Basics

Close

Macro Commands by Category

Close

Recording, Running, and Debugging Macros

Close

Using the Macro Transcript

@Function Basics

Close

@Function Basics

Close

@Functions by Category

Top 10 Tasks in 1-2-3

Lotus surveyed users to find out what tasks they performed most often in a spreadsheet. The result is this list of the top 10 tasks in 1-2-3.

Click an item to get Help on one of these tasks.

[Previewing and Printing Your Data](#)

[Moving Data in and out of 1-2-3: File Operations](#)

[More Power with @Functions and Formulas](#)

[Styling to Make the Worksheet Look Its Best](#)

[Ways to Copy and Move Data Quickly](#)

[Turning Numbers into Graphics: The Power of Charting](#)

[Easy Access to Your Data: Database Operations](#)

[Working Faster and Smarter with Macros](#)


[Worksheet in Progress: Column and Row Operations](#)


[Streamlining Your Work with SmartMaster Templates](#)

Previewing and Printing Your Data


- Do you want to preview your presentation one page at a time? Two facing pages? More? Just click the one of these icons at the top of the [Print Preview window](#):

 Shows a single page.

 Shows two facing pages.

 Shows four or (click again) nine pages.

- See something in the Print Preview window that you want to take a closer look at? Zoom in on it just by clicking it. Another click zooms in even closer; a third click returns the window to a full-page view.
- No need to go back to the worksheet to [change the layout](#) of the page or to print your selection. Use these SmartIcons, right in the Print Preview window.

 Displays the Print dialog box.

 Sets up header, footer, margins, and other page settings.

- Ready to [print](#)? By default, 1-2-3 prints everything in the current worksheet--data, charts, drawn objects--exactly as you formatted it. Just click the icon.
- Work faster by assembling all of the printing power of 1-2-3 into a set of [SmartIcons](#). Select Printing from the ready-made sets available when you click this button in the status bar:



Or create your own set using [Tools SmartIcons](#).

Moving Data in and out of 1-2-3: File Operations

Bringing data into a 1-2-3 file

All the ways you can bring data into 1-2-3 are concentrated in just a few File and Edit commands.

- File Open lets you bring data in not only from other 1-2-3 files, but also from Excel, dBASE, Paradox, and text files.
- In the File Open dialog box, choose Combine if you want to insert data into a file that already exists.
- It's never been easier to import data from text files. In the File Open dialog box, select the Text file type; when the Text Options button appears, choose it. The dialog box makes it easy to select the way you want the data to come into 1-2-3.
- If there's data on the Clipboard you want to bring into 1-2-3, use Edit Paste.

You can use that Clipboard data to create a DDE or OLE link between 1-2-3 and another application. The link ensures that the data you bring into 1-2-3 is updated whenever you change the data in the other application. Use Edit Paste Special or Edit Paste Link.

Moving data out of a 1-2-3 file

Moving data out of 1-2-3 is equally easy.

- File Save As lets you export 1-2-3 data in many forms, including Excel, dBASE, Paradox, and text file format.

You can save a specific range of data to another 1-2-3 worksheet file. In the File Save As dialog box, select the option "Selected range only." Then use the Save Range As dialog box to complete the operation.

- If you want to put 1-2-3 data on the Clipboard so that you can use it in another application, use Edit Copy or Edit Cut.

More Power with @Functions and Formulas

- [Writing a Formula](#) gives you the basics about creating a formula in 1-2-3.
- Many users told Lotus they wanted the documentation about @functions on paper. We heard you! Now you can
Order a book containing descriptions of all @functions and macro commands (see the coupon in the box).
Click your mouse once to [print the Help topics](#) for whole categories of @functions.
- It's never been easier to use @functions. Click the [@function selector](#) in the edit line:

Close

Then choose List All. The entire series of built-in formulas, now numbering over 200, is there. You can Browse: watch for the thumbnail description of the @function in the dialog box. Learn: select an @function and press F1 to see detailed Help on your choice. Insert into a cell: select an @function and choose OK. 1-2-3 inserts it into the cell along with placeholders for its arguments.

- Here's Help for some of the most commonly used @functions:
[@AVG](#)
[@IF](#)
[@NPV](#)
[@ROUND](#)
[@SUM](#)
[@TODAY](#)
- Here's a description of the @function categories: [@Function Categories](#).
- Let 1-2-3 create @SUM formulas for you. Use the SmartSum icon:

Close

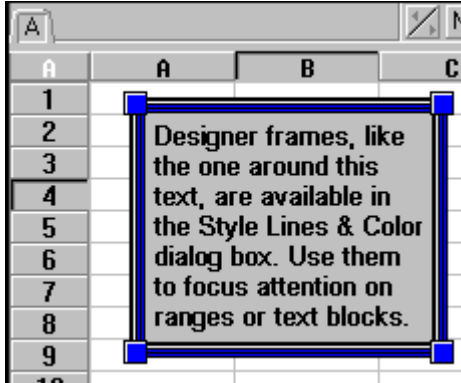
- Have you ever inherited someone else's worksheet and wondered where all the formulas are and how they work? Take the guesswork out of your research with [Tools Audit](#).

Styling to Make the Worksheet Look Its Best

- Depend on the live status bar, at the bottom of the 1-2-3 window, to give you one-click access to number formats, unlimited fonts, named styles, and the set of Formatting SmartIcons.
- Style Gallery offers you an array of style templates that can transform a simple spreadsheet into an artful presentation.
- Style Lines & Color is easy to get to using this icon:

Close

Besides offering 256 colors and 8 line styles, Style Lines & Color also presents a choice of 16 designer frames:



- You'll never have to spend time again trying to recreate that perfect combination of styles. Just create the combination once, and then choose from two ways to use it over and over:
 - Style Named Style lets you save a combination of styles so you can recreate it whenever you're in the file.
 - Style Fast Format paints a range with all the styling in a range you've selected.
- Work faster by assembling all of the styling power of 1-2-3 into a set of SmartIcons. Select Formatting from the ready-made sets available when you click this button in the status bar:

Close

Or create your own set using Tools SmartIcons.

Ways to Copy and Move Data Quickly

- For a quick Q&A session giving the background on these basic operations, read [Copying, Moving, and Pasting Data](#).
- 1-2-3 lets you copy in every direction possible in a worksheet file. You can even copy from a back sheet to all the sheets in front of it, and vice versa:

[Edit Copy Right](#)

[Edit Copy Left](#)

[Edit Copy Up](#)

[Edit Copy Down](#)

[Edit Copy Back](#)

[Edit Copy Forward](#)

- This icon copies a single cell right, left, up, or down.

Close

Select the cell you want to copy, extend the selection in any direction in the worksheet, and then click the icon.

Use [Tools SmartIcons](#) to add it to a set of SmartIcons.

- With [drag-and-drop](#), you never need to go near a menu to copy or move. Just drag your selection to its new location and drop it there.

New in Release 5: You can select an object and then [drag and drop it in another application](#) that supports OLE2.

- Do you type the same sequence of items over and over again--for example, the days of the week? the months of the year? the names of your regional sales offices?

If it's a common sequence like the days of the week, just enter the first item of the sequence--say, Monday--and select a range. Then click this icon:

Close

Or choose [Range Fill by Example](#). 1-2-3 fills the rest of the range with Tuesday, Wednesday, Thursday, and so on, till it fills the range. You can define your own unique sequences too.

Turning Numbers into Graphics: The Power of Charting

The most powerful way to convey the meaning of your numbers is to display them as a chart.

- In one step you can create a chart, complete with titles, labels, and a legend. Learn how to set up the range for your charts in [Creating a Chart](#). After you've selected the range, click this icon:

Close

Then click anywhere in the worksheet, and 1-2-3 draws your chart. For example, this range

International Data			
By City			
	Oslo	Paris	New York
January	677	528	904
April	984	540	239
July	703	864	351
October	602	581	301

becomes this chart:

Close

- Changing chart elements is simple too. Just point to the element you want to change and do one of the following:
 - Click the right mouse button to display a menu of commands that you can use with that element.
 - Double-click the chart element to bring up a dialog box.
- By default, 1-2-3 creates a bar chart. If that doesn't suit your needs, use [Chart Set Preferred](#) to set the default to whatever chart type you prefer.
 - To convert an existing chart to the type you prefer, use [Chart Use Preferred](#).
- Here's a description of the commands for charts: [Chart Commands](#).
- New in Release 5: [Lotus Mapping](#) lets you represent worksheet data as geographic regions. Think of maps as a kind of chart type. Data for your sales regions can now be presented not only as bars or slices of a pie chart, but as the actual countries or states in those regions, colored or given a pattern determined by your data.

Easy Access to Your Data: Database Operations

- [Keeping Records in a 1-2-3 Database Table](#) gives you the basics about creating, sorting, and querying database tables in 1-2-3.
- [Specifying criteria](#) for a query is now much simpler because the relationships among criteria are presented graphically in the [Set Criteria](#) dialog box--you'll never build a criteria range again. For example:

Close

To see more examples of graphical renditions of criteria, click any of the following:

[Criteria Related by And](#)

[Criteria Related by Or](#)

[Multiple Criteria](#)

- Here's a description of the commands for [database tables](#): [Tools Database](#).
- Here's a description of the commands for [query tables](#): [Query Commands](#).
- When you're sorting a database table or any other range in 1-2-3, use [Range Sort](#) or the following icons:

Close

Sorts in ascending order (A - Z and smallest to largest values), using the selected column as the key.

Close

Sorts in descending order (Z - A and largest to smallest values), using the selected column as the key.

When you're sorting a query table, use [Query Sort](#) or this icon:

Close

- When all you want to know is how many records fall into a certain range--say, how many sales were above \$1,000, how many fell below that number, and so on--you don't need to use a database table. Use [Range Analyze Distribution](#) to find this kind of information.

Working Faster and Smarter with Macros

Save time to do the interesting parts of your job by writing macros that do the tedious, repetitive parts. Better yet, have 1-2-3 write the macro for you.

- Many users told Lotus they wanted the documentation about macro commands on paper. We heard you! Now you can

Order a book containing descriptions of all macro commands and @functions (see the coupon in the box).

Click your mouse once to [print the Help topics](#) for whole categories of macro commands.

- Here's a description of the macro command categories: [Macro Command Categories](#).
- It's never been easier to use macro commands. Type { (open brace) in a cell and press F3 (NAME); the Macro Keywords dialog box appears. The entire series of macro commands is there. You can

Browse: watch for the thumbnail description of the macro command in the dialog box.

Learn: select a macro command and press F1 to see detailed Help on your choice.

Insert into a cell: select a macro command and choose OK. 1-2-3 inserts it into the cell along with placeholders for its arguments.

- Let 1-2-3 write your macros. Turn on [Tools Macro Record](#), and 1-2-3 makes a faithful transcription of your actions till you turn off recording. Then choose [Tools Macro Show Transcript](#) and you'll see the transcript, from which it's easy to create a macro.

The 1-2-3 *User's Guide* can help you here. See Chapter 24, "Using Macros to Automate Your Work."

Also, see the [Tools Macro](#) commands and the [Transcript](#) commands for information.

Worksheet in Progress: Column and Row Operations

Nobody ever gets the layout of a new spreadsheet or database table right the first time. Often you have to shift data around, add new data, add blank areas to make the data easy to read, and change row heights and column widths.

1-2-3 saves you valuable time by making column and row operations fast and easy.

- To add columns or rows, select the columns or rows you want and then choose Edit Insert.
- To delete columns and rows, select the columns or rows you want to remove and then choose Edit Delete.
- Do you need to add or delete columns or rows to a range without upsetting the layout of data around that range? Select "Insert selection" or "Delete selection" in the Edit Insert or Edit Delete dialog box.
- Sometimes a column is too narrow for 1-2-3 to display the text or numbers in the cells.

If all your data needs wider columns than 1-2-3 supplies by default, widen all columns by using Style Worksheet Defaults Column Width.

To widen individual columns, choose Style Column Width. Or use your mouse to grab the right edge of the column in the worksheet frame. When the mouse pointer changes to this shape

Close

drag the column out to the size you want.

Use this icon to widen a column to fit the widest entry in the column:

Close

- To increase the height of a row, choose Style Row Height. Or use your mouse to grab the bottom edge of the row in the worksheet frame. When the mouse pointer changes to this shape

Close

drag the row to the height you want.

- If you want to hide columns of data--say, before you print--use Style Hide. When you're ready to display the hidden data, go back to Style Hide and choose Show.

Streamlining Your Work with SmartMaster Templates

SmartMaster templates give you a quick start in creating attractive, useful spreadsheets. Each SmartMaster provides a template for common business and financial tasks, including reports, forecasts, and forms.

- Use [File New](#) to open a SmartMaster file.

Every SmartMaster contains sample data to help you understand how the SmartMaster works. After looking over the sample data, you can replace it with your own data.

- Use the built-in charting and printing features for quick, good-looking results.
- See [Working with SmartMaster Files](#) for more information about these templates.
- You can also create your own customized SmartMaster based on the SmartMaster shell file. You can name your template file, add descriptive comments that appear in the New File dialog box, and save it with the .WT4 file extension. Then you can share this template with your workgroup.

1-2-3 Release 5 Help Contents

To choose a general area of Help, click the icon for the area you want.



How Do I?



Basics



Commands



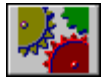
Messages



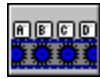
1-2-3 Window



SmartIcons



@Functions



Macros



Lotus Customer Support



Top Ten Tasks



Printing Sections of Help



DataLens Drivers of Help

Basics

[Learning About 1-2-3 Release 5](#)

[Entering Data](#)

[Using the Keyboard](#)

[Using the Mouse](#)

[Copying, Moving, and Pasting Data](#)

[Selecting the Data You Want to Work On](#)

[Naming a Worksheet](#)

[Enhancing the Appearance of a Worksheet](#)

[Creating a Chart](#)

[Creating Drawn Objects](#)

[Keeping Records in a 1-2-3 Database Table](#)

[Setting Up 1-2-3 to Look and Act the Way You Want](#)

[Writing a Formula](#)

[Printing Data, Drawn Objects, and Help Topics](#)

Commands

[1-2-3 Commands](#)

[Help Window Commands](#)

[1-2-3 Classic](#)

[Quick Menus](#)

[Dimmed Commands](#)

How Do I?

[Become Familiar with 1-2-3](#)

[Create a Worksheet](#)

[Make the Worksheet Look the Way I Want](#)

[Print](#)

[Create a Chart](#)

[Create a Map](#)

[Analyze Data](#)

[Get Data From Other Sources](#)

[Automate Work](#)

Messages

To look up a message in the 1-2-3 Message Index, click the first letter of the message.



1-2-3 Window

[Control Panel](#)

[Work Area](#)

[Status Bar](#)

[Parts of the 1-2-3 Window](#)

SmartIcons

[SmartIcons Organized by Command](#)

[Creating and Changing SmartIcons](#)

[Using Sets of SmartIcons](#)

@Functions

[What are @Functions](#)

[Descriptions of Individual @Functions](#)

[@Function Categories](#)

[@Function Selector](#)

[Alphabetical Listing of All @Functions](#)

Macros

[What are Macros?](#)

[Descriptions of Individual Macro Commands](#)

[Macro Command Categories](#)

Info Components

Alphabetical Listing of All Macro Commands

Using a Dialog Box Created with Lotus Dialog Editor

Lotus Customer Support

To get help about Lotus Customer Support, click the green text below.

To return to main Help for 1-2-3 Release 5 from Lotus Customer Support Help, choose History, then choose 123W:1-2-3 Release 5 Help contents.

Lotus Customer Support Help

Printing Sections of Help

Printing Sections of 1-2-3 Main Help

Printing Sections of Macros Help

Printing Sections of @Functions Help

DataLens Drivers

About DataLens

Using the DataLens Driver for dBASE IV Tables

Using the DataLens Driver for Paradox Tables

Using the DataLens Driver for SQL Server Tables

Using the DataLens Driver for Informix Tables

Using the DataLens Driver for Database 2 OS/2

Using the DataLens Driver for Oracle Tables

Using the Lotus Notes ODBC Driver

DataLens Drivers

To get Help about a DataLens or ODBC driver, select a cross-reference from the list below.

About DataLens

Using the DataLens Driver for dBASE IV Tables

Using the DataLens Driver for Paradox Tables

Using the DataLens Driver for SQL Server Tables

Using the DataLens Driver for Informix Tables

Using the DataLens Driver for Database 2 OS/2

Using the DataLens Driver for Oracle Tables

Using the Lotus Notes ODBC Driver

1-2-3 Messages



To see Help for a specific 1-2-3 message, select a letter and then select the message.

A

Access to shared file denied

Add-in "add_in_name" already in memory

Add-in "add_in_name" is an incompatible version

Add-in "add_in_name" not in memory"

"Add-in error message"

Add-in not listed on settings sheet

Add-ins nested too deeply

Adjustable cells are invalid

Advise is already in effect for this DDE item

Advise is not in effect for this DDE item

The aggregate function you specified in {QUERY-AGGREGATE} is invalid

All constraints are binding for this answer

All constraints are satisfied, but optimal cell equals ERR or NA

All modified files must be reserved before saving

Allow updates is turned on. Update the database table or turn off Allow updates.

Ambiguous field reference in query

The amount of text in the message exceeds your mail application's limit

Application not found

At least one variable range must be specified

Audit canceled

Automatic file saving is now turned off

B

Backup file exists in memory

Backup unsuccessful due to file error

Bin range cannot span worksheets

Break

C

Cannot add a field to the query table

Cannot add graph

Cannot change the database table

Cannot combine; file is in use

Cannot connect to the external tables in the query

Cannot convert extension. File already exists in memory.

Cannot copy to Clipboard when Index is not visible

Cannot copy data to the Clipboard

Cannot create default connect range "TABLExxxx"

Cannot create file

Cannot create format file

Cannot create map

Cannot create, move, resize or refresh a query table over another query table

Cannot create, move, resize or refresh a query table over protected cells

Cannot create names from a range of labels that is not in memory

Cannot create the report file

Cannot create route list

Cannot create a version of an unnamed range if the file is sealed

Cannot cut or move part of a DDE link

Cannot delete all visible worksheets

Cannot delete all worksheets

Cannot delete a computed column that is referenced in a join condition

Cannot delete a computed column used in criteria

Cannot delete or add rows or columns in a range being used by Lotus Approach

Cannot delete or change the field names in a range being used by Lotus Approach

Cannot delete or redefine the name of a range being used by Lotus Approach

Cannot delete selected data or object

Cannot delete a worksheet containing a range being used by Approach

Cannot erase file

Cannot erase file. It is in use or has read-only access

Cannot execute query with a circular reference

Cannot export to this format from a multiple-worksheet file

Cannot find an optimal answer "reason"

Cannot find any more answers

Cannot find "file_name"

Cannot find library file "library_file_name"

Cannot find macro and @function dictionary

Cannot find the map's configuration files

Cannot find specified library

Cannot find specified procedure in library

Cannot find user spelling dictionary

Cannot find VIM.DLL

Cannot finish solving this problem "reason"

Cannot get current user name

Cannot globally allocate requested memory

Cannot go to a range that is not in memory

Cannot have "Allow updates to database table" turned on for a query table that contains computed columns or aggregates

Cannot have "Allow updates to database table" turned on for a query table that has joined tables

Cannot have duplicate field names in a database table

Cannot have more than 256 worksheets in memory

Cannot hide all columns

Cannot hide last visible worksheet

Cannot initialize Solver

Cannot insert or delete a range that affects a query table

Cannot invert matrix

Cannot invoke operating system

Cannot invoke Version Manager

Cannot join tables to a query that has an unnamed database table or a database table not in memory

Cannot justify text if worksheet protection enabled

Cannot launch application

Cannot load C1WNPRST.DLL; unable to complete operation

Cannot load .dll for SmartIcons

Cannot load .dll for status bar

Cannot load driver "L1WRT"

Cannot load file LTSMAIL3.DLL

Cannot load "library_file_name.dll"; unable to read Version Manager data

Cannot load "library_file_name.dll"; unable to save Version Manager data

Cannot load spelling dictionary

Cannot manipulate grouped objects

Cannot manipulate locked objects

Cannot modify a range that is not in memory

Cannot move cells in shared file "file_name"

Cannot move charts beyond worksheet boundaries

Cannot move data between files

Cannot move or copy data beyond worksheet boundaries

Cannot move or copy formats beyond worksheet boundaries

Cannot open Clipboard or desired format not available

Cannot open file

Cannot open file "file_name"

Cannot open a password-protected Excel file

Cannot open printer driver

Cannot optimize a constraint cell

Cannot paste data from the Clipboard

Cannot paste link

Cannot paste map to another file because links to map data would be lost

Cannot perform database find operation on an external table

Cannot perform the field operation with the "Show unique records only" option turned on

Cannot perform this command when a collection is selected

Cannot play sound file

Cannot print ranges that are not in memory

Cannot quit Lotus 1-2-3

Cannot read "file_name"

Cannot read from file

Cannot read Help file

Cannot read locked Symphony worksheet file

Cannot read this file format

Cannot refresh the query; more records were found than will fit in the query table and the Allow updates option is turned on

Cannot remove a join condition referenced in criteria

Cannot remove the last field in the query table

Cannot retrieve from file

Cannot retrieve library file

Cannot save a dBASE IV or Paradox file using the Classic; or {FILE-SAVE} macro syntax was incorrect.

Cannot save a scenario when there are adjustable cells in more than one file

Cannot search range

Cannot solve this problem "reason"

Cannot turn on the "Show unique records only" option with the current fields

Cannot undo this operation

Cannot undo this series of add-in operations

Cannot update database table

Cannot update database table because the Allow updates option is turned off

Cannot update an offsheet database table

Cannot update query table after it has been sorted

Cannot update a query table that has 2 or more joined database tables

Cannot use both Edit Undo and Data External Refresh Automatic

Cannot use Cancel with this worksheet

Cannot use computed columns with Data Query Modify

Cannot use Merge with this worksheet

Cannot use ranges that are not in memory

Cannot use Route, Send or Reply with this worksheet

Cannot use the same field for both an aggregate and a computed column

Cannot use the same field more than once in a sort

Cannot write over data with APPEND commands

Cannot write over protected cells. Please unseal the destination file.

Cannot write a value into protected cell "cell address"

Cannot zoom in further.

Cell "cell address" refers to an unsupported string

Cell format not available for Answer table report

Cell format not available for How solved report

Chart error - not enough memory to draw chart

Chart name already exists

A chart name cannot begin with <<>>

Chart name does not exist

Chart not found

Charts, drawn objects, and pictures are hidden

The Clipboard is empty

Clipboard option not supported

Column hidden

Computed field or criteria condition contains an invalid formula

Constraint cells are invalid

Constraints and the optimal cell must not refer to constraint cells

Could not find resource

Could not find a solution -- try changing By changing cell(s) value(s)

Could not load "library_name"; .dll has invalid Windows version

Could not load "library_name; invalid .dll

Could not load "library_name"; sharing error

Could not load resource

Could not lock resource

Criteria and output ranges cannot overlap

Criteria must contain field reference

Criteria range must be in an active file

Criteria too complex

Currency symbol already exists

D

Data Query Modify Extract canceled or not performed

Data range and sort keys must be in memory

Data Table and Data Query commands are disabled

Database and query table ranges cannot overlap

Database @functions more than 8 levels deep in criteria

Database range cannot be empty

Database range must be an onsheet range

Database range must contain at least two rows and three columns

Database range or current query is not valid

Database table must contain more than one row; the first row must be labels

Database table or query table range cannot span more than one worksheet

DDE conversation not open

DDE protocol error, can't post messages to server application

Destination file does not contain enough worksheets to merge

The destination for the selected columns or rows cannot overlap the original location

Destination range full or invalid

Device driver not installed

Difference amount must be a number

Directory does not exist

Directory entry update error

Disk drive not ready

Disk error

Disk full

Disk is write-protected

Driver cannot perform this database operation

E

Each variable must have an input cell

Edit Undo not enabled, or no operation to undo

ERR values are not allowed in the query table

Error accessing external table range

Error accessing map

Error accessing temporary file

Error attaching file to mail message

Error embedding object

Error freeing memory

Error initializing add-in "file_name"

Error initializing Lotus Notes

Error loading add-in "file_name"

Error loading add-in resource file

Error loading driver file

Error loading fallback table

Error loading the file LTSUNMG1.DLL. The path listed in LOTUS.INI is incorrect.

An error occurred during automatic file save

An error occurred while saving a shared file

Error pasting a query table from the Clipboard

Error reading file

Error reading format file

Error replacing extracted records

Error running add-in macro

Error saving dBASE IV or Paradox file

Error saving file

Error saving new custom name

Error starting mail application

Error storing the By changing cell(s) value(s)

Error while writing file

Error writing file

Error writing query table information to the Clipboard

Error writing to 1-2-3 configuration file

Estimated number of answers must be an integer between 1 and 999

External database data type not allowed in worksheet

External database driver error: "message"

External table ranges not allowed

External table was not created

F

Field already exists in the query table

Field has already been removed from the query table

Field name or table name is too long to process

Field names must be unique within a database table

File already exists

File already exists in memory

File already in use

File and/or extension converted

File close error

The file contains more than one sheet. Please save the file with the extension .XLW.

File contains no unprotected named ranges that contain versions. Do you wish to continue?

File contains no valid database tables

File contention prevented accessing the file

File does not contain enough worksheets to complete the merge

File does not exist

File extension must be .NS4

File "file_name" is already sealed

File "file_name" is sealed; cannot create hidden versions or scenarios

File "file_name" is sealed; cannot hide or unhide scenarios

File "file_name" is a shared file. It cannot be sealed or unsealed.

File is already sealed

File is not sealed

File is not a shared file

File is read-only

File is sealed

File may be damaged

File name already exists on disk

The file on disk is different from the one retrieved

First answer number is either non-numeric or invalid

Formula label range cannot be blank

Formula range and formula label range are required

Formula too complex

The @function already exists in memory

The @function is not registered in memory

G

General spooler error

Global protection is enabled

Guess value must be a number

H

Hidden columns not allowed in title region

I

Incompatibility with previous versions of 1-2-3

Incompatible character set

Incompatible database driver

Incompatible worksheet information lost during saving

Incorrect file name or path syntax

Incorrect function syntax in cell "cell address"

Incorrect password

Input and output ranges cannot overlap

Input line too long

Input range must be in an active file

Insufficient precision available when using cell "cell address"

Internal error: "error"

Internal error reading query information

Internal error (Solver)

Internal error sorting query table data

Internal error trying to read or write query criteria

Invalid application or topic name

Invalid application, topic or item

Invalid argument specified in {EDIT-CLEAR} command

Invalid By changing cell(s)

Invalid cell or range address

Invalid character in extension

Invalid character in file name

Invalid chart name or chart is hidden

Invalid Clipboard format

Invalid configuration file

Invalid context

Invalid criteria range

Invalid date

Invalid destination file during merge

Invalid dialog-description range

Invalid disk name

Invalid drawn object name or drawn object is hidden

Invalid expression

Invalid external database data type

Invalid extra sort key number

Invalid field name

Invalid file operation

Invalid FORBREAK

Invalid format line

Invalid FORMBREAK

Invalid formula in query

Invalid formula label range

Invalid formula range

Invalid input range specified

Invalid item

Invalid library file

Invalid link name

Invalid link update mode

Invalid Make cell

Invalid matrix

Invalid menu-description range

Invalid \nnn code in Setup String

Invalid Notes version

Invalid number

Invalid number input

Invalid output range

Invalid pathname

Invalid print range

Invalid query name or query table is hidden

Invalid range

Invalid range detected by Version Manager. To avoid losing data, don't use File Save.

Invalid scenario name

Invalid selection of Transcript Window

Invalid sort direction specified; must be "Ascend" or "Descend"

Invalid string argument

Invalid type

Invalid use of database @function in criteria

Invalid use of macro menu command

Invalid use of range in cell "cell address"

Invalid value

Invalid window state

Invalid worksheet variable range

Invalid /X command in macro

Invalid X range

Invalid Y range

Item must be in the current worksheet

J

Justify range is full or line too long

K

Key column outside of Sort range

L

Left margin equals or exceeds right margin

Link is already assigned

Link is not assigned

The location you're dragging to contains data. Is it OK for 1-2-3 to replace this data?

Lotus Notes error: "error_message"

M

Macro: missing argument

Macro not supported. Use the 1-2-3 Release 4 Macro Translator.

Mail application error

Mail application is not installed

Mail login error

Mail system error

Map data ranges must be in the same file as the map

The Map Viewer can be run only from within another application

Margins equal or exceed page size

Margins, header and footer equal or exceed page length

Matrix too large for inversion

Matrixes incompatible for multiplication

Matrixes too large for multiplication
Maximum command line length exceeded
Maximum number of text style changes exceeded
Missing sort key
More than one file has the same range name
More than 75 X variables
Multiple links deactivated
Must specify a down or across variable range

N

Name too long
Named field does not exist
Named range not found in worksheet file
Named table does not exist
The navigator lets you go to named ranges. There are no named ranges in this file.
No active file to get reservation
No add-in applications in memory
No add-ins in memory
No answers exist to put in the worksheet
No application in add-in "add_in_name"
No circular references were found in any files in memory
No circular references were found in the current file
No criteria range specified
No DDE links were found in any files in memory
No DDE links were found in the current file
No dependents were found in any files in memory
No dependents were found in the current file
No external database drivers are loaded
No external databases are in use
No external table specified for creation
No external tables are available
No fields were found in the database table
No file links were found in any files in memory
No file links were found in the current file
No files of specified type on disk
No formulas in the source range
No formulas were found in any files in memory
No formulas were found in the current file

No input range specified
No macro file for custom icon
No more matching strings
No output range specified
No precedents were found in any files in memory
No precedents were found in the current file
No print range specified
No Printer Driver Installed
No report elements selected
No significant difference exists between these two answers
No table definition range exists to create table
No unprotected cells in Input range
No valid adjustable cells were specified
No valid constraint cells were specified
No valid join tables
No versions from range "range name" in scenario "scenario name"
Not a square matrix
Not a valid dBASE or Paradox file
Not a valid worksheet file
Not enough memory for the query operation
Not enough memory for this query operation
Not enough memory to load driver file
Not enough memory to print
Not enough Windows resources to complete the operation
Not enough worksheets in To range
Number is too large
Number is too small
Number of adjustable cells must be less than 255
Number of arguments does not match the number of letters in arg-types
Number too large/small to pass to external table

O

OLE 2.0 initialization failed. Make sure that the OLE libraries are the correct version.
One or more of the join conditions are orphans
One or more of the database tables are external but not currently connected
The 1-2-3 files you're closing contain ranges being used as Lotus Approach files. Remember to use File Close in Approach to close these files.
123NOTES.NTF template not found

123NTSUI.NTF template not found

Only one input range is allowed

Optimal cell must be a single cell that depends on an adjustable cell

Out of memory

Out of memory. Edit Undo disabled.

