

Canvas Help Contents

Getting Started

[How to use Help](#)
[Elements of the Canvas desktop](#)
[Basic procedures](#)

Menu Commands

[File menu](#)
[Edit menu](#)
[Text menu](#)
[Object menu](#)
[Layout menu](#)
[Effects menu](#)
[Managers menu](#)
[Window menu](#)
[Help menu](#)

Tools and Palettes

[About external tools](#)
[The Tool Box](#)
[Tool Box tools](#)
[Object property palettes](#)

Keyboard Shortcuts

[Keyboard shortcuts for commands](#)
[Tool shortcuts](#)
[Layer shortcuts](#)
[Editing objects](#)
[Editing Bezier curves](#)

How to use Help

You can find information on Canvas tools and commands from the Contents screen or by using the Search feature. To return to the Contents screen after you read the instructions below, click the **Back** button or press the **B** key. For complete instructions on how to use Help, press the F1 key while the Help window is active.

Using the Contents screen

To access a Help topic:

- Click an underlined topic.
- Press TAB to highlight a topic and press ENTER.

Scrolling in the Help window

To view information that is not on screen:

- Press the UP ARROW and DOWN ARROW keys.
- Use the scroll bars with the mouse.

Returning to the previous topic

To view the last topic screen, click the **Back** button or press the **B** key.

Searching for a Help topic

To search for a Help topic based on a word or phrase, click the **Search** button or press the **S** key. The Search dialog box opens. Type a word or phrase to search for. The keyword list scrolls to the closest matching entry. Click the **Show Topics** button to see the related Help topics. Select a topic and choose the **Go To** button.

Closing the Help window

To close the Help window, choose **Exit** from the Help window's File menu or double-click the window's Control-menu box.

Related Topic:

[Context-sensitive help](#)

Context-sensitive help

You can get help on many items and commands while you are working in Canvas.

Help with menu commands

To find help for a menu command:

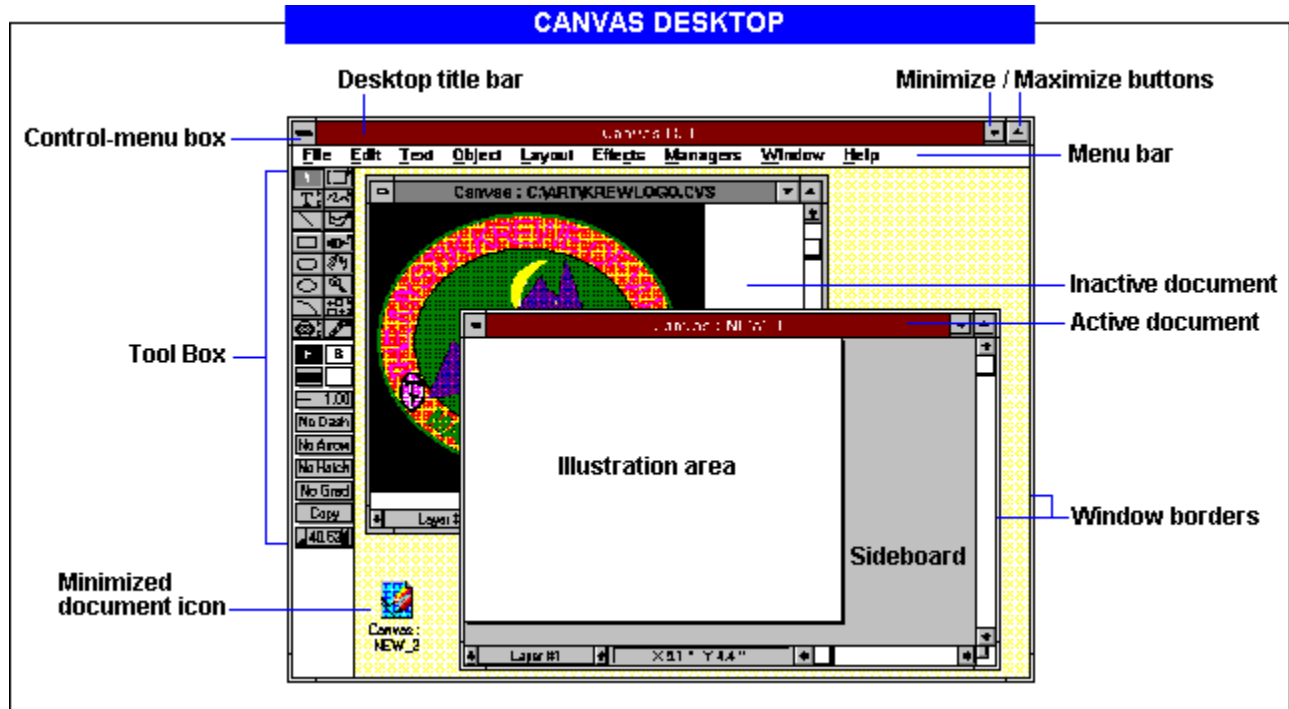
- If you use the mouse, point to the command name, press the mouse button, then press F1 without releasing the mouse button.
- If you use the keyboard, highlight the command by opening the menu and using the UP ARROW and DOWN ARROW keys to move the highlight bar to the command name, then press F1.

Help with dialog boxes

In dialog boxes, you can choose the Help button or press F1 to access the Canvas Help system.

Elements of the Canvas desktop

In Canvas, your work environment is the Canvas desktop. This is the main program window, illustrated below.



The window is like a desktop because it holds your documents and tools.

- You select tools and palettes from the Tool Box. You can place your most-used tools and palettes anywhere on the screen, in floating windows.
- You can work with multiple documents on the desktop. Each document appears in its own document window. Canvas creates a blank document named NEW_1 when it starts.
- You can move, resize, minimize and maximize documents and the Canvas desktop.

Select a desktop topic:

Title bar

Control-menu box

Maximize, Minimize, and Restore buttons

Window border

Scroll bars

Menu bar

Document window elements

Title bar

A title bar appears at the top of most Canvas windows and dialog boxes.

The title bar at the top of the Canvas desktop displays the program name. When a document is maximized, the file type and document name also appear in the desktop title bar.

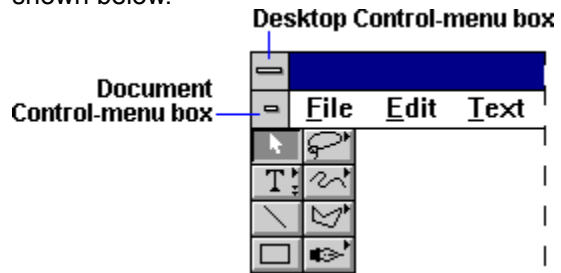


When a document is not maximized, its title bar displays the file format and document name.

The name of a palette or dialog box appears in the item's title bar. In some cases a file name also appears (for example, the name of a color set file in the Colors palette).

Control-menu box

A Control-menu box is located at the top-left corner of the Canvas desktop and each document window. When a document window is maximized, its Control-menu box appears at the left end of the menu bar, as shown below.



To open the Control menu, click the window's Control-menu box. The Control menu contains commands for moving, resizing, and closing the window.

You can double-click the Canvas desktop's Control-menu box to quit Canvas. This is the same as choosing **File: Exit** or choosing Close from the Control menu.

You can double-click a document's Control-menu box to close the document. This is the same as choosing **File: Close** or choosing Close from the Control menu.

Maximize, Minimize, and Restore buttons



A **Maximize button** appears at the top-right corner of the Canvas desktop and Canvas document windows. Click the Maximize button to enlarge the desktop to fill the screen or to enlarge a document to fill the desktop.

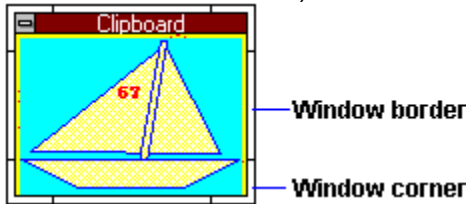
A **Minimize button** appears next to each Maximize button. Click the Minimize button to shrink the Canvas desktop to an icon or to shrink a document to an icon on the Canvas desktop.

A **Restore button** replaces the Maximize button when a window is maximized. Click the Restore button to return the window to its previous size.

Double-clicking a window's title bar maximizes or restores the window to its previous size.

Window border

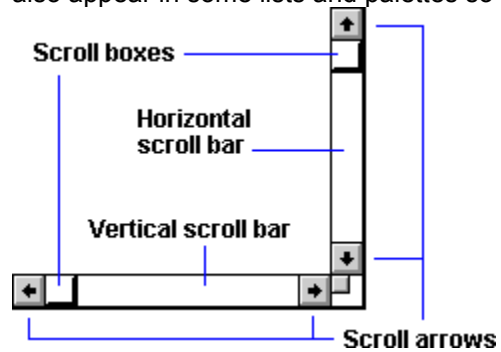
The Canvas desktop, document windows, and most floating windows (such as the Text Ruler, Clipboard, and 100% View windows) have window borders. Drag a border to adjust the size of a window.



The size of the window borders can be changed from the Desktop icon in the Windows Control Panel.

Scroll bars

Scroll bars appear on the edges of document windows and the Canvas desktop when needed. Scroll bars also appear in some lists and palettes so you can view additional options.



To bring other parts of a window's contents into view:

- Click the scroll arrow that points in the direction you want to move. You can scroll continuously by pressing a scroll arrow.
- Drag a scroll box to the place in the scroll bar that corresponds to the location you want to view. For example, to see the middle of a document, drag the scroll box to the middle of the scroll bar.
- Click a scroll bar on either side of the scroll box, depending on the direction that you want to view. This scrolls one windowful at a time.

Menu bar

The Canvas menu bar appears at the top of the Canvas desktop and contains nine menus. Click a menu name to open the menu, then click a command in the menu to choose it.

Submenus and dialog boxes

Choosing a command that has a right-pointing triangle opens a submenu of related commands. Choosing a command followed by ellipsis points (...) opens a dialog box. See Using a dialog box for more information.

Repeating a command

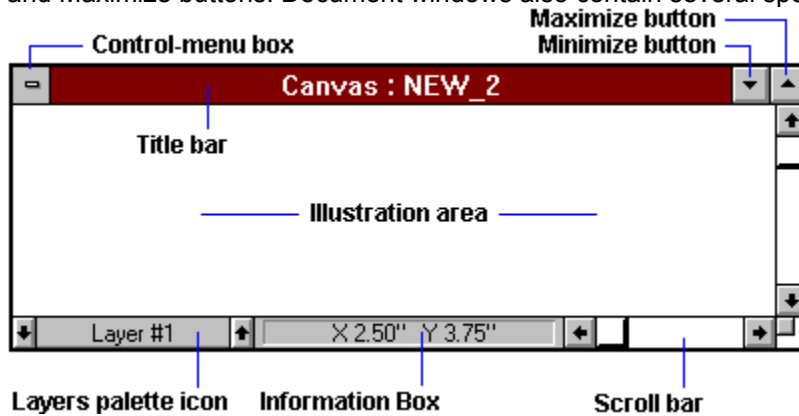
The **Again** command in the Edit menu changes to reflect your last action. If the last command you chose was the **Copy** command, the Again command would read **Copy Again**. You can repeat most commands by choosing the Again command.

Using modifier key commands

Some commands change if you press a modifier key when you open the menu. For example, the **Paste** command changes to **Paste and Place** if you press CTRL when you open the Edit menu.

Document window elements

Canvas document windows contain standard elements such as title bars, Control menus, and Minimize and Maximize buttons. Document windows also contain several special elements, described below.



The **illustration area** is the white rectangular area that represents the document's printable area. The illustration area corresponds to one or more printer pages. See the [Print Setup](#) command for selecting a page size. See [Drawing Size](#) for setting document size.

The **Sideboard** is the shaded area to the right and below the illustration area. You might have to scroll the window or reduce the magnification level to see the Sideboard, depending on your screen size. Objects you create and place on the Sideboard are saved with the document but do not print.

The **Layers palette icon** at the bottom of a document window displays the name of the document's active [layer](#) and offers quick access to layer features. See [Layers Palette icon](#) for more information.

The **Information Box** at the bottom of a document window displays position and dimension data when you create, move, and modify objects. See [Information Box](#) for more information. The unit of measure for the Information Box data can be changed with the [Rulers](#) command. The precision of the data is determined by the [Info Box Display preference](#). To hide or display the Information Box, choose **Layout: Show/Hide, Information Box**.

Select a document window topic:

[Layers palette icon](#)

[Information Box](#)

Layers palette icon



The Layers palette icon appears at the bottom left of a document window (or the desktop when the document window is maximized). It displays the active layer's name, and contains a list of all layers in the document.

To display the layers list, click the Layers palette icon. Names of invisible layers appear in italics.

- To activate a layer, click its name.
- To activate a new layer and make the original one invisible, press CTRL and click the new layer.
- To make a layer visible or invisible without activating it, press SHIFT and click the layer.
- To open the Layer Specifications dialog box, click **Layer Specs**. This is equivalent to choosing **Layout: Layer Specs**.

You can also use the arrows in the Layers palette icon to access layers.

- To move to the next layer, click the up arrow.
- To move to the previous layer, click the down arrow.
- To move to the next or previous layer, regardless of whether it is visible, press SHIFT as you click the arrow.
- To make the next or previous layer active and visible and the current layer invisible, press CTRL as you click the arrow.

Information Box

X 11/16" Y 2 3/16"

The Information Box appears to the left of the horizontal scroll bar. The Information Box shows data regarding the pointer's movements (based on the active ruler's unit of measure). The Information Box also displays other information based on your actions.

When you:

Select an object

Move the pointer

Rotate objects by dragging

Draw or resize a line

Draw or resize an object

Drag an arc's circular handle

Drag a rounded rectangle's circular handle

Drag or place a vertex (polygons and curves)

Auto Trace a paint object

The Information Box displays:

Object type

Horizontal and vertical pointer position

Angle of rotation

Line length and angle

Object height and width

Pointer position and arc length

Radius of rounded corners

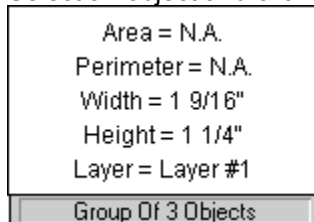
Pointer position

Percent of trace completed

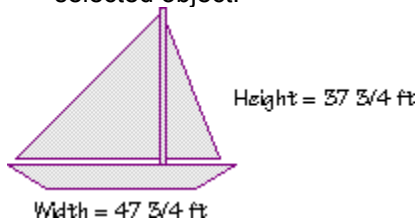
Pasting object measurements

You can use the Information Box to place measurements next to a selected object, and activate the object's layer.

Select an object and click the Information Box to open a menu for the object.



- Choose **Area**, **Perimeter**, **Width**, or **Height** from the menu to paste the measurement next to the selected object.



- The text uses the default text attributes (see Text menu for information) and ruler settings.
- Choose **Layer** to activate the object's layer.

Basic procedures

Canvas illustrations are compositions of objects, which you can create, select, and modify. To create objects with Canvas tools, see [The Tool Box](#). The topics below explain basic techniques for working with objects.

Select a procedure topic:

[Selecting Objects](#)

[Moving objects](#)

[Resizing objects](#)

[Using a dialog box](#)

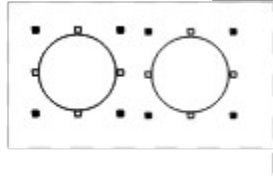
Selecting Objects

You can use the Arrow tool to select all types of objects in Canvas. To select areas in paint objects, use the Marquee tool and the Lasso tool.

Selecting a single object: To select an object, click it with the Arrow tool. If the object is hollow, click its edge or press TAB and click it. Selection handles appear around the object when it is selected.



Selecting multiple objects: When you click an object with the Arrow tool, all other selections are canceled. To select multiple objects, press SHIFT and click each object you want to select. Or drag the Arrow tool until a selection rectangle encloses the objects.



To select every object the selection rectangle touches, press CTRL as you drag.

Deselecting objects: To deselect all selected objects, press ESC. If you click an object or drag with the Arrow tool, you deselect all objects that had been selected.

To deselect one or more objects when several are selected, press SHIFT and click each object you want to deselect; the other objects stay selected.

Selecting obscured objects: To select an object that is behind another object, press TAB as you click the front object with the Arrow tool. Be sure to click the area covering the back object. To cycle through a stack of objects, continue clicking the top object while pressing TAB until you select the object you want.

Selecting objects on other layers: To select an object on a layer other than the active one, press TAB as you click the object with the Arrow tool.

If you select the "Select Across All Visible Layers" option under Selection Options preference in the Preferences dialog box, you can click any visible object to select it.

Other selection options: See the Select All command and the Selection command for more information on selection techniques.

Moving objects

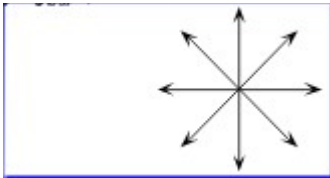
To move an object, use the Arrow tool to drag it to a new position. If you drag to the edge of the window, the document scrolls. When you release the mouse button, the object appears in the new location and is selected.

An object's appearance as you drag it is determined by the Dragging preference setting in the Preferences dialog box.

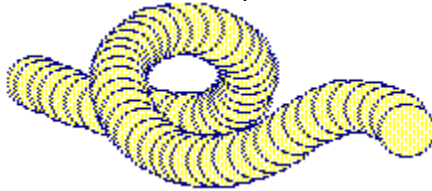
To move multiple objects, select the objects you want to move and drag one of them.

The following modifier keys affect objects that you drag:

- To drag in a straight line horizontally, vertically, or diagonally, press SHIFT as you drag.



- To leave the original selection in place and drag a copy of it, press CTRL as you drag. If you have multiple objects selected, Canvas groups the copied objects.
- To leave a trail of copies of the selection, press CTRL+ALT as you drag.



- To move an object as you create it, press the right mouse button and drag to position the object. (If you swapped Left/Right buttons using the Mouse Control Panel, press the left button.) Release the right mouse button and continue dragging if you want to continue shaping the object.

Related Topic:

Using the arrow keys to move objects

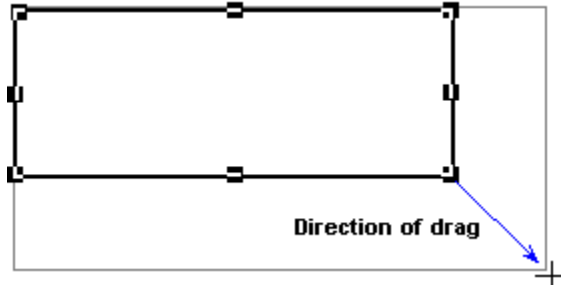
Using the arrow keys to move objects

You can move objects using the keyboard arrow keys. Press the left, right, up, or down arrow key to move selected objects 1 point (1/72 inch) in the arrow direction. To move 10 points, press CTRL+arrow key; to move 50 points, press ALT+arrow key. You can change the Moving offset preference settings to change these distances.

Resizing objects

To resize an object using the Arrow tool, select the object, then point to a selection handle. The pointer becomes a crosshair (+) when it is on a selection handle. Drag the handle to resize the object.

Resizing a selected object



Dragging a corner handle changes both dimensions (width and height) of the object. Dragging a handle not on a corner changes only one dimension of the object.

You can use the following special procedures when resizing objects:

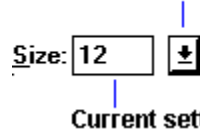
- To maintain the original proportions of grouped objects, polygons, MacrObjects, or Bezier curves, press SHIFT as you drag a corner selection handle.
- To constrain a line to multiples of 45 degrees, press SHIFT as you drag a selection handle.
- To make the bounding rectangle of most draw objects square, press SHIFT as you drag a corner selection handle.
- To resize an object or group from the center, press CTRL as you drag a selection handle.
- To scale a text object or paint object, press ALT as you drag a selection handle. (If you drag a selection handle without pressing ALT, the boundary of the paint object expands but the image does not change.)
- To scale a text object or paint object and maintain the original proportions, press SHIFT+ALT as you drag a corner selection handle.

Using a dialog box

A dialog box opens when you choose a menu command followed by ellipsis points (...) such as *Open...* and *Save As...*. A dialog box also opens when you double-click a tool icon that has two down-pointing arrows, and when you double-click some palettes.

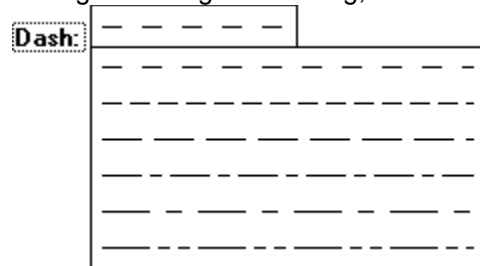
In dialog boxes you specify names, settings, sizes, and other properties for commands and tools. You select items using a variety of controls, described below. You can press TAB to cycle through the options in a dialog box.

Drop-down lists are indicated by an arrow button in or near a box. The box displays the current setting.



To change the setting, click the arrow to open the drop-down list, then click an option in the list to select it. In some cases, you can type a new setting in the box.

Pop-up palettes are indicated by palette icons like those in the [Tool Box](#). The icon shows the current setting. To change the setting, click the icon, then click an item in the palette to select it.

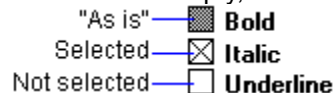


Text boxes contain numbers or text to specify settings. To change a setting, double-click the text to select it, then type to replace it. You can also click in the box and type into the existing text.

File Name:

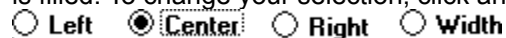
new_1

Check boxes select or deselect an item. When an X appears in a check box, the item is selected; when a check box is empty, it is not selected, and when a check box is gray, it is left as is.



For example, if you select text that has both bold and plain style characters and open the Type Specifications dialog box, you can select the Bold check box to make all the text bold. If you deselect the Bold check box to make it white, Canvas will remove any bold from the text. If you click the check box to make it gray, bold text will remain bold and non-bold text will remain non-bold.

Option buttons select one of several options. You select an option by clicking it. A selected option button is filled. To change your selection, click another option.



Command buttons are buttons that open dialog boxes. For example, a Save button in a dialog box opens another dialog box for you to name settings. Some dialog boxes (such as Print Setup, Separation Setup, and Dimensioning Manager) have command buttons that offer additional options. When you close the additional dialog box, you return to the original one.

Closing a dialog box

When you finish adjusting dialog box settings, choose the OK button (or a button that signifies a command, such as *Open* or *Save*) to close the dialog box and execute the command. To abandon the operation, choose the Cancel button or press ESC to close the dialog box. In dialog boxes that retain their settings, choosing the Cancel button will restore the settings that were in effect when the dialog box was opened.

File menu

The File menu contains commands for working with documents. You can create, open, close, save, and print a document; save particular layers of a document; revert to the last-saved version of a document; change the printer setup for a document; and print selected objects or layers. The File menu also contains commands for creating color separations. The Preferences command specifies options for drawing, painting, moving and selecting objects, and other operations. The Exit command quits Canvas.

Select a File menu command:

New

Open

Place

Close

Update

Save

Save As

Save Layer As

Revert

Preferences

Print

Print Special

Print Setup

Exit

New

(CTRL+N)

To create a new document, choose **File: New**. You can create a new document at any time; the number of documents you can have open depends on available memory. New documents are named NEW_1, NEW_2, and so on.

You can select a Canvas Prefs file to be a template for documents that are created with the New command; see Canvas Prefs.

Open

(CTRL+O)

To open an existing document, choose **File: Open** and a standard directory dialog box appears. This dialog box also appears when you choose a command to load a specific type of file, such as a Canvas Patterns or Canvas Color Set.

To show only files of a particular format, based on file extension, select a format from the "List Files of Type" box. Select All (*.*) to show all files. If you are opening a specific type of file, only that file type is available in the "List Files of Type" box.

Select the file you want to open in the file list, or type a filename in the File Name box. If the file was saved in Canvas format, a thumbnail version appears in the preview box on the right of the dialog box. Choose the OK button to open the file.

You can open files saved in the file formats listed below. Some formats are available only when a corresponding external tool is active.

Bitmap File: Windows Bitmap files have the extension .BMP by default. This format is useful for exchanging images among Windows programs. BMP files contain bitmap (paint) images, which can be monochrome or color. This format is available when the Windows Bitmap I/O tool is active.

Canvas: This is the native format for Canvas documents. Canvas files have the extension .CVS by default. Canvas documents retain all their information and accuracy when they are saved and opened in this format. Documents saved in this format can be opened on Macintosh computers in Canvas 3.5 and later versions.

Canvas Color Set: Files of colors saved in Canvas have the extension .PAL by default. When you choose the **File: Open** command in the Color Manager dialog box, a directory dialog box opens for you to select a color set. When you open a color set, it replaces the current color palette. If changes to the current palette have not been saved, a message asks if you want to save the palette.

Canvas Patterns: Files of patterns saved in Canvas have the extension .PAT by default. When you select the **Load** button in the Pattern Manager dialog box, a directory dialog box opens for you to select a patterns file. When you opens a patterns file, it replaces the current patterns in the Patterns palette.

Canvas Prefs: Files with the extension .CVP are special Canvas documents used as templates for new documents. When you open a Canvas Prefs file, Canvas creates a new document named NEW_1 (and so on, in sequence) using the settings for tools, palettes, and document layout stored in the Canvas Prefs file.

CGM: Computer Graphics Metafile files have the extension .CGM. by default. This file format is common among PC and mainframe computer systems for exchanging images. This format is available when the CGM I/O external tool is active.

DXF: Drawing Exchange Format files have the extension .DXF by default. This file format is commonly used by computer-aided design (CAD) programs. This format is available when the DXF I/O external tool is active.

EPSF: Encapsulated PostScript Format files have the extension .EPS by default. This file format stores documents as PostScript language files, which display as a white box with an X and informational text when opened in Canvas. This format is available when the PostScript I/O external tool is active.

IGES: Initial Graphics Exchange Standard files have the extension .IGS by default. This format is commonly used by CAD and other drawing programs. Canvas does not import 3-D objects from IGES files. This format is available when the IGES I/O external tool is active.

Illustrator 88: Files saved in the Adobe Illustrator 88 format have the extension .AI by default. This format is equivalent to EPSF files. This format is available when the PostScript external tool is active.

Macro set: Files of MacObjects saved in Canvas have the extension .MCR by default. When you choose

the **Object: Macros, Load Set** command, a directory dialog box appears for you to select a macro set.

PCX: Files used by Windows programs to store paint images in the PCX format have the extension .PCX by default. The format is available when the PCX I/O external tool is active.

TIFF: Tagged Image File Format files have the extension .TIF by default. This format is commonly used on DOS, Windows, and Macintosh computers for exchanging bitmap images, especially digitized photographs. This format is available when the TIFF I/O external tool is active.

UltraPaint: Files saved in the native format of Deneba Software's UltraPaint graphics program appear in the files list when you choose this format, if the filenames have the default extension .UPT.

Windows Metafile: This file format is commonly used to exchange graphic images and other information among Windows programs. Files saved in the Windows Metafile format have the extension .WMF by default. This format is available when the Windows Metafile external tool is active.

Related Topics:

[Opening CGM files](#)

[Opening DXF files](#)

Opening CGM files

When you open a file in the CGM format, the CGM Import Options dialog box appears. This dialog box offers the following options:

Color Paint Obj Depth assigns a depth to color paint objects you import. The greater the depth, the more possible colors that can be displayed.