Out of memory or could not load required .dll(s). Version Manager could not be initialized.

Output range must contain more than one row

P

Parse format line can only be created for labels

Parse input range must start with format line

Parse ranges cannot span worksheets

Part of combine file lost

Part of file is missing

Passwords do not match

Print job canceled from spooler

Print settings name does not exist

Problem refers to undefined range name or a worksheet on disk

Protected cell

Q

Query name already exists. Enter a unique query name.

Query name is invalid

Query not found

Query table range is invalid

R

Range cannot span worksheets

The range for pin characters must include at least 3 columns

Range must be a single column or a single row, with no more than 100 cells

Range name already exists

A range name cannot begin with <<>>

Range name does not exist

Range "range_name" contains more than 2000 cells

Range "range_name" contains protected cells

Range "range_name" contains versions and cannot be deleted or undefined

Range "range_name" contains versions and cannot be redefined

Range "range_name" contains versions that must be deleted before you can move a corner of the range

Range "range_name" does not exist

Range specified is outside variable range

Ranges being used by Lotus Approach cannot overlap

The ranges in a collection must be in the same file

Recipient name does not have a unique match

Record limit must be from 1 to 8192

The report range is full

Report range is invalid

The report range is not empty

Reports available only after solving

S

A scenario name must be provided

Scenario "scenario_name" does not exist

Scenario "scenario_name" is protected

Second answer number is either non-numeric or invalid

Set of SmartIcons does not exist

Settings sheet is empty

Settings sheet is full

Shared file already exists

Shared file: cannot create version in range "range_name"

Shared file is corrupted

Shared file is in use by another process

Shared file may be damaged

Shared file may be damaged; attachment not found

Sheet name already exists

Sheet name contains illegal characters

Solver cannot create its work files

Solver cannot delete its work files

Solver cannot read its work files

Solver table initialization failure

Sort key is invalid or out of sequence. Sort key must be from 0 to 255.

Source cell is not a formula

Spreadsheet settings database is damaged

Stack overflow in "file_name"

String not found

A style name cannot begin with <<>>

Syntax error in macro key/range

System error

T

Table definition range contains invalid information

Table definition range must contain six columns

Table is an unnamed range and the query references more than one database table

Table results area not fully defined

Temporary file record too long

Text is too large

Text range full

There are no maps installed

There is not enough memory to initialize the Map Viewer

This answer has no inconsistent constraints

This attempt requires guesses. The Guess command is not supported in macros.

This command is available only after solving

This command requires an answer in the worksheet

This command requires an answer or attempt in the worksheet

This command requires an attempt in the worksheet

This command requires a guessable attempt in the worksheet

This file is already in use. Use a new file name or close the file in use by another application.

This file name is not valid

This is not a valid directory

This operation will cause range "range_name" to become larger than 2000 cells. Delete all versions in the range first.

Timeout waiting for mail application to respond

Too few observations for number of variables

Too many arguments

Too many cells in By changing cell(s) range

Too many characters in path

Too many chart names; cannot create new one

Too many levels of grouped objects

Too many open files

Too many print settings names; cannot create new one

Too many recipient names

Too many records for output range

Too many report files already exist

Tools Database Find Records works only in active files

U

Unable to access output device

Unable to copy text style information

Unable to create a range for database operations

Unable to execute macro

Unable to locate the database

Unable to locate the table

Unable to perform requested query operation

Unable to print

Unable to reserve file: it has read-only access

Unable to reserve file: it is already reserved

Unable to retrieve shared file

Unable to send a copy of the file back to "user name." Please forward the mail message saved in your mail application.

Unable to start the Map Viewer

Unknown Lotus Notes error

Unrecognized key/range name

Unsupported character set

User "user_name" not found

V

Variable ranges and formula labels overlap

Version Manager data in this file is unavailable in 1-2-3 for Windows. To avoid losing data, don't use File Save

Version "version_name" does not exist

Version "version_name" is hidden

Version "version_name" is protected

W

What-if limits couldn't be computed

Window not found or not unique

The worksheet file has no reservation

The worksheet file has not been named

The worksheet file is already reserved

Worksheet full

Worksheet hidden

X

Y

You did not install "feature." To install it, run Customized Install.

You have reached the maximum number of times you can choose Replace All for this spell check

You have reached the maximum number of times you can choose Skip All for this spell check

You must supply both a range name and a version name

You must supply a range name

You must supply a version name

Your user id cannot access settings saved for shared files

Z

Add-in "add_in_name" already in memory

You tried to read into memory an add-in file that was already loaded.

Add-in "add_in_name" is an incompatible version

You tried to load an add-in that was created for a different release of 1-2-3.

Contact the add-in developer.

Add-in "add_in_name" not in memory

You tried to invoke an add-in application or remove an add-in that you have not read into memory.

Choose Tools Add-in Load and specify the add-in file to read into memory.

"Add-in error message"

An error occurred while loading or invoking the add-in you specified.

See the documentation for this add-in or contact the add-in developer.

Add-in not listed on settings sheet

You tried to cancel an add-in file that is not on the settings sheet.

Add-ins nested too deeply

You used a macro in your add-in that invokes another add-in, that itself invokes another add-in, and so on.

If you are a developer, rewrite your add-in so that it does not nest add-ins so deeply. Otherwise, contact the add-in developer.

Cannot find "file_name"

1-2-3 cannot find the add-in file (a file with an .ADW or .DLL extension).

Make sure you typed the file name correctly and that 1-2-3 can find the file. 1-2-3 looks for add-in files in the path you specify. Otherwise, 1-2-3 looks first in the default add-in directory.

Cannot find library file "library_file_name"

You did not copy a library file included in your application into the 1-2-3 directory.

If you are a developer and "library_file_name" is a library you wrote, the library file may have an invalid header format and cannot be identified; you must correct the header format. If you are a user and you copied the file, or the file was not included with the add-in, contact the add-in developer.

Cannot load driver "L1WRT"

The following conditions could have caused this error:

- Not enough memory was available to read L1WRT into memory.
For information on freeing memory, see Appendix B of the *User's Guide*.
- L1WRT was damaged or deleted from your hard disk.
- You are already using the maximum number of files your operating system allows.

Cannot read "file_name"

The file may be damaged, or a hardware error occurred -- for example, the door of your disk drive was open while you tried to read a file from the disk.

Error initializing add-in "file_name"

This error occurred during execution of AdnInitialize.

Contact the add-in developer.

Error loading add-in "file_name"

The following conditions could have caused this error:

- Not enough memory was available to read into memory the file named in the error message.
For information on freeing memory, see Appendix B of the *User's Guide*.
- The file named in the error message was damaged or deleted from your hard disk.
Reinstall the add-in.
- You are already using the maximum number of files your operating system allows.
- The file named in the error message is not a legitimate 1-2-3 Release 5 add-in.
Contact your add-in developer.

Error loading add-in resource file

The following conditions could have caused this error:

- Not enough memory was available to read the add-in resource file into memory.
For information on freeing memory, see Appendix B of the *User's Guide*.
- You are already using the maximum number of files that your operating system allows.

Error running add-in macro

1-2-3 could not run an add-in macro command to completion.

If you are a developer, post a more specific error message from your add-in application. Otherwise, contact the add-in developer.

No add-in applications in memory

You tried to invoke an application when none was loaded.

Choose Tools Add-in Load and specify the add-in file to read into memory.

No add-ins in memory

You tried to remove an add-in from memory when no add-ins were loaded.

No application in add-in "add_in_name"

You tried to invoke an add-in application using an add-in file that contains only @functions or macro commands.

You do not have to invoke add-in @functions or macro commands in order to use them. See [Using Add-in @Functions and Macro Commands](#).

Settings sheet is empty

You selected Settings System Cancel or Settings File Cancel from the ALT+F10 (ADDIN) menu when there were no add-in files listed on the settings sheet.

Settings sheet is full

You tried to add the name of an add-in file to a full settings sheet.

Use Settings File or Settings System from the ALT+F10 (ADDIN) menu to delete files from the settings sheet you want to modify.

Stack overflow in "file_name"

Your add-in uses too much program memory to run in 1-2-3.

If you are a developer, you must edit your program so it requires less memory, or use compiler option stack Size, which makes more memory available to your program. Otherwise, contact the add-in developer.

You did not install "feature." To install it, run Customized Install.

You tried to use an optional feature that you did not install.

See Chapter 1, "Before You Begin," in the *User's Guide* for information about returning to Install to install optional features.

No precedents were found in the current file

The formulas you audited do not refer to data in cells in the current file.

No precedents were found in any files in memory

The formulas you audited do not refer to data in cells in any of the files in memory.

No dependents were found in the current file

No formulas in the current file use data in the cells you selected.

No dependents were found in any files in memory

No files in memory contain formulas that use data in the cells you selected.

No formulas were found in the current file

The current file contains no numeric, logical, @function, or text formulas.

No formulas were found in any files in memory

No files in memory contain numeric, logical, @function, or text formulas.

No circular references were found in the current file

The current file contains no circular references.

No circular references were found in any files in memory

No files in memory contain circular references.

No file links were found in the current file

The current file contains no formulas that refer to other files.

No file links were found in any files in memory

No files in memory contain formulas that refer to other files.

No DDE links were found in the current file

The current file contains no DDE links.

No DDE links were found in any files in memory

No files in memory contain DDE links.

Source cell is not a formula

You used Tools Audit to find the precedents for a formula, but the cell you selected does not contain a formula.

Select a cell that contains a formula and choose Tools Audit again.

No formulas in the source range

You used Tools Audit to find the precedents for the formulas in a range, but the range you selected does not contain any formulas.

Select a range that contains formulas and choose Tools Audit again.

The report range is not empty

You tried to report the results of your audit to a range that already contains data or prefix characters.

- Delete the data from the range you specified and choose Tools Audit again. To delete the data, select the entire range and choose Edit Clear or press DEL.
- Locate a blank range on the worksheet, choose Tools Audit again, and specify the blank range. To determine where a data range ends on the worksheet, press END+HOME. This takes you to the bottom right corner of the active area.
- Specify the range in a blank worksheet for a report. To create a blank worksheet, click the New Sheet button, or choose Edit Insert and select Sheet.

The report range is full

You used Tools Audit and specified a range for the report, but 1-2-3 has more information to report than will fit in the specified range.

Choose Tools Audit and increase the size of the report range. If you are not sure of the size of your report, select a range in a blank worksheet for the report. To create a blank worksheet, click the New Sheet button, or choose Edit Insert and select Sheet.

Report range is invalid

You used Tools Audit and specified a range for the report, but one of the following problems occurred:

- You specified an invalid range address.
Use a valid range name or range address.
- The file is sealed.
Use File Protect to unseal the file, or specify a range in an unsealed file.

Audit canceled

You pressed ESC or chose Cancel to terminate the audit before it was finished.

A chart name cannot begin with << >>

You chose Chart Name and specified a chart that started with << >> (double angle brackets).

Chart names can't begin with double angle brackets because 1-2-3 uses those characters to denote file references. To name a chart in another file, move the cell pointer to that file before using Chart Name.

Cannot add graph

The following conditions could have caused this error:

- There is not enough memory to add the specified graph.
For information on increasing memory, see Appendix B in the *User's Guide*.
- The name of the graph you tried to add contains too many characters.
Use Chart Name to give the graph a name that contains fewer than fifteen characters.

Cannot move charts beyond worksheet boundaries

You tried to move a chart using :Graph Move, but the To range you specified would place the chart beyond the last column or row in the worksheet.

Chart error - not enough memory to draw chart

You tried to view a chart but not enough memory was available for 1-2-3 to display it. To solve this problem, do one or more of the following:

Free some memory and then try to display the chart. For ways to free memory, see Appendix B in the *User's Guide*.

Use /Graph View to display another named chart that's less complex.

Chart name already exists

You used Chart Name to create a new chart name, but you specified a name that already exists. Specify another chart name again, making sure the name is not already in use.

Chart name does not exist

You chose /Graph Name Use or /Graph Name Delete and specified a nonexistent chart name.

Choose /Graph Name Use or /Graph Name Delete again to see a complete list of chart names in the current file and the names of other active files. If you're trying to view or delete a named chart in the current file, select its name from the list. If you're trying to view or delete a named chart in another active file, select the file name from the list and then select the chart name.

Chart not found

You specified the name of a chart that doesn't exist, or you specified a range that doesn't contain a chart.

Name too long

The following conditions could have caused this error:

- You chose /Print [E, F, P] Options Name Create and specified a chart or page settings name longer than 15 characters.

Choose /Print [E, F, P] Options Name Create again and specify a name that's no longer than 15 characters.

- When specifying a range or worksheet name for a command, you typed a name longer than the limit of 15 characters. Range names and worksheet names cannot exceed 15 characters. You may have misspelled the range name you wanted to use or, if you were specifying multiple ranges, you may have left out an argument separator between two or more ranges.
- For a {SHEET-NAME} command, the specified worksheet name is longer than 15 characters. Worksheet names cannot exceed 15 characters.
- For a Tools Database command, you specified an external table name of more than 80 characters. A full table name (which includes a driver name, database name, and table name) can't exceed 80 characters.

Use a shorter driver, database, and/or table name for the external table. To shorten the driver name, edit the DN="drivername" statement in your LOTUS.BCF file.

- You chose /File Save and specified a name longer than the limit of 8 characters.

Choose /File Save and specify a file name that is no longer than 8 characters.

- You were creating a crosstab table, but a field name you specified exceeded 46 characters. Crosstab tables can't accept field names longer than 46 characters.

Rename the field using a name of 46 characters or less.

Too many chart names; cannot create new one

You tried to create a new named chart with Tools Chart, but the current file already contains the maximum number of named charts.

Delete an existing named chart in the current file by selecting the chart and pressing DEL. Then use Tools Chart to create a new named chart.

123NOTES.NTF template not found

You chose File Save As and specified shared (.NS4) as the file type to save, but 1-2-3 could not find a template file required to save the file. The template file may have been deleted from your hard disk.

To reinstall the Lotus Notes template files, run the 1-2-3 Install program and do the following:

- Choose Customized Install
- Select Additional Features
- Select Version Manager for Lotus Notes

123NTSUI.NTF template not found

You chose File Open to open a shared file (.NS4), but 1-2-3 could not find a template file required to open the file. The template file may have been deleted from your hard disk.

To reinstall the Lotus Notes template files, run the 1-2-3 Install program and do the following:

- Choose Customized Install
- Select Additional Features
- Select Version Manager for Lotus Notes

A scenario name must be provided

You used {SCENARIO-CREATE} or {SCENARIO-ADD-VERSION}, but you did not specify a scenario name.

Repeat the command, making sure to specify a scenario name. Scenario names are case-sensitive.

A version name must be provided

Access to shared file denied

You chose File Open or File Save As to open or save a shared file (.NS4), but 1-2-3 could not open or save the file because you do not have the appropriate level of access either to use the file or to use the Lotus Notes server.

Contact your Lotus Notes administrator to have your access level changed.

An error occurred while saving a shared file

You chose File Save As to save a shared file (.NS4), but an error occurred that prevented 1-2-3 from completing the operation.

To avoid losing data, use File Save As to save the file as a .WK4 file.

Cannot load C1WNPRST.DLL; unable to complete operation

You chose File Open or File Save As to open or save a shared file (.NS4), but 1-2-3 could not load a library file required to complete the operation.

The following conditions could have caused this error:

- Not enough memory was available to read the library file into memory.
To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.
- The library file was damaged or deleted from your hard disk.
Reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.
- You are already using the maximum number of files your operating system allows.
Close some unnecessary files and repeat the operation that caused this error.

Cannot load "library_file_name.dll"; unable to read Version Manager data

The following conditions could have caused this error:

- Not enough memory was available to read the library file into memory.
To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.
- The library file was damaged or deleted from your hard disk.
Reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.
- You are already using the maximum number of files your operating system allows.
Close some unnecessary files and repeat the operation that caused this error.

Cannot load "library_file_name.dll"; unable to save Version Manager data

The following conditions could have caused this error:

- Not enough memory was available to read the library file into memory.
To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.
- The library file was damaged or deleted from your hard disk.
Reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.
- You are already using the maximum number of files your operating system allows.
Close some unnecessary files and repeat the operation that caused this error.

Cannot move cells in shared file "file_name"

You tried to use drag-and-drop, /Move, or Edit Cut followed by Edit Paste to move cells in a shared file (.NS4).

You cannot move cells in a shared file.

Cannot open file

You chose File Open to open a shared file (.NS4) located on a Lotus Notes server, but 1-2-3 could not open the file because of an error on the Notes server.

Contact your Lotus Notes administrator.

Cannot open file "file_name"

You chose Version Report and 1-2-3 was unable to open a new file in which to create a version report. The following conditions could have caused this error:

- Not enough memory was available to open the file.

To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.

- The total number of worksheets that would be in memory after creating the version report file is greater than 256.

Close some files or delete some worksheets from active files and try again.

- The current directory already contains files REPORT01.WK4 through REPORT99.WK4.

Use Tools User Setup to change to a different directory, or delete an unnecessary file named REPORTxx.WK4 and then choose Version Report again.

Cannot retrieve from file

You chose File Open to open a shared file (.NS4), but 1-2-3 could not open the file because it is damaged.

Contact your Lotus Notes administrator to find out if there is a backup copy of the shared file.

Cannot save a scenario when there are adjustable cells in more than one file

After using Range Analyze Solver to solve a problem in which you specified adjustable cells in more than one active file, you chose Save to save a Solver answer or attempt as a scenario.

You cannot save an answer or attempt as a scenario when there are adjustable cells in more than one file.

Reorganize the problem so that all of the adjustable cells are in the same file and then use Range Analyze Solver and Save again.

Could not dynamically load library "library_name"

Could not find resource

1-2-3 could not load the library file C1WRMGR.DLL.

Reinstall the file and repeat the operation that caused this error.

Could not free resource

Could not load "library_name"; .dll has invalid Windows version

1-2-3 could not load the library file because it was developed for a different version of Windows.

Could not load "library_name"; invalid .dll

1-2-3 could not load the library file because it is corrupted.

Could not load "library_name"; sharing error

1-2-3 could not load the library file due to a sharing or network protection error.

Could not load resource

You must free enough memory to complete the operation that caused this error message.

To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.

Could not lock resource

You must free enough memory to complete the operation that caused this error message.

To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.

Current user name is not an Alias; it cannot be reset

Disk drive not ready

You tried to read from or save a file on a disk drive that did not contain a disk or had its door open.

Correct the problem and try again.

Disk full

The following conditions could have caused this error:

- You tried to save a .WK1 or .WK3 file on a disk that did not have enough room for the file.

Caution If you chose Replace after saving the file, 1-2-3 erased the version of this file on disk. You must save the file on another disk so you do not lose the file.

Save the entire file on another formatted disk.

- You tried to open an .XLS file (Excel format) from a disk that does not have enough space for the temporary .WK4 copy of the file that 1-2-3 creates.

Copy the Excel file to a disk that has sufficient space for the .WK4 copy (the copy is approximately the same size as the .XLS original). Then open the Excel file from the new location.

Error initializing Lotus Notes

You chose File Open or File Save As to open or save a shared file (.NS4), but 1-2-3 could not initialize Lotus Notes.

Check the following:

- Make sure the "Program Path= " entry in the [User Name Service] section of your LOTUS.INI file specifies the directory *d:\windows\LOTUSAPP\UNS*, where *d:\windows* is your Windows directory (or the drive that contains your LOTUSAPP directory).
- Make sure the "Program=" entry in the [LotusMail] section of your WIN.INI file specifies the directory *d:\notes\notes.exe*, where *d:* is the drive that contains your Notes directory.
- Make sure that the DOS SHARE utility is running.

You must start SHARE.EXE before you start Windows. To start SHARE.EXE before every Windows session, add the following line to your AUTOEXEC.BAT file, substituting the location of your DOS directory for *d:\dos_dir*:

```
d:\dos_dir\SHARE
```

See your DOS documentation for information about SHARE.EXE.

Event error

File contains no unprotected named ranges that contain versions. Do you wish to continue?

You used File Save As to save a file as a shared file (.NS4), but the file does not contain any unprotected named ranges that contained versions.

In order to share data in a shared file, the file must contain unprotected named ranges that contain versions.

1. Choose No to close the message box.
2. Choose Range Version to create versions of named ranges in which you want to share data.
3. Choose Style Protection to unprotect the named ranges.
4. Save the file as a shared file.

For more information about shared files, see Sharing Files Using Lotus Notes.

File does not exist

The file you specified does not exist in the directory you specified.

Choose the command again and enter the correct path and file name. To find out what files are in a directory, use DOS or the Windows File Manager.

File does not exist

The file you specified does not exist in the directory you specified.

Choose the command again and enter the correct path and file name. To find out what files are in a directory, use DOS or the Windows File Manager.

File does not exist

The file you specified does not exist in the directory you specified.

Choose the command again and enter the correct path and file name. To find out what files are in a directory, use DOS or the Windows File Manager.

File extension must be .NS4

You chose File Save As and specified shared (.NS4) as the file type to save, and then entered a different extension in the File name text box.

Specify .NS4 as the extension, or do not specify an extension.

File "file_name" has no refresh pending

File "file_name" is already sealed

The following conditions could have caused this error:

- You used File Protect to seal a file with a password and then chose File Save As to save the sealed file as a shared file (.NS4).

When saving a shared file, 1-2-3 seals the file with a password that you provide. If the file is already sealed, 1-2-3 cannot save the file as a shared file. Use File Protect to unseal the file and then choose File Save As again.

- You chose File Save As and specified shared (.NS4) as the file type to save a file that is already a shared file.

Use File Save Versions to save changes to a shared file.

File is not a shared file

You chose File Open, selected shared (.NS4) as the file type, and specified a file with the .NS4 extension as the file to open. 1-2-3 could not open the file because it is not a shared file.

Only shared files should have the .NS4 extension.

File "file_name" is not a shared file

File "file_name" is a shared file. It cannot be sealed or unsealed.

You used File Protect to seal or unseal a shared file (.NS4).

A shared file is always sealed. You cannot seal or unseal a shared file. To change the file, use File Save As to save the file as a .WK4 file, then use File Protect to unseal the .WK4 file.

File "file_name" is sealed; cannot create hidden versions or scenarios

You used {VERSION-CREATE} or {SCENARIO-CREATE} to create a hidden version or scenario, or you used {VERSION-INFO} to hide an existing version in a file that you sealed using File Protect.

You cannot create hidden versions or scenarios, or hide existing versions, in a sealed file. Use File Protect to unseal the file, then repeat the operation that caused this error.

File may be damaged

You chose File Open to open a file containing versions, but 1-2-3 cannot read any Version Manager data in this file.

If you have a backup version of the file, try opening the backup version.

(Internal)

(Internal) Macro processing error

(Internal) Missing or invalid parameters

(Internal) operation unsupported

Invalid CCB parameter

Invalid color index

Invalid date

The following conditions could have caused this error:

- You tried to use Range Fill to fill a range with dates and specified a date with a date number less than 1 (January 1, 1900) or greater than 73050 (December 31, 2099) as the start value.

Specify a date that has a date number from 1 to 73050 as the start value.

- You tried to use a date that does not exist, such as February 29, 1990, with a Tools Database or Query command. You may have typed a date incorrectly.

Specify an actual date and use the Tools Database or Query command again.

- You chose Range Fill and specified the start value using a date, time, or currency format that is different from the date, time, or currency format you specified with Tools User Setup International.

Choose Range Fill and specify the value in the format you specified with Tools User Setup International or choose Tools User Setup International and change the format.

- You used Merge Versions and Scenarios and specified an invalid date in the "modified on or after date" text box.

Invalid destination file during merge

You used {VERSION-INDEX-MERGE} and one of the following conditions occurred:

- 1-2-3 could not determine the name of the current file.
- 1-2-3 could not determine whether the current file is sealed.

Please record the error message and contact Lotus Customer Support.

Invalid formula range

You used Version Report and specified a collection or an invalid range in the "Include results for formulas from this range" text box.

Choose Version Report again, making sure to specify a valid range. You cannot use collections with Version Report.

Invalid Notes version

The following conditions could have caused this error:

- You chose File Open to open a shared file (.NS4) that was created on a local disk drive using Lotus Notes version 3, but Notes version 2.1 is installed on your computer.

Notes version 3 saves local files using a different format than Notes version 2.1.

To convert the file into a format readable by Notes version 2.1, do the following:

1. In Notes version 3, use File Database Copy to make a copy of the shared file, and specify .NS2 as the extension.
 2. In DOS, change the extension of the new copy of the file from .NS2 to .NS4.
- You chose File Open or File Save As to open or save a shared file (.NS4) after copying the file 123NOTES.SUI from a computer with Notes version 3 to a computer with Notes version 2.1.

Delete 123NOTES.SUI and repeat the operation that caused this error. You will lose your settings for shared files, but you will not lose any data.

Invalid pathname

You chose File Open to open a shared file (.NS4), and specified an invalid path or Lotus Notes server name.

Choose File Open again, making sure to specify a valid path and Notes server name.

Invalid range detected by Version Manager. To avoid losing data, don't use File Save.

You chose File Open to open a file containing versions, but 1-2-3 Release 5 cannot read any Version Manager data in this file.

The following conditions could have caused this error.

- The file was a .WK3 file that you created in 1-2-3 Release 4 for DOS or by using File Save As in 1-2-3 Release 5. You opened the file in another version of 1-2-3, deleted or changed the size or location of a range that contained versions, and then saved the file.

Caution While working in 1-2-3 Release 5, if you use File Save to save this file, the Version Manager data in the file will be lost. To avoid losing the Version Manager data, either don't save the file, or use File Save As to save the file under a different name. The new file will not contain the Version Manager data, but the original .WK3 file will still contain the original Version Manager data.

You may be able to make the Version Manager data available using the following procedure:

1. Open the file using the version of 1-2-3 in which you deleted or changed the size or location of a range that contained versions.
2. Restore the range that you modified to its original size and location.
3. Save the file.
4. Open the file in 1-2-3 Release 5 or 1-2-3 Release 4 for DOS.

If this procedure does not make the Version Manager data available, and you have a backup version of the .WK3 file, try opening it.

- The file was a .WK4 file, and information about one of the ranges containing versions was corrupted. If you have a backup version of the .WK4 file, try opening it.

Lotus Notes error: "error_message"

You were using a shared file (.NS4) and a Lotus Notes error occurred.

See your Lotus Notes documentation or your Notes administrator for more information.

Lotus Notes error: "error_message"

You were using a shared file (.NS4) and a Lotus Notes error occurred.

See your Lotus Notes documentation or your Notes administrator for more information.

No report elements selected

You used Version Report and did not select Version data or Audit information or specify a range in the "Include results for formulas from this range" text box.

Choose Version Report again and select Version data or Audit information, or specify a range in the "Include results for formulas from this range" text box.

No such resource

No unprotected ranges found in file

No Version Manager data available

Number of adjustable cells must be less than 255

After using Range Analyze Solver to solve a problem in which you specified 255 or more adjustable cells, you chose Save to save a Solver answer or attempt as a scenario.

You cannot save an answer or attempt as a scenario when there are 255 or more adjustable cells. Reorganize the problem so that there are fewer adjustable cells and try again.

Out of memory

You must free enough memory to perform the operation that caused this error message. If you are using a shared file, either your computer or the Lotus Notes server could be out of memory. To free memory on your computer, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.

Note When 1-2-3 displays this error message, it erases the undo history. There isn't enough memory for 1-2-3 to store what you just did for Undo.

- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

Out of memory

You must free enough memory to perform the operation that caused this error message. If you are using a shared file, either your computer or the Lotus Notes server could be out of memory. To free memory on your computer, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.

Note When 1-2-3 displays this error message, it erases the undo history. There isn't enough memory for 1-2-3 to store what you just did for Undo.

- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

Out of memory or could not load required .dll(s). Version Manager could not be initialized.

You chose Range Version, chose File Open to open a file that contains versions, or used a command from the Version Manager Macro Command Category, but 1-2-3 could not load a library file required to initialize Version Manager.

The following conditions could have caused this error:

- Not enough memory was available to read the library file into memory.
To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.
- The library file was damaged or deleted from your hard disk.
Reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.
- You are already using the maximum number of files your operating system allows.
Close some unnecessary files and repeat the operation that caused this error.

Range name already exists

The following conditions could have caused this error:

- You chose Tools Database Connect to External and specified a range name that you have already assigned to an external table or to a range in a worksheet.

Specify a range name that you have not already assigned to an external table or to a range in a worksheet.

- You used Create Version or Version Info to name or rename a range and specified a range name that already exists in the current file.

Choose Create Version or Version Info again and specify a different name for the range.

- You used Create Version to create a version of a named range that has more than one name and that already contains versions, and you did not specify the same name for the range as when you originally created versions of the range.

Choose Create Version again and specify the range name you used when you originally created versions of the range.

Range "range_name" contains more than 2000 cells

The following conditions could have caused this error:

- You used Create Version or {VERSION-CREATE} to create a version of a range that contains more than 2000 cells.

Select a smaller range and choose Create Version again.

- You used Version Report and in the "Include results for formulas from this range" text box, you specified a range that contains more than 2000 cells.

Choose Version Report again, and specify a smaller range in the "Include results for formulas from this range" text box.

- You tried to merge and create versions of a range that was sent or routed, but one of the versions contained more than 2000 cells.

Merge part of the range instead.

Range "range_name" contains protected cells

In a file that you sealed using File Protect, you used Create Version or {VERSION-CREATE} to create a version of a range that contains protected cells, or you tried to display a version in a range that contains protected cells.

1. Choose File Protect to unseal the file.
2. Choose Style Protection to unprotect all the cells in the range.
3. Choose File Protect to seal the file again.

Range "range_name" contains versions and cannot be deleted or undefined

The following conditions could have caused this error:

- You used Range Name Delete to delete a range name that contains versions.
- You used Edit Delete to delete a column, row, or worksheet that contains the top left or bottom right cell of a named range that contains versions, causing the range name to become undefined.
- You used /Range Name Undefine to undefine a range name that contains versions.
- You used drag-and-drop, /Move, or Edit Cut and Edit Paste to move data into the top left or bottom right cell of a named range that contains versions, causing the range name to become undefined.

You cannot delete or undefine a named range that contains versions. To delete or undefine the range, first use Delete Version/Scenario to delete all the versions of the range.

Range "range_name" contains versions and cannot be redefined

You used Range Name Add to change the address of a named range that contains versions.

You cannot change the address of a named range that contains versions. To change the address of the named range, first use Delete Version/Scenario to delete all the versions of the range.

Range "range_name" contains versions. Do you want to delete/undefine it?

Range "range_name" contains versions that must be deleted before you can move a corner of the range

The following conditions could have caused this error:

- You used drag-and-drop, /Move, or Edit Cut and Edit Paste to move a corner of a named range that contains versions to a location that would cause the named range to become undefined.

You cannot undefine a named range that contains versions. To undefine the range, first use Delete Version/Scenario to delete all the versions of the range.

- With Group mode off, you used Edit Insert or Edit Delete to insert or delete columns, rows, or cells in a worksheet that contains the top left or bottom right cell of a 3D named range containing versions. Completing the insertion or deletion would move the top left or bottom right cell of the 3D named range, causing the named range to become smaller.

To complete the insertion or deletion, either use Style Worksheet Defaults to turn Group mode on or use Delete Version/Scenario to delete all the versions in the range.

Range "range_name" does not exist

You used {VERSION-CREATE}, {VERSION-DELETE}, {VERSION-INFO}, {VERSION-SHOW}, or {VERSION-UPDATE} and specified a range name that does not exist in the current file.

Specify the macro command again, making sure to specify a range name that exists in the current file, or specify a range in another active file by specifying the path and file name enclosed in << >>.

Range "<<file_name>>range_name" used more than once

Scenario "scenario_name" already exists

Scenario "scenario_name" does not exist

You used {SCENARIO-ADD-VERSION}, {SCENARIO-DELETE}, {SCENARIO-REMOVE-VERSION}, or {SCENARIO-SHOW} and one of the following problems occurred:

- The scenario you specified does not exist.
Make sure to specify a scenario name that exists in the current file. Scenario names are case-sensitive.
- The user you specified did not create or last modify any scenario with that name in the current file.
Omit the argument that specifies the user name; or check that the scenario and user names are correct, that the scenario you specified is in the current file, and that the user you specified created or last modified the scenario you specified.

Scenario "scenario_name" is protected

You used Delete Version/Scenario, Scenario Info, {SCENARIO-ADD-VERSION}, or {SCENARIO-DELETE} to delete or modify a protected scenario.

To delete or modify a protected scenario, choose Scenario Info and under Sharing options, select Unprotected.

Shared file already exists

You chose File Save As to save a shared file (.NS4), but 1-2-3 could not save the file because a shared file with the same file name already exists.

Select a different Lotus Notes Server or a different directory, or specify a different file name and choose File Save As again.

Shared file: cannot create version in range "range_name"

You used {VERSION-CREATE} to create a version in a shared file (.NS4), and you specified an unprotected range that did not contain versions.

In a shared file, you can create versions only in unprotected named ranges that contain versions.

Shared file is corrupted

You chose File Open to open a shared file (.NS4), but 1-2-3 could not open the file because it is damaged.

Contact your Lotus Notes administrator to find out if there is a backup copy of the shared file.

Shared file is in use by another process

You chose File Open to open a shared file (.NS4), but 1-2-3 could not open the file because it is in use by another process.

The following conditions could have caused this error:

- The shared file is being replicated to other Lotus Notes server.
- The shared file is being copied.

You cannot open a shared file while it is being replicated or copied. Try again later.

Shared file may be damaged

The following conditions could have caused this error:

- You chose File Open to open a shared file (.NS4), and 1-2-3 could not open the file because it is damaged.

Contact your Lotus Notes administrator to find out if there is a backup copy of the shared file.

- You chose File Save As to save a shared file, and 1-2-3 detected structural damage to the file while attempting to save it.

You cannot save the damaged file as a shared file. Choose File Save to save the file as a .WK4 file.

Shared file may be damaged; attachment not found

You chose File Open to open a shared file (.NS4), but 1-2-3 could not open the file because it could not find a required attached file.

The following conditions could have caused this error:

- You may have detached the file in Lotus Notes.
Reattach the file and try again.
- An error occurred when you created the shared file and it was not completely saved.
You cannot open an incomplete shared file.

Spreadsheet settings database is damaged

1-2-3 saves individual settings for shared files (.NS4) in the file 123NOTES.SUI. This file is damaged or corrupted.

Delete 123NOTES.SUI and repeat the operation that caused this error. You will lose your settings for shared files, but you will not lose any data.

This operation will cause range "range_name" to become larger than 2000 cells. Delete all versions in the range first.

The following conditions could have caused this error:

- You used Edit Insert to insert cells, columns, rows, or worksheets, causing the range to become larger than 2000 cells.
- You used Range Name Add to change the address of the named range, and you specified a range larger than 2000 cells.

A range that contains versions cannot be larger than 2000 cells. Before you can complete this operation, you must use Delete Version/Scenario to delete all versions in the range.

Unable to retrieve shared file

You used File Open to open a shared file (.NS4), but 1-2-3 could not retrieve the file.

The following conditions could have caused this error:

- The internal structure of the file is damaged. You may have used Lotus Notes to delete portions of the file.

You cannot open a damaged shared file. Contact your Lotus Notes administrator to find out if there is a backup copy of the shared file.

- Your access level for the shared file is Depositor.

You cannot open a shared file to which you have Depositor access. Contact your Lotus Notes administrator to change your access level.

Unable to seal file "file_name"

Unable to set cell protection for file "file_name"

Unable to set global protection for file "file_name"

Unknown Lotus Notes error

You were using a shared file (.NS4) and an unrecognized Lotus Notes error occurred.

Please contact your Notes administrator or Lotus Customer Support.

User "user_name" not found

The following conditions could have caused this error:

- You used {SCENARIO-ADD-VERSION}, {SCENARIO-DELETE}, or {SCENARIO-SHOW} and there are no scenarios in the current file that the user whose name you specified created or last modified.
Specify the macro command again, and either do not specify a user name or make sure to specify the name of a user who created or last modified a scenario in the current file.
- You used {SCENARIO-ADD-VERSION}, {VERSION-DELETE}, {VERSION-INFO}, {VERSION-SHOW}, or {VERSION-UPDATE} and there are no versions in the current file that the user whose name you specified created or last modified.
Specify the macro command again, and either do not specify a user name or make sure to specify the name of a user who created or last modified a version in the current file.
- You used {VERSION-INDEX-MERGE} and specified the name of a user who did not create or modify any versions or scenarios in the source file.
Specify {VERSION-INDEX-MERGE} again, and either do not specify a user name or make sure to specify the name of a user who created or last modified a version or scenario in the source file.

Version "version_name" does not exist

The following conditions could have caused this error:

- You used {SCENARIO-ADD-VERSION}, {VERSION-DELETE}, {VERSION-INFO}, {VERSION-REPORT}, {VERSION-SHOW}, or {VERSION-UPDATE} and specified the name of a version that does not exist in the current file.

Specify the macro command again, making sure to specify the name of a version that exists in the current file. Version names are case-sensitive.

- You used {VERSION-DELETE}, {VERSION-INFO}, {VERSION-SHOW}, or {VERSION-UPDATE} and specified the name of a user who did not create or modify any version in the current file with the version name you specified.

Omit the argument that specifies the user name; or check that the user and version names are correct, that the version you specified is in the current file, and that the user you specified created or last modified the version you specified.

Version "version_name" is hidden

You used {SCENARIO-ADD-VERSION}, {VERSION-DELETE}, {VERSION-INFO}, {VERSION-SHOW}, or {VERSION-UPDATE} and specified the name of a hidden version.

Use {VERSION-INFO} to unhide the version.

Version "version_name" is protected

The following conditions could have caused this error:

- You used {VERSION-DELETE}, {VERSION-INFO}, {VERSION-SHOW}, or {VERSION-UPDATE} and specified the name of a protected version.

Use {VERSION-INFO} to unprotect the version.

- You used Version Info or Versions Info to unprotect a protected version in a file that you sealed with File Protect.

Use File Protect to unseal the file and then choose Version Info or Versions Info again.

You must supply a range name

You used Create Version to create a version and did not specify a range name.

Choose Create Version again, making sure to specify a range name.

You must supply a version name

You used Create Version to create a version and did not specify a version name.

Choose Create Version again, making sure to specify a version name.

You must supply both a range name and a version name

The following conditions could have caused this error:

- You used Create Version to create a version and did not specify a range name or a version name.
Choose Create Version again, making sure to specify a range name and a version name.
- You used {VERSION-CREATE}, {VERSION-DELETE}, {VERSION-INFO}, {VERSION-SHOW}, or {VERSION-UPDATE} and specified a range that is not a named range.
Specify the macro command again, making sure to specify a named range.

Your user id cannot access settings saved for shared files

1-2-3 saves individual settings for shared files (.NS4) in the file 123NOTES.SUI. Your Lotus Notes user ID does not match the user ID in 123NOTES.SUI.

The following conditions could have caused this error:

- You copied another user's Notes user ID onto your machine.
Delete 123NOTES.SUI or rename it as 123NOTES.BAK and repeat the operation that caused this error.
- You copied another user's 123NOTES.SUI onto your machine.
To use the other user's settings, you must also copy the other user's Notes ID onto your machine. Be sure to make a copy of your Notes ID in a safe place.

Warning: One or more versions referenced by scenario "scenario_name" do not exist

Worksheet full

One of the following conditions could have caused this error:

- You used a command that copies or moves data, but the range you specified to copy or move will not fit within the worksheet borders.

Make sure the destination range is large enough to hold the data you want to copy or move.

- You tried to insert a column or columns using Edit > Insert, but 1-2-3 could not complete the command because the number of columns you tried to insert exceeded the number of blank columns at the right worksheet border.

A blank column contains no data, formatted cells, or unprotected cells. Delete unneeded data and styles to increase the number of blank columns or try to insert fewer columns.

Cannot copy to Clipboard when Index is not visible

You used {VERSION-INDEX-COPY} and the Version Manager Index window is closed or minimized.

Make sure that the Version Manager Index window is not closed or minimized, and run the macro again. To ensure that the Index is always open when this command executes, add {RANGE-VERSION?} before {VERSION-INDEX-COPY} in the macro, and specify the "index" argument.

No versions from range "range name" in scenario "scenario name"

You used {SCENARIO-REMOVE-VERSION}, but the scenario you specified does not contain a version from the range you specified.

Make sure that the scenario you specify contains a version from the range you specify and run the macro again.

File "file name" is sealed; cannot hide or unhide scenarios

You used {SCENARIO-INFO} to hide or unhide an existing scenario in a file that was sealed using File Protect.

You cannot hide or unhide scenarios in a sealed file. Use File Protect to unseal the file, then run the macro again.

Cannot create a version of an unnamed range if the file is sealed

The following conditions could have caused this error:

- You used Create Version to create a version in a file that was sealed using File Protect, but the range for which you tried to create a version is not a named range.
- You used Merge to merge data from a routed range into a destination file that you sealed using File Protect, and the routed range contains versions in a named range that does not exist in the destination file.

In a sealed file, you can only create versions in unprotected ranges that were named before the file was sealed. Use File Protect to unseal the file, then repeat the operation that caused this error.

Ambiguous field reference in query

You tried to extract records from two or more database tables, and the criteria or output range contains a field name that appears in two or more database tables in the input range.

Precede the field name in the criteria or output range with the range name of one of the tables in which it appears. For example, if the output range contains the field name SALES, and the tables REGION1 and REGION2 in the input range both contain a field with the name SALES, enter REGION1.SALES or REGION2.SALES in place of SALES in the output range.

Note If two database tables in the input range have the same range name, and if a field name in the criteria or output range appears in both database tables, precede the field name in the criteria or output range with a file name and range name. For example, <<QUARTER1.WK4>>REGION1.SALES refers to the field SALES in the range REGION1 in the file QUARTER1.WK4.

At least one variable range must be specified

You tried to use /Data Table Labeled without specifying a variable range. You need at least one variable range to create a data table.

Use /Data Table Labeled Down, Across, or Sheets to specify a row, column, or worksheet variable range, and the corresponding input cells.

Then choose /Data Table Labeled Go to create the data table.

Cannot create a table with EXTENDED data types

Cannot execute query with a circular reference

A formula in the criteria contained a circular reference.

Correct the circular reference before you execute the query. Click the Circ button on the status bar or use Tools Audit to find the circular reference.

Cannot open database input range

Cannot read or write LONG data

Cannot reset database when tables are in use

Cannot retrieve records from database table

Cannot unload driver when databases are in use

Cannot update a database with a nonunique record

Cannot use both Edit Undo and Data External Refresh Automatic

You tried to choose /Data External Other Refresh Automatic when Undo was on, or you tried to turn on Undo after you chose /Data External Other Refresh Automatic.

Do not have Undo turned on and /Data External Other Refresh set to automatic at the same time. Use Tools User Setup to disable Undo.

Cannot use computed columns with Data Query Modify

You tried to use /Data Query Modify Extract or Insert when the first row of the output range contained a formula.

Specify an output range that does not contain a formula and choose /Data Query Modify Extract again.

Criteria and output ranges cannot overlap

You specified overlapping criteria and output ranges when using /Data Query.

Choose /Data Query again and select criteria and output ranges that do not overlap.

Criteria must contain field reference

The following conditions could have caused this error:

- You tried to perform a query operation when the criteria range contained a formula that was missing a field name or valid cell address.

Edit the formula so that it includes either a field name or the address of a cell immediately below a field name in the input range.

- You tried to perform a query operation when the criteria range contained a formula that used the cell address of a field name in the input range.

Edit the formula so that it refers to a cell immediately below a field name in the input range.

- You tried to perform a query operation when the criteria range contained a formula that used a field name that is also a range name.

Precede the field name in the formula with the range name of the input range. For example, JAN.SALES refers to field SALES in the input range JAN.

Criteria range must be in an active file

The following conditions could have caused this error:

- You chose /Data Query and specified a criteria range that was not in an active file.
Either open the file you want to use or specify a criteria range in an active file.
- You chose /Data Query and specified a criteria range in an active file, but you used a file reference that did not include a path.

Choose /Data Query Criteria. Press F3 (NAME) and select the file name. 1-2-3 automatically includes the path when you use this method to create the file reference.

Criteria too complex

You tried to perform a query operation when the criteria contained more AND or OR statements than 1-2-3 could calculate.

Use multiple queries to extract, find, or delete records. For example, edit the criteria to simplify the search criteria, and perform the query. Then specify the remaining search criteria in a second query operation, using the query table from the first query as the database table for the second query.

Data Query Modify Extract canceled or not performed

You tried to update the query after you had refreshed another query, changed the criteria without the Auto refresh option turned on, or performed some other database operation.

You should update your query immediately after you refresh it and change the data before you perform any other query operation or before you change the criteria.

Choose Query Refresh Now to enable the update command again. (You will lose any changes you have made to the query. If you wish to keep those changes, copy them to another location first.)

Data Table and Data Query commands are disabled

You could not change /Data Table or /Data Query settings because you chose /Data External Other Refresh Automatic.

Choose /Data External Other Refresh Manual and then change your /Data Table or /Data Query settings.

Database and query tables must be different

Database has read-only access

Database is full

Database name is not in the correct format

Database not correctly positioned

Database @functions more than 8 levels deep in criteria

You have nested more than eight database @functions in a criteria.

Edit the formula in the criteria so that you have no more than eight database @functions nested in the criteria.

Datatype mismatch on output

Delete works only on database with one table

Destination range full or invalid

You tried to enter a table, table definition, or list of information in one of the following types of locations:

- A range too close to the bottom or right edge of a worksheet to accommodate the entire table, table definition, or list.

Choose the command again and specify a range beginning far enough away from the bottom or right edge of the worksheet to accommodate all the information.

- A range in a file on disk. 1-2-3 cannot enter data in a file on disk.

Choose the command again and specify a range in an active file as the range in which you want 1-2-3 to enter the table, table definition, or list.

- A protected range.

1-2-3 cannot enter data in a protected range. Choose the command again and specify an unprotected range as the range in which you want 1-2-3 to enter the table, table definition, or list.

- You specified an external range name as a location for a table definition or list.

Specify a range in an active file.

Driver cannot perform this database operation

While you were working with an external table, you tried to perform a task that the database driver could not support.

Not all database drivers can perform all the [Tools Database](#) and [Query](#) commands. For information on the capabilities of your database driver, see [DataLens Drivers](#).

Each variable must have an input cell

The following conditions could have caused this error:

- You entered a variable range and then used ESC to return to the previous menu without specifying all the input cells for the range.

Specify input cells for the variable range, and then select Go or press F8 (TABLE) to create the data table.

- You inserted additional rows or columns in one or more variable ranges after you specified the variable ranges for /Data Table Labeled.

Specify input cells for the new input values in the variable range or ranges, and then select Go or press F8 (TABLE) to create the data table.

End of database input range reached

ERR values are not allowed in the query table

The following conditions could have caused this error:

- You have ERR values in the query table.

Examine the query table and remove any ERR values.

- The external database contained unsupported data types. This caused 1-2-3 to return ERR in the query table.

When using Tools Database New Query, do not specify columns in the external database that use unsupported data types.

Error accessing temporary file

1-2-3 creates and uses temporary files to perform some types of commands, such as File Send Mail, Query commands or Range Sort.

The following conditions could have caused this error:

- The disk containing the directory you designated as your temporary file directory was full.
Free disk space on that disk and repeat the command.
- 1-2-3 could not find the Windows directory.
Restart Windows.
- The door to the disk drive was open.
Close the drive door and try the operation again.
- 1-2-3 encountered a hard disk failure when it tried to access the temporary file.
See your technical support person for assistance.

Error loading driver file

The DataLens driver you are attempting to use was designed for a previous version of Windows. You should obtain an updated version of the driver that is compatible with Windows 3.1 386 Enhanced Mode.

To use the current driver press ESC. Then save your work and restart Windows in Real Mode or Standard Mode by typing WIN R or WIN S.

Error loading driver file

The following conditions could have caused this error:

- Not enough memory was available to load the printer or database driver you specified. To free memory, do one or more of the following:

Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.

If Undo is turned on, use Tools User Setup to turn Undo off.

Delete worksheets, files, and data that you no longer need in memory.

If you have programs in memory besides 1-2-3, end one or more of those programs.

- You tried to use Tools Database Connect to External, Tools Database Create Table, Tools Database Send Command, or File Save As and you misspelled the name of the database file, or the driver file for the database driver you specified was missing.

See the documentation for the database driver for the name of the driver file, then make sure the file is on your hard disk.

- You tried to open or save a dBASE or Paradox file, and you did not specify the DN parameter in your LOTUS.BCF file as either DN="dBASE_IV" for dBASE files or DN="Paradox" for Paradox files.

Change your LOTUS.BCF file to include either DN="dBASE_IV" for dBASE files or DN="Paradox" for Paradox files.

Error replacing extracted records

The following conditions could have caused this error:

- You chose /Data Query Modify Extract, edited the contents of any row in the input or criteria range or the contents of the first row of the output range, and then chose /Data Query Modify Replace.

Choose /Data Query Modify Extract again, edit only those records in the output range that you want to change, and then choose /Data Query Modify Replace.

- You chose /Data Query Modify Replace when the range address of the output range included more rows than there were records in the output range.

Choose /Data Query Output and specify a one-row output range, select Modify, select Extract, edit the records in the output range, then choose /Data Query Modify Replace again.

External database data type not allowed in worksheet

You tried to extract records from an external table that has a data type 1-2-3 does not recognize.

Be sure that 1-2-3 can recognize the data types in the external table before trying to extract records.

External table ranges not allowed

You specified the range name of an external table. For this command, the range you specify must be in an active file.

Specify a range in an active file.

Note You may also be able to specify a range in a file on disk. See Help for the command you are using for information on the types of ranges you can specify.

External table was not created

You cannot create a table in this external database.

External table was not deleted

Field names must be unique within a database table

The following conditions could have caused this error:

- You tried to extract records from, or delete or find records in, a database table that contained duplicate field names.

Edit the duplicate field names to create unique names. Repeat the query operation.

- You tried to extract records from, or delete or find records in, a database table that has a field name that is a formula, for example, @AVG(SALES).

Enter a field name that is not a formula and repeat the query operation.

Formula label range cannot be blank

You tried to use /Data Table Labeled to create a data table without entering formula labels in the formula label range.

You must have at least one formula label in the formula label range. Copy the formula label or labels from the formula range to the formula label range, and then choose /Data Table Labeled Go to create the data table.

Formula range and formula label range are required

The following conditions could have caused this error:

- You tried to use /Data Table Labeled without specifying a formula range and formula label range.
Choose /Data Table Labeled Formulas to specify the formula and formula label range, and then /Data Table Labeled Go to create the data table.
- You tried to use /Data Table Labeled without specifying any of the necessary ranges.
Choose /Data Table Labeled Formulas and /Data Table Labeled Down, Across, or Sheets to specify the ranges for the data table, and then choose Go to create the data table.

Formula reference overlaps split layer

Incompatible database driver

You tried to specify a database driver with a version number that 1-2-3 does not support.

Use a database driver with a version number that 1-2-3 supports. For more information about the database drivers 1-2-3 supports, see [DataLens Drivers](#).

Input and output ranges cannot overlap

You specified overlapping input and output ranges when using /Data Query.

Choose /Data Query and specify the input and output ranges so that they do not overlap.

Input field names cannot be qualified

Insert works only on databases with one table

Insufficient privilege to perform database operation

Invalid criteria range

You tried to perform a query operation using a single-cell or single-row criteria range.

Specify a criteria range that contains a row of field names and at least one row of search criteria.

Invalid external database data type

You tried to create a table definition for a new external table using a model table range that contained a data type that the database driver does not support.

For information on the data types you can use in a table definition with the current database driver, see [DataLens Drivers](#) or the documentation for the database driver.

Invalid extra sort key number

You specified an extra sort key number greater than the number of existing extra sort keys.

Specify a number that is one greater than the number of the previous extra sort key.

Invalid field name

The following conditions could have caused this error:

- You tried to perform a Query Refresh Now when none of the query table fields matched a field name in the database table. This could happen if you changed the database table field names since the query was created.

Rename the database table field names to be the same as when you created the query.

- You chose a Query command and specified a named database table when the range that contains the database table was redefined since the last query operation.

Choose Range Name Add to redefine the range that contains the database table so that it matches the original range. If the operation still fails, choose Query Set Database Table and specify the original range as the database table.

- You tried to perform a query operation when the first row of the output range was blank.

Copy some or all of the field names in the input range to the first row of the output range.

- You tried to perform a query operation when the first row of the input range was blank.

Enter field names in the first row of the range.

- You tried to perform a query operation when none of the field names in the first row of the output range matched a field name in the input range.

Copy some or all of the field names in the input range to the first row of the output range.

- You tried to create a crosstab table using the {CROSSTAB} command and entered an invalid field name as an argument.

Check and correct the field names in the {CROSSTAB} command.

Invalid field name

The following conditions could have caused this error:

- You tried to perform a Query Refresh Now when none of the query table fields matched a field name in the database table. This could happen if you changed the database table field names since the query was created.

Rename the database table field names to be the same as when you created the query.

- You chose a Query command and specified a named database table when the range that contains the database table was redefined since the last query operation.

Choose Range Name Add to redefine the range that contains the database table so that it matches the original range. If the operation still fails, choose Query Set Database Table and specify the original range as the database table.

- You tried to perform a query operation when the first row of the output range was blank.

Copy some or all of the field names in the input range to the first row of the output range.

- You tried to perform a query operation when the first row of the input range was blank.

Enter field names in the first row of the range.

- You tried to perform a query operation when none of the field names in the first row of the output range matched a field name in the input range.

Copy some or all of the field names in the input range to the first row of the output range.

- You tried to create a crosstab table using the {CROSSTAB} command and entered an invalid field name as an argument.

Check and correct the field names in the {CROSSTAB} command.

Invalid formula in query

The following conditions could have caused this error:

- You tried to perform a query operation when the criteria or computed column contained an invalid formula.

Use Query Set Criteria to edit the formula or formulas in the criteria or choose Query Choose Fields to edit the computed fields in the query.

- You tried to perform a query operation when a formula in an aggregate column in the query table referred to a field and was not in the form @FUNCTION_NAME(FIELD_REFERENCE).

A field reference can be a field name, range name, or cell address. Choose Query Choose Fields to edit the formula in the query table.

- You tried to perform a query operation when a computed column contained a formula that used one of the following @functions: @@, @CELL, @COLS, @HLOOKUP, @INDEX, @INFO, @IRR, @N, @NPV, @ROWS, @S, @SHEETS, @STD, @STDS, @VAR, @VARS, @VLOOKUP, and the database @functions.

Do not use these @functions in the query. Choose Query Choose Fields to edit the computed column.

- You tried to perform a query operation when a formula in the criteria contained the address of a range within a database table in a file on disk.

Either read the file containing the database table into memory or use field names in place of range addresses in the formula.

- You tried to perform a query operation when a formula in the criteria contained the address of a range within a database table and the query contained more than one database table.

You must use one or more field names in place of the range address in the formula.

- You tried to perform a query operation when the output range contained a computed column and an aggregate column, but the field name or names used in the formula in the computed column did not appear in the output range as field names that were not part of formulas.

Enter the field names in the output range.

- You tried to use /Data Query Unique when the output range contained a computed column, but the field name or names used in the formula in the computed column did not appear in the output range as field names that were not part of formulas.

Enter the field names in the output range.

Invalid formula label range

The following conditions could have caused this error:

- You tried to use /Data Table Labeled using a formula label range that did not contain as many cells as there were columns in the column variable range, if the formula label range was in a row; as many cells as there were rows in the row variable range, if the formula label range was in a column; or as many cells as there were worksheets in the worksheet variable range, if the formula label range was in a 3D range.

Specify a formula label range that has the correct number of cells.

- You tried to use /Data Table Labeled using a formula label range that contained more than one row, column, or 3D group of cells.

Specify a formula label range that is in one row or column or, if the formula label range is a 3D range, includes no more than one cell in each worksheet in the range. For example, A:A1..C:A1 is a valid 3D formula label range; A:A1..C:B1 is not.

Invalid input range specified

The following conditions could have caused this error:

- You used Tools Database Create Table and specified a model range that was a single-cell or one-row range in an active file or a range in a file on disk. The model range must be either an external table or a range that is in an active file and contains a row of field names and at least one row of data.

Respecify the model range and the location for the table definition.

- You selected OK in the Range Parse dialog box after you specified an input column that was an undefined range name or the range name of an external table, or after you specified a range in a file on disk and used a nonexistent or invalid file name.

Choose Range Parse and specify a range in an active file or, if you tried to specify a range in a file on disk, specify the path and file name, using the correct spelling.

- You tried to perform a query operation when the database table was an external table, but the database table you specified was no longer in use.

Choose Tools Database Connect to External to reassign the range name to the external table you want to use as the database table, or specify a database table that is currently in use.

- You specified a range in a file on disk, but the range was too large to fit in memory.

Read the file containing the range into memory or specify a smaller range.

- You used File Save As to save a dBASE or Paradox file, but 1-2-3 could not create a table definition using the specified range.

The specified range must have at least two rows, and the first row must contain only labels for field names.

- You used Tools Map New Map and specified a blank range as the range of map data.

Specify a range of at least two columns. The leftmost column in the range must contain the map codes or the conventional geopolitical names for the geographic regions.

Invalid name for field or table

Invalid use of database @function in criteria

You tried to perform a query operation when the criteria contained a database @function that used an invalid database table range, offset number or field name, or criteria range.

Edit the database table range, offset number or field name, or criteria range in the database @function and repeat the query operation.

Invalid worksheet variable range

You specified a worksheet variable range in which the input values were arranged incorrectly.

To set up a valid worksheet variable range, you must enter the input values so that the input values in any one worksheet in the worksheet variable range are in adjacent cells in a single row or column. For example, A:A1..C:D1 and A:A1..A:A4 are valid worksheet variable ranges, but A:A1..C:B2 is not.

Must specify a down or across variable range

You tried to use /Data Table Labeled and specified a formula range, a worksheet variable range, and a single-cell formula label range. 1-2-3 cannot determine where to place the data table results when the data table contains only these ranges with these dimensions.

Enter input values in a column or row, specify a row (down) or column (across) variable range with /Data Table Labeled Down or Across, and then select Go to create the data table.

Named field does not exist

A formula in the criteria contained a field name that did not match a field name in the database table range.

Edit the formula in the criteria and repeat the query operation.

Named table does not exist

The following conditions could have caused this error:

- You tried to connect to or delete an external table that does not exist.

You may have misspelled the table name. When you specify the table name again, make sure you use the correct spelling.

- You tried to connect to, delete, or use as a model range an external table that you do not have access privileges to.

Do not connect to, delete, or use as a model range an external table to which you do not have rights of access.

- You tried to connect to, delete, or use as a model range an external table that is a hidden or protected file.

Specify an external table that is not a hidden or protected file.

No criteria range specified

You tried to perform a query operation without specifying a criteria range.

Set up a criteria range, choose /Data Query, specify the criteria range, and then repeat the query operation by pressing F7 (QUERY) or choosing a /Data Query command.

No external database drivers are available

No external databases are available

No external databases are in use

You tried to use /Data External Other Command or /Data External Other Translation when no external database was in use.

Do not send a command to or select a character set for an external database that is not in use. Choose /Data External Use to connect to a table in the external database you want to send a command to or select a character set for, and then choose /Data External Other Command or /Data External Other Translation.

No external database drivers are loaded

You tried to use /Data External Other Command or /Data External Other Translation without first using /Data External Use to connect to an external table in the database you wanted to send a command to or select a character set for.