Create Marker Using uses either Objects or Characters (text) as markers representing items such as points on a graph.

Update Color Palette determines the color palette to be used with the file. **Yes** creates a new color palette with the 254 most-used colors in the CGM file's color table, plus black and white. **No** indexes the CGM file's colors to the Canvas color palette.

Ascent Only Char Height compensates for the non-standard method some CGM files use to measure text. As a rule, select **Yes**. If the text characters appear too large, re-open the file and select **No**.

Include Background determines whether the CGM file's background is included. As a rule, select **Yes**. If the file appears completely black, re-open the file and select **No**.

Scale Input determines the amount of scaling applied to images in the CGM file. **Automatic To One Page** scales the images to fit on one page in the Canvas illustration area. You can specify a scaling percentage in the text box.

Font Matching opens a dialog box in which you can specify fonts to be substituted for fonts in the CGM file that are not available on your system. **Original Font** lists the fonts used in the document. Select an original font, then select a substitute from the **Substitute Font "X" For** list, or type a font name in the box.

Opening DXF files

When you open a DXF file, the DXF Import Options dialog box appears. This dialog box offers the following options:

Import scaling options are settings for scaling the objects in the file.

- **Scale to fit in single page** reduces or enlarges the elements in the DXF file to fit within a single page in the illustration area. This is the default option.
- **Import scale of 1:1** imports the elements of the DXF file at a scale of 1 inch = 1 inch.
- **Set Import Scaling** opens the file using the scale defined in the Scaling section of the dialog box.

Scaling sets the scaling of DXF files when Set Import Scaling is selected. Select inches or centimeters from the **One** box. Type the number of units you want as the equivalent to this unit in the **equals** box. Select inches or centimeters from the third box.

Place

The Place command imports a document into the active Canvas document. You can import all or only selected layers of a Canvas or UltraPaint document, or an entire document saved in another [file format](#).

Choose **File: Place** and a directory dialog box opens. Select the file you want to place and choose the OK button.

Placing Canvas and UltraPaint files

If you select a Canvas or UltraPaint file, a dialog box asks which layers you want to place. Select each [layer](#) you want to place. The **Select All** button selects all the layers; the **Select None** button deselects all the layers.

The **Place** button imports the selected layers into your document. The layers remain separate when placed in the document.

Placing other files

If you select a file that is not in Canvas or UltraPaint format, the Place pointer appears. Click to place the top left corner of the document at the pointer position, or drag to create a rectangle indicating the size and position the document.

When you select CGM or DXF files to place, a dialog box with import options appears. See [Opening CGM files](#) or [Opening DXF files](#) for information.

Close

(CTRL+F4)

To close the active document, choose **File: Close**. If the document has no unsaved changes, Canvas closes it.

If the document has unsaved changes, a dialog box asks if you want to save the document before closing.

- To save the document before closing it, choose the **Yes** button. If the file has not been saved before, a directory dialog box opens for you to name the file and select a location for saving it.
- To discard changes to the file, choose the **No** button.
- To keep the file open, choose the **Cancel** button.

Choosing the Close command is the same as double-clicking the Control-menu box in a document window or choosing the **Close** command from the window's Control menu.

Update

The Update command is available when you edit an embedded Canvas drawing from another document. The Update command replaces the Save command in the File menu. Update is not available until you change the embedded drawing.

Choosing **File: Update** replaces the drawing in the destination file (the file in which it is embedded) with the edited version.

Choosing Update does not close the window in Canvas where you are editing the embedded drawing. You can continue to edit it and choose the Update command to transmit the changes to the destination file.

Save

(CTRL+S)

The Save command stores the active document on disk. When you choose **File: Save**, Canvas updates the document's disk file to include changes made since the last time you saved the document. The new version overwrites the previous file. The Save command is not available if the document has not changed since it was last saved.

If the document has never been saved when you choose the Save command, Canvas opens the Save As dialog box for you to specify a name, location, and file format for the document.

Save As

(CTRL+SHIFT+S)

Use the Save As command to store the active document with a different name, file format, or location. When you choose **File: Save As**, a directory dialog box opens. Specify a name, location, and file format for the document. Choose the OK button to save the document.

A directory dialog box also opens when you choose a command that saves a file in a special Canvas format. These formats are Canvas Color Set, Macro Set, and Canvas Patterns.

File Formats

You can save Canvas documents in these file formats: Bitmap File, Canvas, Canvas Prefs, CGM, DXF, EPSF, HPGL, IGES, Illustrator 88, PCX, Separations, TIFF, and Windows Metafile. These file formats are available from the **Save File As Type** box.

When you select a file format, a default extension appears in the **File Name** box if no name has been entered. You can override the default extension by typing a filename and extension in the File Name box.

If you use a file format other than Canvas or Canvas Prefs, a message warns that this can result in a loss of data or accuracy. Other formats do not support all Canvas features; therefore, data can be missing if you reopen the document in Canvas. It is best to save the document in Canvas format as well as in the other format.

When you save a document in a non-Canvas format, a file is created on disk in the selected format; the original Canvas document remains open.

Related Topics:

Canvas file format

Canvas Prefs file format

Bitmap File file format

CGM file format

DXF file format

EPSF file format

HPGL file format

IGES file format

Illustrator 88 file format

PCX file format

Separations file format

TIFF file format

Windows Metafile file format

Canvas file format

Canvas is the default file format for saving Canvas documents. You should use the Canvas format unless you need to export a document to a program that does not support Canvas files.

A document saved in Canvas format retains all its data and accuracy when opened in Canvas.

Files saved in Canvas format are compressed. A document that requires 100K on disk might actually occupy 300K or more in memory when opened.

When you use the **File: Save As** command to save a new version of an existing Canvas document, the document window shows the new file name and location. Canvas closes the original document without changing its file on disk.

Canvas Prefs file format

Canvas Prefs is a special file format for Canvas documents that store settings and configuration information. Documents saved in this format can be used as templates for new documents.

Canvas Prefs files store the following elements: Preferences dialog box settings, customized palette options, Layout menu command settings (including Show/Hide, Rulers, Grids, and Drawing Size), default text settings, screen position of floating palettes, and objects in the document.

You can select the Canvas Prefs file format from the "Save File as Type" box in the Save As dialog box. The Canvas Prefs format is also available from the "List Files of Type" box in the Open dialog box.

To create a Canvas Prefs file, configure the options you want to store in the document. Choose the **File: Save As** command, and select the Canvas Prefs file format from the "Save File as Type" box. Choose the OK button to save the file.

To use a Canvas Prefs file as a template for a new document, choose the **File: Open** command and select the Canvas Prefs file you want to use. Canvas opens a new document for you to work in.

To specify a Canvas Prefs file as the default template for all new documents, hold down SHIFT as you start Canvas. A directory dialog box appears for you to select the file. From then on, all documents you create with the **File: New** command will be based on the file you selected, until you select a different file or choose the **No Prefs** button.

Bitmap File file format

This file format (called "Windows Bitmap" in some programs) is commonly used among Windows programs to exchange bitmap (paint) images. Canvas uses .BMP as the default extension for files saved in this format.

This file format is available when the Windows Bitmap I/O external tool is active.

Saving a file in the Bitmap File file format converts all objects in the document into one paint object and places the paint object in the top-left corner of the document.

When you save in the Bitmap File format, the Bitmap File Export Options dialog box opens. This dialog box has the following options:

Depth sets the amount of color information in the document. You can specify 1, 4, 8, or 24 bits. The greater the depth, the greater the range of colors saved in the file. The memory required by the file increases as the depth increases.

Bitmap File Type specifies variations of Bitmap File types. **Windows Normal** files can be opened by any program that supports the .BMP file format. **Windows RLE** files are compressed bitmap files. **OS/2 Compatible** bitmap files can be opened in applications that support the .BMP file format under the IBM OS/2 operating system.

Resolution specifies the image's pixel size in dots per inch. The memory required by the file increases as the resolution increases.

Selection Only saves only the objects that are selected in the document.

Width, Height, and File Size display information about the file. Width and Height are measured in pixels. Size is specified in kilobytes of disk space required. File Size is not shown when you select Windows RLE as the Bitmap File Type.

CGM file format

The Computer Graphics Metafile format is commonly used by mainframe and PC technical illustration programs. Some clip art and information services also use the CGM format.

This file format is available when the CGM I/O external tool is active.

When you save a document in CGM file format, the CGM Export Options dialog box opens. This dialog box has the following options:

Coordinate Precision specifies the numerical precision of the file. Select **16 Bit Integer** or **32 Bit Real** based on the program you are exporting to.

Curve Approximation affects Bezier curve conversion to polygons. **Tight** results in more precise matching than **Loose**. **Medium** results in moderate precision in curve matching.

Output Arc As specifies how an arc is exported. Select **Arc** or **Polygon** based on the capabilities of the program in which the file will be opened. More programs support polygons than arcs.

Output Pattern As specifies how Canvas patterns are converted. Select **bitmap Pattern** or **Hatch pattern** based on the capabilities of the program in which you will open the file.

Output Paint Object As specifies whether paint objects are included in the CGM file. **Cell Array** includes paint objects. **Ignore Paint Object** does not include paint objects.

Output Text As specifies how text is saved. **One Single Styled Block** saves each text object in the document as one element with a single set of type specifications (font, size, and color) based on the first text character in each text object. **Many Blocks, One for Each Style** preserves text formatting by creating a separate text object for all text with a different style, based on justification, tabs, kerning, and other properties.

Font Matching is available when the document contains text. This button opens a dialog box in which you assign fonts on your system as substitutes for CGM fonts. **Original Font** lists the fonts used in the document. Select an original font, then select a substitute from the **Substitute Font "X" For** list, or type a font name in the box.

DXF file format

The Drawing Exchange Format is commonly used by computer-aided design (CAD) programs.

This file format is available when the DXF I/O external tool is active.

DXF files do not support paint objects, picture objects, pen patterns, or fill patterns. Background colors are exported as white. All objects appear in the Or pen mode. Wild characters and spaces are removed from layer names and names are converted to uppercase letters. Grayed layers are not supported; objects on grayed layers are exported in their original colors.

EPSF file format

This file format stands for Encapsulated PostScript Format. EPSF is used by programs that support the PostScript page-description language. Encapsulated PostScript files print at the highest resolution available from output devices. You can use the format to convert Canvas documents to be exported to PostScript programs while maintaining the documents' original quality and resolution.

This file format is available when the PostScript I/O external tool is active.

When you save a file in this format, the EPSF Export dialog box opens. You can select a preview type for the file in this dialog box.

Preview saves a preview of the illustration with the file. You can select one of three preview formats.

- **EPSI** previews are visible on most computer platforms, including Windows and Macintosh.
- **Windows Metafile** previews are supported by most Windows programs.
- **TIFF** previews are the most common preview type used by Windows programs. This option is available when the TIFF I/O external tool is active.

Select a preview type based on the type of program in which you will open the EPSF file. If the preview type of the EPSF file is not supported by the program to which you export the file, the preview is not visible.

HPGL file format

This file format stands for Hewlett-Packard Graphics Language, and uses the default file extension .PLT. The HPGL file format converts a Canvas document to a format that can be downloaded to plotters and other output devices that support the HPGL file format.

This format is available when the HPGL I/O external tool is active.

When you save an HPGL file, the HPGL Export dialog box opens. The dialog box offers the following options.

Scale Objects to Page enlarges or reduces objects in a document to fit on one page, according to the Page Size you select.

Retain Objects' Size keeps all objects in the document their original sizes.

Selected Objects Only includes only objects that are selected in the document.

Page Size contains options you can select for the output page size for the document.

IGES file format

This file format, which stands for Initial Graphics Exchange Standard, is commonly used by computer-aided design (CAD) programs. The IGES standard is defined by the American National Standards Institute. The IGES file format is similar to the DXF file format. You should select the format supported by the program to which the document will be exported.

This file format is available when the IGES I/O external tool is active.

The IGES file format does not support the following Canvas features: layer names, which are replaced by numbers; grayed layers (objects are exported in their original colors); background colors (exported as white); fill patterns (exported as no fill); pen patterns; picture objects; and paint objects.

Illustrator 88 file format

This file format is used by the graphics program Adobe Illustrator 88. Saving a file in this format converts it to the PostScript page-description language so it can be exported to PostScript drawing programs.

This file format is available when the PostScript I/O external tool is active.

When you save a file in this format, the EPSF Export Options dialog box opens. You can select a preview type for the file in this dialog box.

Preview saves a preview of the illustration with the file. You can select one of three preview formats.

- **EPSI** previews are visible on most computer platforms, including Windows and Macintosh.
- **Windows Metafile** previews are supported by most Windows programs.
- **TIFF** previews are the most common preview type used by Windows programs. This option is available when the TIFF I/O external tool is active.

Select a preview type based on the type of program in which you will open the EPSF file. If the preview type of the EPSF file is not supported by the program to which you export the file, the preview is not visible.

PCX file format

This file format is a common format for paint (bitmap) images used by Windows programs. The PCX file format converts all objects in a document to a paint object, and places the paint object in the top-left corner of the document.

This file format is available when the PCX I/O external tool is active.

When you save a document in PCX format, the PCX Export Options dialog box opens. This dialog box offers the following options:

Depth sets the amount of color information in the document. You can specify 1, 8, or 24 bits of information. The number of different colors saved in the file is equal to 2 raised to the power of the depth. For example, a file saved with 8-bit depth can contain 256 different colors ($2^8 = 256$).

Resolution specifies the pixel size of the image, in dots per inch. The amount of memory required by the file increases as the resolution increases.

Selection Only specifies that only objects selected in the document should be saved in the file.

Height and **Width** display the measurements of the image in pixels.

Separations file format

This file format is used to save a document as color separation files. This file format is available when the Separations external tool is active.

Canvas can create color separation files for process-color and spot-color printing. The configuration of the separation files is based on the settings in the Separation Setup and Plates dialog boxes. See the Separation Setup command for information.

When you save in the Separations file format, the Separation Export Options dialog box opens. This dialog box has the following options:

Single File saves all separations as a single file, with the extension .SEP.

Multiple Files saves separations as separate files corresponding to the separated colors and a composite file. Canvas uses the extensions .C, .Y, .M, and .K for the process color files, and .SEP for the composite file. Spot color separations have the extensions .S1, .S2, and so on.

XPress (DCS) is designed for illustrations that will be placed in programs, such as Quark XPress, that accept the DCS (Desktop Color Separation) format. When you select this format, Canvas saves the document as five separation files, regardless of the number of plates selected in the Separation Setup dialog box. Programs that accept this format use the composite file that Canvas creates to display the document in a page layout.

TIFF file format

The TIFF (Tagged Image File Format) file format is commonly used in Windows and Macintosh programs for files containing bitmaps, especially images such as scanned (digitized) photographs.

This file format is available when the TIFF I/O external tool is active.

When you save in the TIFF file format, the TIFF Export Options dialog box opens. This dialog box offers the following options:

File Type determines the color information saved in the file.

- **B & W** saves the objects in the document as a 1-bit (black and white) paint object.
- **Gray** changes colors in the document to grays.
- **Color** retains the document's original color information.

Depth specifies the amount of color information saved in the file. The available depth settings depend on the File Type selected.

Resolution specifies the pixel size of the TIFF image, measured in dots per inch (DPI). The default resolution is 72 DPI.

Compression Type specifies a method of compacting the information to reduce the size of the file. The available settings depend on the File Type selected.

- **No compression** results in no size reduction. It is the fastest method.
- **Pack Bits** can significantly reduce file size. This option is available with B&W File Type.
- **CCITT Group 3** is a standard compression format available with B&W File Type.
- **LZW** and **LZW w/Diff.** (Lempel-Ziv & Welch, with Differentiation) are compression formats available for Color and Gray File Type.

Height and **Width** display the dimensions (in pixels) of the image.

Selection Only specifies that only the objects selected in the document be included in the TIFF file.

Windows Metafile file format

Windows Metafile file format is used to transfer data and graphics images among Windows programs. It is sometimes called Picture format. It places all objects in all layers of a Canvas document in one layer.

This file format is available when the Windows Metafile I/O external tool is active.

Save Layer As

The Save Layer As command stores one or more layers of the active document in a new document on disk.

When you choose **File: Save Layer As**, the Save Layer As dialog box opens. Select the layers you want to save. The Select All button selects all the layers; the Select None button deselects all the layers. Choose the Save button to open the Save As dialog box. Specify a name, location, and file format and choose the OK button to save the selected layers.

Revert

(CTRL+R)

The Revert command replaces the active document on screen with the version stored on disk. This discards any changes made since the last time you saved the document. This command is available after you have saved a document. When you choose **File: Revert**, a message asks you to confirm that you want to discard changes to the named document. Reverting to the last-saved version of a document cannot be undone.

Preferences

You can use the Preferences command to customize your work environment for the active document.

When you choose **File: Preferences**, the Preferences dialog box opens. Select a preference in the list on the left and the options for that preference appear on the right. Make any changes and select the next preference.

Revert restores the selected preference to the settings it had when the dialog box opened.

OK closes the Preferences dialog box and saves the settings.

Cancel closes the dialog box without saving any changes.

The settings in the Preferences dialog box are saved with the active document, including a document saved in Canvas Prefs format, which you can use as a template for new documents.

The Preferences command is available when the Preferences external tool is active.

Related Topics:

- [Bezier & Polygon preference](#)
- [Coordinate System preference](#)
- [Double-Clicking preference](#)
- [Dragging preference](#)
- [Duplication Offset preference](#)
- [General Options preference](#)
- [Info Box Display preference](#)
- [Moving Offset preference](#)
- [Paint Options preference](#)
- [Selection Options preference](#)

Bezier & Polygon preference

Several settings affect the creation and editing of Bezier Curves and Polygons. Choose **File: Preferences**, and select **Bezier & Polygon** in the Preferences dialog box scrolling list to change these settings.

Automatically Enter Edit Mode places polygons and Bezier curves in edit mode when you select them.

Show Original Curve When Editing leaves an image of the object in place as you edit it so you can see your changes in relation to the original.

Always Create Cusps causes all objects drawn with the Bezier Curve tool to be created with cusps.

Freehand Tolerance determines how closely the resulting object conforms to the shape you draw using the Freehand tool. **Tight** conforms most closely to the shape you draw, while **Loose** results in the smoothest curve.

Coordinate System preference

You can select the coordinate system Canvas uses to measure angles. Choose **File: Preferences**, and select **Coord System** in the Preferences dialog box scrolling list to change this setting.

Select one of the option buttons. The left option designates 0° at 12 o'clock and proceeds clockwise. The right option sets 0° at 3 o'clock and proceeds counterclockwise.

Double-Clicking preference

You can specify what action Canvas should take when you double-click an object. Choose **File: Preferences**, and select **Double-Clicking** in the Preferences dialog box scrolling list to change this setting.

Enter Edit Mode causes applicable objects to be placed in edit mode.

Display Object Specifications opens the Object Specifications dialog box.

Do Nothing causes double-clicking to have no effect.

Dragging preference

You can specify what Canvas displays when you drag objects. Choose **File: Preferences**, and select **Dragging** in the Preferences dialog box scrolling list to change this setting.

Outlines displays an outline of the object you drag.

Objects displays the entire object as you drag it.

Both displays an outline if you drag quickly, or the entire object if you press the mouse button and pause before dragging.

Show Original Object shows the object in its original position until you finish dragging it.

Duplication Offset preference

You can specify how far a duplicated object is offset from the original. Choose **File: Preferences**, and select **Duplication Offset** in the Preferences dialog box scrolling list to change this setting.

dx and **dy** specify the horizontal and vertical distance, respectively, in pixels. Canvas uses these values when you duplicate an object with the **Edit: Duplicate** command (CTRL+D).

General Options preference

You can change several settings that affect tool selection, screen display, and fonts in Canvas. Choose **File: Preferences**, and select **General Options** in the Preferences dialog box scrolling list to change these settings.

Retain Selected Tool keeps Canvas from reverting to the Arrow tool after you use a selected draw tool.

No Background Updates prevents Canvas from redrawing its windows when you use another program while a Canvas document is open.

Smooth Text Edit tells Canvas to form text completely before updating the screen. On slower machines, turning this option off can accelerate text display for fast typists.

Smooth Redraw tells Canvas to form an illustration completely before updating the screen, rather than drawing each object individually.

Show Only TrueType and ATM Fonts shows only the TrueType and Adobe Type Manager PostScript fonts (which are installed in Windows) in the Font submenu and the Font list in the Type Specifications dialog box.

Dither Colors uses dithering to give close approximations of any color on screen, rather than using only the solid colors that your system can display.

Info Box Display preference

You can select the format and precision for number data displayed in the Information Box. Choose **File: Preferences**, and select **Info Box** in the Preferences dialog box scrolling list to change these settings.

Select one of the option buttons to specify fractional or decimal display and number of decimal places displayed.

This setting also affects data displayed when the Size option (from the Layout: Show/Hide submenu) is active, and dimension data displayed in dimension lines.

Moving Offset preference

You can specify how far objects move when you use the keyboard arrow keys. Choose **File: Preferences**, and select **Moving Offset** in the Preferences dialog box scrolling list to change these settings.

ALT is the distance (in points) a selected object moves each time you press ALT and an arrow key.

CTRL is how far (in points) a selected object moves each time you press CTRL and an arrow key.

Auto-Scroll To Selection causes Canvas to scroll the active document when you move an object past the edge of the window using the arrow keys.

Paint Options preference

You can select options for the creation and expansion of paint objects. Choose **File: Preferences**, and choose **Paint Options** in the Preferences dialog box scrolling list to change these settings.

Auto-Create Paint Objects creates a paint object automatically when you use any paint tool. If this option is not selected, you must use the Paint Object Creator tool to create an empty paint object before you can use paint tools in it.

Auto-Expand Paint Objects automatically expands a paint object when you paint beyond its boundary. If this option is not selected, a paint tool will not paint if you drag beyond the existing boundary of a paint object.

Selection Options preference

Two options affect the way objects are selected. Choose **File: Preferences**, and select **Selection Options** in the Preferences dialog box scrolling list to change these settings.

Select Across All Visible Layers gives all selection methods the ability to select any object on any visible layer in the active document, even if the object is not on the active layer.

Resize Multiple Objects specifies that you can resize all selected objects by dragging any object's selection handles. If this option is not selected, only the object whose handle you drag is resized.

Print

(CTRL+P)

The Print command is used to specify print settings and send the active document to the default printing device. When you choose **File: Print**, the Print dialog box opens.

The name of the default printer and port appears at the top of the dialog box. See Print Setup button for information on changing the default printer.

Print Range specifies which pages of the document will print. **All** prints the entire document. **Selection** prints only selected objects in the document. To print a specific or continuous range of pages, select the **Pages** option and type a page number in the From and To boxes (type the same number in both boxes to print one page).

Collate Copies prints multiple copies of a range of pages in collated sets.

If the selected printer offers resolution options, you can choose an option from the **Print Quality** box.

Copies is the number of copies that will print of the pages you specify in Print Range.

OK prints the specified pages.

For information on printer options, see the Print Setup button.

Print Setup button

The **Setup...** button in the Print dialog box opens a dialog box of options for the selected printer. If the selected printer is a PostScript device, Canvas opens the PostScript Printer Setup dialog box with options for PostScript printers. Otherwise, a dialog box for a particular printer opens. Refer to the printer's documentation for information on specific printer options.

The Setup button in the Print dialog box is the same as the Setup button in the Printer Setup dialog box (which opens when you choose the **File: Print Setup** command).

Print Special

When you choose **File: Print Special**, a submenu shows options for printing selected layers, selected objects, color separations, slides, and for adjusting settings for color separations.

Select a **Print Special** option:

Layer

Selection

Separations

Separation Setup

Slides

Layer

The Layer option prints layers of the active document separately. You can print any layer, including grayed and invisible layers that normally do not print. Choose **File: Print Special, Layer** and a dialog box opens for you to select the layers you want to print.

Click a layer's name to select it. **Select All** selects all the layers. **Select None** deselects all layers.

The **Print** button opens the Print dialog box for you to specify print settings. See the Print command for more information.

Selection

The Selection option prints only the objects that are selected in the active document. Choose **File: Print Special, Selection** and the Print dialog box opens. Make any changes you want and choose the OK button to print the objects. See the Print command for more information on the Print dialog box.

Separations

The Separations option prints color separations of the active document. This option is available when the Separations external tool is active.

Choose **File: Print Special, Separations** and the Print Separations dialog box opens. See Print for information on this dialog box. Canvas prints separations according to the settings in the Separation Setup dialog box. (See Separation Setup for information.)

Separation Setup

The Separation Setup option is used to adjust settings for preparing color separations of the active Canvas document. This option is available when the Separations external tool is active.

Choose **File: Print Special, Separations** and the Separation Setup dialog box opens. Adjust the settings as needed and choose the OK button to implement the settings and close the dialog box.

The **Angles** boxes show the line screen angles used for the various color separation plates. If you select a PostScript Printer Description file in the Printer Setup dialog box, these values reflect the file's settings.

Correction values increase the amount of a process color throughout the color separations. Type the percentage increase you want in the boxes. For example, to increase cyan throughout the document by 15%, type 15 in the Cyan box.

Overprint specifies that a color should overprint all objects which it overlaps. Normally, an object knocks out any objects behind it so that the top object's colors do not mix with any underneath.

Output specifies the type of printed output for color separations. Select **Color** to print color separations on a color-printing device, such as a color laser printer, for proofing. Select **Gray** to print color separations in shades of gray for making separations for commercial printing.

Separation Names places color names on printed separations.

Crop Marks places marks showing the boundary of an illustration on printed separations.

Registration Marks places registration marks, which are used by commercial printers to align color separations, in the corners of printed separations.

File Name and Date places the document's name, date, time of printing, and frequency of screens used in the separations (if a PostScript Printer Description file is used) on the separations.

Frequency specifies the frequency in lines per inch for line screens used in color separations.

Trapping value specifies the width in points of color traps for objects that have the Choke or Spread options applied to them.

The **Plates...** button opens a dialog box for you to choose which color plates you want to print when you print separations or save separation files using the Separations file format.

The list under **Choose Plates to Print** shows the names of process color separations (Process Cyan, Magenta, Yellow, and Black), any named spot colors used in the document, and a Composite plate. Click to select the plates you want to include. The **Select All** button selects all the plates in the list; the **Select None** button deselects all selected plates.

The **OK** button closes the dialog box and returns to the Separation Setup dialog box.

Slides

The Slides option prints all the slides (layers) in the active document individually. This option is available when the Slides external tool is active.

Choose **File: Print Special, Slides** and Canvas displays the Print dialog box. Make any changes you want and choose the OK button. See Print for more information on the Print dialog box.

Canvas uses the settings in the Slide Specifications dialog box to determine how each slide prints. If you specify a master layer in this dialog box, Canvas will print it on every slide. See Slides for more information.

Print Setup

The Print Setup command offers printer selection and printing options. Choose **File: Print Setup** and the Printer Setup dialog box opens.

The selected printer and output port for the document appear in the **Printer and Port** box. To change printers, select another printer and port from the list of available printers.

The **Setup...** button opens a dialog box with options for the selected printer; this is the same as choosing the Setup button in the Print dialog box. The settings you specify affect the rulers, page breaks, drawing size, and dimensions of a document. The settings apply only to the active document. A document's printer setup is saved with the document.