Use /Data External Use to connect to a table in an external database and then choose /Data External Other Command or /Data External Other Translation.

No external table specified for creation

The following conditions could have caused this error:

- You chose /Data External Create to create an external table, but did not specify a name for the external table.

Choose /Data External Create Name to specify a table name.

No external tables are available

You tried to use Tools Database Connect to External to connect to an external table, but the external database you specified did not contain any tables.

Choose Tools Database Connect to External and specify another external database.

No external tables are in use

No input range specified

The following conditions could have caused this error:

- You tried to save a file in dBase IV (.DBF) or Paradox (.DB) format, and you did not specify the range you wanted to save.

Under Save in the Save As dialog box, select the "Selected range only" check box. Make sure the range you specify contains a valid database table. Then choose OK.

- You tried to perform a query operation without specifying an input range.

Choose /Data Query, and specify an input table, then repeat the query operation by pressing F7 (QUERY) or choosing a /Data Query command.

- You tried to parse a column of long labels without specifying an input column.

Choose /Data Parse Input-Column, specify the column of labels you want to parse, and then choose OK.

No output range specified

The following conditions could have caused this error:

- You tried to perform a query without specifying a location for the output range.
Choose /Data Query to specify an output range, and repeat the query operation by pressing F7 (QUERY) or choosing a /Data Query command.
- You tried to parse a column of long labels without specifying an output range.
Choose /Data Parse, specify an output range, and then choose OK.

No records found for this database operation

No table definition range exists to create table

You tried to create an external table without specifying a table definition.

Choose /Data External Create Definition to create a table definition or /Data External List Fields to specify an existing table definition.

Null field values not allowed in this database

Number too large/small to pass to external table

You tried to modify an external table or save a dBASE or Paradox file with a record containing a number that was either too small or too large for 1-2-3 to send to the database driver.

Edit the number to make it larger or smaller and repeat the operation.

Only one input range is allowed

You specified more than one database table in the input range and then used /Data Query Del, /Data Query Find, or /Data Query Modify. You cannot use more than one table with these commands.

Choose /Data Query and specify one external table or one 1-2-3 database table as the input range.

Output range must contain more than one row

You specified a one-row output range and then chose /Data Query Modify Insert. The /Data Query Modify Insert command requires an output range that contains a row of field names and at least one row of data.

Choose /Data Query Modify Insert and respecify the output range.

Range cannot span worksheets

You specified an input, criteria, or output range that spans more than one worksheet.

Respecify the input, criteria, and output ranges so that each one is on a single worksheet and they do not overlap.

Range name already exists

The following conditions could have caused this error:

- You chose Tools Database Connect to External and specified a range name that you have already assigned to an external table or to a range in a worksheet.

Specify a range name that you have not already assigned to an external table or to a range in a worksheet.

- You used Create Version or Version Info to name or rename a range and specified a range name that already exists in the current file.

Choose Create Version or Version Info again and specify a different name for the range.

- You used Create Version to create a version of a named range that has more than one name and that already contains versions, and you did not specify the same name for the range as when you originally created versions of the range.

Choose Create Version again and specify the range name you used when you originally created versions of the range.

Range specified is outside variable range

You chose /Data Table Labeled Down, Across, Sheets, or Input-Cells and tried to specify a set of input values that was not in the variable range or ranges.

If you chose /Data Table Labeled Down, specify a set of input values within the column variable range. If you chose /Data Table Labeled Across, specify a set of input values within the row variable range. If you chose /Data Table Labeled Sheets, specify a set of input values within the worksheet variable range. If you chose /Data Table Labeled Input-Cells, specify a set of input values within any of the variable ranges you specified for the data table.

Syntax error in database driver registration file

Table definition range contains invalid information

The following conditions could have caused this error:

- You tried to create an external table using a model table that contains a data type, field width, column label or field description that the database driver does not recognize.
- You specified a table creation command that the driver does not recognize.

Choose a model table that the driver you are using supports. Use [Tools Database New Query](#) to retrieve the model table, then use the query table as the model table. For information about table creation commands, see [DataLens Drivers](#).

Table definition range must contain six columns

You tried to create an external table using a table definition that contains fewer than six columns.

Use /Data External Create Definition to specify a six-column table definition.

Table name is not in the correct format

Table results area not fully defined

You tried to use /Data Table Labeled when the bottom row of the column variable range, the rightmost column of the row variable range, or the bottom or rightmost group of cells in the worksheet variable range did not contain input values.

Enter input values in the bottom row of the column variable range, the rightmost column of the row variable range, or the bottom or rightmost group of cells in the worksheet variable range; or specify a column, row, or worksheet variable range that does not include a row, column, or group of blank cells.

Temporary file record too long

1-2-3 creates and uses temporary files to perform some types of query operations. The temporary file 1-2-3 created for the query operation you tried to perform was not large enough to accommodate one of the records in the database table you were using.

If you are running low on memory, make more memory available and repeat the query operation. If you are not running low on memory, specify a query table that contains fewer fields or, if one field contains a very long entry, shorten that entry. Then repeat the query operation.

Too many computed-column formulas in output range

Too many records for output range

The following conditions could have caused this error:

- You specified a multiple-row location for the query table in Tools Database New Query, but did not specify enough rows to accommodate all the records that match the criteria.

Or, you chose Query Refresh Now and there are not enough rows in the query table to display all the records that match the criteria.

Specify a query location or record limit containing more rows or, if it is safe to do so, specify a single-cell location. Keep in mind that if you choose /Data Query Extract, 1-2-3 erases all data below the output range if you specify a one-row output range.

- You used File Open Combine to add records from a dBASE or Paradox file to a 1-2-3 file, but there are more records than can fit in the 1-2-3 file.

Specify a 1-2-3 file large enough to accommodate all the records from the dBASE or Paradox file you want to combine.

Tools Database Find Records works only in active files

The following conditions could have caused this error:

- You specified a database table that was an external table or was in a file on disk.

Either open the file you want to use or specify a database table that is in an active file. You cannot use Tools Database Find Records with external tables.

- You specified a database table that was in an active file, but you used a file reference that did not include a path.

Press F3 (NAME) and select the file name from the "In file" drop-down box. 1-2-3 automatically includes the path when you use this method to create the file reference.

Unable to locate the database

The following conditions could have caused this error:

- You chose Tools Database Connect to External, Tools Database Create Table, or Tools Database Send Command and specified an external database that does not exist. You may have misspelled the external database name.

When you specify the external database again, make sure you use the correct spelling.

- You chose /Data External Other Translation and specified the name of an external database that does not exist or is not in use.

Specify the name of an existing external database or, if the database exists but is not in use, choose Tools Database Connect to External to connect to an external table in that database and then choose /Data External Other Translation.

Unable to locate the table

You tried to open a dBASE or Paradox file or connect to an external database, but 1-2-3 could not open the file or table you specified.

You used Tools Database Connect to External and you specified a table that does not exist in the external database.

Check that the following are correct, then try again:

- The name of the file or table
- The path to the file or table
- The parameters in your LOTUS.BCF file; in particular, the DN parameter must be set as DN="dBASE_IV" for working with dBASE files, or DN="Paradox" for working with Paradox files.

Unsupported character set

You tried to select a character set that the database driver does not support.

Choose /Data External Other Translation again and select a character set from the list.

Unsupported database function call

Variable ranges and formula labels overlap

You tried to use /Data Table Labeled when the formula label range or all or part of a variable range was in a row or column that also contained part of another variable range.

Move the ranges so that none is in a column or row that contains all or part of another range, or expand one of the ranges by one row or column and rearrange the input values or formula labels in the range so that the cell that is in the same row or column as the formula label range or part of another variable range is blank. For example, if the formula label range is in A:B4..A:C4 and the row variable range is in A:D2..A:D9, you can expand the row variable range to A:D2..A:D10 and move the values in A:D4..A:D9 to A:D5..A:D10, leaving A:D4 blank. Then recalculate the data table using /Data Table Labeled Go or F8 (TABLE).

Allow updates is turned on. Update the database table or turn off Allow updates.

When the "Allow updates to database table" option is turned on, you cannot choose Query commands or execute any query macros except the following:

- Query Update Database Table or {QUERY-UPDATE} to apply changes to the database table
- Query Set Options or {QUERY-OPTIONS} to turn off the "Allow updates to database table" option

Cannot add a field to the query table

You tried to add a field to the query table using Query Choose Fields or {QUERY-ADD-FIELD}, but the query table is located in the last column of the worksheet.

Move the query table, then add the field(s) to the query table.

Cannot delete or add rows or columns in a range being used by Lotus Approach

You connected to Lotus Approach using one of the following 1-2-3 commands: Tools Database Form, Tools Database Report, Tools Database Dynamic Crosstab, or Tools Database Mailing Labels. You tried to add or delete rows or columns in a range specified in one of these 1-2-3 commands. This range is still being used in Approach.

In Approach, choose File Exit and Return. Then, in 1-2-3, you can add or delete rows or columns in the range.

If you're using a named range for your database table, before returning to Approach to work with this table, make sure you change the range name definition to account for added or deleted columns or rows.

Cannot change the database table

You were using Query Update Database Table and one of the following problems occurred:

- The specified database table contains fewer fields than the database table you queried originally.
- Field names in the specified table do not match those in the database table you queried originally.
- Field data types in the specified table do not match those in the database table you queried originally.

To query the specified database table, choose Tools Database New Query to create a new query table.

The 1-2-3 files you're closing contain ranges being used as Lotus Approach files. Remember to use File Close in Approach to close these files.

You tried to close a file containing a range specified in Tools Database Form, Tools Database Report, Tools Database Dynamic Crosstab, or Tools Database Mailing Labels. This range is still being used in Approach.

In Approach, choose File Exit and Return to close the files and exit Approach, or choose File Close to close the files in Approach. Then, in 1-2-3, you can close the worksheet file.

Cannot connect to the external tables in the query

1-2-3 tried to automatically connect to the external database tables for the current query, but either 1-2-3 did not have all the necessary information to make the connection or the database table was erased or corrupted.

Make sure the database tables are still valid and accessible, then use Tools Database Connect to External to connect to the external tables for this query. Once you connect to all the tables, retry the query operation.

Cannot create default connect range "TABLExxxx"

You used Tools Database Create Table to create an external table, and one of the following problems occurred:

- The name you specified for the new table is invalid or duplicates an existing range name and 1-2-3 was unable to create a default name. When the name you specify is invalid, 1-2-3 tries to create a default name using "TABLExxxx" where xxxx is a number between 1 and 1000.

Specify a valid name for the table that does not duplicate an existing range name.

- There may not be enough memory for 1-2-3 to create the range.

Free some memory by closing unneeded files or applications currently in memory, or by choosing Tools User Setup and turning off Undo. Then try the query operation again. For more information about freeing memory, see Appendix B in the *User's Guide*.

Cannot create, move, resize or refresh a query table over protected cells

One of the following conditions could have caused this error:

- You chose Tools Database New Query and specified a multiple-cell range as the location for the new query table, but the range overlaps protected cells.

Specify a different location or use File Protect to unseal the file.

- You chose Tools Database New Query and specified the top left corner of the location for the new query table, but there are protected cells in the column below the cell you specified.

Specify a multiple-cell range or specify a different top left corner for the new query table or unseal the file.

- You tried to move or resize a query table over protected cells.

- You chose Query Refresh Now, but refreshing would expand the query table so that it overlaps protected cells.

Move one of the query tables to make room for the new fields or records or unseal the file.

Cannot create, move, resize or refresh a query table over another query table

One of the following conditions could have caused this error:

- You chose Tools Database New Query and specified a multiple-cell range as the location for the new query table, but the range overlaps an existing query table.

Specify a different location.

- You chose Tools Database New Query and specified the top left corner of the location for the new query table, but a query table exists in the column below the cell you specified.

Specify a multiple-cell range or specify a different top left corner for the new query table.

- You tried to move or resize a query table over another query table.
- You chose Query Refresh Now, but refreshing would expand the query table so that it overlaps another query table.

Move one of the query tables to make room for the new records or fields.

Cannot delete a computed column that is referenced in a join condition

The computed column you tried to delete is used to join database tables in a query.

Use [Query Join](#) to remove the condition that refers to the computed column before deleting the column.

Cannot delete a computed column used in criteria

The computed column you tried to delete is referenced in one or more criteria conditions.

Use [Query Set Criteria](#) to remove the condition(s) containing the computed column before deleting the column.

Cannot delete a worksheet containing a range being used by Lotus Approach

You tried to delete a worksheet containing a range specified in Tools Database Form, Tools Database Report, Tools Database Dynamic Crosstab, or Tools Database Mailing Labels. This range is still being used in Approach.

In Approach, choose File Exit and Return. Then, in 1-2-3, you can delete the worksheet.

Cannot delete or change the field names in a range being used by Lotus Approach

You tried to delete or change a field name in a range specified in Tools Database Form, Tools Database Report, Tools Database Dynamic Crosstab, or Tools Database Mailing Labels. This range is still being used in Approach.

In Approach, choose File Exit and Return. Then, in 1-2-3, you can delete or change the field name.

Cannot delete or redefine the name of a range being used by Lotus Approach

You tried to delete or redefine the name of a range specified in Tools Database Form, Tools Database Report, Tools Database Dynamic Crosstab, or Tools Database Mailing Labels.

In Approach, choose File Exit and Return. Then, in 1-2-3, you can delete or redefine the range name.

Cannot have duplicate field names in a database table

You specified a database table that contains duplicate field names.

Rename or remove the duplicate fields, then specify the database table again.

Cannot insert or delete a range that affects a query table

One of the following conditions could have cause this error:

- You chose Edit Insert or Edit Delete selected Column, and selected Insert selection or Delete selection and there is a query table in the same columns or in columns to the right the range you specified.

Move the query table to the left of the range in which you want to insert a range or insert a range to the right of the query table.

- You chose Edit Insert or Edit Delete, selected Row, and selected Insert selection or Delete selection and there is a query table in the same rows or in rows below the range you specified.

Move the query table above the range where you want to insert a range or insert a range below the query table.

Cannot join tables to a query that has an unnamed database table or a database table not in memory

You chose Query Join and tried to join a new database table to a query that contains an unnamed database table or a database table not in memory.

Do one of the following:

- Use Range Name to name the database table, then use Query Set Database Table to change the database table to the new named database table.

After you name the database table, you can join other named database tables to the query table.

- Open the file that contains the database table.

Cannot perform database find operation on an external table

You chose Tools Database Find Records and specified an external database table.

You can use Tools Database Find Records only with 1-2-3 database tables.

Cannot perform the field operation with the "Show unique records only" option turned on

With the "Show unique records only" option turned on, you tried to do one of the following:

- You tried to create a computed column using a base field absent from the query table.

To create the computed column, turn off the "Show unique records only" option using Query Set Options. (Note that this may change your query results.) Then choose Query Choose Fields and either create the computed column or add the base field back to the query table.

- * You tried to delete a field used to create a computed column.

To delete the field, you must turn off the "Show unique records only" option using Query Set Options. (Note that this may change your query results.) Then choose Query Choose Fields and either delete the field or delete the computed column from the query table .

Cannot refresh the query; more records were found than will fit in the query table and the Allow updates option is turned on

You performed a query and the query table could not fit all the records that were found to meet the criteria. If the "Allow updates to database table" option is turned on, the query table must be large enough to fit all the records returned by the query in order to complete the query successfully.

- Either resize the query table or use Query Set Criteria to increase the record limit of the query table to be large enough to hold all of the records that will be returned.
- Use Query Set Criteria to change the criteria to return fewer records.
- Use Query Set Options to turn the "Allow updates to database table" option off.

Cannot remove a join condition referenced in criteria

You chose Query Join and tried to delete join criteria. The criteria you tried to delete refers to a table that is also referenced by criteria specified using Query Set Criteria or computed columns.

Add new join conditions that refer to these tables, or choose Cancel to remove the Join dialog box and use Query Set Criteria to remove criteria or computed columns referencing these database tables.

Cannot remove the last field in the query table

You used {QUERY-REMOVE-FIELD} to remove a field from a query table, but the field you specified is the only field in the query table.

A query table must contain at least one field.

Cannot have "Allow updates to database table" turned on for a query table that contains computed columns or aggregates

Adding computed columns or aggregates is incompatible with the "Allow updates to database table" option.

The following conditions could have caused this error:

- You tried to create a computed column or aggregate while the "Allow updates to database table" option was turned on.

Use Query Set Options to turn off the "Allow updates to database table" option before attempting to create a computed column.

- You chose Query Set Options and tried to turn on the "Allow updates to database table" option for a query table that contains a computed column or aggregate.

Use Query Choose Fields or Query Aggregate to remove any computed columns or aggregates, then choose Query Set Options to turn the "Allow updates to database table" option on. Choose Query Update Database Table to update the database table.

Cannot have "Allow updates to database table" turned on for a query table that has joined tables

One of the following conditions could have caused this error:

- * You chose Query Join to join database tables while the "Allow updates to database table" option was turned on.

Use Query Set Options to turn off the "Allow updates to database table" option before attempting to join tables.

- * You chose Query Set Options and tried to turn on the "Allow updates to database table" option for a query with joined database tables.

To update the original database table, use Query Join to delete all of the join conditions that refer to the other database tables. The resulting query table will contain only the database table you want to update. You can then turn on the "Allow updates to database table" option and choose Query Update Database Table to update the database table. To update a database table other than the original database table, choose Tools Database New Query to create a query table for that database table.

Cannot turn on the "Show unique records only" option with the current fields

You tried to turn on the "Show unique records only" option for a query in which the field used to create an existing computed column has been deleted from the query table.

Do one of the following:

- Add the field used to create the computed column to the query table using Query Choose Fields. You can then turn the "Show unique records only" option on using Query Set Options.
- Remove the computed column using Query Choose Fields.

Cannot update a query table that has 2 or more joined database tables

You tried to use {QUERY-UPDATE} to update a query table that refers to more than one database table. Use Query Join to remove a database table from the query by removing any join conditions that refer to the database table.

Cannot update an offsheet database table

You chose Query Set Options and tried to turn on the "Allow updates to database table" option on, but the database table you are querying is in a closed file.

- To update the database table in your current query, open the file that contains the database table, then choose Query Set Options to turn the "Allow updates to database table" option on.
- To refresh your query using the database table in the closed file without opening the file, choose Query Set Options to turn the "Allow updates to database table" option off.

Cannot update database table

One of the following problems occurred:

- You chose Query Update Database Table, but the database table you tried to update is not in memory or is protected.

You can only update database tables that are in unprotected ranges in open files or external database tables.

- The query refers to more than one database table.

You cannot update a database table in a query that refers to more than one database table.

Cannot update database table because the Allow updates option is turned off

You tried to use {QUERY-UPDATE} to update the database table for current query, but the "Allow updates to database table" option is turned off.

Use Query Set Options to turn the "Allow updates to database table" option on.

Cannot use the same field for both an aggregate and a computed column

One of the following conditions could have caused this error:

- You chose Query Aggregate and selected a field that is already being used in a computed column.
To aggregate a field, first choose Query Choose Fields to remove the computed column.
- You chose Query Choose Fields Formula and selected a field that is already being used to create an aggregate.
To create a computed column, first choose Query Aggregate to remove the aggregation.

Cannot use the same field more than once in a sort

You used {QUERY-SORT} or {QUERY-SORT-KEY-DEFINE} and tried to define a sort key for a field that already has a sort key number.

Be sure that the same field is not included in the macro command twice. To avoid using keys defined in previous sorts, reset the sort prior to defining any sort keys.

Computed field or criteria condition contains an invalid formula

You were creating criteria or a computed column, and you specified a formula that 1-2-3 cannot interpret as a formula.

Do one of the following:

- Check the formula for errors. See Chapter 10 in the *User's Guide* for rules on formula syntax.
- Be sure that field names are entered correctly in your formula(s). If a field name used in a formula contains one or more arithmetic operators, such as + - * / =, or begins with a number, 1-2-3 does not interpret the formula correctly and the query results will not be correct.

Database and query table ranges cannot overlap

The following conditions could have caused this error:

- You tried to move, size, or refresh a query table, but the operation would cause the database table and query table to overlap.

Move either the database table or the query table so that they do not overlap.

- You chose Tools Database New Query and specified the top left corner of the location for the new query table, and the database table associated with the new query table exists in a column below where the new query table will be located. For example, if you specify cell B3 as the top left corner of your new query table and the database table you are querying exists in the range B300..E350, even if your new query table will contain only twenty records, 1-2-3 will return this error.

Specify a different top left corner for the new query table's location or specify a multiple-cell range as the location for the new query table.

Database range must be an onsheet range

You chose Tools Database Crosstab or File Save As and specified a database range in a file that is not in memory.

Specify a range in the current worksheet.

Database range cannot be empty

You chose Tools Database Crosstab, Tools Database Form, Tools Database Report, Tools Database Dynamic Crosstab, or Tools Database Mailing Labels and specified a range that contains no data.

Specify a range that contains data.

Database range must contain at least two rows and three columns

You chose Tools Database Crosstab or Tools Database Dynamic Crosstab and specified a range that contains fewer than two rows or fewer than three columns.

Specify a range that contains at least two rows and three columns.

Database range or current query is not valid

The following conditions could have caused this error:

- You specified an invalid range name or file path.
- The range that contains the database table for the current query may be invalid.
- The query itself may have been corrupted.

Verify that the range that contains the database table is not corrupted. You may need to recreate the query.

Database table must contain more than one row; the first row must be labels

The following conditions could have caused this error:

- The database table you specified contains only one row or its first row contained numbers or formulas.

When specifying the database table, include the first row, which contains the field names, and at least one more row of data.

- The range name of the database table you specified is also a cell, for example X24.

Choose Range Name Add and specify the range name again, using a valid name that is not a cell. Then choose the Tools Database or Query command again and specify the new name of the database table.

Database table or query table range cannot span more than one worksheet

You specified a 3D range for a database table, query table, or as the range to save to a dBASE or Paradox file. Database and query table ranges, and ranges that you save to dBASE and Paradox files must always be single-sheet ranges.

Specify a range that occupies only one worksheet as the range for the database table or query table or as the range to save to a dBASE or Paradox file.

Error accessing external table range

You tried to refresh a query, or you were using a command that needs to access an external table, but 1-2-3 could not access the table.

Check to be sure the database to which you want access is available, then try to reconnect to the external database table.

Error freeing memory

A query operation was unable to free memory.

Memory may have been corrupted. Exit and restart 1-2-3. If restarting 1-2-3 doesn't correct the problem, you may have to exit Windows or restart your computer.

Error pasting a query table from the Clipboard

1-2-3 cannot paste the query table from the Clipboard to the worksheet. The query table information on the Clipboard may have been corrupted during or after the cut or copy operation.

Check that there are no problems with the query table. Choosing Query Refresh Now will refresh the query and indicate if there are problems.

Error writing query table information to the Clipboard

1-2-3 cannot cut or copy the query table from the worksheet to the Clipboard.

One of the following conditions could have caused this error:

- The query table may have been corrupted during or before the cut or copy operation.
Check that there are no problems with the query table. Choosing Query Refresh Now will refresh the query and indicate if there are problems.
- The query table may be too large to fit on the Clipboard.
Reduce the size of the query table and retry the operation.

External database driver error: "message"

You tried to perform a query operation that required access to an external table, but the external database driver returned an error.

Make sure you have the appropriate permission for the external table, then use [Tools Database Connect to External](#) to reconnect to the external table.

Field already exists in the query table

You used {QUERY-ADD-FIELD} to try to insert a field that is already in the query table.

Check the fields currently displayed in the query table.

Field has already been removed from the query table

You tried to use {QUERY-REMOVE-FIELD} to remove a field that has already been removed from the query table.

Check the fields currently displayed in the query table for fields you can remove.

Field name or table name is too long to process

Either the field name and path or the field name itself exceeds 512 characters.

Shorten the name of the table, file, or directory name used in the path, or shorten the name of the field.

File contains no valid database tables

The following conditions could have caused this error:

- You chose Query Join and selected a file that contains no database tables.
Choose another file or table from the list.
- You chose Query Join and one or more of the range names you specified does not exist.
Choose Range Name to name the database tables and then choose Query Join to specify the named database tables again.

Internal error reading query information

At least one query in the file you are opening is corrupted or an internal failure occurred when the file was opened.

If you need to recreate your query, you may want to do so in a new file.

Internal error sorting query table data

The sort information or query table range may be corrupted or incorrect.

Refresh the query and then reset your sort information.

Internal error trying to read or write query criteria

When 1-2-3 tried to read or write query criteria during a file or Clipboard operation, one of the following problems occurred:

- 1-2-3 could not allocate enough memory for the operation.

Free some memory by closing unneeded files or applications currently in memory, or by choosing Tools User Setup and turning off Undo. Then try the query operation again. For more information about freeing memory, see Appendix B in the *User's Guide*.

- The query criteria are corrupted.

Recreate the query.

Invalid sort direction specified; must be "Ascend" or "Descend"

You tried to use {QUERY-SORT} or {QUERY-SORT-KEY-DEFINE} and supplied an invalid *order* argument.

order must be either "Ascend" or "Descend."

No fields were found in the database table

You were using Query Join and one of the following problems occurred:

- 1-2-3 could not find any fields in one of the database tables for the current query.
- The table or file you chose from the "With database table" drop-down box does not contain any fields.

Check the database table to make sure it is not corrupted, or choose another table.

No valid join tables

You chose Query Join to join two or more tables, but there is only one database table currently available.

Either open additional worksheet files that contain valid database tables or use Tools Database Connect to External to connect to external databases.

A valid join database table must be either in an active file or must be an external table to which you are connected, and must have a range name associated with it.

If the table is in a worksheet, it must have one row of field names that contain only labels and at least one row of data. A database table cannot span worksheets.

Not enough memory for the query operation

You have insufficient memory to complete the query operation.

Free some memory by closing unneeded files or applications currently in memory, or by choosing Tools, User Setup and turning off Undo. Then try the query operation again. For more information about freeing memory, see Appendix B in the *User's Guide*.

Not enough memory for this query operation

You have insufficient memory to complete the query operation.

Free some memory by closing unneeded files or applications currently in memory, or by choosing Tools, User Setup and turning off Undo. Then try the query operation again. For more information about freeing memory, see Appendix B in the *User's Guide*.

One or more of the join conditions are orphans

You were using Query Join and you deleted a join condition that linked two tables together, creating an orphan condition.

When you add the first join condition, you are linking a new database table to the original database table in the query.

When you add a second join condition, you are linking a new database table to the original database table in the query, either directly or by linking to the second database table.

An orphan condition exists when neither of the two database tables referenced in the join condition are linked to the original database table in the query, either directly or through some other database table.

An orphan condition may also exist if you attempted to join the original database table to itself.

Delete the orphan condition, which is now selected, or add another join condition to link the orphan database tables to the original database table.

One or more of the database tables are external but not currently connected

The connection to the external database table you are querying is no longer active.

Use Tools Database Connect to External to connect to the table.

When you connect to the external table, make sure you specify the same range name you specified for the database table when you created the query table.

Query name already exists. Enter a unique query name.

You tried to name a query table using the name of an existing query table in the same file.

Choose Query Name and specify a new, unique name for the query table.

Query name is invalid

You were using {QUERY-NAME} and entered a query name that exceeded 15 characters or was a blank.
Enter the query name again using a valid name between 1 and 15 characters.

Query not found

You tried to delete, go to, or create a query table when no valid queries exist in the current file.

Be sure that you spelled the name of the query table correctly and that the query table exists in the current file.

If you are creating a query, it has been corrupted and you should begin the operation again.

Query table range is invalid

One of the following conditions could have caused this error:

- The query table location exceeds the worksheet boundaries.
Specify a valid location or range for the query table.
- 1-2-3 returned an internal error when you tried to move a query table.
Refresh the query table and try to move again to a valid location.
- The query table location you specified is an external range or a file not in memory.
Specify a valid address in the current file or a file in memory.

Ranges being used by Lotus Approach cannot overlap

You selected a range and tried to create an Approach form, report, dynamic crosstab, or mailing labels. The range you selected overlaps another range being used by Approach.

Do one of the following:

- Select a range that does not overlap the other range.
- Choose File Close in Approach to close the connection for the range that your current selection overlaps.

Record limit must be from 1 to 8192

The number you entered for the record limit in Query Set Criteria is invalid.

Enter a number from 1 to 8192.

Sort key is invalid or out of sequence. Sort key must be from 0 to 255.

You were using {QUERY-SORT} or {QUERY-SORT-KEY-DEFINE} and one of the following problems occurred:

- You tried to set a sort key when the preceding sort key had not been set. For example, you cannot give a field a sort key or index of 3 if there is only one other sort field set.

Reset the sort key and be sure it is in sequence.

- You tried to set a sort key that was not from 0 to 255.

Reset the sort key number to a value within this range. The sort key number for your primary sort field should be 1. Assigning a sort key of 0 to a sort field removes that field from the sort and automatically adjusts the other sort fields, if necessary.

Table is an unnamed range and the query references more than one database table

You tried to use a query with a different, unnamed database table, but the current query contains more than one database table.

A query that joins more than one database table cannot reference unnamed database tables. Use Range Name to name the new database table.

The aggregate function you specified in {QUERY-AGGREGATE} is invalid

You specified an invalid *function* argument in {QUERY-AGGREGATE}.

function must be one of the following: sum, avg, count, max, or min. Use the following macro syntax:
{QUERY-AGGREGATE *function;field-name*}

Unable to perform requested query operation

The following conditions could have caused this error:

- There may be insufficient memory to perform the operation.

Free some memory by closing unneeded files or applications or by choosing Tools User Setup and turning off Undo. For more information on freeing memory, see Appendix B of the *User's Guide*.

- An unexpected error occurred.

See Help for the command you were using for more information. To get Help, press F1 (HELP) or click the ? button in the top right corner of the dialog box.

Cannot update query table after it has been sorted

You create a query table, sorted it, then chose Query Set Options and turned on the "Allow updates to database table" option.

You cannot update the original database after sorting records in a query table.

Advise is already in effect for this DDE item

You used {DDE-ADVISE} to link a 1-2-3 macro or location to a item in the server application, but the item is already linked to another macro or location.

To unlink the item from the macro or location to which it is already linked, use {DDE-UNADVISE}. Then use {DDE-ADVISE} to link the item to a new macro or location.