The options you can set for a printer depend on whether it is a PostScript device. If it is, Canvas opens its PostScript Printer Setup dialog box, which offers standard options for PostScript printers. See PostScript Printer Setup for more information. If the printer is not a PostScript device, a Windows printer setup dialog box opens, with options that vary depending on the printer.

Exit

(ALT+F4)

The Exit command closes all Canvas documents and quits the program. Choose **File: Exit** when you want to stop using Canvas. If you changed any open document since you last saved it, Canvas displays a dialog box asking you if you want to save the changes.

Choosing the Exit command is the same as double-clicking the Control-menu box of the Canvas desktop, or choosing close from its Control menu.

Edit menu

The Edit menu contains standard editing commands, including Undo, Cut, Copy, and Paste, plus other editing commands for selecting all the objects in a document layer, selecting specific objects, duplicating objects, and pasting objects in front or in back of selected objects. Object linking and embedding (OLE) commands are also in this menu.

Select an Edit menu command:

- Undo
- Again
- Cut
- Copy
- Paste
- Clear
- Edit Special
- Paste Special
- Links
- Edit (OLE Object)
- Insert Object
- Select All
- Selection
- Duplicate
- Duplication

Undo

(CTRL+Z)

The Undo command reverses your last action. Choose **Edit: Undo** and Canvas deletes the last change you made to your document. However, the following actions and menu commands cannot be undone: changing layers; changing the document's size; scrolling a document; selecting or deselecting objects; and choosing the Delete Macro, Revert, and Save commands. To reverse an Undo action, choose the Undo command again.

Again

(ALT+ENTER)

The Again command repeats the previous command or action. The wording of the command changes, depending on the action performed last. For example, if the last command you chose was Paste, choose **Edit: Paste Again** to repeat the command.

Cut

(CTRL+X)

The Cut command removes an object, paint area, or selected text from the document, and places the selection on the Clipboard. The selection remains on the Clipboard until you use the Cut or Copy command again.

To use the command, select an object, highlight text in a text object, or select an area in a paint object, and choose **Edit: Cut**.

When a selection is on the Clipboard you can place it in the same document or another document with the **Edit: Paste** command.

Copy

(CTRL+C)

The **Edit: Copy** command places a copy of a selected object, group of objects, paint area, or text on the Clipboard without removing the selection from the document. The selection remains on the Clipboard until the next time you use the Cut or Copy command. Use the Copy command when you want to paste a selection in the current document or another document without deleting the original.

To copy multiple text objects to the Clipboard as a single text flow, select the text objects, press CTRL, and choose **Edit: Copy Selected Text**. Canvas arranges the text based on the stacking order of the text objects in the Canvas document, with text in the back object appearing first. Text does not retain its properties when pasted into another program.

Paste

(CTRL+V)

The **Edit: Paste** command places the contents of the Clipboard in the active document.

If a paint object is active when you choose Paste, the image is pasted into it. Otherwise, objects that you paste appear in the center of the screen.

You can paste the Clipboard's contents repeatedly because the contents are retained until the next time that you use the Cut or Copy command.

- To specify where you want to paste the Clipboard's contents, press CTRL and choose **Edit: Paste And Place**. Position the pointer where you want the top left corner of the selection and click to paste, or drag to create a rectangle you want the contents to fill.
- To paste Canvas objects in the same position from which they were copied, press SHIFT and choose **Edit: Paste In Position**.

Clear

(DELETE)

To remove a selected object, paint area, or text from a document without putting it on the Clipboard, choose **Edit: Clear** or press DELETE. The only difference between the Cut and Clear commands is that the Cut command replaces the Clipboard's contents with the selection you cut; the Clear command does not affect the Clipboard's contents.

Edit Special

The Edit Special command displays options for copying selected objects and pasting the Clipboard's contents. You can copy objects at fixed resolutions, copy guides, and copy colors to the Clipboard, and paste objects in front or back of selected objects.

Select an Edit Special option:

Paste In Front and Paste In Back

Paste Scaled

Copy At 2X, Copy At 4X, Copy At 8X

Copy Guides

Copy Color

Paste In Front and Paste In Back

These options paste the contents of the Clipboard in front or back, respectively, of a selected object in your document. Select an object in your document and choose **Edit: Edit Special, Paste In Front** or **Paste In Back**.

You can use the Cut and Copy commands in the Edit menu to place selected Canvas objects on the Clipboard.

Paste Scaled

The Paste Scaled option pastes the Clipboard contents into the active document and adjusts the object's dimensions to conform to the document's ruler scale. With the object you want to paste on the Clipboard, choose **Edit: Edit Special, Paste Scaled**.

You can see the effect of the Paste Scaled option if you create a 3-inch square object at a scale of 1 inch equals 1 inch, then copy the object to the Clipboard. If you paste the object into a document in which the scale is set to 1 inch equals 1 foot, the object will appear to be the same size, although it now measures 3 feet square. If you use the Paste Scaled option, the object will appear to shrink, maintaining its true measurement, 1/4 foot square, in the document in which an inch equals a foot.

Copy At 2X, Copy At 4X, Copy At 8X

The Copy At 2X, 4X, and 8X options place a copy of selected Canvas draw objects on the Clipboard at increased resolution. This option ensures that details, such as the relative size of lines smaller than 1 point, are maintained when you paste the selection into a page-layout program.

Choose **Edit: Edit Special, Copy At 2X** to copy the selection at a resolution of 144 dpi.

Choose **Edit: Edit Special, Copy At 4X** to copy the selection at a resolution of 288 dpi.

Choose **Edit: Edit Special, Copy At 8X** to copy the selection at a resolution of 576 dpi.

Copy Guides

The Copy Guides option copies guides from the active document so that you can paste them into another Canvas document.

Guides are non-printing lines that can help you align objects in an illustration. See the Guides command for information on showing and placing guides.

To copy guides from one Canvas document to another, with the first document active, choose **Edit: Edit Special, Copy Guides**. Then switch to the document you want to paste the guides into. Choose **Edit: Paste Special**. In the Paste Special dialog box, Canvas Guides is selected in the Data Formats box. Choose the **Paste** button to paste the guides into the document.

Copy Color

The Copy Color option places the colors from selected objects onto the Clipboard so you can paste them into the Canvas color palette in the Color Manager. This option is available when the Color Manager external tool is active.

Select the objects whose colors you want to copy and choose **Edit: Edit Special, Copy Color**. Then choose the document whose palette you want to add the colors to (if it is not the same document) and choose **Managers: Colors** to open the Color Manager. From the Color Manager's Edit menu, choose **Paste**. The colors you copied are pasted into the active palette.

Paste Special

The Paste Special command offers options for pasting the Clipboard's contents into a Canvas document. Choosing **Edit: Paste Special** opens the Paste Special dialog box.

Most programs place information on the Clipboard in more than one format. In the Paste Special dialog box, you can select the format you want to paste. In many cases, you can paste the Clipboard's contents as a linked or embedded object.

Source refers to the document from which the Clipboard's contents were copied. The information shown here might include the name of the program, the default data format Canvas will use when pasting, and the coordinates of the objects in the source file.

Select a data type from the **Data Formats box**. The available Data Formats depend on the type of object on the Clipboard and the program from which it was copied.

Paste puts the Clipboard's contents in the Canvas document according to the Data Format you select.

If you paste an object copied from another program, Canvas embeds the object in the active Canvas document. Embedding maintains a link between the object and the source program. To edit the embedded object, double-click it. The source program opens a document containing the embedded object for you to edit.

Paste Linked puts the Clipboard's contents in the Canvas document according to the selected Data Format and links the object to its source file. Paste Linked is available only when the object was saved in another program and copied from it, and you select the other program's native data format.

When you edit the linked object, you work in the object's source file. To see a list of linked objects in a Canvas document, choose **Edit: Links** and a dialog box opens. You can open the source file from this dialog box by selecting the linked object in the list and choosing the Open Source button. You can also double-click a linked object in a document to open its source file.

Links

Use the Links command to select an update method for linked objects, to re-establish or cancel a link, and to open a linked object's source file.

Choosing **Edit: Links** opens the Links dialog box, which lists all linked objects in the document. Select a linked object and then choose one of the following options.

Update option buttons specify when a linked object is updated.

- **Automatic** updates the linked object whenever it changes in the source file. The update happens immediately when the Canvas document is open, or the next time you open the document.
- **Manual** updates the object's image only when you choose Update Now (see below).

Open Source opens the document in which the linked object was created. This is the same as double-clicking the object in the Canvas document.

Update Now updates the linked object to match the source file object. If you previously selected Manual update for the selected linked object, it will not be updated to match the source file until you choose Update Now.

Cancel Link breaks the link between the linked object in the Canvas document and the link area in the source file. The object remains in the Canvas document and is treated as a picture object.

Change Link reconnects a linked object to a source file. You might need to do this if, for example, you change the source file name, which breaks the link. When you choose Change Link, a directory dialog box opens. Select the linked object's source file and choose the OK button to re-establish the link.

When you finish making changes in the Links dialog box, choose the OK button to apply the changes to the linked objects in your document.

You can delete a linked object in your document by selecting it and pressing DELETE. Canvas removes the linked object and cancels the link to the source file.

Edit (OLE Object)

This command is used to edit a linked or embedded object in its source file. The command name changes to include the data type of a selected linked or embedded object. For example, if you select an object embedded from the Windows Paintbrush program, the command reads *Edit Paintbrush Picture*.

Choose **Edit: Edit (*object type*)** to open the document in which the object was created. You can then edit the object. In some cases, this command opens a submenu of options for editing or opening embedded objects.

Insert Object

The Insert Object command embeds an object in a Canvas document. After an object is embedded, you can select it in the Canvas document and edit it in the program that created it.

When you embed an object, Canvas is the client program; the program in which the object was created is the server program.

Choosing **Edit: Insert Object** opens the Insert New Object dialog box. The **Object Type** box lists all object types available from server programs on your system. An object type usually includes the name of a program followed by an object name, such as *Paintbrush Picture*.

Select an object type and choose the OK button. Windows opens the program with an untitled document. Create the object you want to embed and choose the server program's command for updating the embedded object (refer to the server program's documentation for more information). Windows places the object in your Canvas document.

To edit the embedded object in the Canvas document, double-click the object, or choose the **Edit (OLE object)** command. A document in the server program opens with the embedded object.

Select All

(CTRL+A)

The Select All command selects all objects on the active layer or on all visible layers of a document, depending on the Selection Options preference setting. Choose **Edit: Select All** and selection handles appear around each selected object.

To select all the objects on the active layer that were created with a specific tool, select a draw tool or the Paint Object Creator tool and choose **Edit: Select All (*object type*)** (the command wording depends on which tool you select). For example, to select all rectangles, click the Rectangle tool and choose **Select All Rectangles**.

Selection

(CTRL+SHIFT+A)

The Selection command selects objects in a document based on criteria you specify. You can select several objects with varied properties and select new objects without deselecting those already selected. You can select objects on the active layer or on all visible layers of a document.

This command is available when the Selection Specs external tool is active.

Choosing **Edit: Selection** opens the Selection Specifications dialog box. Select the check boxes for properties you want to include as part of a selection set. Choose an option for the selected properties from the palettes. If you specify an object type, some properties might not be available. The selection set you create appears in brackets at the bottom of the dialog box. You can have more than one selection set.



Add to Selection selects items meeting the selection criteria while already-selected objects remain selected.

Across Visible Layers selects objects meeting the selection criteria on all visible layers of the document rather than just the active layer.

OR creates a new selection set.

Duplicate makes a copy of a selected set.

Clear All deletes all selection sets. To delete a single selection set, select it and press DELETE.

Cancel closes the dialog box without selecting any objects.

Select closes the dialog box and selects objects that meet the criteria of the selection set.

Duplicate

(CTRL+D)

The Duplicate command creates a copy of selected objects. Select the objects you want to duplicate and choose **Edit: Duplicate**. The placement of a duplicate object depends on the Duplication Offset preference settings in the Preferences dialog box.

If you duplicate an object, move the duplicate, and choose the Duplicate command again, Canvas places the next duplicate the same distance from the first duplicate as the first duplicate is from the original object.

To create more than one copy at a time or change the size, offset, and various properties of the copies, use the **Edit: Duplication** command.

Duplication

(CTRL+SHIFT+D)

The Duplication command makes multiple copies of a selection. You can specify the number of copies and how much each copy is resized, rotated, and offset from the original. You can also change the fill pattern or color of each successive copy. This command is available when the Duplication Specs [external tool](#) is active.

Choosing **Edit: Duplication** opens the Duplication Specifications dialog box.

Number Of Copies specifies the number of copies to create.

Offset Each Copy indicates the method for offsetting the copies.

- **By Length** specifies a direction and distance using the option buttons and text boxes to the right.
- **To A Line** is used to specify how the objects are to be positioned along a line you draw after closing the dialog box.

Resize Each Copy indicates the method for scaling each copy.

- **By Length** enlarges or reduces each copy by the amounts you type in the adjacent text boxes (use negative numbers for reduced lengths).
- **By Percentage** enlarges or reduces each copy by the percentages you type in the adjacent text boxes (use negative numbers for reduced percentages).

Increment: Fore Color, Back Color, Fill Pattern

You can choose whether to increment the properties of the copies on a per property basis. If you do not increment a property, Canvas creates all copies using the same property as the original object. To increment a property, select the check box for the property you want to increment and select a method from the palette.

- **Constant** assigns the property option you select from the adjacent pop-up palette to all copies.
- **By Palette** uses a range of options from the adjacent palettes to assign the property to the copies. Choose an option for the first copy from the Start pop-up palette and one for the last copy from the End pop-up palette. You can also click the Custom button to create your own color. Intermediate copies are assigned the palette options that fall between your Start and End choices. If the number of copies exceeds the number of palette options in the range, Canvas recycles through the palette range. If there are fewer copies than palette options in the range, Canvas begins with the Start choice and assigns the succeeding palette options to the copies, regardless of the End choice.
- **By Gradient** generates a blend between the Start and End colors you choose and assigns it to the intermediate copies. This option is only available for Fore Color and Back Color. Choose a Start and End color from the adjacent pop-up palettes to assign to the first and last colors, respectively; the blend will be created from these colors. You can also click the Custom button to create your own color.
- **By Gray Scale** assigns incremental gray-scale percentages to the intermediate copies. This option is only available for Fill Pattern. Type a Start and End gray-scale percentage in the adjacent text boxes to assign to the first and last copy, respectively. Intermediate copies are assigned incremental gray-scale percentages based on the number of copies.

Rotate Each Copy specifies the number of degrees to rotate each copy. Type a positive number of degrees in the text box by which to rotate each copy. Canvas enables the clockwise, counterclockwise, and **Center of Rotation** buttons letting you further customize the rotation of each copy.

Text menu

The Text menu commands include Font, Size, Style, Leading, Justification, and Kerning, to change selected text and default text settings. You can also use named Style Sets of text settings. Bind and Wrap commands place text inside, outside, and along text objects. Spell Check commands check text you select or as you type. Search & Replace finds and changes text. The Create Beziers command converts characters to objects that you can reshape, fill and outline with colors and patterns. The Text Ruler sets margins, tabs, and leading for text objects. The Type command opens a dialog box in which you can change most text settings.

Default text settings

Default text settings apply to new text objects. You can create new text objects using the Text tool, or by pasting text from the [Clipboard](#). To change the default settings, use Text menu commands when no text is selected. You can also use the Type command to open a dialog box of text settings.

Changing existing text

To change settings of existing text, select a text object or use the Text tool to highlight specific text in a text object (see [Selecting text](#)).

Color, pen mode, and other [object properties](#) also apply to text objects. You can also use commands in the Edit, Object, and Effects menus with selected text objects.

Select a Text menu command:

[Font](#)

[Size](#)

[Style](#)

[Justification](#)

[Leading](#)

[Kerning](#)

[Text Ruler](#)

[Create Beziers](#)

[Bind Text](#)

[Search & Replace](#)

[Spell Check](#)

[Style Sets](#)

[Wrap](#)

[Type](#)

Selecting text

To select a text object, click it with the Arrow tool. To select more than one text object, press SHIFT and click each one. You also can use the Arrow tool to drag a selection rectangle around one or more text objects to select them.

You can use the Selection command to select text objects, and the Select All shortcut (CTRL+A) to select all the objects on the current layer.

To deselect a text object, press ESC or click outside it. To deselect one of several selected text objects, press SHIFT and click the object you want to deselect.

Some Text menu commands and object properties can be applied to any selected text, including a single character, word, or text block in a text object. To select text characters, select the Text tool from the Tool Box (or double-click the text object with the Arrow tool) and drag over the text you want to select. The text highlights as you drag over it.

- To select a word, double-click it.
- To select a line, triple-click it.
- To select a block of text, click at the beginning of the block, then press SHIFT and click the end of the block.

To deselect highlighted text, press ESC or click within the text object.

Font

To change the font of selected text or to set the default font, choose **Text: Font** and a submenu displays the names of all fonts installed in your system. Choose a font from the submenu. Selected text changes accordingly. If no text is selected, the font you choose becomes the default font.

You can display the Font menu by pressing CTRL as you press the Text tool icon in the Tool Box. You can also use the Type Specifications dialog box (choose the **Text: Type** command) to select a font.

Size

To change the size of selected text or to set the default size, choose **Text: Size** and a submenu displays sizes from 6 to 72 points and commands to reduce or increase the size. Choose a size option from the submenu. Selected text changes accordingly. If no text is selected, the size you choose becomes the default font.

The Reduce and Increase options of the Text Size submenu reduce and increase the text size of selected text (or the default size if nothing is selected) by one point.

You can display the Size menu by pressing SHIFT and pressing the Text tool icon in the Tool Box. You can also use the Type command to select a size.

Style

To change the style of selected text or to set the default style, choose **Text: Style** and a submenu displays available styles: Plain, Bold, Italic, Underline, Strikethrough, Outline, Shadow, Small Caps, Superscript, Subscript, Uppercase, Lowercase, and Title. Choose a style option from the submenu. Selected text changes accordingly. If no text is selected, the style you choose becomes the default style.

You can display the Style menu by pressing the Text tool icon in the Tool Box. You can also use the Type command to select styles.

You can apply more than one style to text (exceptions are noted below). Each style applied to selected text or each default style (if no text is selected) has a check mark in the Style submenu.

Plain (CTRL+SHIFT+P) removes all text styles from selected text.

Bold (CTRL+SHIFT+B) makes selected text bold.

Italic (CTRL+SHIFT+I) italicizes selected text.

Underline (CTRL+SHIFT+U) underlines selected text with a single line.

Strikethrough (CTRL+SHIFT+H) draws a horizontal line through selected text.

Outline (CTRL+SHIFT+O) outlines selected text.

Shadow (CTRL+SHIFT+W) gives selected text a shadowed look.

Small Caps (CTRL+SHIFT+\\) changes selected text to the small caps format, causing lowercase letters to appear as small uppercase letters.

Superscript (CTRL+SHIFT++) superscripts selected text. Superscripting subscript text removes the subscript style.

Subscript (CTRL+SHIFT+-) subscripts selected text. Subscripting superscripted text removes the superscript style.

Uppercase (CTRL+SHIFT+]) changes selected text to all uppercase letters. Choosing Uppercase removes the Lowercase or Title style from any selected text.

Lowercase (CTRL+SHIFT+[) changes selected text to lowercase letters. Choosing Lowercase removes the Uppercase or Title style from any selected text.

Title (CTRL+SHIFT+;) capitalizes the first letter of each word in the selected text. Choosing Title removes the Uppercase or Lowercase style from any selected text.

The Uppercase, Lowercase, and Title options are available when the Text Utilities external tool is active. These options are not available through the Type command.

Justification

To change the alignment of selected text or to set the default text alignment, choose **Text: Justification** and a submenu displays alignment options: Right, Left, Center, and Full. Choose a justification option from the submenu. Selected text changes accordingly. If no text is selected, the option you choose becomes the default.

You can also use the Type command to select a justification option. You can only assign one justification style to a text object.

Right (CTRL+SHIFT+R) aligns each line of text to the text object's right margin (also called flush right, ragged left).

Left (CTRL+SHIFT+L) aligns each line of text to the text object's left margin (also called flush left, ragged right).

Center (CTRL+SHIFT+C) centers each line of text between the text object's left and right margins (also called flush center or centered).

Full (CTRL+SHIFT+F) extends each line of text from the left to the right side of the text object, adding space as needed to fill out each line.

Leading

To change the leading (spacing between lines) of selected text or to set the default leading, choose **Text: Leading** and a submenu displays leading options: Single Space, 1 1/2 Space, Double Space, Tighten, and Loosen. Selected text changes accordingly. If no text is selected, the option you choose becomes the default leading.

The Tighten and Loosen options decrease and increase, respectively, the leading of selected text objects (or the default leading if nothing is selected) by 0.5 points.

Single Space makes the space following each line of text equal to the largest font size in that line.

1 1/2 Space makes the space following each line of text one and one-half times the largest font size in that line.

Double Space makes the space following each line of text twice the largest font size in that line.

Tighten (CTRL+SHIFT+UP ARROW) decreases the leading of each line of selected text (or the default leading if no text is selected) by 0.5 points.

Loosen (CTRL+SHIFT+DOWN ARROW) increases the leading of each line of selected text (or the default leading if no text is selected) by 0.5 points.

Kerning

To change the kerning (spacing between characters) of selected text or to set the default kerning, choose **Text: Kerning** and a submenu displays kerning options.

You can use the Type command to specify kerning in points for selected text or as the default setting.

The following options affect the amount of kerning based on the font and text size. These options change the kerning of selected text, or the default kerning if no text is selected.

Very Tight greatly decreases the space between text characters.

Tight moderately decreases the space between text characters.

Normal spaces text characters normally according to font size.

Loose moderately increases the space between text characters.

Very Loose greatly increases the space between text characters.

The following options change kerning by an absolute amount for selected text.

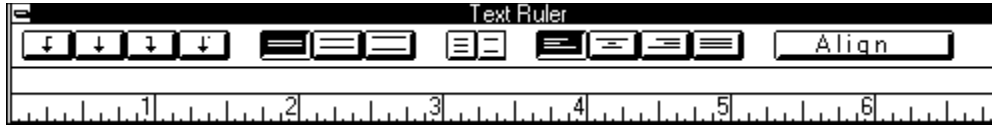
Tighten (CTRL+SHIFT+LEFT ARROW) decreases the character spacing of selected text by 0.5 point.

Loosen (CTRL+SHIFT+RIGHT ARROW) increases the character spacing of selected text by 0.5 point.

Text Ruler

The Text Ruler command is used to set tabs, leading, and justification for existing text objects. This command is available when the Text Ruler external tool is active.

Choosing **Text: Text Ruler** opens the Text Ruler floating window. If the window is open, choosing the command closes the window.



If a text object is selected when you choose the command, the Text Ruler aligns to the selected text object.

The Text Ruler uses the current ruler settings defined with the Rulers command. Default tab stops are set every half inch. If a text object is selected, the Text Ruler displays the tabs, leading, and justification settings of the object.

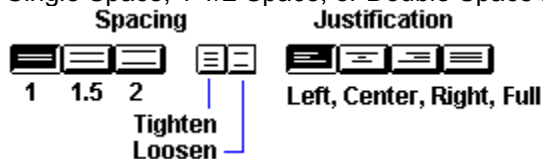
To move the Text Ruler, drag it by its title bar. To close it, double-click its Control-menu box. To resize it, drag the window border on either end.

To add a tab stop to a selected text object, drag a tab stop from a tab icon to the white tab area of the ruler. Any default tab stops to the left of the new tab disappear. You can move existing tab stops by dragging them along the ruler.



Canvas allows four types of tab stops: left-, center-, right-, and decimal-aligned. To remove a tab stop, drag it out of the tab area of the ruler.

The Text Ruler can set the justification and leading of a text object. To choose a leading value, click the Single Space, 1 1/2 Space, or Double Space icon in the Text Ruler, or click the Tighten or Loosen icons.



To choose a justification type, click the Left, Center, Right, or Full justification icon in the Text Ruler.

To specify numeric values and leader characters for tab stops, see the Tab Specifications dialog box.

Tab Specifications dialog box

In the Tab Specifications dialog box, you can change the position and type of an existing tab stop and specify a leader character to fill the space before the tab stop. To open the Tab Specifications dialog box, double-click a tab stop in the Text Ruler.

To change the tab stop type, select the **Left**, **Center**, **Right**, or **Decimal** option button.

To change the tab stop position, in the **Position box**, type the position, measured from the left margin, where you want to place the tab stop.

To assign a leader character to fill the space before the tab stop, in the **Leader** box, type a single character. When no character is specified, Canvas uses spaces.

Create Beziers

The Create Beziers command offers two options that convert TrueType and Type 1 fonts into Bezier curves.

- **Hollow** creates Bezier curve outlines using the current pen size and pen pattern.
- **Filled** creates Bezier curve letters filled with the current pen pattern.

This command is available when the Bezier Text external tool is active.

To convert text to Bezier curves, select the text you want to convert. If you select the text by highlighting, Canvas converts a copy of the selected text; if you select a text object, the text object itself is converted. Choose **Text: Create Beziers, Hollow** or **Filled**.

If the selected text is not a TrueType or Type 1 font, the text will not convert to Bezier curves.

When Canvas converts text to Bezier curves, the individual characters are grouped. To edit the shape or properties of a single character (which is now a draw object), select the entire object and press CTRL+U to ungroup the draw-object characters. Characters that have separate centers, such as A, B, D, O, P, Q, and R, become composite objects when text is converted to Bezier curves. See the Make Composite command for information.

You can edit Bezier text as you would any Bezier curve objects.

Bind Text

The Bind Text command binds a text object to the edge of a selected object. This command is available when the Bind external tool is active.

To bind text to an object, select a text object and the object you want to bind the text to, and choose **Text: Bind Text**. The pointer displays text which varies depending on the justification of the selected text object. Click the point on the object where you want to begin binding the text. Canvas redraws the text along the object's edge.

- If the text object is left or full justified, the pointer displays *Pick Left Edge*. The text binds toward the right from the point you click on the object.
- If the text object is right justified, the pointer displays *Pick Right Edge*. The text binds toward the left from the point you click on the object
- If the text object is center justified, the pointer displays *Pick Center Point*. The text centers around the point on the object you click.

To reverse the direction and the object side to which the text binds, press SHIFT as you choose the Bind Text command.

The bound text and the object can be edited individually or as a unit. You can edit a bound text object as you would any text object. Choose the Remove Effects command to restore the text to its original state.

To control the way Canvas positions the text along the object it binds to, use the Bind Text Manager.

Search & Replace

The Search & Replace command locates specified text in a document and, if you want, replaces it with other text. This command is available when the Search & Replace external tool is active.

Choose **Text: Search & Replace** and the Search & Replace dialog box opens.

Find What is the text you want to locate.

Replace With is text you want to replace the text you search for.

Match Whole Word Only tells Canvas to find text you search for only when it is a whole word (text preceded and followed by a space or punctuation mark). For example, if the search text is *time*, the following examples show what Canvas finds if the option is selected and not selected:

Selected: *How many times did you check your timepiece for the **time** today?*

Not selected: *How many **times** did you check your **timepiece** for the **time** today?*

Match Case locates only exact matches of the search text with regards to capitalization.

Find Next locates the next occurrence of the search text. If it finds the text, Canvas selects the text and stops the search.

Replace changes the selected text to the text in the Replace With box. Then, Canvas locates the next occurrence of the search text.

Replace All changes all occurrences of the search text in the document to the text in the Replace With box, without prompting you. This change cannot be undone.

Cancel interrupts a the search and closes the dialog box. To continue a search from the point where you canceled it, choose the Search & Replace command again.

Spell Check

The Spell Check command displays options for checking the spelling of text in a document or text object. You can add new words to the dictionary and interrupt or continue to check spelling. In interactive mode, Canvas can alert you to a word it doesn't recognize as you type.

The Spell Check command is available when the Spelling external tool is active.

The Canvas dictionary used for spelling contains over 100,000 words and was specifically developed for Canvas. The files associated with spelling are CANVAS.DIC (the dictionary) and SPELLING.DIC (the user environment).

Choosing **Text: Spell Check** displays a submenu of spelling check options: Suggest Spelling, Interactive, Spell Check Document, Spell Check Selection, Continue Spell Check, and Show Added Words.

Select a Spell Check option:

Suggest Spelling

Interactive

Spell Check Document

Spell Check Selection

Continue Spell Check

Show Added Words

Suggest Spelling

This option checks the spelling of a single selected word. Select the word you want to check and choose **Text: Spell Check, Suggest Spelling**. Canvas displays the Suggest Spelling menu. You can replace the selected word with one Canvas suggests, ignore the word, or add the word to your user dictionary.

Suggested spellings for the word appear at the top of the Suggest Spelling menu. To replace the word in your document, choose a suggested word from the menu. You also can choose one of the following options.

Add Word adds the selected word to your user dictionary.

Ignore Word ignores all occurrences of the selected word in the document.

Cancel closes the Suggest Spelling menu without changing the selected word.

Interactive

The Interactive option alerts you any time you type a word Canvas does not recognize. To turn this option on, choose **Text: Spell Check, Interactive**; a check mark appears next to its name. To turn Interactive off, choose it again; the check mark disappears.

When Interactive is on and Canvas alerts you of a misspelling, you can choose **Text: Spell Check, Suggest Spelling** to choose a replacement word, tell Canvas to ignore the misspelled word, or add the misspelled word to the user dictionary. In this case, you do not need to highlight the misspelled word to use the Suggest Spelling option.

Spell Check Document

The Spell Check Document option checks an entire document for misspelled words. If Canvas finds a word it does not recognize, the word and the text around it appear in the Spelling Checker dialog box. Choose **Text: Spell Check, Spell Check Document** and Canvas begins checking the document. When it finds a word it does not recognize, the Spelling Checker dialog box opens. Choose one of the following options from the dialog box.

Replace replaces the misspelled word with the replacement word in the box to left of the Replace button. Type a word in the box or click the arrow to the right of the box and select a word from the list; the word you select appears in the box.

Add adds the word to your user dictionary.

Ignore tells Canvas to consider the word correctly spelled throughout the document or selection.

Skip ignores the current occurrence of the word but notifies you of any other occurrences.

Cancel interrupts the spelling check and closes the Spelling Checker dialog box. If you choose the Cancel button, you can resume the spelling check by choosing **Text: Spell Check, Continue Spell Check**.

Spell Check Selection

The Spell Check Selection option checks selected text for misspelled words. Select the text you want to check and choose **Text: Spell Check, Spell Check Selection**. If Canvas finds a word it does not recognize, it displays the misspelled word and the surrounding text in the Spelling Checker dialog box.

See the [Spell Check Document](#) command for information about the Spelling Checker dialog box.

Continue Spell Check

The Continue Spell Check option continues a spell check that you have interrupted. Choose **Text: Spell Check, Continue Spell Check**, and if Canvas finds a word it does not recognize, the misspelled word and the surrounding text appear in the Spelling Checker dialog box.

Show Added Words

The Show Added Words option is used to add and delete words from the user dictionary. Choose **Text: Spell Check, Show Added Words** and the User Added Words dialog box opens. The words you have added to the user dictionary appear in the list box. Click a word in the list box to select it.

Delete Word removes the selected word from the user dictionary

Add Word adds a word that you type in the text box to the user dictionary. The word also appears in the list box of the User Added Words dialog box.

Done closes the User Added Words dialog box.

Style Sets

The Style Sets command offers options for saving text settings in named sets called style sets. The names of style sets you create appear at the bottom of the Style Sets submenu.

This command is available when the Style Sets external tool is active.

To save the properties of existing text as a new style set, select text that has the properties you want and choose **Text: Style Sets, New**. The New Style Set dialog box appears. The Attributes section shows the text properties of the new set. Type a name for the style set in the Name box and choose the OK button. The new style set will appear in the Style Sets submenu.

To use a style set, deselect all text if you want to change the default text settings, or select text you want to change, and choose **Text: Style Sets**. The Style Sets submenu opens, listing saved style sets. Choose the style set you want to apply.

To change the properties of a style set or delete one, choose **Text: Style Sets, Edit** and the Edit Style Sets dialog box appears. Select a style set from the list. The name of the selected style set highlights and appears in the Name box. The attributes of the style set appear in the Attributes section. Type a new name for the style set to change its name.

- **Delete** deletes the selected style set from the Style Sets submenu.
- **Edit** opens the Type Specifications dialog box so you can change any property of the style set. When you finish making changes, choose the OK button and you return to the Edit Style Sets dialog box. This option is available when the Text Utilities external tool is active.

When you finish using the Edit Style Sets dialog box to rename, edit, or delete style sets, choose the OK button to close the dialog box.

Wrap

The Wrap command displays options for conforming text to objects and slanting text object margins. This command is available when the Text Utilities external tool is active.

Choosing **Text: Wrap** opens a submenu of the following options:

Inside Shape wraps text inside a draw object. Select a text object and the draw object in which you want to wrap the text. Choose the Inside Shape option. Canvas wraps the text inside the object. If the text object is behind the other object in the stacking order, you might need to bring it forward with the Bring To Front option (CTRL+F).

You can also wrap text inside an object by selecting the object and typing.

Outside Shape wraps text around an object. Position the text object so it overlaps the object you want it to wrap around. Select both objects, then choose the Outside Shape option.

Slant Margin slants the left and right margins of a text object equally. Select the text object and choose the Slant Margin option. Four handles appear around the text object. Drag a handle in the direction you want the margins to slant. An outline shows the slanted margins as you drag the handle. When you release the handle, the text slants and two handles remain. You can adjust the slant by dragging a handle. When you finish, press ESC.

Remove Wrap removes any of the Wrap submenu options. Select the text object and choose the Remove Wrap option and Canvas restores the text object's original margins.

Type

(CTRL+T)

The Type command can be used to change the font, size, style, and other attributes of text and default text settings. This command is available when the Text Utilities external tool is active.

To change existing text, select the text and choose **Text: Type**. To set the default text properties, choose the command when no text is selected. Canvas displays the Type Specifications dialog box with the following options.

Font contains a list of fonts installed in your system. The font you select appears in the Font box.

Size sets text sizes in points. Select a size from the adjacent list or type a number in the Size box. You can type a size up to 999 points.

Style offers text style options. Select the check boxes for styles you want. See the Style command for descriptions of the styles, which also appear in the Style submenu.

Justify sets alignment of lines of text. Select one of four options: Right, Left, Center, or Full. See the Justification command for explanations of the justification options.

Kerning controls spacing between characters. Select one of three options: Normal, Tighten, or Loosen. If you select Tighten or Loosen, in the **By** box type the number of points you want to add (Loosen) or remove (Tighten) between characters.

Leading sets the leading (line spacing) of a text object using relative or absolute measurement.

- **Factor** specifies a multiple of the largest text in the preceding line to calculate the leading below that line. For example, a Factor of 1 would make the leading equal to the largest text size; a Factor of 2 would make the leading twice the size of the largest text.
- **Addition** specifies number of points to be added to the leading (determined by the Factor setting) for each line. To specify leading that does not vary with text size, type 0 in the Factor box and type a leading amount in the Addition box. To specify leading of 2 points more than the largest text in the preceding line, type a Factor of 1 and Addition of 2.

Position sets the position of the text baseline (an imaginary line on which characters rest). **Normal** is the default setting. **Superscript** raises and **Subscript** lowers text in relation to the normal baseline. In the **By** box, type the distance, in points, above or below the normal baseline.

Scale reduces or enlarges text width and height by a percentage. In the Scale box, type a number less than 100 to reduce size and greater than 100 to increase size. You can type different values in each box. To scale text proportionately, type the same number in both boxes (this is the same as increasing or decreasing the value in the Size box).

Apply applies the settings to selected text without closing the dialog box so you can view the results. Adjust the settings and choose the Apply button again until you are satisfied with the results.

Object menu

Object menu commands can give information about objects and control their size, position, and properties. You can change the stacking order, align, distribute, and scale objects. You can use the Object Specifications dialog box to modify many object properties. You can group, ungroup, lock, and unlock objects, and make composite groups from multiple objects. The Edit command puts objects, such as Bezier curves and polygons, into edit mode so you can reshape them. Other commands can blend, combine, and convert objects.

Commands in the Object menu are available when an object is selected (some require that more than one object be selected).

Select an Object menu command:

Arrange

Align

Object Specs

Scale

Group

Ungroup

Make Composite

Break Composite

Lock

Unlock

Curves

Edit (object)

Convert To

Macros

Blend

Combine

Arrange

The Arrange command displays a submenu of options for changing an object's stacking order or layer.

The stacking order of objects is initially determined by the order in which you draw them. The object drawn last is at the front of the stack.

To change the stacking order or layer, select the objects you want to change. Choose **Object: Arrange**. Choose one of the following options from the submenu:

Bring To Front (CTRL+F) moves selected objects in front of all other objects on the same layer.

Send To Back (CTRL+B) moves selected objects behind all other objects on the same layer.

Shuffle Up (CTRL+I) moves selected objects forward one position in the stacking order of the layer.

Shuffle Down (CTRL+J) moves selected objects back one position in the stacking order of the layer.

Send To Layer moves selected objects to another layer. Choose the layer name from the submenu that appears. Canvas moves the selected objects to the front of that layer's stacking order. This command is not available if the document has only one layer.

Copy To Layer copies selected objects to another layer. Choose the layer name from the submenu that appears. Canvas places a copy of the objects at the front of that layer's stacking order. The original objects do not change. This command is not available if the document has only one layer.

Align

(F6)

The Align command is used to align and distribute objects. This command is available when the Alignment Specs [external tool](#) is active.

You can align and distribute objects in relation to each other or the page, the entire document, or a line you draw as a reference.

Select the objects you want to align and distribute. Choose **Object: Align** and the Alignment Specifications dialog box opens.

In the dialog box, four objects appear in a preview box. Their positions change to show the effect of options you select.

You can select separate vertical and horizontal alignment or distribution options. For example, you can align objects vertically and distribute them horizontally at the same time.

Align To contains options that affect both vertical and horizontal alignment and distribution.

- **Each Other** aligns and distributes objects according to their positions.
- **Line** aligns and distributes objects along a line. After closing the dialog box, the pointer becomes a crosshair. Click to place the start and end of a line to align or distribute the objects. If you select both horizontal and vertical alignment, this option changes to **Point**, in which case you click to place the point.
- **Grid** aligns and distributes objects according to the nearest grid division. The positioning of the objects depends on the Snap to Grid Every setting in the [Grids](#) dialog box. The [Snap To Grid](#) option must be active. Objects that are close to the same grid division might be aligned to the same point and overlap.
- **Page** aligns and/or distributes objects that are on a single page (whether the document has one or more than one page) to a specified area on the page.
- **Document** aligns and/or distributes objects to a specified area in the document.

To specify vertical alignment or distribution, select the **Align** or **Distribute** check box on the right of the dialog box. Choose one of the option buttons below the check boxes to specify the type of vertical alignment or distribution.

- **Top**, **Center**, and **Bottom** align objects by their top, vertical center, or bottom coordinates, respectively, according to the object closest to the top, center, or bottom of the selected Align To option (Each Other, Line, Grid, Page, or Document). When Distribute is selected, these options place equal vertical distances between the tops, centers, or bottoms of the selected objects.
- **Height** aligns or distributes objects based on each object's top and bottom. Select an option from the **Distribute By** box to specify the placement order of the objects. **Object Position** arranges the objects top to bottom on the page beginning with the highest object on the page to the lowest, based on the top of each object. **Drawing Order** arranges the objects top to bottom on the page beginning with the back object (first drawn) to the front object (last drawn).

When **Align** is selected, Canvas places the top of one object in line horizontally with the bottom of the object above it, and so on. You cannot align by Height when Line/Point or Grid is the selected Align To option.

When **Distribute** is selected, Canvas places the same amount of vertical space between the objects.

To specify horizontal alignment or distribution, select the **Align** or **Distribute** check box on the left of the dialog box (under the preview box). Choose one of the option buttons below the check boxes to specify the type of horizontal alignment or distribution.

- **Left, Center, and Right** align or distribute objects by their left, horizontal center, or right coordinates.
- **Width** aligns or distributes objects based on each object's right and left sides. Select an option from the Distribute By box to specify the placement order of the objects. **Object Position** distributes objects based on their positions in the document. **Drawing Order** distributes based on the stacking order of the objects.

When **Align** is selected, Canvas places the right side of one object in line vertically with the left side of the object to the right of it, and so on. You cannot align by width when Line/Point or Grid is the selected Align To option.

When **Distribute** is selected, Canvas places the same amount of horizontal space between the objects.

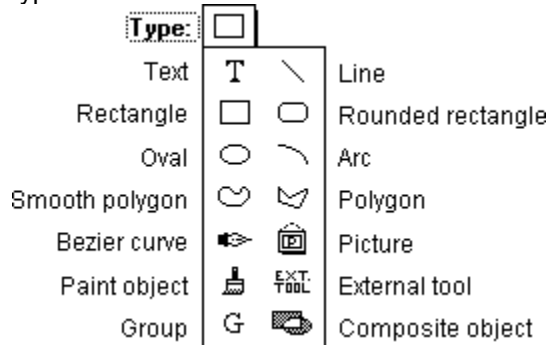
Object Specs

(F7)

You can use the Object Specs command to view and change many properties of selected objects. This command is available when the Object Specs [external tool](#) is active.

To use the Object Specs command, select one or more objects. Choose **Object: Object Specs** and the Object Specifications dialog box opens.

Type shows the object type of the selected object. The Type box contains a palette of all Canvas object types.



To change the object type of the selection, choose an option from the Type palette. Object types that are not available for the selection are dimmed. If more than one object is selected when you choose the Object Specs command, the Type box displays "G" for group. It also shows "G" if the selection is a group object (an object created from separate objects with the **Object: Group** command).

The object type determines which options are available in the Object Specifications dialog box.

Depth shows the color [depth](#) of a [paint object](#) and contains depth settings. This box is available when the object type is a paint object. The greater a paint object's depth, the greater the range of colors the object can contain, and the more memory it requires. To change the depth of the object, select 1 Bit, 4 Bit, 8 Bit, or 24 Bit from the Depth box.

DPI (dots per inch) shows the [resolution](#) of a paint object and contains preset resolution values. This box is available when the object type is paint object. To change the resolution of the paint object, select a value from the list or type a number from 16 to 2304 in the DPI box.

If you change a paint object's resolution in the DPI box, you can let Canvas resize the object based on the changed [pixel](#) size (increasing resolution reduces the object's size, decreasing resolution expands the object's size). If you do not want the object's size to change, select the **Keep Size** check box and Canvas adds or subtracts pixels as necessary to maintain the object's size.

Caption is available when the object type is text. Select this check box to create a caption text object. In Caption text, you must press ENTER to end a line. If Caption is not selected, the object will be paragraph text and you can set the margins using the Left and Right position boxes (see below). Lines of text automatically wrap within the margins of paragraph text objects.

PostScript is available when the object type is text. Select this check box to include [PostScript](#) code with the text object.

Fore Color, **Back Color**, **Fill Pattern**, **Pen Size**, **Pen Pattern**, and **Pen Mode** display the properties of the selected object and open the respective properties palettes. You can change these properties by selecting an option from the appropriate palette. These palettes are equivalent to the [Tool Box](#) palettes. See [Object property palettes](#) for more information.

Measurement and position data

The six boxes in the center of the dialog box show measurement and position data for the selection. The labels change depending on the object type. The unit of measure, shown at the lower left of the dialog

box, matches the current ruler; see [Rulers](#) for information.

To change any of the values, type a new number in the appropriate box.

- **Top** is the vertical distance from the ruler's zero point to the top of the object's bounding rectangle. If the object is a line, **Start v** shows the vertical distance from the zero point to the line's start point.
- **Left** is the horizontal distance from the ruler's zero point to the left side of the object's bounding rectangle. If the object is a line, **Start h** shows the horizontal distance from the zero point to the line's start point.
- **Bottom** is the vertical distance from the ruler's zero point to the bottom of the object's bounding rectangle. If you click Bottom, it is replaced by **Height**, the distance between the top and bottom of the object's bounding rectangle.

If the object is a line, **Δv** is the vertical change from the start to the end of the line. If you click **Δv** , it is replaced by **End v**, the vertical distance from the zero point to the line's end point.

- **Right** is the horizontal distance from the ruler's zero point to the right edge of the object's bounding rectangle. If you click Right, it is replaced by **Width**, the distance between the left and right sides of the object's bounding rectangle.

If the object is a line, **Δh** is the horizontal change from the start to the end of the line. If you click **Δh** , it is replaced by **End h**, the horizontal distance from the zero point to the line's end point.

- **Start Angle** and **Delta Angle** are available when the object is an arc. Start Angle is 0 or 180 degrees when an arc is first drawn. Delta Angle is the angular measurement of the arc and is 90 or -90 degrees when an arc is first drawn.
- **Dia. Horiz.** and **Dia. Vert.** appear when the object is a rounded rectangle. They show the diameter of a circle corresponding to the rounded corners of the rectangle. The values in the boxes are the same.

Under the data boxes, Canvas displays the following measurement information (which cannot be changed).

- **Length** displays the measurement of a line.
- **Area** displays the area of the selected object, when applicable.
- **Perimeter** displays the perimeter around the selected object, when applicable.
- **Obj Number** is a numeric identifier assigned to the object by Canvas.

Scale

(F8)

The Scale command enlarges or reduces selected objects. This command is available when the Scale Specs external tool is active.

Select the objects you want to scale. Choose **Object: Scale** and the Scaling Specifications dialog box opens.

Expressed As offers two scaling methods. The selected method determines the appearance of the dialog box.

- **Percentage** scales objects by a percentage of their original size.

Expressed As:
☒ Percentage
☐ Ratio

<input checked="" type="checkbox"/>		100	%
<input type="checkbox"/>		100	%
<input type="checkbox"/>		100	%

- **Ratio** scales the objects as a fraction.

Expressed As:
☐ Percentage
☒ Ratio

<input checked="" type="checkbox"/>		1	/	1
<input type="checkbox"/>		1	/	1
<input type="checkbox"/>		1	/	1

You can scale objects by the same factor in both directions or specify individual horizontal and vertical scaling factors.



scales by the same factor in both directions



scales horizontally



scales vertically

Select the appropriate check boxes and type the scaling factors in the adjacent text boxes to scale the selected objects.

Scale Pen Size scales the pen size of the selected object by the same factor as the object itself. If this is not selected, draw object lines retain their original pen size.

Scale Text Size scales text when it is part of a group or a multiple-object selection. If only one text object is selected, Canvas scales the text in it regardless of this setting.

Group

(CTRL+G)

The Group command unifies selected objects as a group object. You can edit the group as a single object. To create a group, select two or more objects and choose **Object: Group**. Selection handles appear around the group.

Applying the Group command does not change the component objects, which retain their properties until you change the properties of the group. Grouping objects is most helpful when you want to maintain the relative positions of objects and be able to move, copy, and apply properties to them as a unit.

If you select objects that are on separate layers, Canvas brings them to the active layer when you apply the Group command.

To convert a group to its component objects, use the **Object: Ungroup** command (CTRL+U).

Ungroup

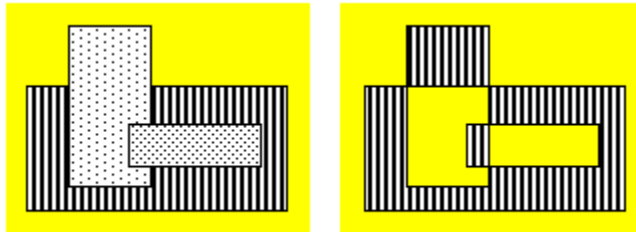
(CTRL+U)

To separate a group object into its original component objects, select the group and choose **Object: Ungroup**. Selection handles appear around each original object.

Make Composite

(CTRL+SHIFT+M)

The Make Composite command converts multiple draw objects into a composite object. To create a composite object, select multiple draw objects and choose **Object: Make Composite**. The composite object takes the properties (such as colors, patterns, and pen size) of the back object. Areas where an even number of the original objects overlap are knocked out, allowing the background to show through. Composite objects can be edited like any [Bezier curve](#).



Original objects

Composite object

The illustrations above show several draw objects on a shaded background (left), and the objects converted to a composite object (right).

To convert a composite object to an object group, select the composite object and choose **Object: Break Composite**.

Break Composite

(CTRL+SHIFT+K)

To separate a composite object into its component objects, select the composite object and choose **Object: Break Composite**. The resulting objects are Bezier curves that retain the properties of the composite object.

Lock

(CTRL+L)

The Lock command anchors an object in place and prevents it from being moved or changed in any way. Select the objects you want to lock and choose **Object: Lock**.

When an object is locked, you can select, duplicate, or copy it, but you cannot cut, delete, flip, move, or rotate it, or change its properties. If you try to change a locked object, a message tells you that the object is locked.

To unlock locked objects, choose the **Object: Unlock** command.

Unlock

(CTRL+K)

The Unlock command reverses the effects of the Lock command. Select the objects you want to unlock and choose **Object: Unlock**.

Curves

The Curves command offers options for editing polygons, smooth polygons, Bezier curves, lines, and arcs.

Select the appropriate objects, and choose **Object: Curves**. The Curves submenu displays four editing options. Select All Anchors is available when polygons or Bezier curves are in edit mode. The Join option is available when two open objects (open polygons and Bezier curves, lines, and arcs) are selected. Smooth and Unsmooth are available when polygons or smooth polygons, respectively, are selected.

Select a Curves option:

Select All Anchors

Join

Smooth

Unsmooth

Select All Anchors

To select all the anchor points of a Bezier curve or all the vertices of a polygon or smooth polygon, when these objects are in edit mode, choose **Object: Curves, Select All Anchors**. If more than one Bezier curve or polygon is in edit mode, this option selects all the anchor points and vertices of each object.

Join

To join two selected open objects (polygons, Bezier curves, lines, or arcs), select the objects and choose **Object: Curves, Join**.

- If the objects' closest endpoints are more than 15 pixels apart, Canvas draws a new segment between the endpoints. To have Canvas extend the endpoints instead of drawing a new segment, press CTRL+SHIFT as you choose Join.
- If the object's closest endpoints are less than 15 pixels apart, Canvas extends the existing points to create a single anchor point or vertex. To have Canvas draw a new segment instead of extending the endpoints, press CTRL+SHIFT as you choose Join.
- To join polygons or Bezier curves between specific endpoints, place the objects in the edit mode, select the endpoints you want to join, and then choose Join.
- To join selected Bezier curves or polygons with a straight line segment, press CTRL as you choose Join.

Joining lines and polygons creates a polygon. Joining any other types of objects creates a Bezier curve.

Smooth

The **Object: Curves, Smooth** option converts one or more selected polygons to smooth polygons. To reverse the effects of the Smooth option, choose **Object: Curves, Unsmooth**.

Unsmooth

The **Object: Curves, Unsmooth** option converts one or more selected smooth polygons into polygons. To reverse the effects of the Unsmooth option, choose **Object: Curves, Smooth**.

Edit (object)

(CTRL+E)

The Edit command places a selected concentric circle, Bezier curve, cube, dimensioning object, grid, parallel line, polygon, spiral, or smart line in the edit mode or displays a manager dialog box so you can modify the object. The Edit command changes depending on what type of object you select. The command reads *Edit Concentric Circle*, *Edit Curve*, *Edit Cube*, *Edit Dimensioning*, *Edit GridMaker*, *Edit Parallel Line*, *Edit Polygon*, or *Edit Smart Line*.

Select the object you want to edit and choose **Object: Edit (object)**. The selected object is placed in edit mode or a dialog box opens for you to edit the object.

Choosing this command is the same as double-clicking an object (if Enter Edit Mode is selected in the Double-Clicking preference in the Preferences dialog box).

Convert To

The Convert To command offers options for converting draw objects to polygons, Bezier curves, or object groups.

Select a draw object and choose **Object: Convert To**; the Convert To submenu appears. The options that are available depend on the type of object selected.

- **Polygon** converts straight-line objects, such as rectangles, into polygons.
- **Bezier Curve** converts any straight-line or curved-line draw objects into Bezier curves.
- **Group** converts hatch patterns and draw objects made with the Cube, Parallel Lines, Dimensioning, Concentric Circle, and GridMaker tools into object groups. You can then ungroup the object and edit the separate components.

Macros

The **Object: Macros** command displays a submenu of options for working with MacroObjects. MacroObjects are special Canvas objects that you can place in a document at any size. Sets of MacroObjects can be saved for use in other documents.

The Macros options are used to create and delete MacroObjects, load a macro set, save the current macro set, and clear the current macro set.

The MacroObjects in the current set appear in the Macros palette.

The Macros command is available when the Macro Object external tool is active.

Select a Macros option:

Add

Delete

Replace

Unlink

Load Set

Save Set

Clear Set

Add

The Add option saves a selected object to the Macros palette. To create a new MacroObject, select an object and choose **Object: Macros, Add**. A dialog box appears for you to name the MacroObject. In the Add Macro As box, type a name and choose the OK button. The new MacroObject appears in the Macros palette.

Delete

The Delete option is used to remove a MacrObject from the current macro set. Choose **Object: Macros, Delete** and a submenu shows the names of the MacrObjects in the current set. Choose a MacrObject name from the submenu. A message asks you to confirm that you want to delete the MacrObject. Choose the OK button to delete the MacrObject.

Replace

The Replace option replaces a selected MacroObject (and any occurrences of that MacroObject in the document) with a selected object. Select the object that you want to be the replacement for the MacroObject. Choose **Object: Macros, Replace** and a submenu shows the names of the MacroObjects in the current set. Choose a MacroObject from the submenu. A message asks you to confirm that you want to replace the selected MacroObject. Choose the OK button to replace the MacroObject in the Macros palette. All MacroObjects in the document that are linked to it also are replaced.

Unlink

The Unlink option breaks the link between selected MacroObjects in a document and the MacroObject in the Macros palette. Select the MacroObjects in the document that you want to unlink and choose **Object: Macros, Unlink**.

You might want to unlink certain MacroObjects so they do not change when you replace a MacroObject in the Macros palette.

Load Set

The Load Set option loads a macro set stored on disk into the Macros palette. Choose **Object: Macros, Load Set** and a directory dialog box opens. Locate the macro set you want to load and choose the OK button. If there are unsaved MacroObjects in the Macros palette, a message asks if you want to save them as a macro set. If you load a new set without saving the active one, these MacroObjects can be lost. You can load up to 32 MacroObjects into the Macros palette.