Advise is not in effect for this DDE item

You used {DDE-UNADVISE} to remove a link between a 1-2-3 macro or location and a item in the server application, but the link does not exist.

Remove the {DDE-UNADVISE} command from the macro.

Application not found

An error occurred when 1-2-3 tried to start the application specified in a {LAUNCH} or {LOTUS-LAUNCH} command. The following conditions could have caused this error:

- The application is not installed in Windows.
Install the application and try again.
- You specified the application name incorrectly.
Specify the application again, making sure to use the correct application name.
- You did not specify the correct command string for starting the application.
Specify the command string again, making sure to include all required information.

Invalid link name

You specified an invalid link name in an Edit Links Create, Edit Links Edit, {LINK-ASSIGN}, {LINK-CREATE}, {LINK-DEACTIVATE}, {LINK-DELETE}, {LINK-REMOVE}, or {LINK-UPDATE} command.

Specify the command again and include a valid link name.

Cannot launch application

An error occurred when 1-2-3 tried to start the application specified in a {LAUNCH} or {LOTUS-LAUNCH} command. The following conditions could have caused this error:

- There is not enough memory to start the application.
Remove unnecessary files from memory and try again.
- The application is not a Windows application.
You cannot launch a non-Windows application.
- A file required to run the application is corrupted.
Re-install the application and try again.

Cannot cut or move part of a DDE link

You tried to move or delete a cell or range that is part of a DDE link. You cannot move or delete part of a DDE link.

Use Tools Audit to select the entire link, then repeat the action that caused this error.

Cannot paste link

You tried to create a link by using Edit Paste Link or {EDIT-PASTE-LINK}, but 1-2-3 was unable to create the link for one of the following reasons:

- There was no link information on the Clipboard.

In the server application, copy the information you want to the Clipboard. Then return to 1-2-3 and specify the command again.

- The server application you specified does not support pasting DDE or OLE links through the Clipboard.

Use Edit Links Create or {LINK-CREATE} to create a link to the server application.

- The application you specified does not support DDE or OLE as a server.

You cannot use Edit Paste Link to copy information from the application to 1-2-3.

- The Clipboard contains text or cell data, and a chart, drawn object, or protected range was the current selection when you tried to paste the link.

Select an unprotected range as the destination, then try to paste the link again.

- The Clipboard contains a chart, drawn object, bitmap, or picture and you tried to paste a link into a sealed file.

Use File Protect to unseal the file.

DDE advise request failed, server application busy

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE advise request failed, server did not acknowledge

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE advise request failed, server refused request

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE conversation not open

The following conditions could have caused this error:

- You specified a {DDE-ADVISE}, {DDE-EXECUTE}, {DDE-POKE}, {DDE-REQUEST}, or {DDE-UNADVISE} command, which can execute only when a DDE conversation is open, but no conversation was open.

Make sure the server application is installed in Windows, or use {LAUNCH} or {LOTUS-LAUNCH} to start the application. Then open the conversation you want with a {DDE-OPEN} command, and specify the {DDE-ADVISE}, {DDE-EXECUTE}, {DDE-POKE}, {DDE-REQUEST}, or {DDE-UNADVISE} command.

- You specified a {DDE-USE} command and then a {DDE-ADVISE}, {DDE-EXECUTE}, {DDE-POKE}, {DDE-REQUEST}, or {DDE-UNADVISE} command, but the conversation you referred to in the {DDE-USE} command is not open.

Open the conversation you want with a {DDE-OPEN} command or change the reference in the {DDE-USE} command to an open conversation, and then specify the {DDE-ADVISE}, {DDE-EXECUTE}, {DDE-POKE}, {DDE-REQUEST}, or {DDE-UNADVISE} command.

DDE data request failed, server application busy

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE data request failed, server did not acknowledge

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE data request failed, server refused request

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE execute string failed, server application busy

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE execute string failed, server did not acknowledge

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE execute string failed, server refused request

DDE protocol error. For more information, see the documentation for the [server](#) application.

Link is already assigned

You used {LINK-ASSIGN} to assign a link name to a destination range, but the link name is already assigned to another range.

To unassign the link name from the range to which it is already assigned, use {LINK-REMOVE}. Then use {LINK-ASSIGN} to assign the link name to a new range.

Link is not assigned

You used {LINK-REMOVE} to remove the destination range for a link, but the link is not currently assigned to a range.

DDE poke request failed, server application busy

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE poke request failed, server did not acknowledge

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE poke request failed, server refused request

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE protocol error, can't post messages to server application

The server application cannot process DDE messages.

Check the server application for problems.

DDE server not responding

DDE termination request failed, extra server did not acknowledge

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE termination request failed, server did not acknowledge

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE unadvise request failed, server application busy

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE unadvise request failed, server did not acknowledge

DDE protocol error. For more information, see the documentation for the [server](#) application.

DDE unadvise request failed, server refused request

DDE protocol error. For more information, see the documentation for the [server](#) application.

Invalid application or topic name

One of the following conditions could have caused this error:

- In a {DDE-OPEN} command, you specified an invalid application or topic name, or the name of an application or topic that is not open or is not available.

Specify the {DDE-OPEN} command again, making sure to use the correct application and topic names. If the named application is not open, open it and then specify the command again, or use the {LAUNCH} or {LOTUS-LAUNCH} command to start the application.

- You tried to open a DDE conversation in which 1-2-3 is both the client and the server.

To link data between two 1-2-3 files, use Edit Paste Link.

Invalid application, topic or item

One of the following conditions could have caused this error:

- You used Edit Links Create, Edit Links Edit, or {LINK-CREATE} and specified an invalid application, topic, or item name or the name of an application that is not open or is not available.

Specify Edit Links Create, Edit Links Edit, or {LINK-CREATE} again, making sure to use the correct application, topic, and item names. If the named application is not open, open it and then specify the command again.

- You tried to create a DDE or OLE link in which 1-2-3 is both the client and the server.

To link data between two 1-2-3 files, use Edit Paste Link.

Invalid Clipboard format

One of the following conditions could have caused this error:

- The format argument you specified for a {DDE-ADVISE}, {DDE-POKE}, {DDE-REQUEST}, {DDE-UNADVISE}, {EDIT-COPY}, {EDIT-CUT}, {EDIT-PASTE}, {EDIT-PASTE-LINK}, or {LINK-CREATE} command is not valid or is not supported by 1-2-3 or the server application.

Specify a valid format argument for the command. The format argument must be a supported Clipboard format (for example, Text, Wk3, Wk1, Picture, DIB, Bitmap). If the format argument includes spaces, make sure to enclose it in " " (quotation marks).

If you specified an OLE class name as the application argument for a {LINK-CREATE} command, you must specify a graphical format (for example, Picture, Bitmap, or DIB) as the format argument.

- In a macro, you tried to specify a range that included <<?>> (the wild-card file reference) in front of a range name, but more than one active file contained that range name. You can use the wild-card file reference to specify a range only when the range name that follows it is unique among all active files. When more than one file contains the same range name, you must include the appropriate file name in the file reference.

Invalid link update mode

In a {LINK-CREATE} command, you specified an invalid update mode.

The two valid modes are AUTOMATIC, which updates data in the destination each time the source item is updated, and MANUAL, which updates data in the destination only when you use {LINK-UPDATE} or Edit Links Update/Update All.

Invalid item

In a {DDE-ADVISE}, {DDE-POKE}, {DDE-REQUEST}, or {DDE-UNADVISE} command, you specified an invalid item name.

Specify the macro command again, making sure to use a valid item name.

Multiple links deactivated

You used {LINK-DEACTIVATE} or Edit Links Deactivate to turn off a link, and there was more than one link with the same application, topic, and item. 1-2-3 deactivated all of the links with the same application, topic, and item.

Use {LINK-UPDATE} or Edit Links Update to update and reactivate the links.

Error embedding object

One of the following conditions could have caused this error:

- You used Edit Insert Object to embed an OLE object and 1-2-3 could not find the server application for the OLE class name you selected in the Object type list box.

Make sure that the server application is still installed on your machine.

- You used {INSERT-OBJECT} to embed an OLE object and 1-2-3 could not find the server application for the OLE class name you specified as the object type.

Make sure that the server application is installed on your machine, that it supports OLE as a server, and that you specified the OLE class name correctly.

- You double-clicked the embedded object for an Approach form, report, dynamic crosstab, or mailing labels. However, 1-2-3 could not start Approach because the source range for the object that you double-clicked is in another file, or the name of the source range was deleted or undefined.

Move the embedded object to the file that contains the source range and double-click the object again, or go to the file that contains the source range and create the Approach object again. If the source range name was deleted or undefined, define the range name again.

Cannot copy data to the Clipboard

The following conditions could have caused this error:

- You chose Edit Copy, but not enough memory is available to copy the selection to the Clipboard.

Free some memory or specify a smaller selection.

- You selected a chart element and pressed INS to replicate the element.

You cannot replicate chart elements.

- You selected an OLE embedded object and chose Edit Copy, but the source file for the embedded object is open.

Double-click on the object to activate the server application, close the source file for the object, then activate 1-2-3 and choose Edit Copy again.

Cannot delete all worksheets

You chose Edit Delete, selected Sheet, and tried to delete all the worksheets in a file. A file must contain at least one worksheet.

If you want to delete an entire active file from memory, use File Close.

Cannot delete all visible worksheets

You chose Edit Delete and selected Sheet, but the range of worksheets you specified to delete included all displayed worksheets in the file. A file must contain at least one displayed worksheet.

- Specify fewer worksheets to delete.
- To delete the range of worksheets you specified, choose Style Hide and then choose Show to display any hidden worksheets. Then respecify the range of worksheets to delete.

Cannot delete selected data or object

The following conditions could have caused this error:

- You selected a protected range in a sealed file and pressed DEL or used {EDIT-CUT} or {EDIT-CLEAR}.

To delete the range you specified, choose File Protect to unseal the file.

- You selected the plot frame of a chart and used {EDIT-CUT} or {EDIT-CLEAR}.

You cannot delete the plot frame of a chart.

- You selected a field in a query table and pressed DEL or used {EDIT-CUT} or {EDIT-CLEAR}.

To delete a field from a query table, use Query Choose Fields.

- You tried to delete a locked chart or drawn object.

You cannot delete a locked chart or drawn object. To unlock the chart or drawn object, use Edit Arrange Unlock.

Cannot go to a range that is not in memory

The following conditions could have caused this error:

- You chose F5 (GOTO) or Edit Go To and specified as the destination a file that is not in memory.
You can move the cell pointer to cells in active files only.
- You chose F5 (GOTO) or Edit Go To and specified as the destination file an active file that either is not stored in the current directory or does not have the default file extension.
You must include a path and extension in the file reference. Select the destination file from the "In file" drop-down box, or respecify the cell pointer destination using a path and extension in the file reference.
- You chose Tools Macro Run and specified a cell or range in a file on disk.
You can run a macro only from an active file.

Cannot have more than 256 worksheets in memory

The following conditions could have caused this error:

- You chose Edit Insert and selected Sheet, but inserting the number of worksheets you specified would have caused the total number of active worksheets to exceed 256.
- You chose File Open, but reading the file you specified into memory would have caused the total number of active worksheets to exceed 256.
- You chose File New, but 256 worksheets were already active.

Save your active worksheet files, and then choose Edit Delete and select Sheet to remove worksheets from memory, or choose File Close to remove entire worksheet files from memory. Or, specify fewer worksheets to be added.

Cannot move data between files

You chose /Move and specified a To range that is in a different file from the From range.

To transfer data from one file to another, use Edit Cut to remove the data from the original file and place it on the Clipboard, and then use Edit Paste to paste the data into the other file.

Cannot move or copy data beyond worksheet boundaries

The following conditions could have caused this error:

- You chose Edit Insert and selected Row, but the number of rows you specified to insert exceeded the number of blank rows at the bottom of the worksheet. (A blank row contains no data, formatted cells, or unprotected cells.)

Repeat the command, but specify fewer rows.

- You chose /Worksheet Page, but the last row in the worksheet contains data, formatted cells, or unprotected cells, preventing a new row with a page-break symbol from being inserted.

Make sure the last row in the worksheet is blank before using /Worksheet Page.

- You tried to move or copy data, but the range you specified to copy or move occupied either more rows than the total number of remaining rows in the worksheet or more worksheets than the total number of remaining worksheets in the file.

Repeat the command, but specify a smaller range.

- You chose File Open and then chose Combine, but the range you specified to combine included more worksheets than the total number of remaining worksheets in the file.

Repeat the command, but specify a smaller range.

Cannot move or copy formats beyond worksheet boundaries

One of two conditions caused this error:

- You tried to move or copy formats (styles), but the range you specified to copy or move occupied either more rows or columns than the total number of remaining rows or columns in the worksheet or more worksheets than the total number of remaining worksheets in the file.
- You chose :Special Import and specified a format file that contains more worksheets than the total number of remaining worksheets in the file.

Cannot paste data from the Clipboard

You chose Edit Paste and one of the following problems occurred:

- The Clipboard is empty.
Use Edit Cut or Edit Copy to place data on the Clipboard.
- The current selection is a protected range in a sealed file.
To paste to the range you specified, choose File Protect to unseal the file.

Cannot search range

1-2-3 could not complete an Edit Find & Replace command for one of these reasons:

- You specified a range in a file on disk as the search range.

Read the file into memory before using Edit Find & Replace.

- You specified a range name for an external table as the search range.

Use Tools Database New Query to create a query table from the external table, and search the query table.

- You specified a search range in another active file, but you omitted the path or extension from the file reference.

Choose Edit Find & Replace, select the "Selected range" text box, press (F3) NAME, select the appropriate file name from the "In file" drop-down box box, then choose OK. 1-2-3 automatically adds both a path and an extension when you use this method to create a file reference.

Cannot undo this operation

1-2-3 cannot create an undo record for a formula you are erasing because the formula is too long or complex. Choosing Edit Undo after you erase the formula will not recover the formula.

Cannot undo this series of add-in operations

An add-in prevented 1-2-3 from undoing the operation you requested for one of the following reasons:

- An add-in you used since 1-2-3 was last in Ready mode may not support the undo feature.
- An action you performed since 1-2-3 left Ready mode may not be undoable.

Column hidden

You tried to move the cell pointer to a hidden column.

To move the cell pointer to a hidden column, you must first redisplay the column with [Style Hide](#).

Edit Undo not enabled, or no operation to undo

One of the following conditions could have caused this error:

- You chose Edit Undo after clearing an 'Out of memory' error message.
When the memory full error occurred, 1-2-3 erased the undo history, so you cannot undo operations you performed prior to that error.
- You chose Edit Undo without having performed an undoable operation since the last time you chose Edit Undo or since 1-2-3 last erased the undo history.

No more matching strings

You were using Edit Find & Replace, and 1-2-3 found no more occurrences of the search string in the search range.

Not enough worksheets in To range

You chose Range Transpose, but the transposed data required more worksheets than the total number of worksheets remaining in the file.

Click the New Sheet button one or more times, or use Edit Insert to add as many worksheets to the end of the file as you need to transpose the data.

String not found

You were using Edit Find & Replace and one of the following occurred:

- You selected Labels or Formulas as the type of entry to search, and 1-2-3 found no occurrences of the search string in entries of that type in the search range.
- You selected Both as the type of entry to search, and 1-2-3 found no occurrences of the search string anywhere in the search range.
- All columns in the search range that contained the specified search string were hidden.

Choose Style Hide to redisplay the hidden columns before using Edit Find & Replace.

Text range full

The text range you specified for :Text Set is too small.
Specify a larger text range with :Text Set.

Worksheet hidden

You tried to move the cell pointer to a hidden worksheet using F5 (GOTO) or Edit Go To.

To move the cell pointer to a hidden worksheet, you must first redisplay the worksheet with Style Hide.

Invalid chart name or chart is hidden

You were using F5 (GOTO) or Edit Go To and one of the following problems occurred:

- The chart you specified as the destination does not exist in the current file.
Specify the destination by selecting a name from the list box. To specify a destination in another active file, select the file name from the "In file" drop-down box, then specify the destination.
- The chart you specified as the destination was grouped with other charts or drawn objects.
Specify the destination by selecting Drawn object from the "Type of item" drop-down box and then selecting the name of the group from the list box.
- The chart you specified as the destination is located in a hidden column or columns, or in a hidden worksheet.
Choose Style Hide to redisplay the hidden columns or worksheet.
- You used View Set View Preferences to hide charts, drawings, and pictures in the current file.
Choose View Set View Preferences, and under "Show in current file," select the "Charts, drawings, and pictures" check box.

Invalid drawn object name or drawn object is hidden

You were using F5 (GOTO) or Edit Go To and one of the following problems occurred:

- The drawn object you specified as the destination does not exist in the current file.
Specify the destination by selecting a name from the list box. To specify a destination in another active file, select the file name from the "In file" drop-down box, then specify the destination.
- The drawn object you specified as the destination is located in a hidden column or columns, or in a hidden worksheet.
Choose Style Hide to redisplay the hidden columns or worksheet.
- You used View Set View Preferences to hide charts, drawings, and pictures in the current file.
Choose View Set View Preferences, and under "Show in current file," select the "Charts, drawings, and pictures" check box.

Invalid query name or query table is hidden

You were using F5 (GOTO) or Edit Go To and one of the following problems occurred:

- The query table you specified as the destination does not exist in the current file.
Specify the destination by selecting a name from the list box. To specify a destination in another active file, select the file name from the "In file" drop-down box, then specify the destination.
- The query table you specified as the destination is located in a hidden column or columns, or in a hidden worksheet.
Choose Style Hide to redisplay the hidden columns or worksheet.
- You used View Set View Preferences to hide charts, drawings, and pictures in the current file.
Choose View Set View Preferences, and under "Show in current file," select the "Charts, drawings, and pictures" check box.

All modified files must be reserved before saving

You chose File Exit and selected Save All, but you did not have the reservation for one or more of the files you tried to save. 1-2-3 cannot save a file with its existing name if you do not have the reservation.

1. Choose File Protect to check the reservation status of each active file.
2. When you identify the read-only (RO) files, move the cell pointer to each file, choose File Protect, and choose Get to try to get the reservation.

If you get the reservation for a file, the RO indicator disappears from the title bar of the Worksheet window.

3. If you get reservations for all files, choose File Exit and select Save All. If you do not get the reservation for every file, you can save individual files for which you have the reservation.

An error occurred during automatic file save

An error occurred while 1-2-3 was automatically saving your open files.

Choose OK to see a message about which error occurred. Then press F1 (HELP) or click the ? button to see Help about the message.

Automatic file saving is now turned off

An error occurred while 1-2-3 was automatically saving your open files. To prevent further errors, 1-2-3 has discontinued automatic file saving.

To turn automatic file saving on again, use [Tools User Setup](#).

Backup file exists in memory

You chose File Save As Backup, but the .BAK file is already in memory.

Close the .BAK file, then choose File Save As Backup again.

Backup unsuccessful due to file error

You used File Save As Backup to save and back up a file, but the file's .BAK file is in use by another user, or a problem occurred with the file or disk.

Save the file with a different name or save to another disk.

Cannot convert extension. File already exists in memory.

You used File Open to read a 1-2-3 Release 1A or Symphony file into memory when a 1-2-3 Release 5 file with the same name was already active.

When 1-2-3 Release 5 reads a Release 1A or Symphony file into memory, it converts the file to 1-2-3 Release 5 format by creating a blank new file with the same name and adding a .WK4 extension. You cannot have two files with the same name and extension in the same directory.

Before you try to read the file into 1-2-3 Release 5, do one of the following:

- Use File Save As to save the active file with a different name.
- Rename the Release 1A or Symphony file on disk.
- Copy the Release 1A or Symphony file to a different directory.

Cannot create file

The following conditions could have caused this error:

- You tried to save too many files on a disk.
Save the file on another disk or in another directory.
- The file you specified was hidden on disk.
Save the file on another disk or in another directory.
- You used /FN and specified a directory that did not exist, or you did not specify a file name.
Respecify the directory and file name.
- You tried to save a file with the disk drive door open.
Close the disk drive door and try again.
- You entered an invalid character in a file name. Your operating system determines the characters allowed in a file name.
See [Naming a 1-2-3 File](#) or your operating system manual for more information.

Cannot create format file

You tried to save the file with a file extension of .WK3, but 1-2-3 could not create a format file (.FM3) because of one of the following reasons:

- There is not enough disk space.
Save the file on another disk.
- The format file is a read-only file.
Save the worksheet file to another name or directory.

Cannot erase file

You used /File Erase and tried to erase a file that was read-only. 1-2-3 does not erase files with read-only access.

1. Choose File Protect.
2. Under File reservation, choose Get to try to get the reservation.
3. Try again to erase the file.

Cannot erase file. It is in use or has read-only access.

The following conditions could have caused this error:

- You tried to erase a file on disk when the file was active and you had the reservation.

Choose File Protect, choose Release to release the reservation, and then use /File Erase to erase the file on disk.

- You tried to erase a file on disk when the file was marked read-only on disk. You cannot erase or save a read-only file.

In the Windows File Manager, choose File Properties to remove the read-only attribute from the file and then return to 1-2-3 and use /File Erase.

Cannot export to this format from a multiple-worksheet file

You tried to use :Special Export to export to an .FMT or .ALL file from a multiple-sheet file. You can save only an .FM3 file from a multiple-sheet file.

Copy the data from each sheet to a single sheet file and then save each file or use :Special Export to export each file to an .FMT or .ALL file.

Cannot combine; file is in use

You tried to copy data from a text file that was not closed on disk. Someone else may have been saving changes to the file on disk.

Wait a few minutes for the file to be saved. Then choose File Open to combine the text file.

Cannot open a password-protected Excel file

You chose File Open to open an Excel file in 1-2-3, but all or part of the file was protected with a password in Excel.

In Excel, remove the password and save the file. Then open the file again in 1-2-3.

Cannot quit Lotus 1-2-3

You tried to exit 1-2-3 or Windows while a 1-2-3 dialog box is open or while 1-2-3 is in Edit mode.

1. Make sure the 1-2-3 window is the active window.and that 1-2-3 is in Ready mode.
2. Close the dialog box.
3. Exit 1-2-3 or Windows.

Cannot read Help file

The Help file (123W.HLP) may be damaged or may not be in the 1-2-3 directory.

- Check that 123W.HLP is in your 1-2-3 directory.
- If you cannot locate the file, or the file is damaged, use the Install program to reinstall your program files. For information on how to start Install, see Chapter 1, "Before You Begin," in the *User's Guide*.

Cannot read locked Symphony worksheet file

1-2-3 Release 5 cannot read a Symphony file that has been locked using the Services Settings Security Lock command within Symphony.

Use Symphony to unlock the file, and then use File Open to read the file into 1-2-3.

Cannot retrieve library file

The following conditions could have caused this error:

- You chose :Print Layout Library Retrieve and specified an invalid file name.
Choose :Print Layout Library Retrieve again and specify a valid file name.
- 1-2-3 could not open a file on disk containing named page settings because the file is damaged.

Cannot read this file format

You tried to open a file that 1-2-3 Release 5 cannot read because the file was created with a more recent version of 1-2-3.

Open the file in the version of 1-2-3 that can read this file format. Then save the files as a 1-2-3 Release 5 file.

Cannot save dBASE IV or Paradox file using the Classic; or {FILE-SAVE} macro syntax was incorrect.

The following conditions could have caused this error:

- You used the 1-2-3 Classic menu. You cannot use the Classic menu to save a dBASE IV or Paradox file.

Use the File Save or File Save As command to save the dBASE IV or Paradox file.

- You used {FILE-SAVE} and the specified file name was incorrect. The name of the file you specified must be a dBASE IV or Paradox file and must refer to the current file.

Make sure the *file name* argument in the {FILE-SAVE} macro is correct and that the file is the current file, and then run the macro command again.

Directory does not exist

The following conditions could have caused this error:

- You specified a directory that does not exist.

Respecify the directory name or path.

- You entered an invalid character in a file name. Your operating system determines the characters allowed in a file name.

See [Naming a 1-2-3 File](#) or your operating system manual for more information.

- You tried to open or save a worksheet file, but the file COMMDLG.DLL is out of date.

For information about updating COMMDLG.DLL, select this cross-reference: [The worksheet file has not been named.](#)

Disk drive not ready

You tried to read from or save a file on a disk drive that did not contain a disk or had its door open.

Correct the problem and try again.

Disk error

1-2-3 was unable to save a file on or read a file from disk. The disk may be damaged, or the disk-drive head may be out of alignment.

- If you are trying to save a file on a disk, try another formatted disk.
- If you cannot save the file on the second disk, check the alignment of the disk-drive head.
- If you are trying to read the file, try using another computer.

Disk full

The following conditions could have caused this error:

- You tried to save a .WK1 or .WK3 file on a disk that did not have enough room for the file.

Caution If you chose Replace after saving the file, 1-2-3 erased the version of this file on disk. You must save the file on another disk so you do not lose the file.

Save the entire file on another formatted disk.

Disk is write-protected

You tried to save a file on a disk with a write-protect tab, or on a disk manufactured without a write-protect notch. This error can occur during File Save, File Save As, File Page Setup, Tools User Setup operations, or certain View commands.

Remove the tab or replace the disk with one that is not write-protected.

Error reading file

The following conditions could have caused this error:

- You tried to open a blank file, but 1-2-3 cannot open blank files. 1-2-3 creates a blank file on disk when you use File New or use File Open with a .WK3 or .WK1 file or a Symphony file. The file acts as a placeholder on disk until you save the file. If you work on a network, the blank file could be a 1-2-3 file created by another user who chose File New or File Open, but has not saved the file yet.

Use DOS or the Windows File Manager to check the size of the file on disk to ensure that you are not trying to read a blank file into memory.

- 1-2-3 could not read the file from disk because the file may be corrupted.

Clear the error message by pressing ESC and then press ENTER to see if 1-2-3 was able to read any of the file.

- You were sending or receiving a range, and 1-2-3 encountered a problem opening the 1-2-3 mail file. The file may be corrupted, or your computer may be low on memory.

Clear the message by pressing ESC and then press ENTER to see if 1-2-3 was able to read any of the file.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

- You tried to open a .WK4 file that was transmitted using a communications protocol, such as XMODEM, that adds information to the end of the file.

Transmit the file again using a protocol, such as Kermit, that does not change file size, or compress the file before you transmit it.

- You tried to open a Symphony file that has been locked using the Services Settings Security Lock command within Symphony.

Use Symphony to unlock the file, and then use File Open to read the file into 1-2-3.

Error reading format file

The following conditions could have caused this error:

- 1-2-3 tried to read into memory a format file that is damaged.
- You chose File Open and specified the name of a format file that does not exist.

Error saving file

The following conditions could have caused this error:

- You were running a macro with the {OPEN} command.

Delete some files from the directory or move the file to a directory that contains fewer files.

- You were sending or receiving a range, and 1-2-3 could not save the 1-2-3 mail file because there is either not enough disk space or not enough memory.

Free memory by closing any unnecessary files or applications. Free disk space on the drive that contains the 1-2-3 working directory by deleting unnecessary files, or choose Tools User Setup and specify as the working directory a drive that contains more space.

- You tried to save a .WK4 file to a drive that is full or has read-only access.

Save the file on a drive that has read-write access and sufficient space to save the file.

- You tried to save a file with the disk drive door open.

Close the disk drive door and try again.

Error saving dBASE IV or Paradox file

You tried to save a dBASE IV or Paradox file and one of the following problems occurred:

- The disk has insufficient space or is write-protected.
Save to a different disk that has sufficient space or is not write-protected.
- The directory has read-only access.
Save to a different directory that has read-write access.
- The file is write-protected.
Remove write-protection from the file, if possible, and try to save the file again.
- 1-2-3 could not generate a unique name for the database backup file.
Save to a different directory, or delete the file of the same name in the current directory.

Error writing to 1-2-3 configuration file

You chose Tools User Setup and chose OK to update the configuration file (123R5.INI), or you pressed ALT+F10 (ADDIN) and selected Settings System Update to update 123R5.INI, but 1-2-3 could not complete the command for one of these reasons:

- You are running 1-2-3 from a read-only network drive. Copy 123R5.INI from the network drive to your local Windows directory, and then re-run 1-2-3.

- 123R5.INI is write-protected.

Remove write-protection from the file, if possible, and repeat the command.

- The disk that contains 123R5.INI is full.

You need to delete one or more files from that disk before you can update the file.

- 1-2-3 could not access 123R5.INI because you are already using the maximum number of files your operating system allows. Do one of the following:

Use File Close to remove one or more of your active files from memory.

End another application program, if one is running.

Note to macro users or developers: The text of this message was revised for 1-2-3 Release 5. In 1-2-3 Release 4, the message was "Error writing 123R4.INI file". If you receive this message while using a macro that contains {ONERROR}, the macro needs to be changed to test for the revised message.

Error writing file

You tried to save a file but could not because of one of the following reasons:

- The disk has insufficient space or is write-protected.
Save to a different disk that has sufficient space or is not write-protected.
- The directory has read-only access.
Save to a different directory that has read-write access.
- The file is write-protected.
Remove write-protection from the file, if possible, and try to save the file again.

File already exists

- You used /File New and specified a file name that already exists on disk.
Specify a different file name.
- You tried to read a 1-2-3 Release 1A, Symphony, or Excel file into memory when a 1-2-3 Release 5 file with the same name already exists on disk.

When 1-2-3 reads a Release 1A, Symphony, or Excel file into memory, it converts the file to 1-2-3 Release 5 format by creating a blank new file with the same file name and a .WK4 extension. You cannot have two files with the same file name and extension in the same directory.

Before you try to read the file into 1-2-3 Release 5, do one of the following:

- Rename the 1-2-3 Release 5 file on disk.
- Rename the Release 1A, Symphony, or Excel file on disk.
- Copy the Release 1A, Symphony, or Excel file to a different directory.

File already exists in memory

The following conditions could have cause this error:

- You tried to open a file that is already open.

Choose Window in the 1-2-3 menu bar and select the file you want from the list at the bottom of the Window pull-down.

- You used File Save As and specified a file that was not the current file but was already active in memory.

To replace an active file with the version of the file on disk, choose File Close and choose No to close the file without saving your changes. Then use File Open to read the version of the file on disk into memory.

- You tried to open or save a worksheet file, but the file COMMDLG.DLL is out of date.