Save Set

The Save Set option saves to disk as a macro set the MacObjects in the Macros palette. A macro set can contain up to 32 MacObjects.

To save the MacObjects, choose **Object: Macros, Save Set** and a directory dialog box opens. Choose the drive and directory where you want to store the macro set and type a name in the File Name box. Choose the OK button to save the macro set.

When you save a Canvas document containing a macro set, the set is saved with the document. The Save Set command saves the MacObjects as a separate file that you can load into other documents.

Clear Set

Choosing **Object: Macros, Clear Set** removes the current macro set from the Macros palette. This breaks the links to MacroObjects from the set that have been placed in the document. If you have not saved the set, Canvas asks if you want to save it before clearing it.

Blend

(F4)

The Blend command blends two or more draw objects to create a series of objects between them. This command is available when the Blend Objects external tool is active.

Canvas blends the shape, color, fill pattern, pen pattern, and pen size of the objects, starting from the back object in the stacking order. If more than two objects are selected, Canvas blends the first two objects, then the second and third, and so on.

To create a blend, select two or more draw objects and choose **Object: Blend**. The Blend Specifications dialog box opens. This dialog box contains the following options:

Shapes is the number of objects you want to create for each blend.

Start % and **Stop %** give the position of the first and last blend object as the percentage of the space between the selected objects. Canvas sets values that space the blend objects evenly. Blend object placement affects how properties (colors, pen size, patterns) are applied.

Options in the **Colors** area affect the blending of colors, fill and pen patterns, and pen sizes of the selected objects.

Method determines the colors of the blend objects.

- **Palette Colors** uses the order of palette colors between the front and back object colors to assign colors to the blend objects.
- **RGB Values** or **CMYK Values** blends RGB or CMYK color values from the back object to the front object. This option reads *CMYK Values* only if one of the selected objects has a CMYK color.
- **HSL Values** blends HSL color values from the back object to the front object.

Rate sets the speed at which the object properties change.

- **Constant** evenly blends the properties of the intermediate objects.
- **Accelerating** blends the intermediate objects more strongly toward the bottom object's properties than the top object's properties.
- **Decelerating** blends the intermediate objects more strongly toward the top object's properties than the bottom object's properties.
- **More Middle** emphasizes the averages of the selected objects and tapers more sharply to their individual properties at the ends.
- **More Ends** emphasizes the properties of the selected objects and steps sharply through the transitional stages in the center.

Object Positions specifies placement of the objects Canvas creates to blend the selected objects. **Rate** options affect placement, relative to the Start % and Stop % values (see above) as follows:

- **Constant** spaces blend objects evenly.
- **Accelerating** places more intermediate objects near the back object.
- **Decelerating** places more intermediate objects near the front object.
- **More Middle** places more intermediate objects midway between the selected objects.
- **More Ends** places more intermediate objects near the selected objects than in the area between them.

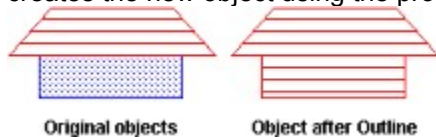
Point to Point blends the objects according to a point you specify on each. When you close the dialog box, edit points appear on the objects and the pointer reads *Choose Point*. Click a point on each object.

Combine

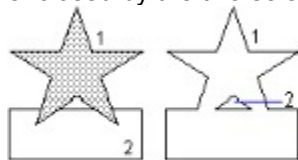
The Combine command offers options to create new draw objects by combining existing ones. This command is available when the Combine Objects external tool is active.

To use Combine options, two or more draw objects must touch or overlap, and all the objects must be selected. Choosing **Object: Combine** displays a submenu of the following options:

Outline creates a new object from the outline of two or more selected draw objects that overlap. Canvas creates the new object using the properties of the object originally in front.



Add joins two selected draw objects (it is not available when more than two objects are selected) where they overlap. This option is not available if a line is selected. Canvas creates one or more new objects using the properties of the object originally in back. The Add option creates new objects from spaces enclosed by the two selected objects.



Original objects Objects after Add

Intersect eliminates areas of objects not overlapped by the front object. The front object, in effect, acts as a cookie cutter, cutting into the back objects. The front object remains unchanged and all objects retain their properties.



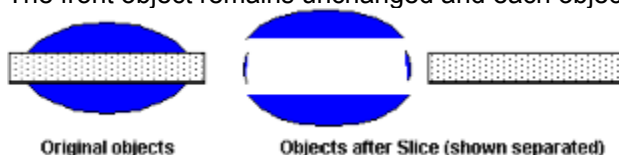
Original objects Objects after Intersect

Subtract cuts away parts of objects overlapped by the front object. The front object remains unchanged and each object retains its properties.



Original objects Objects after Subtract
(front star dragged away)

Slice cuts two or more draw objects into separate objects where they are intersected by the front object. The front object remains unchanged and each object retains its properties.



Two modifier keys affect the Combine command:

- To keep the original objects, press CTRL as you choose a Combine option, and Canvas applies the option to a copy of the original objects.
- The stacking order of objects affects Combine operations. You can reverse the stacking order of two selected objects by pressing SHIFT when you choose a Combine option.

Layout menu

Layout menu commands affect the settings for and appearance of an entire document. You can show and customize a document's rulers, go to specific areas of a document with the Views and Layers commands, and use the Guides and Grids commands to ensure precise placement of objects. You can display the dimensions of objects as you draw them using the Size option, and you can display dimensioning and other data with the Information Box option. The Drawing Size command is used to change a document's overall size.

Select a Layout menu command:

Show/Hide

Display

Views

New View

Layers

Layer Specs

Grids

Rulers

Guides

Smart Mouse

Snap To Grid

Drawing Size

Slides

Show/Hide

The Show/Hide command offers options to control the display of various drawing aids.

Choosing **Layout: Show/Hide** displays a submenu of options: Grid, Information Box, Page Breaks, Rulers, or Size. When an option is active, it has a check mark in the menu. To hide an element, choose it again.

The **Information Box** (SHIFT+F7) appears at the bottom of the Canvas document window when this option is active. The Information Box displays data to help you identify, measure, resize, and position objects. You can also use the Information Box to attach dimension text to objects. This option is active by default. See [Information Box](#) for more information.

Size (SHIFT+F8) displays dimension data when this option is active. The size data appears at the pointer when you drag to create or resize an object and when you press an object. The size data uses the current ruler units. This option is off by default.

Grid (SHIFT+F9) displays grid lines in the [illustration area](#) when this option is active. The grid is useful for precisely aligning and positioning objects. This option is off by default.

To set the spacing between the grid's lines, see the [Rulers](#) command. To control how objects align to grid divisions, see the [Grids](#) command.

Page Breaks (SHIFT+F10) displays lines that show where a multi-page document divides into pages for printing. This option is off by default. To specify the number of pages in a document, use the [Drawing Size](#) command. To change the size or orientation of pages, use the [Print Setup](#) command.

Rulers (SHIFT+F11) displays rulers at the top and left of the document window when this option is active. Dotted lines in the rulers show the position of the pointer. This option is off by default. To configure the rulers, use the [Rulers](#) command.

Display

The Display command offers options for changing the appearance of a Canvas document on screen. Choose **Layout: Display** and a submenu shows the Display options: Wire Frame, PostScript, GDI, and Refresh.

Wire Frame displays only outlines of the draw objects in your document. All draw objects appear in black and white with a 1-point pen size, solid black pen pattern, and no fill pattern. The Wire Frame option is useful when you want to view a document without waiting for Canvas to redraw colors, pen sizes, and patterns.

PostScript displays the objects in a document as they would appear when printed on a PostScript printer. Canvas displays all draw objects in the Copy pen mode because that is the only pen mode recognized by PostScript printers.

GDI displays a document using the Windows native Graphics Device Interface (GDI), showing objects as they would appear when printed on a Windows GDI-based printer. Canvas displays all objects' properties as set.

Refresh (F5) redraws the screen. This option is useful for updating the screen after you have interrupted the redraw process. When Canvas is redrawing a complex illustration, you can interrupt it by pressing CTRL+Period. This leaves any objects that have not yet been drawn invisible. The Refresh option redraws the screen's contents, making all objects visible again.

Views

Choosing **Layout: Views** displays a submenu of options for changing your view of the active document. You can choose preset options and create custom views that you can choose from the submenu. A custom view records a magnification level and position in the document, so you can switch quickly to a specified area and zoom percentage. Use the New View command to create custom views.

Home View (F3) returns to a 100% view of the top-left corner of the document. This is the view when you open a document.

Reduce To Fit (SHIFT+F3) changes the magnification level so that the entire document is visible in the document window.

Zoom In (CTRL+ALT++) increases magnification to the next higher preset level. This is the same as clicking the Zoom In button of the Zoom palette icon.

Zoom Out (CTRL+ALT+-) reduces magnification to the next lower preset level. This is the same as clicking the Zoom Out button of the Zoom palette icon.

Delete View removes a custom view from the Views submenu. Choosing this option opens a dialog box that lists the document's custom views. Click the name of a view to select it. **Check All** selects every view in the list. **Check None** deselects all the views in the list. **Delete** removes selected views and closes the dialog box.

New View

The New View command records a location and magnification level in the document. The name of the custom view appears in the Views submenu.

To define a view, first scroll to the area of the document you want to record and set the magnification level using the Zoom palette. Choose **Layout: New View** and a dialog box opens for you to name the view. You can return to a saved view by choosing **Layout: Views** and choosing the name of the view from the submenu.

Layers

Choosing **Layout: Layers** displays a submenu with options for manipulating the layers in Canvas documents. You can move to a different layer and show or hide layers.

The options available depend on the number of layers in the document and whether the layers are visible. The following options appear in the Layers submenu:

Hide Other Layers (SHIFT+F2) makes all layers except the active layer invisible.

Show Other Layers (CTRL+SHIFT+F2) makes all layers visible.

Next Layer moves to the first visible layer above the active layer.

Previous Layer moves to the first visible layer below the active layer.

Layer Specs

(F2)

The Layer Specs command is used to add, delete, modify, and change the order of the layers in a document. This command is available when the Layer Specs external tool is active.

Choosing **Layout: Layer Specs** opens the Layer Specifications dialog box.

The list box contains the names of all the layers in the document. Check marks in the columns under **V** (Visible), **G** (Grayed), and **C** (Color Override) indicate which properties are active for each layer. You can turn these properties on and off by clicking under the appropriate heading. The order of layer names in the list box corresponds to the order of the layers in the document. To change a layer's order, drag its name to a new location. The active layer's name is highlighted.

Visible makes all the objects on a layer visible and gives you access to the layer. When this check box is selected, new layers are visible.

Grayed makes all of the objects on a layer appear gray. You can edit objects in a grayed layer but you cannot print them. When this check box is selected, new layers are grayed.

Color Override applies the color you select from the adjacent pop-up palette to all objects in the active layer. The color change does not affect the actual properties of the objects, only the way their appearance on screen. When this check box is selected, new layers have Color Override active.

New Layer adds a layer to the active document. Canvas sequentially names added layers *Layer #1*, *Layer #2*, and so on. The new layer's name appears in the box at the bottom of the Layer Specifications dialog box.

Delete Layer deletes the selected layer from the document.

To change a layer's name, select the layer and type a new name in the text box at the bottom of the dialog box.

Grids

(F9)

The Grids command is used to customize the autogrid, a user-defined system of horizontal and vertical guidelines that constrain the pointer when you create or drag objects. This command is available when the Grid Specs external tool is active.

Choosing **Layout: Grids** opens the Grid Specifications dialog box, which offers the following options:

Snap To Grid Every _ Divisions has a list of fractions of the major divisions (set using the Rulers command) that you can snap to. You can also type a whole number or fraction in this box.

To activate the autogrid, you must select the Snap To X Grid, Snap To Y Grid, or both check boxes.

Snap To X Grid snaps objects you create or resize to horizontal grid divisions.

Snap To Y Grid snaps objects you create or resize to vertical grid divisions.

You can then turn the autogrid on and off using the Snap To Grid command.

Show Grid makes the autogrid visible. Selecting this option is equivalent to choosing the **Layout: Show/Hide, Grid** command.

Rulers

(F11)

The Rulers command is used to configure any of the six available rulers. This command is available when the Ruler Specs [external tool](#) is active.

Choosing **Layout: Rulers** opens the Ruler Specifications dialog box.

Ruler # contains a list of rulers, numbered 1 to 6, that you can configure.

Units contains measurement unit options. The measurement units correspond to the actual size of objects in the Canvas document. The top ruler in the dialog box displays the selected units.

To specify the major ruler divisions, drag the double-headed arrow. The number the arrow points to on the bottom ruler defines the major units.

Minor Divisions specifies the number of divisions between each major division.

Scale specifies a scale for the document. The first box sets the base measurement, such as 1 inch or 3 picas, that you want the scale to relate to. The unit of measure for this amount comes from the Units box and is shown in the top ruler. The second box specifies the measurement you want the base measurement to correspond to, using the unit of measure in the box on the right. These are the real units. The bottom ruler shows this scale. The bottom ruler appears in the document window and determines how measurements of Canvas objects are displayed.

For example, if the scale is 1 inch = 1 foot, a 1-inch object shows its size as 1 foot in the Object Specifications dialog box, in the [Information Box](#), and when you use Canvas tools to measure the object.

Guides

(SHIFT+F6)

The Guides command controls the display of lines that can help you align objects in a document. On a black-and-white screen, guides are gray. On a color monitor, they are blue. Guides do not print.

To show or hide guides, choose **Layout: Guides**. A check mark appears next to the command's name when guides are visible.

The Guides command must be active and the rulers must be showing for you to place guides in the document. To place guides, drag them from either ruler into the illustration area.

You can drag a guide to move it. Drag a guide out of the illustration area to remove it To drag all objects aligned to a guide, press CTRL as you drag the guide.

Smart Mouse

(CTRL+SHIFT+F8)

The **Layout: Smart Mouse** command turns the Smart Mouse constraint feature on and off. Smart Mouse constraints aid in precision drawing by indicating when an object meets specified constraints. This command is available when the Smart Mouse external tool is active.

A check mark appears next to the Smart Mouse command when Smart Mouse is active.

To change which Smart Mouse constraints are in effect, use the Smart Mouse Manager command or the Smart Mouse window.

Snap To Grid

(CTRL+SHIFT+F9)

The **Layout: Snap To Grid** command activates or deactivates the autogrid, a system of horizontal and vertical guidelines for aligning objects.

When Snap To Grid is active, objects snap to the nearest grid interval when you create, drag, or resize them. Snap To Grid is independent of the display of the grid (see the Show/Hide command). To temporarily disable the autogrid, press TAB as you draw or drag an object. To configure the autogrid, use the Grids command .

Drawing Size

(F10)

The Drawing Size command sets the size of a document. This command is available when the Drawing Size Specs external tool is active.

Choosing **Layout: Drawing Size** opens the Drawing Size Specifications dialog box.

The grid represents the maximum size available for the document. The current size is indicated by filled blocks. Each block represents a printer page (as defined using Print Setup). To change the document size, click the block representing the page at the bottom-right corner of the document.

Horizontal Overlap and **Vertical Overlap** set the amount of the document that is repeated on adjoining pages when printed.

Printing Order specifies whether pages print in horizontal or vertical sequence.

Slides

(F11)

The Slides command is used to create presentations from a multi-layer document. This command is available when the Slides external tool is active.

When you create a slide show, each document layer is a separate slide. You can change slides manually or let Canvas run the show.

Choosing **Layout: Slides** opens the Slide Specifications dialog box. This dialog box offers the following options:

Change Every ___seconds specifies how long a slide is displayed when Canvas plays a slide show.

Master Layer designates a document layer as a backdrop for the other slides. Select the name of the master layer from the adjacent list.

Draw Slides Smoothly displays the complete image of each slide, rather than drawing the objects on screen one by one.

Play begins the slide show. If you select Change Every _ seconds, Canvas plays the slides at the specified interval. If not, click the mouse to change slides.

Show Pointer displays the mouse pointer during a slide show.

OK closes the Slide Specifications dialog box and displays the Slides window. Choose the **Last**, **Next**, or **Play** button in the Slides window to view the slides.

Slides window

When you choose the OK button in the Slide Specifications dialog box, the Slides window appears, indicating that you are in slide edit mode. Only the current layer and the master layer (if there is one), are visible. The Slides window is used to cycle through the slides to view or edit them.

Last displays the previous slide

Next displays the following slide.

Play begins the slide show. If you selected Change Every _ seconds, Canvas will play the slides at the specified interval. If not, click anywhere to move to the next slide. To exit the slide show, press ESC.

To leave slide edit mode, double-click the Control-menu box of the Slides window.

Effects menu

Effects menu commands extrude, rotate, flip, trace, invert, fill, and apply other effects to selected objects. Some commands can be applied to selected portions of paint objects. Options of the Special Effects command modify draw and paint objects. Options of the Image Effects command modify paint objects. You can remove Special Effects with the Remove Effects command.

Select an Effects menu command:

Rotate Right

Rotate Left

Free Rotate

Flip Horizontal

Flip Vertical

Flip Both Axes

Auto Trace To

Special Effects

Image Effects

Lasso

Envelope

Extrude

Remove Effects

Rotate Right

The Rotate Right command offers clockwise rotation options. Select objects or paint areas you want to rotate, choose **Effects: Rotate Right**, and the Rotate Right submenu appears. Choose 15°, 30°, 45°, 60°, or 90°.

To specify a rotation amount (in 1° increments), choose the **Other** option. The Rotation Specifications dialog box opens for you to type a rotation amount.

Rotate Left

The Rotate Left command offers counterclockwise rotation options. Select objects or paint areas you want to rotate, choose **Effects: Rotate Left**, and the Rotate Left submenu appears. Choose 15°, 30°, 45°, 60°, or 90°.

To specify a rotation amount (in 1° increments), choose the **Other** option. The Rotation Specifications dialog box opens for you to type a rotation amount.

Free Rotate

The Free Rotate command is used to rotate a selection in one-degree increments.

Select the object or paint area you want to rotate and choose **Effects: Free Rotate**. Four edit handles (two if the selection is a line) appear around the selection. Drag any handle to rotate the object. As you drag, the Information Box displays the rotation angle.

Flip Horizontal

The **Effects: Flip Horizontal** command flips selected objects and paint areas around their vertical axes. This turns the original objects into mirror images.

To flip multiple selected objects around a common axis (rather than each object's own axis), press CTRL as you choose Flip Horizontal.

Flip Vertical

The **Effects: Flip Vertical** command flips selected objects and paint areas around their horizontal axes. This turns the original objects upside-down.

To flip multiple selected objects around a common axis (rather than around each object's own axis), press CTRL as you choose Flip Vertical.

Flip Both Axes

The **Effects: Flip Both Axes** command flips selected objects and paint areas around their horizontal and vertical axes.

To flip multiple selected objects around both common axes (rather than around each object's own axes), press CTRL as you choose Flip Both Axes.

Auto Trace To

The Auto Trace To command displays a submenu of options for tracing a paint object to create an image composed of polygons, smooth polygons, or Bezier curves. This command is available when the Auto Trace external tool is active.

Select the paint object or paint area you want to trace and choose **Effects: Auto Trace To**. Choose Bezier Curve, Polygon, or Smooth Polygon from the submenu.

- **Bezier Curve** creates objects with the fewest edit points. It also offers more editing options and generally prints the smoothest.
- **Polygon** gives the most exact trace. However, because paint objects are naturally jagged, this option can result in a jagged tracing.
- **Smooth Polygon** results in a smoother trace with fewer edit points.

When Canvas traces the selection, it superimposes one or more objects on the original image. When the tracing is complete, the new object is selected (if there is more than one object, Canvas groups them). You can then drag the object away from the original.

To customize the way Canvas traces paint objects, use the Auto Trace Manager.

Special Effects

The Special Effects command offers options you can apply to selected objects or paint areas. Choosing **Effects: Special Effects** displays a submenu of options: Skew, Distort, Stretch, 1 Side Perspective, 2 Side Perspective, Bind Group, Fractalize, Spread, Choke, Overprint, and Tint Objects. The available options depend on the type of object selected, and whether a particular external tool is active.

Select a Special Effects option:

Skew

Distort

Stretch

1 Side Perspective

2 Side Perspective

Bind Group

Fractalize

Overprint

Choke

Spread

Tint Objects

Skew

The Skew option is used to slant a selection. Select an object or paint area and choose **Effects: Special Effects, Skew**. A handle appears at each corner of the selection's bounding rectangle. Drag a handle to reshape the bounding rectangle into a parallelogram. When you finish, press ESC.

Distort

The Distort option is used to extend the corner of a selection's bounding rectangle. Select an object or paint area and choose **Effects: Special Effects, Distort**. A handle appears at each corner of the selection's bounding rectangle. Drag a handle to extend the selection's bounding rectangle. When you finish, press ESC.

Stretch

The Stretch option is used to scale paint objects. Select a paint object or paint area, and choose **Effects: Special Effects, Stretch**. An edit handle appears at each corner of the selection. Drag a handle to stretch the selection's bounding rectangle. When you finish, press ESC.

It is not necessary to use the Stretch option on a draw object, because you can resize a draw object by dragging a selection handle.

1 Side Perspective

The 1 Side Perspective option adds a perspective effect to a selection. Select an object or paint area and choose **Effects: Special Effects, 1 Side Perspective**. A handle appears at each corner of the selection's bounding rectangle. Drag a handle to extend the adjacent segments of the bounding rectangle. When you finish, press ESC.

2 Side Perspective

The 2 Side Perspective option adds a perspective effect to a selection. Select an object or paint area and choose **Effects: Special Effects, 2 Side Perspective**. A handle appears at each corner of the selection's bounding rectangle. Drag a handle horizontally or vertically; Canvas slants the opposite side an equal distance in the opposite direction, changing the selection's bounding rectangle to a trapezoid. When you finish, press ESC.

Bind Group

The Bind Group option binds a group object to another object. This option is available when the Bind external tool is active.

Select a group and the object you want to bind it to. Choose **Effects: Special Effects, Bind Group**. The pointer reads *Pick Left Edge*. Click the point on the object where you want the group to begin binding. Canvas binds a copy of the group to the object.

To maintain the spacing between the objects in the group as they are bound to the object, press CTRL as you choose the Bind Group option. Otherwise, the objects in the group bind edge to edge.

Fractalize

The Fractalize option applies a fractal effect to a draw object. This option is available when the Fractals external tool is active.

Draw objects become polygons after the Fractalize option is applied.

Select one or more draw objects and choose **Effects: Special Effects, Fractalize**. Canvas opens the Fractal Specifications dialog box. Use the Wiggle and Density options to customize the fractal effect.

- **Wiggle** is a value from 1 to 20 indicating how much deviation from center the fractalized object's edge will have. A low Wiggle creates a path that stays closer to its center. A high Wiggle creates a path with greater deviations from the center.
- **Density** is a value from 1 to 5 indicating how closely spaced the changes in the object's path will be. A low Density creates an angular path. A high Density creates a fluid path with more points.

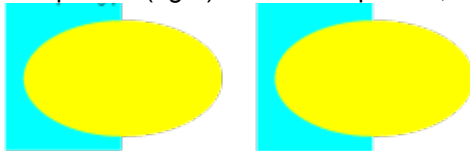
Choose the OK button to close the Fractal Specifications dialog box and fractalize the selection.

Overprint

The Overprint option makes selected objects overprint on color separations. This option is available when the Separations external tool is active.

Normally, in color separations, Canvas knocks out (erases) any part of an object where an object in front overlaps it. This prevents colors from mixing where one object overlaps the other. An object designated to overprint does not knock out objects behind it.

The illustration below shows a yellow object as it would print normally (left), and as it appears when it is overprinted (right). When overprinted, the yellow object produces green where it overlaps the blue object.



Select the objects you want to overprint and choose **Effects: Special Effects, Overprint**. The Overprint option has a check mark in the menu when the selection is designated to overprint. To disable overprinting for selected objects, choose the Overprint option again.

Canvas will overprint objects when you produce color separations of the document. Overprinting is not visible on screen, although it can be approximated by applying the OR pen mode to an object.

To designate overprinting for particular colors in a document, use the Separation Setup command.

Choke

The Choke option traps colors of specified objects in color separations. Choke is available when the Separations external tool is active.

When Choke is applied to an object, Canvas slightly reduces the knockout that the object makes in any objects it overlaps. When the Choke option is applied to the front object, the color of the back object traps into the front object's color. This is the opposite of the Spread option for color trapping.

Choke is the best method for trapping colors when the back object's color is lighter than that of the front object.

Canvas cannot apply the Choke option if the front object has no pen size or if its pen pattern is set to "N" (none). Also, Canvas cannot apply Choke to text objects.

To apply Choke, select one or more objects and choose **Effects: Special Effects, Choke**. A check mark appears in the menu when the option is active for a selection. To disable Choke for a selection, choose it again.

Canvas will create the choke trap when you produce color separations of the document. The effect is not visible on screen.

Spread

The Spread option traps colors of particular objects in color separations. Spread is available when the Separations external tool is active.

When Spread is applied to an object, Canvas slightly enlarges the outline of the object so that it overlaps the knockout created in any objects it overlaps. When Spread is applied to a front object, the front object's color traps into the back object's color. This is the opposite of the Choke option for color trapping.

Spread is the best method for trapping colors when the front object's color is lighter than the back objects.

To apply Spread, select one or more objects and choose **Effects: Special Effects, Spread**. A check mark appears in the menu when Spread is active for a selection. To disable Spread for a selection, choose Spread again.

Canvas will create the Spread trap when you produce color separations of the document. The effect is not visible on screen.

Tint Objects

The Tint Objects option applies a percentage of a color to an object selection. Tint Objects is available when the Object Tint external tool is active.

Select objects you want to tint and choose **Effects: Special Effects, Tint Objects**. Canvas displays the Tint Specifications dialog box.

Foreground and **Background** specify the percentage of color to apply to the foreground and background, respectively, of the selection. Zero leaves the original color unchanged; 100 replaces the original color with the tint color; 50 applies a 50%-transparent tint to the original color.

Select the respective tint colors from the **Tint Toward** color palettes.

Image Effects

The Image Effects command displays a submenu of options you can apply to selected paint objects or paint areas.

Select a paint object or paint area and choose **Effects: Image Effects**. The Image Effects submenu displays the following options: Pattern Fill, Invert, Crop Image, and Trace Edges. The available options depend on whether a paint object or paint area is selected.

See the Marquee tool and the Lasso tool for selecting areas in paint objects.

Select an Image Effects option:

Pattern Fill

Invert

Crop Image

Trace Edges

Pattern Fill

Choosing **Effects: Image Effects, Pattern Fill** fills a selected paint area with the default fill pattern.

The Paint Bucket tool also applies fill patterns to paint objects.

Invert

Choosing **Effects: Image Effects, Invert** reverses the colors in a selected paint area, changing colors to their complementary colors (the color in the opposite position on the color wheel).

Crop Image

(CTRL+Y)

Choosing **Effects: Image Effects, Crop Image** reduces the bounding rectangle of a selected paint object by eliminating background pixels around its edges. The command reads *Crop Images* if more than one paint object is selected.

In paint objects with a depth of more than 1 bit, white pixels are considered background pixels.

Trace Edges

(CTRL+`)

Choosing **Effects: Image Effects, Trace Edges** replaces a selected paint area with an outline of the area.

Lasso

The Lasso command displays a submenu of options for altering selections made with the Lasso and Marquee tools in paint objects.

To use the Lasso command options (except the From Object option), select a paint area with the Lasso or Marquee tools, choose **Effects: Lasso**, and the Lasso submenu appears. The submenu includes the following options: Invert, To Object, From Object, Shrink, Expand, and Exclude Background. The available options depend on whether the selection was made with the Lasso tool or Marquee tool.

Invert deselects the lasso or marquee selection and selects the remaining portion of the paint object.

To Object copies a lasso or marquee selection and pastes the selection as a separate, 1-bit paint object using the current foreground color.

From Object creates a lasso selection in a paint object using the foreground color of an overlaying draw or text object as the selection area.

To use this option, position the draw or text object on the paint object where you want to select a paint area. Select both objects, and choose the From Object option. The area of the paint object covered by the draw object's foreground area will be selected.

Because the foreground area of the draw object makes the selection, the draw object's outline makes the selection if its fill pattern is solid white (background color); the entire object will make the selection if its fill pattern is solid black (foreground color). Text objects that have a solid black (foreground color) fill pattern will select paint areas conforming to the shape of the characters.

Shrink reduces the paint selection by excluding white space (or any background color in a 1-bit paint object) within the selection. This option is equivalent to pressing SHIFT as you make a marquee selection.

Expand increases a lasso or marquee selection to include all contiguous areas of the same color.

Exclude background excludes any white space from the selection. This option converts a marquee selection to a lasso selection.

Envelope

The Envelope command displays a submenu of options to modify a draw object by stretching its "envelope." This command is available when the Envelope external tool is active.

Select the object you want to modify and choose **Effects: Envelope**. The Envelope submenu displays the following options: Straight Line, Single Cusp, Two Cusps, Bezier Mode, and Copy Envelope.

When you select an Envelope option, handles and a rectangular outline appear around the object. Drag a handle to reshape the envelope. The option you choose determines the type of path Canvas generates between the point you drag and its adjacent points.

- **Straight Line** generates straight lines between the point you drag and its adjacent points.
- **Single Cusp** generates a concave or convex curve when you drag away from or toward the object, respectively.
- **Two Cusps** generates an S curve between the point you drag and the adjacent points.
- **Bezier Mode** creates handles on the envelope rectangle that correspond to Bezier curve anchor points. You can select an anchor point and alter its tangent line, break the tangent lines to make a cusp, and move the anchor point.
- **Copy Envelope** copies the Envelope from one object to another. Select the object you want to modify, and then choose this option. The pointer reads *Copy From?* Click the object whose envelope you want to copy.

Extrude

The Extrude command creates three-dimensional objects from draw objects. You can control the placement and scaling of extruded objects. Extrude is available when the Extrude external tool is active.

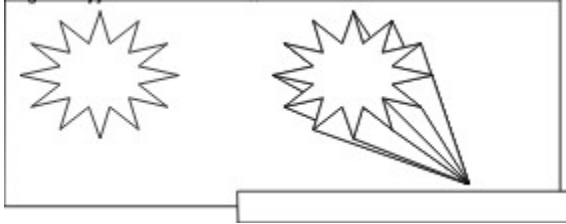
Select an object you want to extrude, then choose **Effects: Extrude**. A placement pointer appears. Drag the pointer; an outline of the object appears. To change the size of the extrusion, press CTRL as you drag. Position the object outline and release the mouse button.

To specify the values for the extrusion direction and size, press CTRL as you choose the Extrude command. The Extrude Specifications dialog box opens.

X Offset specifies the horizontal extrusion length. A positive number points the extrusion to the right, a negative number points it to the left.

Y Offset specifies the vertical extrusion length. A positive number points the extrusion down, a negative number points it up.

Scale specifies the size of the end of the extrusion as a percentage of the original object's size.



If you extrude an object that has lines that cross over each other, it is best to set its fill pattern to 'N.' Otherwise, the extrusion might appear uneven.

Remove Effects

The Remove Effects command removes certain effects from objects, returning them to their original form. Select the object whose effects you want to remove and choose **Effects: Remove Effects**.

Canvas can remove the following effects: the Rotate commands, Skew, Distort, Stretch, 1 Side Perspective, 2 Side Perspective, Bind Group, Bind Text, and Envelope. If you change an object after applying an effect, Canvas might not be able to remove the effect.

Managers menu

Managers menu commands open dialog boxes, called Managers, that configure tools, palettes, and commands.

The Managers menu commands are named for the items they affect, such as "Arrowheads" and "Stars." Choosing the Stars command, for example, displays the Star Manager, which you use to configure the Star tool.

Select a tool manager:

- Arrowhead Manager
- Auto Trace Manager
- Bind Text Manager
- Brush Manager
- Color Manager
- Concentric Circle Manager
- Dash Manager
- Dimensioning Manager
- Gradient Fill Manager
- GridMaker Manager
- Hatch Manager
- Multigon Manager
- Parallel Lines Manager
- Pattern Manager
- Pen Manager
- Pressure Pen Manager
- Smart Mouse Manager
- Spiral Manager
- Spray Manager
- Star Manager
- Tool Loader

Arrowhead Manager

Use the Arrowhead Manager to design custom arrowheads. You can change the arrowheads of selected draw objects, or change any of the six arrowheads in the Arrowheads palette. The Arrowhead Manager external tool must be active to use the Arrowhead Manager.

Choose **Managers: Arrowheads** to open the Arrowhead Manager.

The box at the top of the Arrowhead Manager contains the six default arrowhead styles available from the Arrowheads palette. The arrowhead you select appears in the edit box. If an object is selected, its arrowhead appears in the edit box.

Accept Changes replaces a selected default arrow type with the arrowhead in the edit box. After you accept changes for an arrowhead, you can select others to edit.

If an appropriate object is selected, Canvas applies the edited arrowhead to the object after you choose the **OK** button and the Arrowhead Manager closes.

Basic Arrow Types on the left of the dialog box offer various editing options. The basic type you select appears on the arrow in the edit box.



(Arc) makes an arrowhead you can edit as if it were an arc, extending one or both sides to make a quarter- or half-circle



(3-Point Poly) is a triangular arrowhead that you can enlarge or reduce by dragging a corner.



(4-Point Poly) is a polygonal arrowhead with four points. You can drag two of the points to modify the arrowhead.



(Circle) makes the arrowhead a circle that you can enlarge or reduce.



(Tangent) makes the arrowhead a tangent line. You can change the line's angle and length. To add a tangent line to any of the other arrowheads, select the check box to the right of the tangent line symbol.

To edit the arrowhead in the edit box, drag the hollow square handle.

Additional editing options

You can select additional options on the right of the dialog box:

Hollow makes the arrowhead hollow.

Three options determine the part of the arrowhead Canvas draws:

- **Full** draws the entire arrowhead.
- **Top** draws only the top half of the arrowhead.
- **Bottom** draws only the bottom half of the arrowhead.

Auto Trace Manager

The Auto Trace Manager configures the Auto Trace To command. You use this command to create draw objects matching the outlines of a paint object. The Auto Trace external tool must be active to use the Auto Trace Manager and Auto Trace To command.

Choose **Managers: Auto Trace** to open the Auto Trace Manager.

All settings in the Auto Trace Manager affect Bezier curve auto traces. The Centerline and Filter options also affect polygon auto traces.

- **Tolerance** specifies how closely the tracing follows the lines in a paint object. **Tight** gives the most exact trace with the most edit points. **Loose** gives the least exact trace with the fewest edit points.
- **Corners** specifies which curves become corners (cusps) in the resulting draw objects. **Sharp** creates cusps only at the sharpest curves. **Round** makes corners at rounded curves. This scale is available when the Corner check box (see below) is selected.
- **Centerline** traces through the center of lines rather than tracing them as solid objects with two edges.
- **Corners** enables the Corners scale. Canvas creates a cusp when it traces a curve, according to the setting of the Corners scale.
- **Filter** prevents the tracing of random pixels in the paint object.
- **Fix Ends** precisely aligns the tracing with the endpoints of the original object.
- **Smooth** prevents cusps in Bezier curve traces. If both the Smooth and Corners options are selected, corners that fall within the range of the Corners scale are still traced as cusps.
- **Trace Sample** shows the effects of the settings on the paint object in the Sample box. If you select a paint area before using the Auto Trace Manager, the paint area appears in the edit box.

Settings contains saved settings. When you choose a saved setting, the settings in the Auto Trace manager change to match the saved settings.

Save opens a dialog box for you to name the current settings.

Delete removes the current setting from the Settings box.

Bind Text Manager

The Bind Text Manager configures the Bind Text command and can be used to modify bound text. The Bind Text external tool must be active to use the Bind Text Manager.

Choose **Managers: Bind Text** to open the Bind Text Manager.

Baseline options specify the text position relative to the edge of the object.

- **Center** binds the center of the text to the object's edge.
- **Top** binds the top of the text object to the object's edge.
- **Bottom** binds the bottom of the text object to the object's edge.
- **Offset** specifies an offset distance from normal position for the text.

Indent specifies a marginal indent for text bound to an object. Use this option to modify selected bound text.

Reverse binds text in the opposite direction and position from normal. Pressing SHIFT when you choose the **Text: Bind Text** command reverses this setting.

Apply is available when bound text is selected. It applies the settings to the text without closing the dialog box.

Brush Manager

Use the Brush Manager to edit any of the 40 brush shapes available for the Paint Brush tool. The Brush Manager is available when the Brush Manager external tool is active.

Choose **Managers: Brushes** to open the Brush Manager dialog box, or double-click the Paint Brush tool icon.

The brush shapes on the left of the dialog box appear in the Brush Shape palette, available from the Paint Brush tool icon in the Paint Tools palette.

Click a brush shape to display it at 800% magnification in the edit box on the right. The brush shape is made of black and white pixels. Click a pixel to change its color.

The effect of the brush when you paint depends on the depth of the paint object.

- When you create a 1-bit paint object, black pixels paint in the foreground color, white pixels paint in the background color.
- When you create a 4-, or 8-bit paint object, black pixels paint in the foreground color, white pixels paint in white.

To scroll the brush shape, click one of the arrows around the edit box.

Restore returns to the brush to its original shape.

Invert turns black pixels white and white pixels black.

Color Manager

The Color Manager controls the Canvas color palette. The current palette opens when you click the Fore Color palette icon or the Back Color palette icon. You use the Color Manager to change particular colors or the entire palette.

Choose **Managers: Colors** to open the Color Manager dialog box. You can also double-click one of the color palette icons and the Colors palette window; or choose Colors from the window's Control menu to open the dialog box. The Color Manager is available when the Color Manager external tool is active.

In the Color Manager, the colors palette appears on the right. You select colors from this palette and it reflects color changes as you make them. Changes do not affect the default palette until you choose the OK button to close the Color Manager.

If you work with a named color palette, its name appears in the title bar. For information on using palette files, see the Color Manager menu commands (related topics, below).

In the Color Manager, to select colors for editing, click one, drag over a series of colors, or press SHIFT and click several colors. Selected colors have a black border in the palette. Selected colors appear in the preview box at the bottom left. The color controls apply to selected colors.

Name displays a selected color's name (if one is assigned). Use the Name box to assign or change the name.

Color System specifies the color system used for editing selected colors. The color bars show the components of the current color system.

- **RGB** (red, green, blue) is the default color system. RGB components create white when combined at 100% and create black when combined at 0%. Computer monitors use the RGB color system.
- **CMY** (cyan, magenta, yellow) and **CMYK** (cyan, magenta, yellow, black) are color systems used in commercial printing. When combined at 100%, the CMY components create black; when combined at 0%, they create white.
- **HSL** (hue, saturation lightness) is based on the familiar color wheel model. The color components are a variety of hues (such as red and green) with varying saturation (color intensity) and lightness (additional black or white) levels. This system is useful when you want to vary the hues but keep saturation constant.
- **PANTONE** is available for viewing colors selected from PANTONE palettes included with Canvas. In this color system, CMYK values are shown, but you cannot change the values unless you change to the CMYK color system.

The **color bars** show the component values of selected colors. Use the sliders or text boxes to change the values. Valid values are 0 to 100% in the RGB, CMY, and CMYK color systems. In the HSL system, Hue uses values of 0 to 360 degrees; Saturation and Lightness use 0 to 100%. When multiple colors are selected, changing a value applies the change to all the colors. Typing a negative or positive value subtracts or adds the value for all the colors.

In the preview box, the current color appears at the top left, and the closest solid color (depending on display capability) appears at the top right. The original selected color appears at the bottom. Click the solid color or original color to make it the current color.

The appearance of the color bars depends on the Dither Colors option under General Options in the Preferences dialog box. If Dither Colors is not checked, the colors bars show bands of solid colors.

Spot Color defines a selected color as a spot color. If a selected color is named and the Spot Color check box is selected, Canvas can separate that color when you print or save color separations.

The palette in the Color Manager replaces the current palette when you choose the OK button to close the Color Manager.

Select a Color Manager menu:

Color Manager File Menu

Color Manager Edit Menu

Color Manager Color Menu

Color Manager File Menu

In the Color Manager, the File menu contains commands for working with color palette files. You can open a palette, create a blank one, and save the current palette. When you replace a color palette that has not been saved, Canvas asks if you want to save the palette before replacing it.

New replaces the palette in the Color Manager with one that contains only black and white.

Open replaces the palette in the Color Manager with a palette file from disk. Select a palette file in the directory dialog box that opens.

Save updates the palette file on disk with changes made to the palette. The command is available if the palette has changed since it was last saved. If the palette was never saved, specify a name and location for the palette file in the directory dialog box that opens.

Save As stores the color palette in the Color Manager on disk. Specify a name and location for the palette file in the directory dialog box that opens.

Color Manager Edit Menu

In the Color Manager, the Edit menu contains commands for working with colors in the palette. You can cut, copy, add, and paste colors.

Undo reverses your last action in the Color Manager. To reverse an Undo action, choose the Undo command again.

Cut removes selected colors from the palette, placing them on the Clipboard. Use the Paste command to insert the Clipboard colors in a palette (see below).

Copy places a copy of selected colors from the palette on the Clipboard. Use the Paste command to insert the Clipboard colors in a palette (see below).

Paste places colors from the Clipboard into the palette. Colors you paste appear after the selected color.

Add copies one selected color (the last color if more than one is selected) to the next position in the palette.

Clear removes selected colors from the palette without placing them on the Clipboard.

Select All selects all of the colors in the palette.

Duplicate copies all selected colors to the next position in the palette.

Color Manager Color Menu

Show Color Names displays all color names in the palette.

RGB Blend is available when you select more than two colors in the palette. This command replaces the selected colors with colors generated by blending the red, green, and blue values from the first to the last color colors selected. This command also creates blends in the CMY color system.

HSL Blend is available when you select more than two colors in the palette. This command replaces the selected colors with colors generated by blending the values for the hue, saturation, and value components from the first to the last colors selected.

CMYK Blend is available when you select more than two colors in the palette. This command replaces the selected colors with colors generated by blending the cyan, magenta, yellow, and black values from the first to the last colors selected.

Complimentary Color replaces selected colors with their opposites.

Find Color selects a color in the palette by name. Type the color name you want to search for in the dialog box that appears. Type an asterisk (*) to represent any characters and a space to represent a space. For example, type * **red** to search for *dark red*, and type **red*** to search for *reddish*.

Concentric Circle Manager

The Concentric Circle Manager configures the Concentric Circles tool. This dialog box is available when the Concentric Circles external tool is active.

Choose **Managers: Concentric Circles** or double-click the Concentric Circle tool icon to display the Concentric Circles Manager.

Number of Circles specifies how many circles will be drawn.

Space Circles every is the space in pixels, from 0 to 100, between each circle. A 0 value spaces the circles evenly relative to the object's size.

Dash Manager

The Dash Manager customizes the dash styles in the Dashes palette. It can also be used to edit the dash style of selected objects.

The Dash Manager dialog box is available when the Dash Manager external tool is active.

Choose **Managers: Dashes** or double-click the Dashes palette icon to open the Dash Manager.

In the Dash Manager dialog box, a selected dash style (from the Dash box or a selected object) appears below the ruler.

Dash contains the dash styles that appear in the Dashes palette, which you can edit.

Units contains measurement unit options. You can choose a measurement unit if the Current Ruler check box (see below) is not selected.

Current Ruler specifies whether the active ruler's units are used to measure dash segments.

Dash Segment (#) is the length of the selected dash segment. You can type a measurement in this box to change the segment length.

Each segment editor controls a corresponding dash segment. To select a segment, click the segment editor. You can drag a segment editor to change the length of the dash segment. To add a segment, drag a segment editor from the far right.

Dimensioning Manager

The Dimensioning Manager configures the Dimensioning tool options or edits a selected dimension object. This dialog box is available when the Dimensioning external tool is active.

Choose **Managers: Dimensioning** to open the Dimensioning Manager. This dialog box also appears if you double-click the Dimensioning tool icon or palette. To edit a dimension object, double-click it or select it before opening the Dimensioning Manager.

Dimension Type contains a list of dimension object types. If an object is selected, the box shows the object's type.

- **Angular** applies to the Angle option of the Dimensioning tool.
- **Radial** applies to the Radius, Diameter, and Center options of the Dimensioning tool.
- **Linear** applies to all other options of the Dimensioning tool.

Other options in the Dimensioning Manager reflect the current object type.

Arrows Inside places dimension arrows inside witness lines.

Center Text centers text between witness lines of linear and radial dimension objects.

Frame Text places a box around dimension text.

Text Display specifies placement of dimension text relative to witness lines.

- **Horizontal** places text horizontally.
- **Horiz/90°** places text vertically in vertical dimension objects, horizontally in other types.
- **Aligned** places text in line with the dimension lines regardless of the object's angle.
- **Above** places text parallel to and above the dimension lines.
- **Below** places text parallel to and below the dimension lines.

R,D Symbol specifies use of radius (R) and diameter (D) symbols in radial dimension objects.

- **None** does not include symbols.
- **Leading** places symbols before dimension text.
- **Trailing** places symbols after dimension text.

Leader controls leader lines in linear and radial dimension objects.

- **None** does not draw leaders.
- **Left** draws leaders left from dimension lines.
- **Right** draws leaders right from dimension lines.
- **Automatic** places leaders relative to the dimension object position.

Precision specifies fractions or number of decimal places in dimension text.

Tolerance controls inclusion of positive and negative values with dimension text. You can type separate tolerance amounts in the adjacent Tol. 1 and Tol. 2 boxes.

- **None** does not include tolerance amounts with dimension text.
- **One** includes the Tol. 1 value preceded by \pm .
- **Two** includes Tol.1 and Tol. 2 values.
- **Limit** includes tolerance values in dimensions by adding the Tol. 1 and Tol. 2 values to the actual dimension.

Custom Units & Scale sets up a custom scale for dimensions, using the **Units** and **Scale** boxes. Normally, Canvas bases dimension measurements on the Ruler Specifications dialog box settings (although Canvas always uses the Dimensioning Manager settings for Angular dimensions).

- **Units** specifies a measurement unit (inches, pixels, centimeters, picas, degrees, or radians).
- **Scale** establishes a ratio between the actual units in the first text box and a dimension object's unit of measure in the second text box.

Standards opens a dialog box for selecting sets of dimensioning standards or creating your own dimensioning standards.

- **Current Standards** contains five preset standards: American National Standards Institute (ANSI), British Standards Institute (BS-380), Deutsches Institut für Normung (DIN), International Organization for Standardization (ISO), and Japanese Industrial Standard (JIS), as well as your own custom standards. The other settings in the dialog box reflect the Current Standard.
- **Units** specifies measurement units for the values in the dialog box.
- **Witness Extension** is the witness line portion extending past the dimension arrow.
- **Witness Gap** is the space between an object and the witness line.
- **Outside Line Length** is the dimension arrow length (when Arrows Inside is not selected in the Dimensioning Manager dialog box).
- **Dim. Text Gap** is the distance between the dimension text and the dimension arrow shaft.
- **Tol. Size Scale** is a factor for scaling tolerance text relative to the dimension text.
- **Tol. Space Scale** is a factor for the spacing (leading) between two lines of tolerance text relative to the tolerance text size.
- **Center Extension** is the distance a Center dimension object extends beyond the object edge.
- **Center Gap** is the space between the sections of the dimension lines of a Center dimension object.
- **Center Length** is the length of each section of the crosshair that marks the object center of a Center dimension object.
- **Leader Length** is the length of the leader extending from Radial and Linear dimension objects.

Delete removes the current setting in the Current Standard box. (You cannot delete a default standard.)

Save As displays a dialog box for you to name a new standard and save it.

OK returns to the Dimensioning Manager. If you have not saved changes, a dialog box asks if you want to save the changes.

- **Save** saves changes to an existing, non-default standard.
- **Save As** opens a dialog box for you to name the standard and save it.
- **Discard** discards all changes and returns to the Dimensioning Manager.
- **Cancel** returns to the Dimensioning Standards dialog box without saving the changes.

Gradient Fill Manager

Use the Gradient Fill Manager to create and edit the gradient fills in the Gradients palette and gradient fills in selected objects. This dialog box is available when the Gradient Fill external tool is active.

Choose **Managers: Gradient Fill** to open the Gradient Fill Manager. You can also double-click the Gradients palette icon to open this dialog box.

Saved contains the named gradient fills from the Gradients palette. Select one to edit or apply to a selected object.

Save opens a dialog box for you to name gradient fill settings. Saved settings appear in the Saved box and the Gradients palette.

Delete removes the gradient fill in the Saved box from the Gradients palette.

On the left of the Gradient Fill Manager, the preview box shows the gradient fill generated by the current settings.

Method specifies the direction of the gradient.

- **Top - Bottom, Bottom - Top, Left - Right, and Right - Left** produce gradients that move from the Starting Color to the Ending Color in the specified directions.
- **Circular, Elliptical, Rectangular, and Shape** produce gradients in the specified geometric shape or conforming to an object's shape, with the Starting Color at the outside and the Ending Color at the inside.
- **Directional** produces gradients for which you specify the direction. When you choose the OK button, the Gradient Fill Manager closes and a line extends from the center of a selected object to the pointer. Position the line to indicate the gradient direction. Use the same procedure when you apply this type of gradient from the Gradients palette.

Using specifies how gradient colors are generated.

- **Palette Colors** moves through the colors palette from the Starting Color to the Ending Color to create the gradient.
- **RGB Colors (CMYK Colors)** blends the RGB (or CMYK) values of the Starting Color and Ending Color to create the gradient. If either color is a CMYK color, the option reads *CMYK Colors* and produces a CMYK blend.

Center specifies the geometric center of the fill.

- **Object Center** fills the object from its true center.
- **Mouse Point** leaves the definition of the center to you. When you apply this type of gradient, the pointer reads *Pick Center*. Click to place the center where you want it, inside or outside an object.

Rate specifies how quickly Canvas moves from the Starting Color to the Ending Color.

- **Constant** produces an even gradient.
- **Dual Blend** blends evenly from the Starting color to the Ending color and back again.
- **Accelerating** gradually steps through the shades at the beginning, then increases sharply towards the end.

Starting Color opens the colors palette for you to choose the first color in the blend.

Ending Color opens the colors palette for you to choose the last color in the blend.

Steps specifies the number of color steps, from 10 to 255, in the gradient on screen. This setting does not affect the printed appearance of the gradient fill.

GridMaker Manager

The GridMaker Manager configures the GridMaker tool and can be used to change existing grids. This dialog box is available when the GridMaker external tool is active.

Choose **Managers: GridMaker** to open the GridMaker Manager. You can also double-click the GridMaker tool icon to open this dialog box. To edit an existing GridMaker object, double-click it and the Edit GridMaker dialog box appears.

Boxes Across specifies the number of cells in a horizontal row in the grid.

Boxes Down specifies the number of cells in a vertical column in the grid.

A value of 0 for Boxes Across or Boxes Down generates only horizontal or vertical lines, respectively.

Hatch Manager

Use the Hatch Manager to create and edit the patterns in the Hatch Patterns palette or in existing objects. This dialog box is available when the Hatch Patterns external tool is active.

Choose **Managers: Hatch** to open the Hatch Manager. You can also double-click the Hatch Patterns palette to open this dialog box. To apply a hatch pattern to or edit the hatch pattern of an existing object, select the object and choose the Hatch command.

A hatch pattern is made of line groups. A line group is a set of parallel lines with identical properties, such as pen size, color, and dash pattern.

In the Hatch Manager, the edit box on the left displays the hatch pattern of a selected object. If no object is selected, it displays the pattern whose name appears in the **Hatch Patterns** box. This box contains names of saved hatch patterns, which appear in the Hatch Patterns palette.

One line group of the pattern is selected, with selection handles displayed where the line group intersects the edit box. The properties of the selected group are shown by the dialog box options. To select a different line group, click the **Next** button to cycle through the line groups.

Dash, Pen Pattern, Pen Size, Fore Color, and Back Color display palettes for setting the properties of the selected line group.

Angle is the angle (in degrees) at which the selected line group intersects the left side of the edit box.

Offset is the distance between the individual lines in the line group.

Origin is the position where the selected line group begins. You might want to change the origin of a line group when using the same hatch pattern for two adjoining objects. This prevents the hatch patterns from aligning, making the individual objects more distinguishable.

Units contains unit of measure options for specifying Offset and Origin.

Add adds a line group to the hatch pattern. Canvas adds the new group with the same properties as the selected group, perpendicular to it. When adding more than one line group at a time, you can change the Origin to prevent overlapping an existing line group.

Clear deletes the selected line group.

Save stores the settings for a new hatch pattern. When you choose this button, a dialog box appears for you to name the hatch pattern. Saved patterns appear in the Hatch Patterns palette.

Delete deletes the hatch pattern whose name appears in the Hatch Pattern box.

Multigon Manager

The Multigon Manager configures the Multigon tool.

The Multigon Manager is available when the Multigon external tool is active.

Choose **Managers: Multigon** to open the Multigon Manager. You can also double-click the Multigon tool icon in the Object Tools palette to open this dialog box.

Select one of the predefined figures or, in the text box, type the number of sides you want the Multigon tool to draw. Canvas can create multigons with three to 100 sides.

Select the Frame, Spokes, or Wheel option to determine the type of shape you will draw.

- **Frame** creates a multigon with no interior lines.
- **Spokes** creates an object with rays coming out from a center point and no frame.
- **Wheel** creates both a frame and spokes.

Parallel Lines Manager

The Parallel Lines Manager configures the Parallel Lines tool and edits parallel line objects. This dialog box is available when the Parallel Lines external tool is active.

Choose **Managers: Parallel Lines** to open the Parallel Lines Manager. Double-clicking the Parallel Lines tool or palette also opens this dialog box. To edit an existing parallel line object, double-click it, or select it and choose **Edit: Edit Parallel Line** or **Managers: Parallel Lines**.

The edit box on the left of the dialog box displays the setting of the selected parallel line object. If no parallel line object is selected, the edit box displays the setting showing in the **Line Settings** box, which contains saved parallel lines settings.

One line in the edit box is selected at a time. Selection handles appear where the selected line intersects the edit box. The properties of the selected line are shown by the other options in the dialog box. To edit a line, click to select it or specify its line number in the **Line Number** box.