For information about updating COMMDLG.DLL, select this cross-reference: The worksheet file has not been named.

File already in use

You tried to use :Special Export to export to a format file that is not closed on disk.

Close the format file.

File and/or extension converted

When you use File Open to read a 1-2-3 Release 1A, Symphony, or Excel file into memory, 1-2-3 Release 5 converts the file by creating a blank worksheet file with the same name and a .WK4 extension on disk and in memory. When 1-2-3 converts the file to .WK4 format, it leaves the original file unchanged on disk.

Note You cannot read the converted .WK4 file on disk into memory because it is a placeholder for the file and has no data in it. You must save the converted file before you can read it into memory.

File close error

You were printing a text or encoded file to a disk and opened the drive door or removed the disk from the drive before you closed the print job.

Before you remove the disk, do one of the following to close the print job:

- Select Print [E,F,P] Quit.
- Press CTRL+BREAK.
- Press ESC.

File contention prevented accessing the file

The following conditions could have caused this error:

- You tried to read or save a file at the same time that someone else was using the file. This error can occur when you use the File Open, File Save, or File Save As commands.

Wait a few minutes and then try to complete the operation.

- You used a file name that is reserved by the operating system when you were saving a file.

See your operating system manual for a list of reserved file names. Save the file with a different name.

File does not exist

The file you specified does not exist in the directory you specified, or the file is hidden.

Check to see that you entered the correct path and file name, and that the file is not hidden. To find out what files are in a directory or to unhide a file, use DOS or the Windows File Manager.

File is already sealed

You chose /FASF or /FASR, or you chose File Protect and selected the Seal file check box, but the file or the reservation setting was already set.

It is not necessary to seal the file since it is already sealed.

File is not sealed

You chose /FASD to disable the file seal, or you chose File Protect and then selected and deselected the Seal file check box.

It is not necessary to disable the file seal since the file is not sealed.

File is read-only

You tried to save a file that was marked read-only on disk. You cannot save data in a read-only file.

1. Choose File Protect.
2. Under File reservation, choose Get to try to get the reservation.
3. If you get the reservation, choose File Save or File Save As to save the file.

If you cannot get the reservation, choose File Save As to save the file under a different file name, or open the Windows File Manager, choose File Properties to remove the read-only attribute from the file, then return to 1-2-3 and save the file.

File is sealed

The following conditions could have caused this error:

- You tried to change a sealed file.

Choose File Protect and deselect the Seal file check box to unseal the file. You must know the password that was used to seal the file in order to unseal it.

- You tried to save a selected range from a sealed file.

Choose File Protect and deselect the Seal file check box to unseal the file before using File Save As. You must know the password that was used to seal the file in order to unseal it.

File is sealed

The following conditions could have caused this error:

- You tried to change a sealed file.

Choose File Protect and deselect the Seal file check box to unseal the file. You must know the password that was used to seal the file in order to unseal it.

- You tried to save a selected range from a sealed file.

Choose File Protect and deselect the Seal file check box to unseal the file before using File Save As. You must know the password that was used to seal the file in order to unseal it.

File name already exists on disk

You tried to read a 1-2-3 Release 1A, Symphony, or Excel file into memory when a 1-2-3 Release 5 file with the same name already exists on disk.

When 1-2-3 reads a Release 1A, Symphony, or Excel file into memory, it converts the file to 1-2-3 Release 5 format by creating a blank new file with the same file name and a .WK4 extension. You cannot have two files with the same file name and extension in the same directory.

Before you try to read the file into 1-2-3 Release 5, do one of the following:

- Rename the 1-2-3 Release 5 file on disk.
- Rename the Release 1A, Symphony, or Excel file on disk.
- Copy the Release 1A, Symphony, or Excel file to a different directory.

Global protection is enabled

You tried to use :Special Import while the file was protected. You cannot use :Special Import if file protection is turned on.

Choose /Worksheet Global Prot Disable to disable file protection.

Incompatible character set

This is a .WK1 file that contains a character set other than LICS (Lotus International Character Set).

Caution Do not save the file. Saving the file could cause loss of data because 1-2-3 will overwrite your existing file using LICS.

Incompatible worksheet information lost during saving

You saved a 1-2-3 Release 5 for Windows file (.WK4) with a .WK1 or .WK3 file extension. The .WK4 file contains new 1-2-3 Release 5 features that could not be saved in the .WK1 or .WK3 file.

To avoid losing data, choose File Save As now to save the file as a .WK4 file and retain all the data in the file.

For more information, see Working with .WK1 and .WK3 Files in 1-2-3 for Windows and Appendix A, "Sharing Files and Macros" in the *User's Guide*.

Incompatibility with previous versions of 1-2-3

The following conditions could have caused this error:

- You could not save a .WK4 or .WK3 file as a .WK1 file because the file contained more than one worksheet.
- You could not save a .WK4 or .WK3 file as a .WK1 file because the file was sealed.

Choose File Protect and deselect the Seal file check box to unseal the file before you try to save it. To unseal the file, you must know the password that was used to seal the file.

Incorrect file name or path syntax

You entered an incorrect file name or an incorrect path for a file on disk.

Do one of the following:

- Respecify the entire path and file name. If you do not specify a path, 1-2-3 searches the current directory for the file you specify.
- Use Tools User Setup to change the current directory to the directory that contains the file.
- Make sure the file type you specified was correct. For example, if you are trying to open or save a dBASE IV or Paradox file, make sure the file extension is either .DBF (dBASE) or .DB (Paradox).

Incorrect password

The following conditions could have caused this error:

- You entered the wrong password when you tried to read a password-protected file using File Open.
Re-enter the password.
- You entered the wrong password when you chose File Protect and deselected the Seal file check box to unseal a file.
Re-enter the password.

1-2-3 is case-sensitive for passwords, so you must remember the exact combination of uppercase and lowercase letters you used to create the password.

Input line too long

The following conditions could have caused this error:

- You used File Open Combine to open a text file that had a line longer than 511 characters. This error occurs when the file you are combining does not have a carriage return at the end of each line. As a result, 1-2-3 cannot find the line ends in the text file.

Use the text editor with which the file was created to shorten the lines by entering carriage returns.

- You used Edit Find & Replace to replace a string of text with a longer string, but making that replacement in the highlighted cell would have created an entry longer than 511 characters. Do one of the following:

Use a shorter replacement string.

Specify a search range that does not include that cell.

Choose Find Next in the Edit Find dialog box when 1-2-3 highlights that cell to skip the replacement in that cell.

Input range must be in an active file

The following conditions could have caused this error:

- You used File Save As and specified a range that was in a file on disk.
You can only save data from an active file.
- You were using Tools Database Crosstab and specified a range that was not in the current file.
Crosstab tables can use ranges in the current file only.

Invalid character in extension

You entered an invalid character in the file extension. Your operating system determines the characters allowed in a file extension.

See [Naming a 1-2-3 File](#) or your operating system manual for more information.

Invalid character in file name

You entered an invalid character in a file name. Your operating system determines the characters allowed in a file name.

See [Naming a 1-2-3 File](#) or your operating system manual for more information.

Invalid disk name

The following conditions could have caused this error:

- You specified a drive name that either is not between A and Z (uppercase or lowercase) or does not exist on your computer.

Specify a valid drive name.

- You tried to save a file on an unformatted disk.

Format the disk.

- You specified a disk drive that was not ready.

Check that you inserted the disk correctly and that the drive door is closed.

- You tried to save to a network drive that you are not connected to.

Connect to the drive or save the file to a valid drive.

Invalid file operation

The following conditions could have caused this error:

- You tried to combine a .XLS, .XLW, .XLT, .WT4, or .NS4 file.
You cannot combine these file types.
- You chose File New and your default directory is set to a network drive with read-only access.
Use Tools User Setup to change your default directory to a network drive that has read-write access.
- You tried to save a .WK4 file to a drive that is full or has read-only access.
Save the file on a drive that has read-write access and sufficient space to save the file.
- You tried to save a file with the disk drive door open.
Close the disk drive door and try again.

Invalid library file

You used File Page Setup Retrieve and specified an incorrect file name for a file containing named page settings.

Correct the file name and try again.

Named range not found in worksheet file

You used File Open Combine 1-2-3 File, but the range name you specified as the source did not exist in the file you specified. You may have misspelled the range name.

Specify the correct range name.

No active file to get reservation

You chose File Protect and then chose Get to get a reservation for a file that has never been saved on disk.

Save the file. You can change the reservation status of a file only after you save it on disk.

No files of specified type on disk

1-2-3 could not find any files of the type you specified.

Use DOS or the Windows File Manager to see a complete list of files in the directory you specified.

Not a valid dBASE or Paradox file

The file you specified to open is not a dBASE IV or Paradox file.

Make sure the file you specify is a valid dBASE or Paradox file with a .DBF (dBASE) or .DB (Paradox) file extension.

Not a valid worksheet file

You specified an invalid worksheet file when you used File Open.

Use only worksheet files created with 1-2-3, Symphony, or Excel.

Part of combine file lost

You used File Open Combine 1-2-3 File to combine a range from a file on disk, and the data in the specified range extended beyond the worksheet boundaries. When you chose OK, 1-2-3 combined the data that fit in the available rows and columns, but the data that did not fit in the worksheet was lost.

Select an area of the worksheet that is large enough to hold all the incoming data.

Part of file is missing

The following conditions could have caused this error:

- The file you specified may have been truncated.
- The file you specified may be missing the end-of-file character.
- Your disk may be damaged.
- The disk-drive head may not be properly aligned.
- There is insufficient memory to read the file.

Clear the error message by pressing ESC and then press ENTER. If possible, 1-2-3 will read some or all of the file into memory.

Passwords do not match

You used File Save As or File Protect and tried to password-protect the file or seal, but the password you entered to verify your password did not match the first one you entered.

Repeat the command and enter the password again.

A password can include up to 15 characters. 1-2-3 is case-sensitive for passwords, so you must remember the exact combination of uppercase and lowercase letters you used to create the password.

The file contains more than one sheet. Please save the file with the extension .XLW.

You tried to save a multiple sheet file in .XLS format. An Excel sheet file (.XLS format) cannot have multiple sheets. An Excel workbook file (.XLW format) can have multiple sheets.

Save this multiple sheet file in 1-2-3 in Excel workbook (.XLW) format.

The file on disk is different from the one retrieved

You chose File Protect and chose Get to try to get a reservation for the current file, but the version of the file on disk has changed since you retrieved it. 1-2-3 will not give you the reservation if the file on disk is different from the file you are using.

Do one of the following:

- Choose File Open to read the most recent version of the file into memory. If the file is read-only, use File Protect to try to get the reservation.
- Choose File Save As to save your changes to a new file with a different name than the file on disk.

The worksheet file is already reserved

You chose File Protect and chose Get to get a reservation when you already had the reservation for the file.

The worksheet file has no reservation

The following conditions could have caused this error:

- You tried to save a file and you did not have the reservation. You must have the reservation to save a file.

Choose File Protect and choose Get to try to get the reservation.

- You tried to release the reservation by choosing File Protect and choosing Release when you did not have the reservation. You are already using a read-only file.
- You tried to release the reservation for a file that has never been saved on disk.

Save the file. You can change the reservation status of a file only after you save it on disk.

For more information on file reservations, see Reserving a File.

The worksheet file has not been named

You were trying to open or save a worksheet file, but the file COMMDLG.DLL is out of date. 1-2-3 is incompatible with versions of COMMDLG.DLL created before Windows 3.1, usually dated 3/10/92.

COMMDLG.DLL is located in either the Windows directory (for example, C:\WINDOWS), the Windows system subdirectory (for example, C:\WINDOWS\SYSTEM), or somewhere on your path.

Your 1-2-3 Release 5 and Windows 3.1 install disks contain the updated version of COMMDLG.DLL, usually dated 3/23/93. You can delete your COMMDLG.DLL file and then reinstall 1-2-3. Or you can install the updated version of COMMDLG.DLL.

To install the updated version of COMMDLG.DLL, do the following:

1. Copy the following files from 1-2-3 Install Disk 1 into your 1-2-3 directory: INFLATE4.EXE, INFLATE4.RI, and UNARJD.DLD. These files are necessary to decompress COMMDLG.DLL.

For example, enter the following at the DOS prompt: copy a:\inflate4.exe c:\123R5W

2. Delete the old version of COMMDLG.DLL.

For example, enter the following at the DOS prompt: del c:\windows\system\commdlg.dll

3. If you have 3.5 inch install disks, place Disk 5 in drive A or B.

If you have 5.25 inch install disks, place Disk 6 in drive A or B.

4. Go to your 1-2-3 directory, for example, C:\123R5W, and enter the following at the DOS prompt:

```
inflate4 x:\redist\commdlg.dll y:\windows\system
```

where x is the drive containing the install disk, and y is the drive that contains your Windows program files.

This file name is not valid

You tried to save or retrieve a file by specifying an invalid file name.

See [Naming a 1-2-3 File](#) for more information.

Too many characters in path

You specified too many characters in the path. Your operating system determines the number of characters allowed in the path.

See your operating system manual for more information.

Too many characters in path

You specified too many characters in the path. Your operating system determines the number of characters allowed in the path.

See your operating system manual for more information.

Too many open files

You have too many files in memory.

Use [File Close](#) to remove some active files from memory.

Unable to create a range for database operations

The following conditions could have caused this error:

- You tried to combine a dBASE IV or Paradox file with the current file and the data in the specified range extended beyond the worksheet boundaries.

Move the cell pointer to a place in the worksheet where the incoming data will not extend beyond the worksheet boundaries, or select a range that is large enough to hold all the incoming data.

- You tried to save a dBASE IV or Paradox file, and 1-2-3 couldn't create the external range for the database table because the range name already exists. When the range name already exists, 1-2-3 creates the range name using "TABLE" followed by a number from 1 to 1000. 1-2-3 used all of these names.

To save the current dBASE IV or Paradox file, eliminate the existing range name or another range name, so that 1-2-3 can assign a range name to the external range for the database table.

Unable to reserve file: it is already reserved

You chose File Protect and chose Get when someone else was using the file with the reservation.

You can get the reservation if no one else has it and if the file has not changed on disk since you read it into memory. Try again later to get the reservation.

Unable to reserve file: it has read-only access

You tried to perform a file operation on a file, drive, or directory that is marked read-only.

Clear the read-only attribute, or perform the operation on a file, drive, or directory that has read-write access.

Version Manager data in this file is unavailable in 1-2-3 for Windows. To avoid losing data, don't use File Save.

You used File Open to open a .WK3 file that was created in 1-2-3 Release 4 for DOS, and the file contains versions of ranges that contain more than 2000 cells.

1-2-3 Release 5 for Windows does not support versions of ranges containing more than 2000 cells. 1-2-3 will not read in any Version Manager data in this file.

Caution While working in 1-2-3 Release 5 for Windows, if you use File Save to save this file, the Version Manager data in the file will be lost. To avoid losing the Version Manager data, either don't save the file, or use File Save As to save the file under a different name. The new file will not contain the Version Manager data, but the original .WK3 file will still contain the original Version Manager data.

To make the Version Manager data available in 1-2-3 Release 5 for Windows, open the file in 1-2-3 Release 4 for DOS, rearrange the data so that the ranges that contain versions have fewer than 2000 cells, and save the file. 1-2-3 Release 5 for Windows will be able to read the Version Manager data in the revised file.

Cannot delete a range that is not in memory

Cannot initialize system driver

Cannot initialize Windows environment

Cannot justify text if worksheet protection enabled

You were using /Range Justify but the justify range is protected.

Use File Protect to unseal the file, then use /Range Justify again.

Cannot load Clipboard driver (L1ACFTXT.DLL)

Cannot load Event Manager driver (L1WEM.DLL)

Cannot modify a range that is not in memory

You were using a 1-2-3 command and one of the following problems occurred:

- Instead of specifying a range in an active file, you specified a range in a file on disk or a range name assigned to an external table.

Specify a range in an active file.

- You used a file reference to specify a range in another active file, but the reference did not include a path or extension.

Choose the command again, select the Range text box, press (F3) NAME and select the file from the "In files" drop-down box. 1-2-3 automatically includes the path and extension when you use this method to create file references.

- You specified an undefined range name in the command.

Either specify a different range name in the command or use Range Name to associate the undefined range name with a range.

Cannot open Clipboard or desired format not available

You tried to paste data from the Clipboard in a format that is not available.

To see what Clipboard formats are currently available, open the Clipboard Viewer and choose Display.

Cannot perform this command when a collection is selected

The command you chose cannot act on a collection. You can perform this command only on a range.
Select a range and choose the command again.

Cannot use offset number for field

Cannot use ranges that are not in memory

The following conditions could have caused this error:

- You specified a range in a file on disk or the range name of an external table. For this command, the range you specify must be in an active file.

Specify a range in an active file.

- You specified an undefined range name.

Either specify a different range name in the command or use Range Name to associate the undefined range name with a range.

Directory entry update error

You used File Save As to save a file on disk or to extract data to a file on disk, and the network software did not update the directory.

Reconfigure the network so that directory updates are not deferred.

Formula too complex

You tried to enter a formula that was too long or too complicated.

Break the formula into one or more smaller formulas.

Invalid cell or range address

The following conditions could have caused this error:

- For a cell or range specification, you used a nonexistent address, such as JV4 or A1..Z9000; or a range address that was syntactically incorrect, such as <<QTR_1.WK3>>D1..<<QTR_1.WK4>>G20.
- For a cell or range specification, you used a nonexistent or undefined range name.

Use the navigator or press F3 (NAME) and select a valid range name, or use Range Name to associate the undefined range name with an address.

- When specifying an external table range name, you used a name that started with \$ or !; a name that included a period; or a name that duplicated a cell address.
- When specifying a cell or range in a file on disk, you did not include a path or extension in the file reference.
- You did not specify anything in a range text box.

Choose the command again and specify a range in the appropriate range text box.

- A cell specified as the location argument for a {DISPATCH} macro command contained an entry that did not evaluate to a location.
- You used File Save As to save a file as a shared file (.NS4), and the file is connected to an external database table.

You cannot save a file that is connected to an external database table as a shared file. Choose Tools Database Disconnect to disconnect from the database table before saving the file as a shared file.

Internal error - invalid command parameter

Invalid configuration file

The following conditions could have caused this error:

- When you started 1-2-3, it located a 123R5.INI file that was not a valid 1-2-3 Release 5 for Windows configuration file.

End 1-2-3. If the PATH statement in your AUTOEXEC.BAT file includes the program directory for a previous release of 1-2-3, you must delete that directory from the PATH statement. If you leave your previous 1-2-3 directory in the PATH statement, 1-2-3 Release 5 for Windows writes over the 123R5.INI file in that directory when you use Tools User Setup to change any default settings.

- When you started 1-2-3, it located the 123R5.INI file, but the directory specified in the file as the 1-2-3 default directory does not exist.

To see the current default directory, choose Tools User Setup and look at the entry for Worksheet directory. If you want to change the default directory, or any other information in the Tools User Setup dialog box, make the appropriate changes and choose OK. This updates the 123R5.INI file with the new settings.

Invalid number input

You specified an invalid number for the command you were using.

Enter a number within the range indicated, or see Help for specific information about the command you chose.

Invalid range

The following conditions could have caused this error:

- The range name you specified for a Tools Database command was not a range name for a 1-2-3 database table, a query table, or an external database table.
- For a macro command, you used a location argument that did not evaluate to a location.
- The range you specified as the {FORM} input-location argument included hidden columns or worksheets.
- For a {PUT} command, the column-offset or row-offset value was either negative or represented a column or row outside of the target location.
- When using Tools Macro Run or ALT+F3 (RUN), either you specified a range not in an active file, or you did not include a path or extension in the file reference for an active file.
- The command you were using only applies to ranges in the current file, and you specified a range that was not in the current file.
- In a macro, you tried to specify a range that included <<?>> (the wild-card file reference) in front of a range name, but more than one active file contained that range name. You can use the wild-card file reference to specify a range only when the range name that follows it is unique among all active files. When more than one file contains the same range name, you must include the appropriate file name in the file reference.

Invalid range

The following conditions could have caused this error:

- The range name you specified for a Tools Database command was not a range name for a 1-2-3 database table, a query table, or an external database table.
- For a macro command, you used a location argument that did not evaluate to a location.
- The range you specified as the {FORM} input-location argument included hidden columns or worksheets.
- For a {PUT} command, the column-offset or row-offset value was either negative or represented a column or row outside of the target location.
- When using Tools Macro Run or ALT+F3 (RUN), either you specified a range not in an active file, or you did not include a path or extension in the file reference for an active file.
- The command you were using only applies to ranges in the current file, and you specified a range that was not in the current file.
- In a macro, you tried to specify a range that included <<?>> (the wild-card file reference) in front of a range name, but more than one active file contained that range name. You can use the wild-card file reference to specify a range only when the range name that follows it is unique among all active files. When more than one file contains the same range name, you must include the appropriate file name in the file reference.
- For a {RANGE-TRANSPOSE} command that specified transposing columns-to-sheets, the destination range was not a 3D range; or for a {RANGE-TRANSPOSE} command that specified transposing sheets-to-rows, the origin range was not a 3D range.

More than one file has the same range name

In a command, you tried to specify a range by typing <<?>> (the wild-card file reference) in front of a range name, but more than one active file contained that range name. You can use the wild-card file reference to specify a range only when the range name that follows it is unique among all active files.

When more than one file contains the same range name, you must type the appropriate file name in the file reference.

Number is too large

You specified a number that was too large for the command you were using.

Enter a number within the range indicated, or see Help for specific information about the command you chose.

Number is too small

You specified a number that was too small for the command you were using.

Enter a number within the range indicated, or see Help for specific information about the command you chose.

Protected cell

You were working in a sealed file and one of the following problems occurred:

- You tried to move data into a protected cell or range, or enter or edit data in a protected cell or range.

Use File Protect to unseal the file.

- You tried to use a command that moves columns or rows, such as Edit Delete, Edit Insert, or /Worksheet Page.

Before you can use one of these commands, use File Protect to unseal the file.

Protected cell

You were working in a sealed file and one of the following problems occurred:

- You tried to enter or edit data in a protected cell or range.

Use File Protect to unseal the file.

- You tried to use a command that moves columns or rows, such as Edit Delete, Edit Insert, or /Worksheet Page.

Before you can use one of these commands, use File Protect to unseal the file.

Range must contain at least one unhidden column

Sheet name already exists

You tried to name a worksheet with a name that already exists in the current file.

Use another name for the worksheet or change the existing worksheet name. One-letter names and two-letter names from AA to IV are reserved by 1-2-3.

Sheet name contains illegal characters

You tried to name a worksheet with a name that contains invalid characters, for example ;, (,), +, -, *, /, ^, #, <, >, =, &, :, !, @, or \$.

See Chapter 6, "Worksheet Basics," in the *User's Guide* for guidelines to follow when you name worksheets.

System error

You entered a formula that contained too many nested levels or an @function that contained too many arguments.

Break the formula into one or more smaller formulas.

The destination for the selected columns or rows cannot overlap the original location

You selected a range of columns and rows and dragged them to a new location. This destination range, however, overlaps the original selection.

Either select a range of columns or rows that does not overlap the destination range, or make sure that your destination range is outside of the original selection.

The navigator lets you go to named ranges. There are no named ranges in this file.

You tried to use the navigator to go to and select a named range, but there are not any named ranges in the current file. Use Range Name to name a range. Then you can use the navigator to go to and select the named range.

The ranges in a collection must be in the same file

You tried to select a collection that includes ranges in more than one active file. The ranges in a collection must all be in the same file.

Make sure that all the ranges you select for your collection are in the current file.

Unable to get profile string

Worksheet full

One of the following conditions could have caused this error:

- You used a command that copies or moves data, but the range you specified to copy or move will not fit within the worksheet borders.

Make sure the destination range is large enough to hold the data you want to copy or move.

- You tried to insert a column or columns using Edit > Insert, but 1-2-3 could not complete the command because the number of columns you tried to insert exceeded the number of blank columns at the right worksheet border.

A blank column contains no data, formatted cells, or unprotected cells. Delete unneeded data and styles to increase the number of blank columns or try to insert fewer columns.

The location you're dragging to contains data. Is it OK for 1-2-3 to replace this data?

You were dragging a range to a location that already contains data. If you complete this operation, 1-2-3 will write over the existing data.

Choose OK to replace the data or choose Cancel to cancel the drag operation and return the range to its original location.

Note If you don't want 1-2-3 to prompt you in this situation, choose Tools User Setup and deselect the Confirm drag-and-drop check box. To disable drag-and-drop, choose Tools User Setup and deselect the Drag-and-drop cells check box.

Break

You pressed CTRL+BREAK while a macro was running. 1-2-3 did not complete the macro.

Cannot invoke operating system

You chose /System or were running a macro that included a /S keystroke instruction or {SYSTEM} command, and one of the following problems occurred:

- 1-2-3 could not locate the COMMAND.COM file.

If your COMMAND.COM file is on a floppy disk, make sure the disk is in the disk drive and then choose /System or rerun the macro.

- 1-2-3 could not access the COMMAND.COM file because you were already using the maximum number of files your operating system allowed.

To solve this problem, use File Close to delete one or more of your active files; use File Protect File Reservation to release the reservation of one or more active files; or end another application program, if one is running. Then choose /System or rerun the macro.

- You have insufficient memory to invoke the operating system.

See Appendix B, "Using Memory Efficiently," in the *User's Guide* for more information.

Cannot play sound file

The sound file you specified for a {PLAY} command could not be played. The following conditions could have caused this error:

- The file you specified is not a sound file with a .WAV extension.
- 1-2-3 could not find the sound file you specified.

Make sure you entered the sound file name correctly or that the sound file you specified is in the directory you specified.

Cannot write over data with APPEND commands

You were running a macro that uses an {APPENDBELOW} or {APPENDRIGHT} command to copy data to the end of a range, but the cells to which the data would be copied already contained data. 1-2-3 does not allow {APPENDBELOW} and {APPENDRIGHT} commands to write over existing data.

Check the {APPENDBELOW} or {APPENDRIGHT} command in the macro to see what range you specified as the target location. (The target-location argument is the first argument in both of these commands.) Then either erase that range or use a different target location for the command.

Invalid argument specified in {EDIT-CLEAR} command

The property argument you specified for an {EDIT-CLEAR} command is not valid.

Specify a valid property argument for the {EDIT-CLEAR} command. The property argument must be one of three words (contents, styles, or both) entered as text.

Invalid context

You were running a macro that selected the wrong type of item for the action you wanted to perform. For example, the following {SELECT} command selects a rectangle; however, the {CHART-TITLE} command that follows it can act only on a chart.

```
{SELECT "Rectangle 1",,"draw"}  
{CHART-TITLE "Costs and Expenses"}
```

Invalid dialog-description range

You specified an invalid dialog-description range for a {DIALOG} command.

See Using a Dialog Box Created with the Lotus Dialog Editor for information about the dialog description range.

Invalid expression

You were running a macro and one of the following problems occurred:

- A repetition factor in a macro keystroke instruction did not evaluate to a number.
- For a macro command that requires a number argument, the argument did not evaluate to a number.
- For a {FOR} command, the start, stop, or step argument evaluated to ERR or NA.
- For a {RECALC} or {RECALCCOL} command, the condition argument was either an invalid cell reference (for example, an undefined range name) or a literal string. The condition argument must be a formula, a number, or a reference to a cell that contains a formula, number, or label.

Invalid FORBREAK

You were running a macro and 1-2-3 encountered a {FORBREAK} command somewhere other than within a subroutine called by a {FOR} command.

{FORBREAK} commands are allowed only within {FOR} subroutines.

Remove the {FORBREAK} command from the macro, or if it is within a subroutine, use a {FOR} command instead of a {subroutine} command to call that subroutine.

Invalid FORMBREAK

You were running a macro and 1-2-3 encountered a {FORMBREAK} command somewhere other than within a {FORM} call-table subroutine.

{FORMBREAK} commands are allowed only within a {FORM} call-table subroutine.

Remove the {FORMBREAK} command from the macro, or if it is within a subroutine, either move the {FORMBREAK} command to the {FORM} call-table subroutine or use the {BRANCH} or {DISPATCH} command to transfer control from the {FORM} call-table subroutine to the subroutine location.

Invalid menu-description range

You specified an invalid menu-description range for a {MENU-CREATE}, {MENU-INSERT}, or {MENU-COMMAND-ADD} command.

Invalid selection of Transcript Window

You were running a macro that tried to make the Transcript window active. You cannot make the Transcript window active during a macro.

Invalid string argument

You were running a macro and one of the following problems occurred:

- For an {OPEN} command, the access-type argument was an empty string ("").
You must use the letter r, w, m, or a (or a reference to a cell that contains one of those letters) as the access-type argument.
- For a macro command that requires a text argument, the argument was a number, numeric formula, or reference to a cell that contains a number or numeric formula.
- You specified a blank cell for a macro argument that requires a label or value.
- For a {DISPATCH} command, the range name used as the location argument was undefined or did not exist, or the specified location was blank or contained a numeric value.
- In a {DDE-TABLE} command, you specified an invalid option argument.
You must specify one of two words - long or short - as text.
- For a {FILE-OPEN} or {FILE-IMPORT} command, the *read-text-as* argument was invalid.
Use one of the following: "text", "number", "tab", "comma", "space", "semicolon", "autoparse", or specify any delimiter string up to three characters, for example "!" or "###".

Invalid type

You were running a macro and one of the following problems occurred:

- For a macro command that uses a text argument that requires specific text (For example the property argument for {EDIT-CLEAR} can be one of three words: Contents, styles, or both.), you entered the wrong text.
- For a macro command that uses a text argument, the argument included a colon followed by a character other than S or V and was not enclosed in quotation marks.
- For a macro command that uses a number argument, the argument included a colon followed by a character other than S or V.
- For a {DEFINE} command, one of the location arguments ended with a colon followed by a character other than S or V.
- For a macro command that requires a text argument, the argument was either text enclosed in quotation marks and followed by :V, text that 1-2-3 did not recognize as a range name followed by :V, or unquoted text that includes a : (colon).
- An address used as a location argument in a macro command was not valid. For example, it included a nonexistent worksheet, such as C:C1 in a single-sheet file.