Dash, **Pen Pattern**, **Pen Size**, **Fore Color**, and **Back Color** display palettes that you use to specify properties for the selected line.

Number of Lines is the number of lines in the parallel line setting.

Equidistant spaces all the lines in the setting equally.

Spacing is the distance between the lines in the setting. You can change the spacing by dragging a line in the edit box. This option is available when Equidistant is selected. If it is not selected, the option reads *Offset*.

Offset is the distance of the selected line from the center of the parallel line object. You can change a line's offset by dragging it in the edit box. This option is available when Equidistant is not selected. When it is selected, this option reads *Spacing*.

Above Center and **Below Center** are available when Equidistant is not selected. Select one of these options to indicate in which direction to measure the specified Offset of the lines from the center of the setting.

Identical makes all lines identical to the selected line and applies all property changes to all the lines in the setting.

End Caps places a line across the end of open parallel line objects.

Units contains unit of measure options for specifying Spacing and Offset.

Save opens a dialog box for you to name the new setting. The new setting will appear in the Line Settings box.

Delete removes the setting that appears in the Line Settings box. A dialog box asks you to confirm the deletion.

Pattern Manager

The Pattern Manager creates custom fill and pen patterns. This dialog box is available when the Pattern Manager external tool is active.

Choose **Managers: Patterns** to open the Pattern Manager dialog box. You can also double click the Paint Bucket tool icon, the Fill Pattern and Pen Pattern palette icons, and the Patterns palette to open this dialog box.

The patterns in the Patterns palette (available from the Fill Pattern palette and Pen Pattern palette icons) appear on the left of the Pattern Manager. When you save changes to a pattern, the edited version replaces the original in the Patterns palette.

Click a pattern to select it. The pattern appears in the edit box magnified 800%. To edit the pattern, click (or drag over) pixels to change them from black to white and white to black. In pen and fill patterns, the black pixels represent the foreground color and white pixels represent the background color.

The arrows around the edit box scroll the pattern one pixel in the direction of the arrow when clicked.

Invert turns all the black pixels white and all the white pixels black.

Restore returns the pattern to its original form.

Load opens a pattern set to replace the current patterns in the Patterns palette. When you choose Load, a directory dialog box appears for you to locate and open a pattern set. When you load a set, Canvas discards any changes you made to the patterns palette that you have not saved as a pattern set.

Save saves the current pattern set. When you choose Save, a directory dialog box opens for you to specify a name and location for the new pattern set.

Pen Manager

Use the Pen Manager to change the pen sizes available in the Pen Size palette. You can create pen sizes from 0.01 to 127 points. This dialog box is available when the Pen Manager external tool is active.

Choose **Managers: Pens** to open the Pen Manager dialog box. You can also open the Pen Manager by double-clicking the Pen Size palette icon or palette.

Choose a pen size to edit from the sizes on the left of the Pen Manager. These pen sizes appear in the Pen Size palette. Type a replacement value in the text box.

Changes you make to the pen sizes in the Pen Manager are also reflected in the Pen Size palette. To change the pen size of selected draw objects, select the objects and choose the Managers: Pens command.

Pressure Pen Manager

The Pressure Pen Manager adjusts the line thickness and sensitivity of the Pressure Pen tool. This dialog box is available when the Pressure Pen external tool is active.

Choose **Managers: Pressure Pen** to open the Pressure Pen Manager. You can also double-click the Pressure Pen tool icon in the Object Tools palette to open this dialog box.

Maximum Thickness specifies the thickness, from 1 to 60 points, of the shapes you draw when dragging at the slowest speed, or when using maximum pressure on a compatible pressure-sensitive tablet.

Minimum Thickness specifies the thickness, from 1 to 60 points, of the shapes you draw when dragging at the fastest speed, or when using minimum pressure on a compatible pressure-sensitive tablet. Type a number from 1 to 60 in the text box.

Sensitivity specifies a sensitivity setting, from 1 to 10, for the Pressure Pen tool to respond to changes in pointer movement speed, or to changes in pressure on a compatible pressure-sensitive tablet. The higher the number, the more sensitive the Pressure Pen will be to changes in speed or pressure.

Smart Mouse Manager

Use the Smart Mouse Manager to set and change constraints for the Smart Mouse feature. The Smart Mouse Manager is available when the Smart Mouse external tool is active.

In the Smart Mouse Manager, you can change constraint settings and select which constraints appear in the Smart Mouse window.

When Smart Mouse is active, a Smart Pointer (a symbol at the pointer) tells you which active constraint is in effect. The available types of constraints include position (such as alignment to object corners), measurements (such as length and angle), and movement (such as horizontal).

Choose **Managers: Smart Mouse** to open the Smart Mouse Manager.

The **Constraints** list box contains the current constraints. Active constraints have a check mark in the left column. Click a constraint to change it to active or inactive. The constraint name describes the current setting. For example, a length constraint might read *30 point length*; a movement constraint might read *30° Angle*.

To edit an Angle, Multiple Angle, Length, Object Fractions, or Polygon Fractions constraint, double-click its name. A dialog box appears for you to change the constraint's settings (see "Value" below).

Constraints are arranged from **High Priority** at the top to **Low Priority** at the bottom of the list box. When the pointer is in range of more than one constraint, higher priority constraints take effect. Drag a constraint to change its position in the list.

The currently selected constraint is highlighted, and the icon representing it appears on the left below the list box.

Add opens the New Constraint dialog box. The **Constraint** box contains the available constraints.

- **Horizontal** indicates when line segments are horizontal.
- **Vertical** indicates when line segments are vertical.
- **Diagonal** indicates when line segments are at 45° diagonally.
- **Angle** indicates when line segments meet a specified angle.
- **Multiple Angle** indicates when the pointer moves at a multiple of a specified angle.
- **Length** indicates when line segments are a specified length, in screen pixels.
- **Tangent & Perpendicular** indicates when objects are tangent or perpendicular to another object.
- **Object Corners** indicates when objects are aligned with the corner of another object's bounding rectangle.
- **Object Fractions** indicates when objects are aligned to a specified fraction of another object's bounding rectangle.
- **Polygon & Bezier Anchors** indicates when objects are aligned with a vertex or anchor point of a polygon or Bezier curve.
- **Polygon Fractions** indicates when objects align to a specified fraction of a polygon's line segment.
- **Object Edges** indicates when objects align with the edge of another object.

Constraints listed in the Smart Mouse Manager do not appear in the Add New Constraint dialog box, unless multiple settings are allowed. Constraints that allow multiple settings are Angle, Multiple Angle, Length, Object Fractions, and Polygon Fractions.

If you choose Angle, Multiple Angle, Length, Object Fractions, or Polygon Fractions, use the **Value** box to configure the constraint.

- For Object Fractions or Polygon Fractions constraints, Value is the number of divisions of an object,

such as 2 for halves and 3 for thirds.

- For Angle, Multiple Angle, and Length, Value is an absolute measurement, such as 30 or 50 points.

Choose the OK button to return to the Smart Mouse Manager, where the new constraint appears in the Constraints list box.

Delete removes the selected constraint from the Constraints list box.

Constraint Range specifies how close (in pixels) the pointer must be for Smart Mouse to indicate that the constraint is being met.

Objects Within specifies how close (in pixels) the pointer must be horizontally or vertically to a constraining object when creating or dragging an object for a constraint to take effect.

Source Lines displays lines from the pointer to the source of the constraint.

Smart Pointers displays a Smart Pointer when a constraint is met.

Spiral Manager

The Spiral Manager configures the Spiral tool. This dialog box is available when the Spiral external tool is active.

Choose **Managers: Spiral** to open the Spiral Manager. You can also double-click the Spiral tool icon in the Object Tools palette to open this dialog box.

Number of Spirals is the number of spiral turns, from 1 to 40, that the Spiral tool draws.

Use the Spiral Manager before drawing spirals. The Spiral Manager does not change an existing spiral object.

Spray Manager

The Spray Manager customizes nozzle shapes for the Spray Can tool. This dialog box is available when the Spray Manager external tool is active.

Choose **Managers: Sprays** to open the Spray Manager. You can also double-click the Spray Can tool icon in the Paint Tools palette or the Spray Can Nozzle palette to open the Spray Manager.

The Spray Manager displays the nozzle shapes contained in the Spray Can Nozzle palette. When you edit a nozzle shape, it replaces the original in the palette. The next time you choose the Spray Can tool, it uses the nozzle shape you last selected in the Spray Manager.

Select a nozzle shape to edit from the left of the dialog box. The edit box on the right displays the selected nozzle shape at 800% magnification.

To edit the nozzle shape, click a pixel in the edit box to change it to white or black. In 1-bit paint objects, the black pixels represent the foreground color and the white pixels represent the background color. In other paint objects, white pixels represent white, and black pixels represent the foreground color. Click an arrow around the edit box to scroll the nozzle shape one pixel in the arrow direction.

Invert makes all black pixels white and white pixels black.

Restore returns the nozzle to its original shape.

Flow Rate determines how quickly the nozzle paints. A higher flow rate paints more quickly than a lower rate.

Star Manager

The Star Manager configures the Star tool. This dialog box is available when the Multigon external tool is active.

Choose **Managers: Star** to open the Star Manager. You can also double-click the Star tool icon in the Object Tools palette to open this dialog box.

Select one of the predefined figures at the top of the dialog box, or type the number of points you want the Star tool to draw.

Select an option for how you want to draw the star.

- **Star Outline** creates a star with no internal lines.
- **Star** creates a star with internal lines between the star's vertices.

Stars can have from 3 to 100 points. If you choose Star, the number of points must be a multiple of 4 or an odd number.

Tool Loader

You can use the Tool Loader to activate any external tool that Canvas did not load at start-up.

The Tool Loader is an external tool that always loads when Canvas starts. It cannot be disabled like the other external tools.

Choose **Managers: Tool Loader** to open a dialog box in which you can select an external tool to load.

In the "List Files of Type box," the file format *Disabled Canvas tool* appears. File Names that appear in the scrolling list are those of Canvas tools that are not active. The file names have the extension .CVD. If you want to see the names of active tools, select Canvas tool in the "List Files of Type" box.

Select the disabled tool you want to load in the scrolling list, and choose the OK button.

Tools that you load using the Tool Loader are available for the current Canvas session. The next time you start Canvas, the previous set of active tools will load. See Using the ToolPicker for more information on loading external tools at start-up.

Window menu

Window menu commands can be used to arrange and switch between documents on the Canvas desktop, and to open and close several palette windows.

Open palette windows have a check mark before their names. All active documents are listed by name at the bottom of the menu; the active document has a check mark before its name.

Select a Window menu command:

Cascade

Tile

Arrange Icons

100% View

Clipboard

Paint Tools

Object Tools

Effect Tools

Smart Mouse Window

1 Canvas:(document name)

Cascade

(SHIFT+F5)

Choose **Window: Cascade** to arrange document windows so that their title bars are visible, while the rest of the documents overlap.

Tile

(SHIFT+F4)

Choose **Window: Tile** to arrange document windows on the Canvas desktop so they are all the same size and visible.

Arrange Icons

Choose **Window: Arrange Icons** to arrange icons of minimized Canvas documents at the bottom of the Canvas desktop.

100% View

Choose **Window: 100% View** to display or hide the 100% View floating window. This window displays an actual-size view of a magnified paint area during editing. The window appears when you edit a paint object at a magnification level greater than 100%. To return to 100% magnification, click the window.

You can move this window by dragging its title bar. To resize it, drag its border.

Clipboard

The Clipboard command opens or closes the Clipboard floating window, which displays the contents of the Windows Clipboard.

To open or close the Clipboard window, choose **Window: Clipboard**. You can also double-click the window's Control-menu box to close it.

To move the window, drag its title bar. To resize it, drag the window's border or a corner.

Canvas and most other Windows programs place data on the Clipboard in more than one format. The Clipboard window's Control menu lists the formats for the information on the Clipboard. Not all formats can be displayed on the screen. Those formats that cannot be displayed are listed on the menu but appear dimmed and cannot be chosen.

The Windows Clipboard stores text in three formats. Owner Display is the character set of fonts you used when creating the text. The Text character set is the one that most Windows applications use. MS-DOS uses the OEM Text format.

When you copy or cut Canvas objects, the formats for the information on the Clipboard include Canvas Drawing, Picture, Bitmap, and DIB (Device-independent Bitmap). When you choose a format from the Control menu, the Clipboard window displays the contents in that format.

Paint Tools

To open or close the Paint Tools palette floating window, choose **Window: Paint Tools**. You also can close the window by double-clicking its Control-menu box.

You can move the window anywhere on the screen by dragging its title bar. To resize it, drag the window's border.

The Paint Tools palette contains Canvas tools that create and modify paint objects. When you choose the Paint Tools command, the palette appears in a floating window. This is the same as pressing the icon in the upper-right corner of the Tool Box and dragging the Paint Tools palette away so it stays open in a floating window.

See Paint Tools palette for information about the paint tools.

Object Tools

To open or close the Object Tools palette floating window, choose **Window: Object Tools**. You can also close the window by double-clicking its Control-menu box.

You can move the window anywhere on the screen by dragging its title bar. To resize it, drag the window's border.

The Object Tools palette contains Canvas tools that create various objects. When you choose the Object Tools command, the palette appears in a floating window. This is the same as pressing the icon at the lower-left of the tool icons in the Tool Box, and dragging the Object Tools palette away so it stays open in a floating window.

See Object Tools palette for information about the tools in the Object Tools palette.

Effect Tools

To open or close the Effect Tools palette floating window, choose **Window: Effect Tools**. You can also close the window by double-clicking its Control-menu box.

You can move the window anywhere on the screen by dragging its title bar. To resize it, drag the window's border.

The Effect Tools palette contains Canvas tools that apply effects to objects. When you choose the Effects Tools command, the palette appears in a floating window. This is the same as pressing the icon at the lower-right of the tool icons in the Tool Box, and dragging the Effect Tools palette away so it stays open in a floating window.

See Effect Tools palette for information about the tools in the Effect Tools palette.

Smart Mouse Window

To open or close the Smart Mouse window, choose **Window: Smart Mouse Window**. You can also close the window by double-clicking its Control-menu box.

The Smart Mouse floating window contains the icons for each of the available Smart Mouse constraints.

This floating window is available when the Smart Mouse external tool is active and the **Layout: Smart Mouse** command is active.

In the window, highlighted icons indicate active constraints. To activate or deactivate a constraint, click its icon in the Smart Mouse window. Press any icon in the Smart Mouse window to display the current setting of that constraint. For information on editing the existing constraints, see the Smart Mouse Manager command.

To move the window anywhere on the screen, drag its title bar. To resize it, drag the window's border.

1 Canvas:(*document name*)

When more than one document is open, you can make a document active by choosing the **Window: Canvas** command that includes the document's name. One command appears in the menu for each open document. The commands are numbered sequentially. The active document has a check mark in the menu.

When a document is not in Canvas format, its file format replaces the word *Canvas* in the command name.

If the document you choose is in a window, Canvas brings the window to the front. If the document is minimized, Canvas restores the document window to its size before it was minimized.

Help menu

Help menu commands provide information about commands, tools, and procedures in Canvas.

Choose the **Help** menu and one of the following commands from the menu. Canvas opens the Canvas Help window and displays the selected Help topic.

Contents (F1) displays a list of all Help topics arranged in categories. Click any item for detailed information concerning its use. The function key also provides context-sensitive help for menu items. Highlight a command in a menu and press F1; the Canvas Help window displays the Help topic for the highlighted command.

Window Elements displays a list of topics about items that appear on the Canvas desktop.

Tool Box displays a list of topics about the tools and palettes in the Canvas Tool Box.

Keyboard Shortcuts displays a list of all keyboard shortcuts for Canvas commands.

External Tools displays a table showing the name of each Canvas external tool and the features each tool provides.

Object Properties displays information about the palettes that control object properties such as colors and patterns.

The About Canvas... command displays information about the Canvas program.

About Canvas™...

Choose **Help: About Canvas** to display information about Canvas and the active Canvas document.

When you choose the command, a window like the Canvas startup screen appears. On the right of the window, Canvas displays the following information:

- **Free Memory** is the number of kilobytes of memory available on your system. See your *Windows User's Guide* for more information about Windows memory use.
- **Microsoft Windows** is the version number of Microsoft Windows running on your computer.
- **Number of Objects** is the number of objects on the active layer of the active Canvas document.

The window also displays the registered user's name and organization, the program's serial number, the address and phone number of Deneba Software, and the copyright notice.

The Canvas version number appears under the Canvas logo on the left of the window.

About external tools

Canvas provides two types of tools: core tools and external tools. Core tools are an integral part of the Canvas program and are always available. The Arrow tool, Line tool, and Text tool (which appear in the Tool Box) are examples of core tools.

External tools provide additional Tool Box tools, menu commands, and file formats. External tools are separate files. Most have the extension .CVT and are installed in a subdirectory named TOOLS.

External tools make Canvas flexible and extensible. You can load all the external tools when you start the program, or you can choose to load specific tools. You might want to load fewer tools to save memory and reduce the number of tools in the Tool Box and commands in the menus. In addition, new external tools can be added to the program any time.

You use the ToolPicker to select the external tools you want to load when you start Canvas.

Select a tool topic:

Where external tools appear
Using the ToolPicker

Where external tools appear

External tools provide Tool Box icons, menu commands, file formats, and other features. The following table lists the name of each external tool, the name of the external tool file, and the items the external tool makes available when it is active (see Using the ToolPicker for more information on active tools).

For example, the Brush Manager external tool is stored on disk as the file BRUSHMGR.CVT. When this tool is loaded, the Brush Manager dialog box is available for customizing brush shapes.

Tool Name	File Name	Features provided
Alignment Specs	ALIGNMGR.CVT	Align tool Align command
Arrowhead Manager	ARRWMGR.CVT	Arrowhead Manager dialog box
Auto Trace	ATRACE.CVT	Auto Trace Manager dialog box Auto Trace To command
Bezier Text	BEZTEXT.CVT	Create Beziers command
Bind Manager	BIND.CVT	Bind Text dialog box Bind Text command Bind Group option
Blend Objects	BLENDOBJ.CVT	Blend command
Brush Manager	BRUSHMGR.CVT	Brush Manager dialog box
CGM I/O	CGM.CVT	CGM (Open/Save <u>file format</u>)
Color Manager	COLORMGR.CVT	Color Manager dialog box Colors palette Custom and Find buttons
Combine Objects	COMBINE.CVT	Combine command
Concentric Circle	CCIRCLE.CVT	Concentric Circle tool Concentric Circle Manager dialog box Edit Concentric Circle command
Cube	CUBE.CVT	Cube tool Edit Cube command
Dash Manager	DASHMGR.CVT	Dash Manager dialog box
Dimensioning	DIM.CVT	Dimensioning tool Dimensioning Manager dialog box
Drawing Size Specs	DRAWSIZE.CVT	Drawing Size command
Dropper	CDROPPER.CVT	Dropper tool
Duplication Specs	DUPSPEC.CVT	Duplication command
DXF I/O	DXF.CVT	DXF (Open/Save file format)
Envelope	ENVELOPE.CVT	Envelope command
Extrude	EXTRUDE.CVT	Extrude command
Fractals	FRACTAL.CVT	Fractalize option
Gradient Fill	GRADFILL.CVT	Gradients palette Gradient Fill Manager dialog box
Grid Specs	GRDIMGR.CVT	Grids command
GridMaker	GRIDMKR.CVT	GridMaker tool GridMaker Manager dialog box
Hatch Patterns	HATCH.CVT	Hatch Patterns palette

HPGL I/O	HPGL.CVT	Hatch Manager dialog box
IGES I/O	IGS.CVT	HPGL (Save file format)
Layer Specs	LAYERMGR.CVT	IGES (Open/Save file format)
Macro Object	MACROS.CVT	Layer Specs command
		Macros tool
		Macros command
Mover	MOVER.CVT	Mover tool
Multigon	NGON.CVT	Multigon tool
		Star tool
		Multigon Manager dialog box
		Star Manager dialog box
Object Specs	OBJSPECS.CVT	Object Specs command
Object Tint	TINTOBJ.CVT	Tint Objects option
Parallel Lines	PLLINE.CVT	Parallel Lines tool
		Parallel Lines Manager dialog box
		Edit Parallel Lines command
Pattern Manager	PTRNMGR.CVT	Pattern Manager dialog box
PCX I/O	PCX.CVT	PCX (Open/Save file format)
Pen Manager	PENMGR.CVT	Pen Manager dialog box
		Pen Size palette Custom button
Point Rotate	PTROTATE.CVT	Point Rotate tool
PostScript	EPSFIO.CVT	Illustrator 88 and EPSF (Open/Save file formats)
Preferences	PREFS.CVT	Preferences command
Pressure Pen	PPEN.CVT	Pressure Pen tool
		Pressure Pen Manager dialog box
QuickTime	QTIME.CVT	QuickTime tool
Registration Marks	REGMARKS.CVT	Registration Marks tool
Ruler Specs	RULESPEC.CVT	Rulers command
Scale Specs	SCALE.CVT	Scale command
Search & Replace	S&R.CVT	Search & Replace command
Selection Specs	SELECT.CVT	Selection command
Separations	SEPRATOR.CVT	Separation Setup option
		Separations option
		Choke option
		Spread option
		Overprint option
		Separations (Save file format)
Slides	SLIDE.CVT	Slides command
		Slides option
Smart Lines	SMRTLIN.CVT	Smart Lines tool
		Edit Smart Lines command
Smart Mouse	SMRTMOUS.CVT	Smart Mouse Manager dialog box, Smart Mouse command
		Smart Mouse Window command
Spelling	SPELLER.CVT	Spell Check command
Spiral	SPIRAL.CVT	Spiral tool

Split	SPLTCURV.CVT	Spiral Manager dialog box
Spray Manager	SPRAYMGR.CVT	Split tool
Style Sets	STYLE.CVT	Spray Manager dialog box
Text Ruler	TXTRULER.CVT	Style Sets command
Text Utilities	TXTUTIL.CVT	Text Ruler command
		Type command
		Wrap command
		Uppercase option
		Lowercase option
		Title option
		Text flow feature
TIFF I/O	TIFF.CVT	TIFF (Open/Save file format)
Windows Bitmap I/O	WINBMP.CVT	BMP (Open/Save file format)
Windows Metafile I/O	META.CVT	Windows Metafile (Open/Save file format)

Using the ToolPicker

When you need certain tools in some situations but not in others, you can use the ToolPicker to activate and deactivate tools when you start Canvas. Loading fewer tools can save memory and improve performance.

Deactivated menu-item tools appear dimmed in the menus or do not appear at all. Deactivated Tool Box tools do not appear in the Tool Box.

To use the ToolPicker, hold down the SPACEBAR while starting Canvas. Release the SPACEBAR when the message *Loading ToolPicker* appears in the Canvas startup screen above the user's name. The ToolPicker dialog box appears.

The list box displays all the Canvas external tools (.CVT files installed in the TOOLS subdirectory). The list box has three column headings: Type, File Name, and Tool Name. Click the heading you want to use to sort the list. The selected heading is underlined.

Tool Type sorts by the following categories.

- Effect tools appear in the Effect Tools palette
- I/O tools import and/or export files that are not in Canvas format
- Manager tools provide Manager dialog boxes through commands in the Managers menu
- Modifier tools are used to modify objects
- Object tools appear in the Object Tools palette
- Setting tools configure Canvas documents. Settings for these tools can be saved in a Canvas Prefs file.

Tool Name and **File Name** sort the list alphabetically in ascending order. Tool name refers to the name used in Canvas documentation. File name refers to the DOS filename of the external tool.

Active tools have a check mark before their names. Only active tools load with the program. Click in the first column or double-click a tool's name to change it to active or inactive. You can jump to a tool name by typing the first few characters of the name. Press UP ARROW or DOWN ARROW to move through the list. Press HOME to move to the top and press END to move to the bottom of the list.

Canvas will not load two versions of the same tool. If you have more than one copy of a tool in the TOOLS subdirectory, the most recent one appears in plain text and other versions appear in italics in the ToolPicker tools list. If you activate a second copy of a tool, Canvas automatically deactivates the first

copy.

Tool Sets contains a list of saved tool sets. If you have not yet saved a Tool Set, *none* appears in the box. To activate a saved Tool Set, choose it from the Tool Sets list or, if its name already appears in the Tool Sets box, click its name. Canvas updates the tools list.

Save creates a Tool Set based on the current active and inactive tools. A dialog box opens for you to name the Tool Set. The name will appear in the Tool Sets box.

Delete removes the Tool Set that appears in the Tool Sets box. No tool files are deleted and the tools list does not change.

All Tools (CTRL+A) activates all the tools.

No Tools (CTRL+N) deactivates all the tools.

Revert (CTRL+R) returns the tools to their status when you opened the dialog box.

Temporary (CTRL+T) starts Canvas, using the current tool selection for the current session of Canvas only. Subsequent sessions use the previous tool selection.

Cancel (CTRL+C) disregards any changes made to the tool selection and starts Canvas with the previous tool selection.

OK (CTRL+O) starts Canvas using the current tool selection. This tool selection remains active until you use ToolPicker again to change it.

The Tool Box

The Tool Box is the control panel for working in Canvas documents. You select tools, properties for objects, and magnification levels from it. The Tool Box is part of the Canvas desktop and is always displayed while Canvas is running.

When no documents are open, the icons in the lower half of the Tool Box are blank and you cannot select any tools. When at least one document is open, these icons show the default properties for the active document, and the icon for the selected tool is highlighted in the top part of the Tool Box. The Arrow tool (upper-left corner) is selected by default when Canvas starts.

See Using Tool Box icons for information on the various types of icons in the Tool Box.

Using Tool Box icons

The icons in the top half of the Tool Box represent drawing, painting and editing tools. The larger icons in the bottom half of the Tool Box represent palettes of properties and magnification levels.

Select a Tool Box topic:

Basic icons

Multiplex Icons

Tool palette icons

Object property palette icons

Tear-off palettes

Basic icons

A basic icon is a rectangle with a symbol for the tool it represents. To select the corresponding tool, click the icon; the icon highlights (the tool symbol turns white on a dark background) to show that the tool is selected.

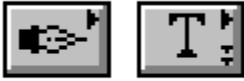


The Arc, Arrow, Hand, Line, Magnifying Glass, Oval, Rectangle, and Rounded Rectangle tools have basic icons.

Multiplex Icons

Multiplex icons contain one or two arrows, in addition to a tool symbol. The arrows point to additional features.

Multiplex icons



Bezier Curve
tool Text tool

- An arrow pointing out indicates that tool options will open from the icon when you press it. For example, when you press the Freehand tool icon, a menu of drawing modes opens.
- Two arrows pointing down indicate that a dialog box will appear when you double-click the icon. A variety of these dialog boxes manage tool operations. See [Managers menu commands](#) and the specific tool's topic for more information.

The Align, Bezier curve, Freehand, Polygon, and Text tools are examples of tools that have multiplex icons.

Tool palette icons

Three of the icons in the top part of the [Tool Box](#) open palettes of related tools (paint tools, effects tools, and object tools). In these icons, the symbol for the default tool from the palette appears. To select that tool, click the icon.

To open the palette of related tools, press the icon. Click a tool in the palette to select it; its symbol then appears in the icon.