Invalid use of macro menu command

You were running a macro that includes a {MENUBRANCH} and {MENCALL} command and the first cell of the range specified as the location argument for that command was blank. The {MENUBRANCH} or {MENCALL} location argument tells 1-2-3 where to find the macro menu for the command.

The macro menu should start in the upper left corner of the range specified as the location argument.

A macro menu usually consists of at least three rows: The first includes the menu items (up to eight), the second includes descriptions for each menu item, and the third includes macro instructions for each menu item.

Invalid window state

The state argument you specified for a {APP-STATE} or {WINDOW-STATE} command is not valid.

Specify a valid state argument for the {APP-STATE} or {WINDOW-STATE} command. The state argument must be one of three words (Maximize, Minimize, or Restore) entered as text.

Invalid value

You were running a macro and one of the following problems occurred:

- For a macro command that requires a number argument, the argument was text.
- For a macro command that requires a text argument, the argument was a number.
- You specified a blank cell for a macro argument that requires a label or value.
- For a macro command that uses a text argument that requires specific text (For example the property argument for {EDIT-CLEAR} can be one of three words: Contents, styles, or both.), you entered the wrong text.
- During a /XN command in a macro, you tried to enter a label instead of a number, or you pressed ENTER without typing anything. 1-2-3 suspended the macro temporarily.

To continue the macro, press ENTER or ESC to clear the error message and then enter a number.

Invalid /X command in macro

You were running a macro and one of the following problems occurred:

- The macro contained /X followed by a character other than the letter C, G, I, L, M, N, Q, or R. The sequence did not represent one of the /X commands (/XC, /XG, /XI, /XL, /XM, /XN, /XQ, and /XR).
- The macro used the letter X to specify a menu selection, but none of the items in that menu started with X.

Item must be in the current worksheet

You were running a macro and one of the following problems occurred:

- You tried to scroll to an item that was not in the current worksheet with {SCROLL-TO-CELL} or {SCROLL-TO-OBJECT}.

You cannot scroll to a query table, chart, or other drawn object that is not on the current worksheet.

To scroll to a range that is not in the current worksheet, use {SCROLL-TO-COLUMN} or {SCROLL-TO-ROW}.

- You tried to add a query table, chart, or other drawn object that was not in the current worksheet to those currently selected with {SELECT-APPEND}.

Macro: missing argument

You were running a macro and one of the following problems occurred:

- A macro command that uses one or more arguments included fewer than the required number of arguments.
- A `{DEFINE}` command in a subroutine that was called by a `{subroutine}` command included fewer arguments than the `{subroutine}` command.

A `{DEFINE}` command must include the same number of arguments as the corresponding `{subroutine}` command.

Macro not supported. Use the 1-2-3 Release 4 Macro Translator.

You were running a macro that contains {ALT} keystroke macros. 1-2-3 Releases 4 and 5 for Windows use menu equivalent keywords in {} (braces) instead of {ALT} keystroke macros.

Before you can run {ALT} keystroke macros, you need to translate them with the Macro Translator. See Appendix A, "Sharing Files and Macros" in the *User's Guide* for information about using the Macro Translator.

Maximum command line length exceeded

You used {SYSTEM} to execute an operating system command, but the length of the command line generated by {SYSTEM} was too long. The command line cannot exceed 128 characters.

Make the command line shorter and run the macro again.

Note Included in the 128-character limit is the following text, which {SYSTEM} appends to the command line: "<path>COMMAND.COM /C " where path is supplied by the DOS COMSPEC setting. The appended string is a reference to your COMMAND.COM file, including the path, followed by the DOS command /C surrounded by spaces. Thus, the length of the *command* argument must be no more than 128 characters minus the number of characters in the appended string.

Set of SmartIcons does not exist

The set of SmartIcons you specified with {SMARTICONS-USE} does not exist.

Make sure you correctly entered the name of an existing set of SmartIcons. To see a list of all sets, choose Tools SmartIcons.

No unprotected cells in Input range

The following conditions could have caused this error:

- The range you used as the {FORM} input-location argument in a macro contained no unprotected cells.

Choose Style protection to unprotect some of the cells in the range before running the macro.

- The input range you specified for /Range Input contained no unprotected cells.

Choose Style Protection to unprotect some of the cells in the input range before using /Range Input.

Syntax error in macro key/range

You were running a macro and 1-2-3 encountered an error in one of the macro instructions. Check for these possible errors:

- No } (closing brace) in a macro key name or macro command
- A missing argument separator in a macro command
- No closing quotation mark in quoted text used as a macro command argument
- Unequal number of opening and closing parentheses in a macro command argument

The Clipboard is empty

You ran a macro that includes an {EDIT-PASTE} command, but there is nothing on the Clipboard to paste.

Make sure the Clipboard contains data and then run the macro again.

Too many arguments

You were running a macro that uses a `{subroutine}` command, and the `{DEFINE}` command in the specified subroutine included more arguments than the `{subroutine}` command.

A `{DEFINE}` command in a subroutine must include the same number of arguments as the `{subroutine}` command that calls the subroutine.

Unrecognized key/range name

You were running a macro and one of the following problems occurred:

- 1-2-3 did not recognize the first word after an open brace as a macro key name, advanced macro command keyword, or subroutine range name.

Check for these problems: An incorrectly spelled key name, keyword, or subroutine range name; a missing space between a macro command keyword and the command's first argument, or between a key name and the repetition number; or an undefined or nonexistent subroutine range name.

- For a {FORM} command, the include list, the exclude list, or the first column of the call table included something that 1-2-3 did not recognize as a key name (for example, a macro command).

Panels area has been disabled

Window not found or not unique

The window-name argument you specified for a {WINDOW-SELECT} or {WINDOW-ACTIVATE} command is not valid.

Specify a valid window-name argument. If you have more than one window with the same name open, make sure that the window-name argument includes the path and file extension. If the window-name argument includes spaces, make sure to enclose it in " " (quotation marks).

Worksheet area has been disabled

Cannot find specified library

The Dynamic Load Library (DLL) you specified for a {REGISTER} command does not exist in the directory you specified.

Check to see that you entered the correct path and file name.

Cannot find specified procedure in library

The procedure you specified for a {REGISTER} command does not exist in the Dynamic Load Library (DLL) you specified.

Check to see that you entered the correct procedure name.

Number of arguments does not match the number of letters in arg-types

In a {REGISTER} command, you specified more or fewer letters for the *arg-types* argument than the number of arguments you specified for the *arg-count* argument.

Check to see that the number of letters you specify for *arg-types* matches the number you specify for *arg-count*. For example, if *arg-count* is 3, *arg-types* must contain three letters, for example, "AAD".

The @function already exists in memory

The @function name you specified for the *alias-name* argument in a {REGISTER} command is already used by another @function in memory.

Use a different @function name for *alias-name*.

The @function is not registered in memory

The @function name you specified for the *alias-name* argument in an {UNREGISTER} command is not the name of an @function in memory.

Check to see that you correctly entered the name of a registered @function.

You must register an @function in memory with the {REGISTER} command before you can remove it from memory with {UNREGISTER}.

Cannot create route list

Not enough memory was available to create a route list.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

Cannot get current user name

You were sending or receiving a range of 1-2-3 data, and one of the following problems occurred:

- 1-2-3 cannot find your LOTUS.INI file.

Verify that LOTUS.INI is located in your Windows directory or in a directory on your DOS path.

- The library file LTSUNMG1.DLL is corrupted or was deleted from your hard disk.

If necessary, reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.

- Not enough memory was available to complete the operation.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

- There may be a problem with your network.

Contact your network administrator, or try again later.

Cannot invoke Version Manager

You were either saving a Solver answer or attempt as a scenario, or creating or merging versions from a range in a [1-2-3 mail file](#) and 1-2-3 could not load the library file C1WEMGR.DLL, required to use Version Manager.

The following conditions could have caused this error:

- Not enough memory was available to read the library file into memory.

To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.

- The library file was damaged or deleted from your hard disk.

Verify that the file C1WEMGR.DLL is in the 123R5WPROGRAMS directory. If necessary, reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.

- You are already using the maximum number of files your operating system allows.

Close some unnecessary files and repeat the operation that caused this error.

Cannot load file LTSMAIL3.DLL

You were sending or receiving a range of 1-2-3 data, and 1-2-3 could not load the library file LTSMAIL3.DLL. The following conditions could have caused this error:

- In the file LOTUS.INI, under [Mail Enabling], the "Program Path=" entry does not specify the directory where LTSMAIL3.DLL is located.

In the file LOTUS.INI, specify the correct directory, or move LTSMAIL3.DLL to the directory specified in LOTUS.INI.

- The file LTSMAIL3.DLL is corrupted or was deleted from your hard disk.

If necessary, reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.

- Not enough memory was available to load LTSMAIL3.DLL.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

- 1-2-3 cannot find your LOTUS.INI file.

Verify that LOTUS.INI is located in your Windows directory or in a directory on your DOS path.

- There may be a problem with your network.

Contact your network administrator, or try again later.

Cannot read from file

You were sending or receiving a range, and 1-2-3 encountered a file error.

- The file may be corrupted.

Clear the error message by pressing ESC and then press ENTER to see if 1-2-3 was able to read any of the file.

- Not enough memory was available to open the file.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

Cannot use Cancel with this worksheet

You tried to use a macro button that contains {ROUTERANGECANCEL} in a worksheet that is not part of a 1-2-3 mail file or is part of a 1-2-3 mail file that has already been sent and received.

This macro is reserved for internal 1-2-3 use only. See Macros for information on alternative macros you can use.

Cannot use Merge with this worksheet

You tried to use a macro button that contains {ROUTERANGEMERGE?} in a worksheet that is not part of a 1-2-3 mail file or is part of a 1-2-3 mail file that has not yet returned to the originator.

This macro is reserved for internal 1-2-3 use only.

To merge the data, you can copy and paste it instead.

Cannot use Route, Send or Reply with this worksheet

You tried to use a macro button that contains the macro {ROUTE?} in one of the following situations:

- In a worksheet that is not a valid 1-2-3 mail file.
- In a 1-2-3 mail file that has already completed its route.

This macro is reserved for internal 1-2-3 use only. See Macros for information on alternative macros you can use.

Cannot write over protected cells. Please unseal the destination file.

You tried to merge from the 1-2-3 mail file to cells in the original file that are protected.

Use File Protect to unseal the original file.

Clipboard option not supported

You ran a macro that tried to attach data from the Clipboard—such as a range, chart, or drawn object—to your mail message. Your current mail application does not let you attach data from the Clipboard to a mail message.

- Check the macros for {SEND-MAIL} keywords and remove the Clipboard argument.
For example: Change {SEND-MAIL "Jane Jones";"Jon Smith";"Check out this!";;Yes} to {SEND-MAIL "Jane Jones";"Jon Smith";"Check out this!";;No}.
- If you want to send a range, chart, or drawn object, save the entire file that contains the range, chart, or drawn object and attach it to your mail message.

Destination file does not contain enough worksheets to merge

You tried to merge a 3D range from a 1-2-3 mail file, but the range you are merging contains more worksheets than the range in the original file. The size of the range you are merging must match the size of the destination range.

- Add blank worksheets to the range in the original file and then merge the range again.
- Copy and paste the data instead.

Error loading the file LTSUNMG1.DLL. The path listed in LOTUS.INI is incorrect.

You were sending or receiving a range of 1-2-3 data, and 1-2-3 could not load the library file LTSUNMG1.DLL. The following conditions could have caused this error:

- In the file LOTUS.INI, under [USER NAME SERVICE], the "Program Path=" entry does not specify the directory where LTSUNMG1.DLL is located.

In the file LOTUS.INI, specify the correct directory, or move LTSUNMG1.DLL to the directory specified in LOTUS.INI.

- The file LTSUNMG1.DLL is corrupted or was deleted from your hard disk.

If necessary, reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.

- Not enough memory was available to load LTSUNMG1.DLL.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

- 1-2-3 cannot find your LOTUS.INI file.

Verify that LOTUS.INI is located in your Windows directory or in a directory on your DOS path.

- There may be a problem with your network.

Contact your network administrator, or try again later.

Error starting mail application

An error occurred when 1-2-3 tried to start your mail application.

- Refer to the Read.me file for information about the installation path for your mail application.
- Make sure the network is running.

File does not contain enough worksheets to complete the merge

In a 1-2-3 mail file, you tried to merge a whole 3D range that was returned to you, but the 3D range that you tried to merge contains fewer worksheets than the 3D range in the original worksheet file.

- If you selected a single cell and then clicked Merge, select the range instead, and click Merge. 1-2-3 will merge the selected range.
- Copy and paste the data you want to merge from the 1-2-3 mail file to the original file.
- If you accidentally deleted a worksheet from the 1-2-3 mail file, you can return to your mail application and reopen the 1-2-3 mail file; then, without deleting any worksheets, merge the range.

Mail application error

An error occurred in your mail application.

- Refer to your mail application's documentation for information about the error.
- If you used `{SEND-RANGE}`, make sure the *to* argument is a valid range name or user name.
- If your mail configuration changed, make sure the mail server reflects your new configuration. For example, you changed your Lotus Notes ID but the corresponding changes were not made to the Notes server.

Then try to send the mail message again. If you changed your mail configuration while using 1-2-3, restart 1-2-3 and try again.

- If there is a problem with your network, contact your network administrator or try again later.
- Close and reopen your mail application, and send the mail message again.
- Restart Windows, and send the mail message again.

Mail application is not installed

You chose File Send Mail or ran a macro to send a mail message, but no mail application is installed.

Install a mail application such as Lotus Notes or cc:Mail.

Mail login error

The following conditions could have caused this error:

- You entered an incorrect login name or password, or an incorrect post office path (cc:Mail users only) to access your mail application.

To send mail, you must first log in with the correct name and password.

- You tried to use `{SEND-RANGE}` without first using `{SEND-RANGE-LOGIN}`.

Your mail application requires that you log in before you can send mail. Rewrite the macro using `{SEND-RANGE-LOGIN}` before `{SEND-RANGE}`.

- In the file WIN.INI, in the [LOTUSMAIL] section, the "Program=" entry does not specify the directory where your Lotus mail application is located.

In the file WIN.INI, specify the correct directory, or move your mail application to the directory specified in WIN.INI.

- The DOS utility SHARE.EXE is not running.

You must start SHARE.EXE before you start Windows.

To start SHARE.EXE before every Windows session, add the following line to your AUTOEXEC.BAT file, substituting the location of your DOS directory for `d:\dos_dir`:

```
d:\dos_dir\SHARE
```

See your DOS documentation for information about SHARE.EXE.

- Your mail configuration changed. For example, you changed your Lotus Notes ID but the corresponding changes were not made to the Notes server.

Make sure that the mail server reflects your new configuration and try again.

If you changed your mail configuration while using 1-2-3, restart 1-2-3 and try again.

- There may be a problem with your network.

Contact your network administrator, or try again later.

Mail system error

A Windows system or resource error occurred while you sent the mail message.

- Close another application to make more resources available, and send the mail message again.
- Restart Windows, and send the mail message again.

Range must be a single column or single row, with no more than 100 cells

You selected a range with more than one row or column, or with more than 100 cells.

- Change the range to only one column or one row containing no more than 100 cells. Make sure that each cell containing recipient names contains no more than one entry.

For example, do not enter "User1, User2" in a single cell. Enter "User1," in one cell and "User2" in another cell.

- If you have more than 100 names or entries, try to use two or more {SEND-MAIL} macros to accomplish your task.

Recipient name does not have a unique match

You used {SEND-MAIL} or {SEND-RANGE} and entered a name in the *to* or *cc* argument that either does not exist in your mail application's database of recipient names, or is similar to another name in the database.

- Check the database of recipient names to make sure that the name exists and that you entered it correctly.
- Choose File Send Mail to send the mail message.

Text is too large

The amount of text in the message exceeds your mail application's limit

You received one of the messages above because you identified a range that contains more text than your mail application will accept.

Reduce the amount of text or reduce the size of the range.

Timeout waiting for mail application to respond

Your mail application did not respond within the expected amount of time.

- Determine if your mail application is already running.
- Determine if a condition exists that might keep 1-2-3 from communicating with your mail application and correct the situation. For example, the mail application may be waiting for you to enter a password.
- Try running your mail application from Windows, and send the mail message from there or return to 1-2-3 to send it from there.

Too many recipient names

The number of recipients you tried to send your mail message to exceeds the limit of your mail application.

Reduce the number of names and send the mail message again.

Unable to send a copy of the file back to "user name." Please forward the mail message saved in your mail application.

The originator of this range specified that he or she wants to receive a copy of the range as it passes from recipient to recipient on the route list. 1-2-3 is unable to send this copy back to the originator, possibly due to a network problem.

In your mail application, forward to the originator the mail message containing the range. If there is a network problem, contact your network administrator or try to forward the message again later.

Cannot find VIM.DLL

Your mail application requires that VIM.DLL be installed in order to send 1-2-3 mail files. Note that VIM.DLL is not required for other mail features in 1-2-3.

The following conditions could have caused this error:

- VIM.DLL is not located in the directory for your mail application or in a directory on your path.
Move the file to your mail application's directory or to a directory on your path; or change your path (in AUTOEXEC.BAT) to include the directory that contains VIM.DLL. Then try to send the message again.

Note If you change AUTOEXEC.BAT, you must restart your computer in order for the change to take effect. See your DOS documentation for information about changing your path.

- The file is damaged or missing from your hard disk.

If necessary, reinstall your mail application. If the problem persists, contact Lotus Customer Support.

Error attaching file to mail message

The following conditions could have caused this error:

- You tried to send a range, but 1-2-3 was unable to attach the 1-2-3 mail file containing the range.
- You tried to attach a worksheet file to a mail message, but 1-2-3 could not find the file to attach.

If the file you are attaching is on a network drive, make sure you are still connected to the network and that there are no network problems. If the file you are attaching is on a disk, make sure the drive door is closed.

The range for pin characters must include at least 3 columns

You used [Tools Map Ranges & Title](#) to specify a range for the [pin characters](#) in a map, but the range you specified does not contain enough columns.

The range for pin characters must contain at least three columns, containing the following information:

- Characters
- Latitude
- Longitude

Choose the command again and specify a range of three columns. See [Adding Pin Characters to a Map](#) for more information.

Error accessing map

You were creating or using a map, and 1-2-3 was unable to display the map.

- Your computer may be low on memory.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

- An internal 1-2-3 error occurred. Do one or more of the following:

Delete the map and recreate it.

Exit and restart 1-2-3 or Windows.

Restart your computer.

If the problem persists, reinstall 1-2-3 or contact [Lotus Customer Support](#).

Error saving new custom name

In the Region Check dialog box, you tried to define a custom name, but 1-2-3 encountered a file error when it tried to save the new name. 1-2-3 saves custom names for a map type in the initialization file (a file with the extension .INI) for that map type. The initialization files for map types are stored in the MAPDATA subdirectory of your 1-2-3 directory.

The following conditions could have caused this error:

- The disk has insufficient space or is write-protected.
Free disk space by deleting unneeded files from the disk, or remove write-protection.
- The directory or the initialization file has read-only access.
Use the Windows File Manager to change the access for the directory or the file to read-write.
- 1-2-3 could not access the initialization file because you are already using the maximum number of files your operating system allows. Do one of the following:
Use File Close to remove one or more of your active files from memory.
End another application program, if one is running.

Map data ranges must be in the same file as the map

You tried to create a map from data in another file.

Select a range of map data in the current file, or create the map in the file containing the map data.

There are no maps installed

You tried to create a map, but 1-2-3 could not find any map types.

- In the file 123R5.INI, located in your Windows directory, check that the section [MAPS] contains at least one entry that defines a map type; for example, "TEMPLATE1=MAPUSA01".

If no [MAPS] section exists, or no map types are listed, use the Customize features option in 1-2-3 Install to reinstall the Mapping feature. Then try to create the map again.

- Check that the file 123R5.INI contains a section for the map type. The file should contain a section for each map type listed under [MAPS]. For example, under the section [MAPS], a section [MAPUSA01] should list the name and .INI file for the map of the continental United States.

If no section exists for the map type, use the Customize features option in 1-2-3 Install to reinstall the Mapping feature. Then try to create the map again.

- In the file 123R5.INI, under [MAPS], check that the entry "Path=" contains the path to the directory MAPDATA in your 1-2-3 directory (for example, "Path=C:\123R5\W\MAPDATA"), and that the directory MAPDATA contains files for the map you want to create. For example, if you are creating a map of the United States, the files USA.INI, USA.TV, and USA.TVC must be in your \MAPDATA directory.

Correct the path name, save the 123R5.INI file, then try to create the map again.

If the problem persists, reinstall 1-2-3 or contact Lotus Customer Support.

Unable to start the Map Viewer

You tried to open the Lotus Map Viewer to edit a map, but 1-2-3 could not start the viewer.

The following conditions could have caused this error:

- The viewer is in use by another application.

Close the viewer, and then return to 1-2-3 and try to open the viewer again.

- The viewer is not registered in Windows as an OLE server.

Restart 1-2-3 to register the viewer. For more information, see your Windows documentation for the Registration Info Editor.

- The executable file for the viewer (L1WMAP.EXE) was damaged or deleted from your hard disk.

Verify that the file L1WMAP.EXE is in the 123R5W\PROGRAMS directory. If necessary, use the Customize features option in 1-2-3 Install to reinstall the Mapping feature. If the problem persists, reinstall 1-2-3 or contact [Lotus Customer Support](#).

Cannot find the map's configuration files

1-2-3 cannot find one or more of the configuration files for the map type. Map configuration files are files with the extensions .INI, .TV., and .TVC. The .INI file for the map type is listed in the file 123R5.INI, located in your Windows directory.

The following conditions could have caused this error:

- In 123R5.INI, in the section [MAPS], the path listed in the entry "Path=" is incorrect.
Make sure "Path=" contains the path to the directory MAPDATA in your 1-2-3 directory; for example, "Path=C:\123R5\W\MAPDATA".
- The .INI, .TV, and/or .TVC files were damaged or deleted from your hard disk. Below the [MAPS] section in 123R5.INI, there is a section for each map type listing the .INI file for that map type. The .TV and .TVC files use the same name as the .INI file, but with the extension .TV or .TVC; for example, WORLD.INI, WORLD.TV, and WORLD.TVC.

Verify that the configuration files are in the directory listed in "Path=". If necessary, use the Customize features option in 1-2-3 Install to reinstall the Mapping feature. If the problem persists, reinstall 1-2-3 or contact [Lotus Customer Support](#).

Cannot create map

You tried to use {MAP-NEW} or {MAP-REDRAW}, and one of the following problems occurred:

- 1-2-3 could not determine from the range of map data which type of map you want to create, and no *map-type* argument was specified.

Use the *map-type* argument to define the map type and then run the macro again.

- The range of map data you specified is blank or does not contain map codes or region names in the leftmost column.

Specify a range that contains map codes or region names in the leftmost column.

- 1-2-3 encountered a map code or region name that it did not recognize.

Do one of the following:

- Revise the map codes or region names to conform to those recognized by 1-2-3. For the list of recognized codes or names for the maps that come with 1-2-3, see the .WK4 file for the map type, located in the MAPDATA subdirectory of your 1-2-3 directory. For example, see the file C:\123R5\MAPDATA\WORLD.WK4 if you are creating a map of the world.
- Try to create the map again using Tools Map New Map, and when the Region Check dialog box appears, correct or create a custom name for the unrecognized code or name.

Cannot paste map to another file because links to map data would be lost

You copied or cut a map to the Clipboard and then tried to paste the map to another file. A map must be in the same file as the range of data on which it is based. Pasting the map to another file would break the links to the range of map data.

- If you cut the map and want to restore it to its original location, return to the original file and choose Edit Paste. Links to the range of map data will be restored. You can also choose Edit Undo if you have not performed any other commands or actions since you cut the map.
- Copy the range of map data to the other file, then recreate the map in that file.
- Choose Edit Paste Special to copy a picture of the map to the other file. This picture will not be linked to any data and will not change when you change data in the worksheet.

OLE 2.0 initialization failed. Make sure that the OLE libraries are the correct version.

You double-clicked a map to open the Lotus Map Viewer, but an error occurred starting the viewer.

To ensure that you have the correct version of the OLE libraries, reinstall 1-2-3.

The Map Viewer can be run only from within another application

You tried to start the Lotus Map Viewer from the Program Manager or the File Manager in Windows.

You must start the viewer from within an application, such as 1-2-3.

There is not enough memory to initialize the Map Viewer

You double-clicked a map to start the Lotus Map Viewer, but 1-2-3 cannot start the viewer because there is not enough memory.

To free memory, close any unnecessary files or applications. For more information on freeing memory, see Appendix B in the *User's Guide*.

Cannot zoom in further.

You tried to zoom the map, but no further level of detail is available.

You can purchase [map overlays](#) that provide more detail. For more information see [Purchasing More Maps](#).

This file is already in use. Use a new file name or close the file in use by another application.

You chose Map Add Overlay in the Lotus Map Viewer, but the overlay you selected is locked by another user on the network.

Choose Map Add Overlay again and select a different overlay, or try again when the overlay file is available.

Out of memory

You must free enough memory to perform the operation that caused this error message. If you are using a shared file, either your computer or the server could be out of memory. To free memory on your computer, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.

Note When 1-2-3 displays this error message, it erases the undo history. There isn't enough memory for 1-2-3 to store what you just did for Undo.

- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

Not enough memory to load driver file

Not enough memory was available to load the printer or database driver you specified. If you are using a shared file, either your computer or the Lotus Notes server could be out of memory. To free memory on your computer, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.
- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

If the driver is a printer driver, you can prevent this error message from occurring in the future by making the driver your default printer driver. Choose File Printer Setup and select the correct printer and port.

Out of memory

You must free enough memory to perform the operation that caused this error message. If you are using a shared file, either your computer or the Lotus Notes server could be out of memory. To free memory on your computer, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.

Note When 1-2-3 displays this error message, it erases the undo history. There is not enough memory for 1-2-3 to store what you just did for Undo.

- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

Out of memory. Edit Undo disabled.

You must free enough memory to perform the operation that caused this error message. To free memory, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.

Note When 1-2-3 displays this error message, it erases the undo history. There is not enough memory for 1-2-3 to store what you just did for Undo.

- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

Not enough Windows resources to complete the operation

Because you have run out of Windows resources, your 1-2-3 screen display may not appear correctly. To regain Windows resources, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.
- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

If you still do not have enough Windows resources, exit and then restart 1-2-3 and Windows.

A network error has occurred

Invalid or unsupported file search attribute

No license directories were found

No licenses are currently available

No licenses were found

Unable to write to log file

Cannot open printer driver

You chose File Printer Setup or File Print and then chose OK. However, the Windows printer driver could not be loaded into memory.

Install the printer driver from the Windows Control Panel, or choose File Printer Setup and select another printer.

Cannot print ranges that are not in memory

The following conditions could have caused this error:

- You tried to print a range from a file that is not in memory or from an external database table.
Print ranges only from active files.
- You used a print range that included a file reference but did not include a path.
Include a path in the file reference.

Device driver not installed

You tried to print, but the Windows printer driver is not installed.

Install the printer driver from the Windows Control Panel, or choose File Printer Setup and select another printer.

Error loading fallback table

You used /Print, but the file specified in the statement "fallback table =" in the [PRINTER] section of 123R5.INI was damaged or deleted from your hard disk.

Make sure the file name is correct, and recopy the file to your hard disk if necessary.

General spooler error

A problem with your printer occurred.

Check the following:

- Make sure your printer is turned on, is on line, and has paper in it.
- Make sure that you are using the correct printer cable and that the cable is firmly attached to your printer and your computer.
- Make sure that Windows is set up properly for printing.
- Make sure that your print server is not out of disk space.

Then try to print again.

For more information, see your Windows documentation.

Invalid \nnn code in Setup String

You entered an invalid setup string.

Be sure each backslash in the setup string is followed by at least three digits. See your printer manual to be sure the setup string you entered represents a printer control code.

Invalid print range

You specified a print range that is not in an active file.

Specify one or more ranges in an active file as the print range, or choose [File Open](#) to open the file containing the range you tried to print.

Left margin equals or exceeds right margin

1-2-3 cannot print if the left margin equals or is wider than the right margin.

Select /Print [E,F,P] Options Margins and change the left margin, right margin, or both.

Margins equal or exceed page size

1-2-3 cannot print if the combined left and right margin settings are greater than the width of the paper or if the combined top and bottom margin settings are greater than the length of the paper.

Use [File Page Setup Margins](#) to change the left and/or right margins or the top and/or bottom margins.

Margins, header and footer equal or exceed page length

The combined length of the top and bottom margins and the header and footer equals or is longer than a full page, leaving no space on the page for the print range.

Do one of the following:

- Select /Print [E,F,P] Options Margins and change the top and/or bottom margins.
- Select /Print [E,F,P] Options Pg-Length and change the page length.
- If you have not specified header or footer text, you can also select /Print [E,P] Options Other Blank-Header.

No Printer Driver Installed

You tried to print, select a default printer, or change printer settings. However, you do not have any printer drivers installed in your Windows configuration.

Install one or more printer drivers from the Windows Control Panel and then choose File Print to print again.

No print range specified

You tried to print without specifying a print range.

Choose /Print [E,F,P] Range or :Print Range Set to specify a print range.

No print range specified

You tried to print without specifying a print range.

Choose /Print [E,F,P] Range or :Print Range Set to specify a print range.

Not enough memory to print

Not enough memory is available to print.

For information on freeing memory, see Appendix B in the *User's Guide*.

Print job canceled from spooler

Windows could not complete your print job.

Make sure that Windows is set up properly for printing. For more information, see your Windows documentation.

Print settings name does not exist

You used /Print [E,F,P] Options Name Use or Delete and entered a print settings name that does not exist.

Check to be sure you spelled the print settings name correctly.

To check for the correct spelling, do the following:

1. Select /Print [E,F,P] Options Name Use or Delete.
2. Press F3 (NAME) to see a list of the print settings names in the current file.
3. Select the correct name.

Too many print settings names; cannot create new one

You tried to create a print settings name but have already created the maximum number of print settings names (254).

Use /Print [E,F,P] Options Name Delete to delete any print settings names you no longer need. Then use /Print [E,F,P] Options Name Create again to create the new print settings name.

Unable to access output device

The following conditions could have caused this error:

- The printer you selected is not connected to a port.

Use the Windows Control Panel to assign the printer to a valid output port, or make the printer active on an output port.

- There are not enough Windows system resources to print. There may be other applications running in Windows.

Exit some of the currently running applications, and try printing again.

Unable to access output device

The following conditions could have caused this error:

- You have not assigned any printers to a port through the Windows Control Panel.
Use the Windows Control Panel to assign the printer to a valid output port, or make the printer active on an output port.
- There are not enough Windows system resources to print. There may be other applications running in Windows.
Exit some of the currently running applications, and try to print again.

Unable to print

The following conditions could have caused this message to appear:

- You canceled the print job.
- The Windows printer driver file is damaged.

Install the device driver from the Windows Control Panel, or choose File Printer Setup and select another printer.

A range name cannot begin with << >>

The following conditions could have caused this error:

- For Range Name Add, you specified a range name that started with << >> (double angle brackets).
- For Range Name Use Labels, the labels range you specified contained a label that started with double angle brackets.
- For Tools Database Create Table or Tools Database Connect to External, you specified an external table range name that started with double angle brackets.

Range names cannot begin with double angle brackets because 1-2-3 uses those characters to denote file references. To name a range in another active file, move the cell pointer to that file before using Range Name Add.

Bin range cannot span worksheets

You specified a 3D bin range when using Range Analyze Distribution.

Specify a single-sheet, single-column bin range.

Cannot create a named range that spans files

Cannot create names from a range of labels that is not in memory

You were using Range Name Use Labels and one of the following problems occurred:

- You specified a range in a file on disk as the labels range. The labels range must be in an active file.
Before you use Range Name Use Labels, use File Open to read into memory the file that contains the labels range.
- When specifying a labels range in another active file, you used a file reference that did not include a path or extension.

Choose Range Name Use Labels and select the Range text box. Then press (F3) NAME and select the appropriate file name from the "In file" drop-down box. 1-2-3 automatically includes the path and extension when you use this method to create the file reference.

Cannot invert matrix

The following conditions could have caused this error:

- You chose Range Analyze Invert Matrix or Range Analyze Regression and entered a range that contains two identical columns of values.

Change a value in one of the two columns.

- You chose Range Analyze Invert Matrix or Range Analyze Regression X-range and entered a range that contains a column or row of zeros.

Enter a value that is greater than or less than zero in the row or column.

- You chose Range Analyze Invert Matrix or Range Analyze Regression X-range and entered a range that contains a column of values, all of which would equal the values in another column in the range, if multiplied by a constant. For example, if column A in range A:A1..A:C3 contains the values 2, 6, and 8, and column C contains the values 4 ($2*2$), 12 ($6*2$), and 16 ($8*2$), 1-2-3 cannot invert the matrix.

Change a value in one of the two columns.

- You chose Range Analyze Invert Matrix or Range Analyze Regression X-range and entered a range that it is not mathematically possible to invert or a range that 1-2-3 cannot invert without producing inaccurate results.

Specify another range, or change the values in the current range.

Data range and sort keys must be in memory

The following conditions could have caused this error:

- You specified a sort key that was in a file on disk.
Use Range Sort and specify a sort key in the range you are sorting.
- You specified a sort key that was in an active file, but you used a file reference that did not include a path.

Choose Range Sort again. Press F3 (NAME) and select the file name from the "In file" drop-down box. 1-2-3 automatically includes the path when you use this method to create the file reference.

Invalid date

The following conditions could have caused this error:

- You tried to use Range Fill to fill a range with dates and specified a date with a date number less than 1 (January 1, 1900) or greater than 73050 (December 31, 2099) as the start value.
Specify a date that has a date number from 1 to 73050 as the start value.
- You tried to use a date that does not exist, such as February 29, 1990, with a Tools Database or Query command. You may have typed a date incorrectly.
Specify an actual date and use the Tools Database or Query command again.
- You chose Range Fill and specified the start value using a date, time, or currency format that is different from the date, time, or currency format you specified with Tools User Setup International.
Choose Range Fill and specify the value in the format you specified with Tools User Setup International or choose Tools User Setup International and change the format.
- You used Merge Versions and Scenarios and specified an invalid date in the "Modified on or after date" text box.

Invalid format line

You chose Range Parse and the input column you specified contained an invalid format line. After the | (vertical bar), format lines can contain only the following characters:

L V D T S > *

Use F2 (EDIT) and the editing keys to correct the invalid format line.

Note 1-2-3 accepts uppercase and lowercase letters in format lines.

Invalid matrix

You specified a matrix that contains blank cells or labels.

Specify a matrix that contains only numbers or formulas that evaluate to numbers.

Invalid output range

The following conditions could have caused this error:

- You used Range Analyze Regression and did not specify an output range or specified an output range that is too small.

Choose Range Analyze Regression and specify either a single-cell output range or a multiple-cell output range that has nine rows and a minimum of four columns, with an additional column for each X variable after the second X variable.

- You used Range Analyze Distribution and specified a bin range that is in the rightmost column of a worksheet or whose bottommost cell is in the last row of a worksheet.

Specify a bin range that is separated from the right and bottom edges of a worksheet by at least one column and one row.

- You used Range Parse and specified the range name of an external table as the output range.

Specify a range in an active file.

Invalid sort range or sort key

Invalid X range

The following conditions could have caused this error:

- You did not specify an X range.

Choose Range Analyze Regression and specify an X range.

- You chose OK in the Range Analyze Regression dialog box without specifying any of the necessary ranges (the X, Y, and output ranges).

Choose Range Analyze Regression and specify an X range, Y range, and output range.

- You specified an X range that contained labels, formulas, or blank cells, for which 1-2-3 cannot calculate a value.

Invalid Y range

The following conditions could have caused this error:

- You did not specify a Y (dependent variable) range.
Choose Range Analyze Regression and specify a Y range.
- You specified a Y range more than one column wide.
Choose Range Analyze Regression and specify a single-column Y range.
- The number of rows (number of observations) in the Y range does not equal the number of rows in the X range.
Choose Range Analyze Regression and specify a Y range with the correct number of rows.
- You specified a Y range that contains labels, formulas, or blank cells, for which 1-2-3 cannot calculate a value.

Key column outside of Sort range

You used Range Sort to specify one or more sort-key fields that were not in the range you were sorting.

Do one of the following:

- Choose Range Sort and in the Range text box specify a range that includes the fields you want to sort by.
- Choose Range Sort and under Sort by specify sort-key fields that are in the range you are sorting.

Matrixes incompatible for multiplication

You chose Range Analyze Multiply Matrix and specified two matrix ranges that are incompatible.

Specify the ranges so that the number of columns in the first matrix equals the number of rows in the second matrix.

Matrixes too large for multiplication

You chose Range Analyze Multiply Matrix and specified two matrix ranges that are too large.

Specify the ranges so that the number of rows in the first matrix multiplied by the number of columns in the second matrix is less than or equal to 6553.

Matrix too large for inversion

You chose Range Analyze Invert Matrix and specified a range with more than 80 columns or rows.
Specify a range with no more than 80 columns or rows.

Missing sort key

You tried to specify a secondary sort key without a primary sort key, or an extra key field without a primary key and/or secondary sort key.

Choose /Data Sort and specify both a primary and secondary sort key.

More than 75 X variables

You chose Range Analyze Regression and specified an X range that has more than 75 columns (the maximum number of independent variables).

Choose Range Analyze Regression and specify an X range with no more than 75 columns.

Not a square matrix

You chose Range Analyze Invert Matrix and specified a range in which the number of columns does not equal the number of rows.

Specify a range with the same number of columns and rows.

Parse format line can only be created for labels

The cell pointer was in a blank cell or a cell containing a value when you chose Range Parse and entered a label in the Format line text box to create a format line.

Move the cell pointer to a cell containing a label, or enter a label prefix (' " or ^) in the current cell. Then choose Range Parse and enter a label in the Format line text box.

Parse input range must start with format line

You chose OK in the Range Parse dialog box and the first cell in the input column does not contain a format line.

Choose Range Parse to create a format line above the first long label you want to parse. Then specify an input column that includes the new format line and choose OK.

Parse ranges cannot span worksheets

You chose Range Parse and specified a 3D range in the Input column text box.

Specify a single-sheet, single-column range.

Range name does not exist

The following conditions could have caused this error:

- For Range Name Delete, /Range Name Note Create, or /Range Name Note Delete, you specified a range name that either did not exist or was undefined.

To delete an undefined range name, or to create or delete a note for an undefined range name, you must first reassign the name to a range with Range Name Add or Range Name Use Labels.

- You used Edit Go To or F5 (GOTO).

The active file you specified as the cell-pointer destination is not stored in the current directory or does not have the default file save extension, or you did not include a path or extension in the file reference.

Respecify the cell-pointer destination, adding the appropriate path or extension to the file reference.

Too few observations for number of variables

After you chose Range Analyze Regression, you specified an X (independent variable) range with an insufficient number of rows (number of observations). The X range must have at least one row more than the number of its columns and must have an additional row if you plan to select Y-intercept Compute.

Choose Range Analyze Regression and specify an X range of sufficient size.

Adjustable cells are invalid

The range of cells you specified contains a syntax error, such as an undefined range name or invalid character.

Specify the adjustable cells again, making sure to specify one or more cells that contain numbers (not formulas) and are unprotected.

All constraints are binding for this answer

You selected Nonbinding constraints in the Solver Report dialog box, but there are no nonbinding constraints for the current answer.

All constraints are satisfied, but optimal cell equals ERR or NA

This attempt satisfies all of the constraints you specified, but it is not considered to be an answer because the optimal cell evaluated to ERR or NA.

Cannot create the report file

Solver is unable to create a new worksheet file for the report you specified. You may be out of memory or at the maximum number of worksheets 1-2-3 allows, or the current directory may be on a write-protected disk.

Cannot find an optimal answer "reason"

Solver cannot find an optimal answer to the problem, either because the optimal cell is not constrained or because something else prevented Solver from choosing an answer as optimal.

Try adding an additional constraint to the problem that limits the value of the optimal cell.

Cannot initialize Solver

1-2-3 cannot find the file(s) necessary to start Solver.

Verify that the files L1TSOLV1.DLL and L1TSOLV.TBL are in the 123R5WPROGRAMS directory. If necessary, reinstall Solver by running Customized Install.

Cannot invoke Version Manager

You were either saving a Solver answer or attempt as a scenario, or creating or merging versions from a range in a [1-2-3 mail file](#) and 1-2-3 could not load the library file C1WEMGR.DLL, required to use Version Manager.

The following conditions could have caused this error:

- Not enough memory was available to read the library file into memory.

To increase available memory, close any unnecessary files or applications. For more information on increasing available memory, see Appendix B, "Using Memory Efficiently," in the *User's Guide*.

- The library file was damaged or deleted from your hard disk.

Verify that the file C1WEMGR.DLL is in the 123R5WPROGRAMS directory. If necessary, reinstall 1-2-3. If the problem persists, contact Lotus Customer Support.

- You are already using the maximum number of files your operating system allows.

Close some unnecessary files and repeat the operation that caused this error.

Cannot find any more answers

You selected Solve, but Solver could not find any additional answers to the problem.

If you require additional answers to the problem, alter the value in one or more of the problem cells and then solve the problem again.

Cannot finish solving this problem "reason"

Solver cannot finish finding answers to this problem, either because an @function in one of the problem cells has too many arguments, because a formula in one of the problem cells is too long, or because the problem itself is too complicated.

Change the problem so that it is smaller and less complex, and then try to solve it again.

Cannot optimize a constraint cell

You selected one of the problem's constraint cells as the optimal cell. You cannot use the optimal cell as a constraint cell (though you can use it as an adjustable cell).

Cannot solve this problem "reason"

Solver cannot solve this problem, either because the formulas are contradictory, because the @LOOKUP function offset is not constant, or because there is an unsupported @function in one or more of the problem cells.

Adjust or remove the formula causing the error and then try to solve the problem again.

For a list of supported @functions, see [@Functions in Solver Problems](#).

Cannot write a value into protected cell "cell address"

Solver cannot display an answer it has found to the problem because one of the adjustable cells is protected and global protection is turned on.

Choose File Protect and remove the check from Protection to disable global protection or use Style Protection to turn off the protection on the adjustable cells.

Cell format not available for Answer table report

The Answer table report is available in table format only.

Cell format not available for How solved report

The How solved report is available in table format only.

Cell "cell address" refers to an unsupported string

Solver cannot use the formula in this cell because it contains a text argument or is dependent on another cell that contains a string argument or a label.

Constraint cells are invalid

The range of cells you specified contains a syntax error (such as an undefined range name or an invalid character), or the range does not include any cells that contain formulas that are valid constraints. Valid constraints are simple logical formulas that use the logical operators = >= <= > and < (for example, +A1+A2>=C1/D4).

Constraints and the optimal cell must not refer to constraint cells

Constraint cells and the optimal cell cannot contain formulas that refer to other constraint cells.

Difference amount must be a number

You specified a difference amount that is not a valid number.

Specify a value or a formula that results in a value in the "For differences >=" text box.

Estimated number of answers must be an integer between 1 and 999

You requested an invalid number of answers.

Specify an integer between 1 and 999.

First answer number is either non-numeric or invalid

You specified an answer number that is not within the range 1 to n, where n is the number of answers Solver found.

Specify an integer that corresponds to a valid Solver answer number.

Guess value must be a number

You entered a guess containing an illegal character.

Specify a value or a formula that results in a value as the guess value.

Incorrect function syntax in cell "cell address"

The formula in the cell contains an @function that has an invalid range as an argument, for example, 3+@SIN(A1..A2).

Insufficient precision available when using cell "cell address"

Solver cannot solve the problem because you specified a problem that uses numbers that exceed the floating point precision on your computer.

If the values in the worksheet are very large, you can express them in a different metric by dividing all the cells by 1,000 (or some other scaling amount), or you can adjust or remove the formula causing the error and then try to solve the problem again.

Internal error

Solver could not finish solving the problem due to an internal error. Please record the error message 1-2-3 displays and contact Lotus Customer Support.

Invalid cell or range address

The following conditions could have caused this error:

- For a cell or range specification, you used a nonexistent address, such as JV4 or A1..Z9000; or a range address that was syntactically incorrect, such as <<QTR_1.WK3>>D1..<<QTR_1.WK4>>G20.
- For a cell or range specification, you used a nonexistent or undefined range name.

Use the navigator or press F3 (NAME) and select a valid range name, or use Range Name to associate the undefined range name with an address.

- When specifying an external table range name, you used a name that started with \$ or !; a name that included a period; or a name that duplicated a cell address.
- When specifying a cell or range in a file on disk, you did not include a path or extension in the file reference.
- You did not specify anything in a range text box.

Choose the command again and specify a range in the appropriate range text box.

- A cell specified as the location argument for a {DISPATCH} macro command contained an entry that did not evaluate to a location.
- You used File Save As to save a file as a shared file (.NS4), and the file is connected to an external database table.

You cannot save a file that is connected to an external database table as a shared file. Choose Tools Database Disconnect to disconnect from the database table before saving the file as a shared file.

Invalid use of range in cell "cell address"

The formula in the cell contains an invalid range (for example, 3+A1..A2).

Invalid scenario name

The following conditions could have caused this error:

After using Solver to solve a problem, you used Save or {SOLVER-ANSWER-SAVE} to save a Solver answer or attempt as a scenario, but you specified an invalid scenario name or did not specify a scenario name.

Use Save or {SOLVER-ANSWER-SAVE} again, making sure to specify a valid scenario name.

No answers exist to put in the worksheet

You selected Next, First, or Original in the Solver Answer dialog box, but Solver was not able to find any answers to the problem or 1-2-3 discarded the answers when a change to the worksheet file made 1-2-3 recalculate the file.

No significant difference exists between these two answers

You selected Differences in the Solver Report dialog box, but the two answers you specified differ by less than the value you specified for all problem cells.

Specify a lower comparison value and select Differences again.

No valid adjustable cells were specified

You selected Solve before you specified the adjustable cells in the problem, or the cells you specified were protected, blank, or did not contain values.

Specify the adjustable cells in the Adjustable cells text box before you try to solve the problem, and make sure that the cells you specify are not protected or blank and do not contain formulas or labels.

No valid constraint cells were specified

You selected Solve before you specified the constraint cells in the problem, or the cells you specified did not contain logical formulas.

Specify the constraint cells in the Constraint cells text box before you try to solve the problem and make sure the cells you specify contain logical formulas.

Optimal cell must be a single cell that depends on an adjustable cell

You specified an optimal cell that does not depend on the value in any of the adjustable cells, or you specified a multiple-cell range as the optimal cell.

Out of memory

You must free enough memory to perform the operation that caused this error message. If you are using a shared file, either your computer or the Lotus Notes server could be out of memory. To free memory on your computer, do one or more of the following:

- Use File Save As to save your active worksheet files, close the files, and then use File Open to read the files back into memory.
- If Edit Undo is turned on, use Tools User Setup to turn it off.

Note When 1-2-3 displays this error message, it erases the undo history. There isn't enough memory for 1-2-3 to store what you just did for Undo.

- Delete worksheets, files, formulas, and other data that you no longer need.
- If you have other programs in memory besides 1-2-3, end one or more of those programs.

Problem refers to undefined range name or a worksheet on disk

One or more of the problem cells is in a worksheet file on disk, or one or more of the problem cells is in a range whose name is no longer valid.

Make sure that all worksheet files referenced in the problem are open and that all range names contained in problem cells are defined.

Reports available only after solving

You used {SOLVER-REPORT} to generate a Solver report, but you cannot generate Solver reports until after you solve a problem.

The following conditions could have caused this error:

- You used {SOLVER-REPORT} before solving a problem.
- You solved a problem, but then you changed the worksheet before using {SOLVER-REPORT}, causing 1-2-3 to discard all the answers or attempts it found.

Use {SOLVER-DEFINE} or choose Solve in the Solver Definition dialog box to solve a problem, then use {SOLVER-REPORT} again.

Second answer number is either non-numeric or invalid

You specified an answer number that is not within the range 1 to n, where n is the number of answers Solver found.

Specify an integer that corresponds to a valid Solver answer number.

Solver cannot create its work files

Solver cannot create the temporary files it needs to solve the problem. You may be running low on available disk space or Solver may be attempting to write the temporary files to a write-protected disk.

Solver cannot delete its work files

Solver cannot erase from your disk the temporary files it uses to solve the problem. You may be running low on available disk space.

Solver cannot read its work files

Solver cannot read the temporary files it uses to solve the problem. You may be running low on available disk space or there may be a problem with the disk.

This answer has no inconsistent constraints

You selected Inconsistent constraints in the Solver Report dialog box, but the currently displayed answer to the problem does not contain any inconsistent constraints.

This attempt requires guesses. The Guess command is not supported in macros.

Solver has found an attempt that requires a guess value, but guessing is not supported in macros.

Run Solver from the menu.

This command is available only after solving

The following conditions could have caused this error:

- You used a command in a dialog box that Solver cannot execute until you solve a problem, or you used {SOLVER-ANSWER} or {SOLVER-ANSWER-SAVE} before solving a problem.
- You solved a problem before using {SOLVER-ANSWER} or {SOLVER-ANSWER-SAVE}, but then you changed the worksheet, causing 1-2-3 to discard all the answers or attempts it found.

Use {SOLVER-DEFINE} or choose Solve in the Solver Definition dialog box to solve a problem, then repeat the action that caused this error.

This command requires a guessable attempt in the worksheet

You selected a command that Solver cannot execute unless an attempt that requires guess values is displayed in the worksheet.

Select First or Next in the Solver Answer dialog box until an attempt that requires guesses is displayed in the worksheet. Then select the command again.

This command requires an answer in the worksheet

You selected a command that Solver can execute only if an answer (not an attempt) is displayed in the worksheet.

Select First or Next in the Solver Answer dialog box to display an answer in the worksheet and then select the command again. Do not select the command if Solver found attempts instead of answers.

This command requires an answer or attempt in the worksheet

You selected a command that Solver can execute only if an answer or attempt is displayed in the worksheet.

Select First or Next in the Solver Answer dialog box and then select the command again.

This command requires an attempt in the worksheet

You selected a command that Solver can execute only if an attempt (not an answer) is displayed in the worksheet.

Select First or Next in the Solver Answer dialog box to display an attempt in the worksheet and then select the command again. Do not select the command if Solver found answers instead of attempts.

Too many cells in By changing cell(s) range

The range you specified in the By changing cell(s) text box contains more than 100 unprotected cells that contain values. Specify a smaller range and choose OK again.

Too many report files already exist

Solver cannot create another table report because you have the maximum number of worksheet files open that 1-2-3 allows.

What-if limits couldn't be computed

You selected What-if limits in the Solver Report dialog box, but Solver cannot determine the minimum or maximum limits for the current answer.

Could not find a solution -- try changing By changing cell(s) value(s)

The Backsolver cannot find an answer to your problem. Change the value(s) in the By changing cell(s) and then try to solve the problem again.

Error storing the By changing cell(s) value(s)

The Backsolver could not replace the value(s) in the By changing cell(s), either because the cell(s) are protected or because you are out of memory.

Invalid By changing cell(s)

You did not specify a cell or range in the By changing cell(s) text box or the cell or range you specified does not contain a value. The By changing cell(s) must contain values.

Invalid Make cell

You did not specify a Make cell or the cell that you specified does not contain a formula.

Invalid number

You did not specify the value you want the formula to return or the number you specified is not a valid 1-2-3 value.

Solver table initialization failure

1-2-3 was unable to read the file L1TSOLV.TBL.

Verify that the file L1TSOLV.TBL is in the 123R5\PROGRAMS directory. If necessary, reinstall Solver by running Customized Install.

A style name cannot begin with << >>

You chose Style Named Style and specified a name that started with or was enclosed in << >> (double angle brackets).

Style names cannot begin with or be enclosed in double angle brackets because 1-2-3 uses those characters to denote file references. To name a style in another file, move the cell pointer to that file before using Style Named Style.

Cannot hide all columns

You tried to use Style Hide to hide a range that included all of the columns displayed in the worksheet. A worksheet must have at least one displayed column.

- Reduce the number of columns to hide by at least one.
- Use Style Hide to redisplay another column that is currently hidden (if there is one), and then use Style Hide again to hide the columns you originally specified.

Cannot hide last visible worksheet

You chose Style Hide to hide a range that includes all of the worksheets displayed in a file. A file must have at least one displayed worksheet.

- Reduce the number of worksheets to hide by at least one.
- Use Style Hide to redisplay another worksheet that is currently hidden (if there is one), and then use Style Hide again to hide the worksheets you originally specified.

Currency symbol already exists

- You chose Modify Symbol and entered a new symbol for the selected currency. The currency symbol you entered is already being used for another currency.
- You entered a symbol consisting of a character or characters followed by a space and then more characters. 1-2-3 interprets the space as the end of the currency symbol. For example, if you modify a currency symbol to be MY \$ and then try to modify another symbol to be MY #, the second symbol appears to be the same as the first one.

Enter another currency symbol that is not being used; or choose Cancel in the Modify Symbol dialog box, select the currency that is using the symbol you want, and modify the symbol for that currency. Then you can enter that symbol for the currently selected currency.

Hidden columns not allowed in title region

You chose View Freeze Titles and selected Columns or Both when one or more columns between the cell pointer and the first displayed column were hidden.

Use Style Hide to redisplay any hidden columns in the titles area before using View Freeze Titles and selecting Columns or Both.

After setting the titles, you can use Style Hide again to hide those columns.

Justify range is full or line too long

1-2-3 could not complete the /Range Justify command for one of these reasons:

- You specified a single-row justify range, but too few rows remained in the worksheet to hold all the justified labels or to hold subsequent data in the column.

Choose /Range Justify again and specify either a wider single-row justify range or a multiple-row justify range.

Choose Style Alignment to wrap the text within a cell.

- You specified a multiple-row justify range, and either the range is too small to hold all the justified labels, or one of the labels in the justify range is too long for 1-2-3 to complete the justification.

Choose /Range Justify again and specify either a larger multiple-row justify range or a single-row justify range.

Choose Style Alignment to wrap the text within a cell.

Maximum number of text style changes exceeded

The number of text styles you have applied to worksheets in the current file exceeds the maximum number allowed for a file during a session.

Choose File Close and choose Yes to save your changes before closing the file. Then choose File Open to reopen it.

Unable to copy text style information

You tried to copy a range to a file in which the maximum number of text style changes has been exceeded for this session.

Save, close, and reopen the file you are copying the range to. Then copy the range again.

Cannot load .dll for status bar

You chose View Set View Preferences and selected the Status bar check box, but 1-2-3 cannot locate the file needed to display the status bar.

Check to be sure the file L1WSB02.DLL is in your 1-2-3 directory (for example, C:\123R5W).

If you cannot locate the file L1WSB02.DLL, you must reinstall 1-2-3 in order to display the status bar.

Cannot load .dll for SmartIcons

You chose Tools SmartIcons, clicked the SmartIcons selector on the status bar, or chose View Set View Preferences and selected the SmartIcons check box, but 1-2-3 cannot find the file needed to display SmartIcons.

Check to be sure the file L1WICN04.DLL is in your 1-2-3 directory (for example, C:\123R5W).

If you cannot locate the file L1WICN04.DLL, you must reinstall 1-2-3 in order to display SmartIcons.

Error while writing file

While you were using Tools SmartIcons Edit Icon, 1-2-3 was unable to save files to disk because there is not enough disk space or the disk is write-protected.

If there is not enough disk space, remove files from the disk, or specify another disk with more space.

If the disk is write-protected, use a disk that has read-write access.

Internal error: "error"

An internal error occurred.

Record the error message and contact Lotus Customer Support.

No macro file for custom icon

You selected an icon from the set of SmartIcons, but no macro was assigned to it when it was created or customized using Tools SmartIcons Edit Icon.

Choose Tools SmartIcons, select the icon in the Available icons list box, and then choose Edit Icon to assign a macro to the selected icon.

Cannot load spelling dictionary

You tried to check spelling by choosing Tools Spell Check or by executing a macro. However, 1-2-3 cannot find the file LOTUSxx1.DIC (where xx is the language code), which contains the language dictionary.

- Check the file LOTUS.INI in your Windows subdirectory to be sure the setting "User Path =" specifies a valid directory.
- If LOTUSxx1.DIC is not on your hard disk, you can run Customized Install and reinstall the files for Spell Check. For more information about returning to Install, see Chapter 1 in the *User's Guide*.

Cannot find user spelling dictionary

You tried to check spelling by choosing Tools Spell Check or by executing a macro, but 1-2-3 could not load or create the user dictionary because its directory is either invalid or read-only.

Check the file LOTUS.INI in your Windows subdirectory to be sure that the setting "User Path=" or "Data Path=" specifies a valid directory with read-write access.

Cannot find macro and @function dictionary

You tried to check spelling by choosing Tools Spell Check Options, and then selecting "Include macro/@function keywords, punctuation" so that 1-2-3 recognizes the spelling of macro keywords and @function names. However, 1-2-3 cannot find the file MACROAT1.DIC, which contains the dictionary of macro keywords and @function names.

- Check the file LOTUS.INI in your Windows subdirectory to be sure the setting "User Path =" specifies a valid directory.
- If MACROAT1.DIC is not on your hard disk, you can run Customized Install and reinstall the files for Spell Check. For more information about returning to Install, see Chapter 1 in the *User's Guide*.

Cannot globally allocate requested memory

There is currently insufficient memory to continue this action.

Save the file, choose File Exit to quit 1-2-3, and then restart 1-2-3.

This is not a valid directory

You specified an invalid path in the Directory path text box in Tools Spell Check Language Options.

1. Verify the directory path and name where the language dictionary file, LOTUSxx1.DIC (where xx is the language code), is stored.
2. Choose Tools Spell Check.
3. Choose Language Options.
4. Enter the correct path in the Directory path text box.

You have reached the maximum number of times you can choose Skip All for this spell check

You were using Tools Spell Check to correct unknown or duplicate words and chose Skip All to skip all instances of a word that 1-2-3 identified as unknown or a duplicate. However, you have exceeded the number of times 1-2-3 lets you choose Skip All in a single spell check session.

- Choose Skip instead of Skip All.
- Choose Cancel to terminate this spell check and then choose Spell Check again.

You have reached the maximum number of times you can choose Replace All for this spell check

You were using Tools Spell Check to correct unknown or duplicate words and chose Replace All to replace all instances of a word that 1-2-3 identified as unknown or a duplicate. However, you have exceeded the number of times 1-2-3 lets you choose Replace All in a single spell check session.

Choose Cancel to terminate this spell check and then choose Spell Check again.

Cannot manipulate grouped objects

You tried to manipulate or change a group of drawn objects, but the command you chose cannot be used with at least one of the drawn objects in the group.

Select the group, choose Edit Arrange Ungroup to ungroup it, and then change or manipulate the drawn objects individually.

Cannot manipulate locked objects

You tried to manipulate or change a drawn object, but it was locked. You cannot change a locked drawn object.

Select the drawn object, choose Edit Arrange Unlock to unlock it, and then change or manipulate it.

Charts, drawn objects, and pictures are hidden

You tried to create a chart or a drawn object, but have chosen, in View Set View Preferences, to hide charts and drawn objects.

1. Choose View Set View Preferences.
2. Under Show in current file, select the "Charts, drawings, and pictures" check box.
3. Choose OK.
4. Create the chart using Tools Chart or create the drawn object using the Tools Draw commands.

Too many levels of grouped objects

You used Edit Arrange Group to group a collection of grouped drawn objects, but one of the groups contained more than seven levels of groups. 1-2-3 allows up to seven levels of groups within a group.

1. Identify which group(s) contain more than seven levels of groups.
2. Select the collection of drawn objects, leaving out the group(s) that contain more than seven levels.
3. Choose Edit Arrange Group.

Unable to execute macro

You tried to execute a macro but there is currently insufficient memory.

Save the file, choose File Exit to quit 1-2-3, and then restart 1-2-3.

Marks the start of the @Function section of 123CRTF.H

Marks the end of the @Function section of 123CRTF.H

Marks the start of the Macro section of 123CRTF.H

Marks the end of the Macro section of 123CRTF.H

Marks the start of the Main Help section of 123CRTF.H

Marks the end of the Main Help section of 123CRTF.H

Brought to you by the 1-2-3 for Windows Doc Team and their friends

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