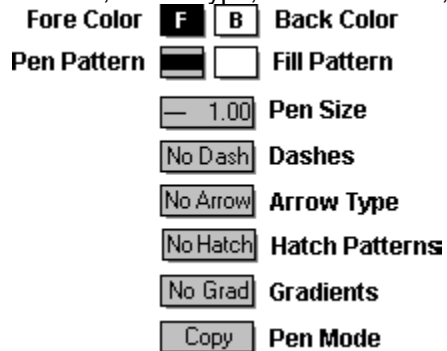
If the tool currently displayed in the icon has its own palette of options (such as the Paint Brush and Dimensioning tools), press CTRL as you press the icon to open the tool's palette.

See the [Effect Tools palette](#), the [Paint Tools palette](#), and the [Object Tools palette](#) for information about the tools they contain.

Object property palette icons

The icons in the lower half of the Tool Box open palettes of properties for objects.

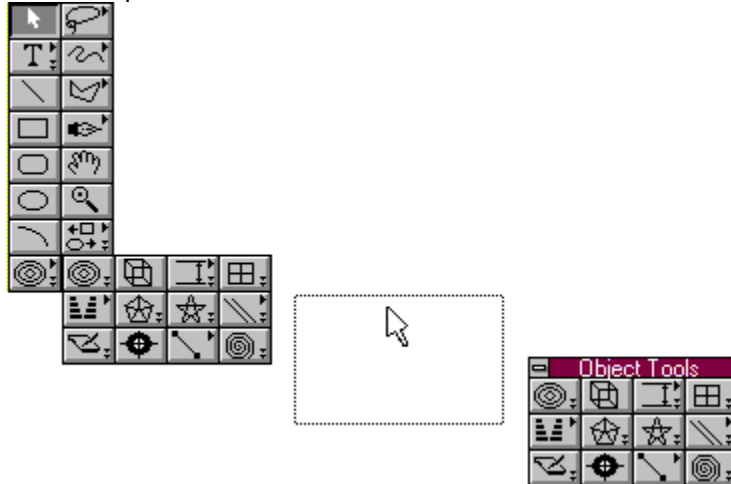
The object property palette icons are the Fore Color, Back Color, Pen Pattern, Fill Pattern, Pen Size, Dashes, Arrow Type, Hatch Patterns, Gradients, and Pen Mode palette icons.



For more information on changing specific object properties, see [Object property palettes](#).

Tear-off palettes

To tear off a palette so you can keep it open while you work, press the palette icon, and drag the palette away from the Tool Box. The palette appears in a floating window. To choose an option from the palette, click the option.



Tool Box tools

You can select tools from the [Tool Box](#) to create text objects, draw objects, and paint objects. Several tools modify the position or shape of objects. Some provide electronic equivalents of measuring and drawing devices.

The icons in the Tool Box are pictured below. Select a tool icon or topic in the list below for more information.



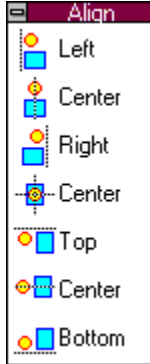
Select a tool topic:

[Align tool](#)
[Arc tool](#)
[Arrow tool](#)
[Bezier Curve tool](#)
[Freehand tool](#)
[Hand tool](#)
[Line tool](#)
[Magnifying Glass tool](#)
[Oval tool](#)
[Polygon tool](#)
[Rectangle tool](#)
[Rounded Rectangle tool](#)
[Text tool](#)
[Paint Tools palette](#)
[Object Tools palette](#)
[Effect Tools palette](#)

Align tool

You can use the Align tool to align selected objects and to open a dialog box of alignment and distribution options. The Align tool is available when the Alignment Specs external tool is active. If the tool is not active, the Align tool icon does not function.

Select the objects you want to align and press the Align tool icon to display a palette of seven alignment options. Click the option you want. You can tear off the Align palette and keep it open in a floating window, shown below.



To repeat the last alignment operation, click the Align tool icon.

Double-clicking the Align tool icon (or the floating window) opens the Alignment Specifications dialog box. For information about the alignment and distribution options, see the Align command.

Arc tool



The Arc tool draws quarter-oval and quarter-circle segments.

The tool uses the default colors, patterns, pen size, dash, arrow, arrowhead, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

To draw an arc, select the Arc tool, point to where you want the arc to start, drag in the direction that you want the arc to go, and release to place the other endpoint.

- To restrict the arc to a quarter circle, press SHIFT as you drag.
- To create the arc from the center outward, press CTRL as you drag. The point where you begin dragging will be the center of the arc.

A selected arc has round handles near each endpoint. To change the length of the arc, drag one of the circular handles.

Arrow tool



The Arrow tool selects, edits, and moves objects. The Arrow tool is selected when you start Canvas. After you use any tool, Canvas selects the Arrow tool, unless you select Retain Selected Tool in the General Options preference, in the Preferences dialog box.

You can use the Arrow tool in the following ways:

- To select an object, click it with the Arrow tool. If the object is not filled, click its edge.
- To select multiple objects, drag the Arrow tool to create a selection rectangle around them, or press SHIFT and click each object.
- To move an object, drag it with the Arrow tool.
- To drag a copy of a selection while leaving the original in place, press CTRL while dragging.
- To leave a trail of copies of a selection while leaving the original in place, press CTRL+ALT while dragging.
- To resize an object, select it with the Arrow tool and drag one of its selection handles.
- To place a paint object, polygon, Bezier curve, or smooth polygon into the edit mode, double-click it with the Arrow tool.

For more information on selecting, moving, and resizing objects, see Basic Procedures.

Bezier Curve tool



The Bezier Curve tool draws Bezier curves. Bezier curves are draw objects made of connected segments. A Bezier curve object can have straight and curved segments, and it can be open or closed.



The Bezier Curve tool uses the default colors, patterns, pen size, dash, arrow, arrowhead, gradient fill, hatch pattern, and pen mode. See Object Properties for more information.

To draw a Bezier curve, select the Bezier Curve tool, point to where you want to begin drawing, and place anchor points to define the curve's segments. To place an anchor point, click, or drag to place the point and establish a tangent line. When you finish placing anchor points, press ESC.

Use the following procedures to modify a Bezier curve as you create it:

- To constrain a tangent line to a multiple of 45°, press SHIFT while dragging.
- To delete the last segment drawn, press DELETE.
- To create a straight line segment, press CTRL when you place the segment's second anchor point. The point will have only one tangent line.

If you place two anchor points consecutively by clicking rather than dragging, a straight segment will connect the points.

- To join a Bezier curve you are creating to an existing Bezier curve, click the end of the existing curve.
- To create a segment independent of the preceding one (a one-handle cusp), press TAB as you drag to create an anchor point.

Note: If you selected "Automatically Enter Edit Mode" under the Bezier & Polygon preference in the Preferences dialog box, a Bezier curve enters edit mode when you complete it. With this option selected, you can place a Bezier curve in the edit mode by clicking it with the Arrow tool.

For information on modifying Bezier curves, see Editing Bezier curves.

Freehand tool



The Freehand tool creates Bezier curves, polygons, and smooth polygons from shapes you draw as if you were using a pencil on paper.

The tool uses the default colors, patterns, pen size, dash, arrow, arrowhead, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

Press the Freehand tool icon to open a menu of options. Choose Make Bezier Curves, Make Polygons, or Make Smooth Polygons, depending on the type of object you want to create. A check mark appears before the active option (Make Bezier Curves is the default option).



✓ **Make Bézier Curves**
Make Polygons
Make Smooth Polygons

To draw with the Freehand tool, select it from the [Tool Box](#), and drag to draw a closed or open shape. Canvas converts the outline you draw to the type of object selected in the Freehand tool's menu.

For information on editing Bezier curves created with the Freehand tool, see [Editing Bezier curves](#).

For information on editing polygons and smooth polygons created with the Freehand tool, see [Polygon Editing](#).

Hand tool



The Hand tool scrolls the contents of a document window. To use the Hand tool, select it from the Tool Box, position the pointer in the document window, and drag in the direction you want the document to move. For example, to see more of the bottom of a document, drag upward. The window's scroll boxes move accordingly.

To temporarily select the Hand tool, press the SPACEBAR. Release the SPACEBAR to return to the previously selected tool.

Line tool



The Line tool draws straight lines at any angle.

The tool uses the default colors, pen pattern, pen size, dash, arrow, arrowhead, and pen mode. See [Object Properties](#) for more information.

To draw a line, select the Line tool from the [Tool Box](#), point where you want the line to begin, and drag to where you want the line to end.

- To restrict the line's slope to multiples of 45° (horizontal, vertical, and diagonal), press SHIFT as you drag.
- To create the line from the center, press CTRL as you drag. The point from which you begin dragging will be the center of the line.

Magnifying Glass tool



The Magnifying Glass tool zooms in on (magnifies) an area of a document. It can also zoom out (reduce magnification). To use the Magnifying Glass tool, select it from the [Tool Box](#), and use one of the following methods:

- Click where you want to zoom in. The magnification level doubles, and the point you click is centered in the document window. With this method you can magnify an area up to 25,600%.

To zoom out from the area, press SHIFT (the '+' inside the pointer changes to a '-') as you click.

- Drag a [selection rectangle](#) around the area of the document you want to magnify. Canvas zooms in so that the area fills the document window.

To zoom out from the area, press SHIFT (the '+' in the pointer changes to a '-') as you drag a selection rectangle around the area.

You can also increase and decrease magnification using the [Zoom palette icon](#).

Oval tool



The Oval tool draws ovals and circles.

The tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

To draw an oval, select the Oval tool from the [Tool Box](#), position the pointer where you want to place one corner of the oval's [bounding rectangle](#), and drag to where you want the opposite corner to be.

- To draw a circle, press SHIFT as you drag.
- To draw the oval from the center outward, press CTRL as you drag. The point where you begin dragging will be the center of the oval.
- To move an oval as you create it, press the right mouse button as you drag (continue pressing the left button also).

To convert an oval to an arc, select the oval, press CTRL, and click the Arc tool icon. A line extends from the center of the arc. Drag the line to open the oval, changing it into an arc.

Polygon tool



The Polygon tool draws polygons (multi-sided objects) and open-ended shapes.

The tool uses the default colors, patterns, pen size, dash, arrow, arrowhead, gradient fill, hatch pattern, and pen mode. See Object Properties for more information.

To draw a polygon, select the Polygon tool from the Tool Box, position the pointer where you want the first point (called a vertex) of the polygon, and click to place it. Click where you want to place additional vertices, or drag to show the polygon segment as you position it.

- To constrain a segment to a 45 line, press SHIFT as you draw it.
- To delete the last segment added, press DELETE.
- To complete a closed polygon, click the first vertex again.
- To complete an open polygon, double-click when placing the last vertex or press ESC after you have placed it.

To edit a polygon, place it in edit mode in one of the following ways:

- Double-click it with the Arrow tool.
- Select it and choose the **Object: Edit Polygon** command.
- Select the Arrow tool from the Tool Box after placing the last vertex.
- If you selected "Automatically Enter Edit Mode" under the Bezier & Polygon preference in the Preferences dialog box, the polygon is in the edit mode when you finish drawing it. With this Preference selected, you can also place a polygon in the edit mode by clicking it with the Arrow tool.

In edit mode, you can modify a polygon in the following ways:

- To move vertices and segments, drag them. When the pointer is on a vertex, it becomes a '+'. When it is on a segment, it becomes a gray arrowhead.
- To add a vertex, press CTRL and click where you want to place the vertex on a segment.
- To convert a vertex to a cusp, press CTRL and click a vertex.
- To delete a vertex, press CTRL and SHIFT and click the vertex. You can also press DELETE to delete a selected vertex.
- To open a closed polygon, press ALT and click a vertex. A new vertex appears and the polygon opens.
- To close an open polygon, press ALT and click an endpoint. A new segment joins the two endpoints.
- To select multiple vertices, press SHIFT when you click them, or drag to draw a selection rectangle around them.
- To exit the edit mode, press ESC. The polygon is selected. Press ESC again to deselect the polygon.

When a polygon is in edit mode, you can press the Polygon tool icon to display a menu of editing options.

- **Add Points** changes the pointer to a plus sign. Click a spot on a segment where you want to add an anchor point. This is the same as pressing CTRL and clicking a segment.
- **Delete Points** changes the pointer to a minus sign. Click a vertex to delete it. This is the same as pressing CTRL+SHIFT and clicking a vertex.
- **Edit Points** restores the arrow pointer after you have used the Add Points or Delete Points options.

Rectangle tool



The Rectangle tool draws rectangles and squares.

The tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

To draw a rectangle, select the Rectangle tool, position the pointer where you want to place one corner of the rectangle, and drag to where you want to place the opposite corner.

- To draw a square, press SHIFT as you drag.
- To draw a rectangle from the center outward, press CTRL as you drag. The point you drag from will be the center of the rectangle.
- To move a rectangle as you create it, press the right mouse button as you drag (continue pressing the left button also).

Rounded Rectangle tool



The Rounded Rectangle tool draws rectangles and squares with rounded corners.

The tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

To draw a rounded rectangle, select the Rounded Rectangle tool, position the pointer where you want to place one corner of the rounded rectangle, and drag to where you want to place the opposite corner.

- To draw a rounded square, press SHIFT as you drag.
- To draw a rounded rectangle from the center outward, press CTRL as you drag. The point you drag from will be the center of the rounded rectangle.

When you select a rounded rectangle, a small circle appears along with the regular [selection handles](#). This circular handle controls the radius of the corners.

- To decrease the corner roundness, drag the circular handle toward the object
- To increase the corner roundness, drag away from the object.

As you drag the circular handle, the [Information Box](#) shows the corner radius in degrees

Text tool



The Text tool creates text objects and selects text. You can use it to create empty text objects, type text into a document, and select existing text.

Select a Text tool topic:

[Creating text](#)

[Using the Text tool menus](#)

[Editing text](#)

[Flowing text in multiple objects](#)

Creating text

When you type text in a Canvas document, you can type lines of text without preset margins (caption text) or a text block with preset margins (paragraph text). You can also type text using a draw object such as a polygon to define the text margins.

The Text tool uses the default settings for font, size, style, justification, leading, and kerning. The Text menu contains commands to change these settings. Font, size, and style menus are also available from the Text tool icon. You can change these settings before or after creating text.

Unlike other tools, the Text tool does not use the default settings for properties such as colors and patterns. Text you type appears with black foreground and white background colors, and no fill pattern. However, you can change these properties after you create text. See Object Properties for more information.

To type text into a document, select the Text tool, and then use one of the following methods.

- To type a line of text, click in the document, and begin typing. To begin a new line, press ENTER.
- To set margins for a text block, drag to create a rectangle. The left, right, and top sides of the rectangle determine the left, right, and top margins of the text object. An insertion point appears and you can begin typing. Words automatically wrap to the next line when you reach the margin.
- To type text in an existing draw object, select the object, and begin typing (do not click or drag before typing). The text appears in the object.

When you finish typing, press ESC to select the text object. Press ESC again to deselect it.

Using the Text tool menus

The Text tool icon displays three menus you can use to set default text attributes or to change existing text.

- To open a menu of text styles, press the Text tool icon.
- To open a fonts menu, press CTRL as you press the Text tool icon.
- To open a size menu, press SHIFT as you press the Text tool icon.

You can choose items from these menus the same as from the Style, Font, and Size submenus in the Text menu.

Editing text

You can select text or an entire text object for editing, using one of the following methods.

- To select an entire text object, click it with the Arrow tool. To select the text for editing, double-click the text object, and the pointer changes to an I-beam for selecting and inserting text.
- To select characters in a text object, drag the Text tool's I-beam pointer across the characters to highlight them. Type to replace the selected text, or press DELETE to erase it.
- To select a word, double-click it with the Text tool's I-beam pointer.
- To select an entire line, triple-click it with the Text tool's I-beam pointer.

To change the margins of a text object, select the text object and drag a selection handle to narrow or widen the margins. When you narrow the margins, Canvas does not lengthen the text object automatically. You can flow the remaining text into a new text object (see [Flowing text](#)), or drag a selection handle to increase the text object's size so the remaining text fits in it.

You can apply colors and fill patterns to text objects or selected text. See [Object Properties](#) for more information.

Flowing text in multiple objects

You can use the Canvas text flow feature to flow text from one text object to others positioned anywhere in the document. You can arrange text in columns, and have text jump from one page to another using text flow.

To flow text from one object to another, follow these steps:

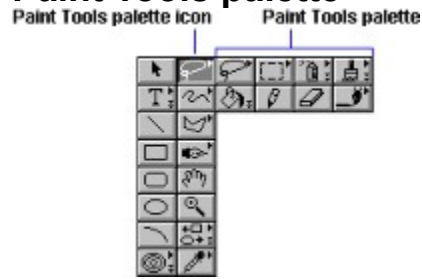
1. Select a text object, and then drag a selection handle to shorten the text object or make it narrower. A small triangle symbol appears at the bottom of the text object. You can continue to drag selection handles to adjust the size of this first text object before flowing the remaining text into a new text object.
2. Click the triangle symbol at the bottom of the text object. The pointer changes to a text flow symbol. Position the pointer where you want the next text object to begin, and drag to draw a rectangle. Canvas flows the remaining text into the new object.

The first text object now has a plus sign symbol at the bottom, indicating that the text flows into another object. If all the text does not fit in the second text object, a triangle symbol appears at the bottom. Repeat step 2 to flow the remaining text into a new object.

You can adjust the size of any text object in the flow by dragging a selection handle, and Canvas will reflow the text.

If you delete an entire text object that contains flowed text, the text is removed from the flow. If you highlight text and delete or replace it, Canvas reflows the remaining text.

Paint Tools palette



The Paint Tools palette contains tools for creating and editing scanned images, TIFF files, and other paint objects. When you choose a tool from this palette it appears in the Paint Tools palette icon, at the top-right corner of the Tool Box.

You can drag the Paint Tools palette away from the Tool Box to keep it open on the Canvas desktop. To move the palette window, drag its title bar. To reshape the window, drag its border. To close it, double-click the Control-menu box.

The Paint Tools palette contains the Eraser, Lasso, Marquee, Paint Brush, Paint Bucket, Paint Object Creator, Pencil, and Spray Can tools. Select a tool icon or a tool name in the list below for more information.



Select a paint tool topic:

[Eraser tool](#)

[Lasso tool](#)

[Marquee tool](#)

[Paint Brush tool](#)

[Paint Bucket tool](#)

[Paint Object Creator tool](#)

[Pencil tool](#)

[Spray Can tool](#)

Eraser tool



The Eraser tool changes pixels that you click or drag over to the default background color. Typically, you set this color to white, so you "erase" pixels by making them white. However, you can use the tool to change pixels to any color.

The Eraser tool does not use fill or pen patterns.

To use the Eraser tool, select it from the Paint Tools palette, and click or drag over the pixels you want to change in a paint object. You do not have to select the paint object first.

To erase an entire paint object, double-click the paint object to make it active, and then double-click the Eraser tool icon. The paint object becomes a solid rectangle of the default background color.

When using the Eraser tool, Canvas increases the object's depth if the default background color is not one of the colors available for the object. For example, in a 1-bit, black-and-white paint object, using the Eraser tool when the background color is not black or white will increase the depth of the object.

Lasso tool



The Lasso tool selects irregular-shaped areas in paint objects while excluding background pixels surrounding the selected area. You can move selected areas and apply many Edit and Effects menu commands to them.

To select a paint area with the Lasso tool, select the tool from the Paint Tools palette and drag the pointer around the portion of a paint object that you want to select. A flashing border appears around the selected area.

To display additional Lasso tool options, press the Lasso tool icon.

- The additive lasso (a lasso with a plus sign) makes multiple lasso selections in a paint object.
- The subtractive lasso (a lasso with a minus sign) deselects portions of lasso selections.

To customize the way the Lasso tool selects colors, use the following methods.

- To include any background area in the selection, press ALT when using the Lasso tool.
- To select an entire contiguous block of color, press CTRL and double-click the color.
- To select all contiguous colors enclosed in a selection, including background pixels, press CTRL and drag to encircle the area.

To deselect a lassoed area, use one of the following methods:

- Click outside of the area
- Click another object
- Select another tool from the Tool Box
- Use the Lasso tool's subtractive option

Marquee tool



The Marquee tool selects rectangular portions of paint objects. You can move these selections and apply various Edit and Effects menu commands and options to them.

To select a paint area with the Marquee tool, select the tool from the Paint Tools palette and drag to define a rectangle around the portion of a paint object that you want to select. Canvas displays a flashing border around the selection.

To customize the way the Marquee tool selects paint areas, use the following methods.

- To snap the marquee to the area, cropping excess background space, press SHIFT when using the Marquee tool
- To select an entire active paint object, double-click the Marquee tool icon.
- To select an entire contiguous block of color, press CTRL and double-click the color.
- To select all contiguous colors enclosed in a selection, including background pixels, press CTRL and drag to enclose the area.

To display additional Marquee tool options, press the Marquee tool icon.

- The additive Marquee (a marquee with a plus sign) makes multiple selections in a paint object.
- The subtractive Marquee (a marquee with a minus sign) deselects portions of Marquee selections.

To deselect a marqueeed area, click outside the area, select another tool from the Tool Box, or press ESC.

Paint Brush tool



The Paint Brush tool "paints" pixels in paint objects.

You can use the Paint Brush tool in existing paint objects, including TIFF files and scanned images. It also creates new paint objects, if Auto-create Paint Objects is selected in [Paint Options preference](#).

The tool uses the default brush shape, [foreground color](#), [background color](#), and pen pattern.

To use the Paint Brush tool, select it from the Paint Tools palette, position the pointer where you want to paint, and click or drag.

To select a brush shape for the tool, press the Paint Brush tool icon. The Brush Shape palette opens, and you can choose a new brush shape. You can drag the Brush Shape palette away from the Paint Tools palette to keep it open.

To edit brush shapes, double-click the Paint Brush tool icon to open the [Brush Manager](#). The **Managers: Brushes** command also opens this dialog box.

Paint Bucket tool



The Paint Bucket tool fills a uniformly colored area in a paint object.

The tool applies the default fill pattern using the default foreground and background color.

To use the Paint Bucket tool, select it from the Paint Tools palette, position the tip of the paint bucket pointer in the paint area you want to fill, and click. Canvas fills all adjoining pixels that are the same color as the pixel directly under the tip of the paint bucket.

To fill all pixels of the same color in the paint object, whether contiguous or not, press CTRL as you click the color you want to fill.

To edit the patterns in the Patterns palette, double-click the Paint Bucket tool icon to open the Pattern Manager. The **Managers: Patterns** command also opens this dialog box.

Paint Object Creator tool



The Paint Object Creator tool creates rectangular paint objects. You can set the resolution and depth of paint objects you create with this tool.

Select the tool from the Paint Tools palette, position the pointer where you want to place one corner of the paint object, and drag to where you want the opposite corner to be. Canvas makes the paint object active and selects the Paint Brush tool so you can begin painting inside it.

Press the Paint Object Creator tool icon to display a menu of resolution and depth options. Use this menu to choose the resolution and depth for the paint object. The next paint object you create with this tool will be set to this resolution and depth.

Pencil tool



The Pencil tool paints one-pixel-wide lines in paint objects.

The tool can apply the default foreground and background color. It is a useful tool for editing because you can use it to change the color of individual pixels.

To use the Pencil tool, select it from the Paint Tools palette and click or drag. The Pencil tool applies the foreground color when you begin painting on a pixel of a different color. It uses the background color when you begin painting on a foreground color pixel.

To use the Pencil tool to magnify a paint object 800%, press CTRL+ALT and click the area of the paint object you want to magnify. Do this again to return to 100% magnification.

Spray Can tool



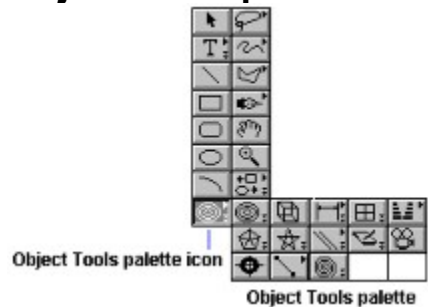
The Spray Can tool sprays paint in a paint object, using the default nozzle shape, foreground color, background color, and pen pattern.

To use the Spray Can tool, select it from the Paint Tools palette, position the pointer where you want to paint, and press the mouse button to paint. Drag quickly to paint a diffuse pattern of pixels, drag slowly to apply a solid paint pattern.

To select a nozzle for the Spray Can tool, press the Spray Can tool icon to open the Spray Can Nozzle palette. Click a nozzle shape to select it. You can drag this palette away from the Paint Tools palette to keep it open.

To edit the nozzle shapes, double-click the Spray Can tool icon to open the Spray Manager. The **Managers: Sprays** command also opens this dialog box.

Object Tools palette



The Object Tools palette contains tools for creating a variety of objects. When you choose a tool from this palette, it appears in the Object Tools palette icon, at the bottom-left of the tools in the Tool Box.

To keep the Object Tools palette open, drag it away from the Tool Box. To move the palette, drag its title bar. To reshape the palette, drag its border. To close the palette, double-click its Control-menu box.

The tools in the Object Tools palette are the Concentric Circle, Cube, Dimensioning, GridMaker, Macros, Multigon, Parallel Lines, Pressure Pen, QuickTime, Registration Marks, Smart Lines, Spiral, and Star tools. Select a tool icon or a tool name from the list below for more information.



Select an object tool topic:

[Concentric Circle tool](#)

[Cube tool](#)

[Dimensioning tool](#)

[GridMaker tool](#)

[Macros tool](#)

[Multigon tool](#)

[Parallel Lines tool](#)

[Pressure Pen tool](#)

[QuickTime tool](#)

[Registration Marks tool](#)

[Smart Lines tool](#)

[Spiral tool](#)

[Star tool](#)

Concentric Circle tool



The Concentric Circle tool draws concentric ovals and circles.

This tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

This tool is available when the Concentric Circle [external tool](#) is active.

To specify the number of circles the tool draws, and the spacing between the circles, double-click the Concentric Circle tool icon to open the Concentric Circle Manager. The **Managers: Concentric Circles** command also opens this dialog box.

To use the Concentric Circle tool, select it from the Object Tools palette, position the pointer where you want the circles to begin, and drag to draw them.

- To draw true circles (rather than ovals), press SHIFT as you draw or drag a corner selection handle.
- To draw or resize a concentric circle outward from the center, press CTRL as you drag.

Editing concentric circles

Concentric circle objects can be edited the same as most draw objects. See [Basic Techniques](#).

To change the structure of a concentric circle object, double-click it, and the Edit Concentric Circle dialog box opens. You can specify a different number of circles and spacing in the dialog box.

To edit the individual circles of a concentric circles object, convert the object to a group by choosing **Object: Convert to, Group** (CTRL+ALT+G). Then choose **Object: Ungroup** (CTRL+U). Canvas selects the individual circles. Press ESC to deselect the circles.

Cube tool



The Cube tool draws three-dimensional cubes.

The tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

When the Cube [external tool](#) is active, the Cube tool icon appears in the Object Tools palette.

To draw a Cube, select the Cube tool from the Object Tools palette, position the pointer where you want one corner of the cube to be, and drag to draw the rectangular back side of the cube. When you release the mouse button, the front of the cube appears, connected to the back by four lines. Move the pointer to position the front, and click to anchor it.

These modifier keys affect the way a cube is drawn:

- To give the cube a perspective effect, press ALT while anchoring the front side.
- To constrain the back side of the cube to a square or constrain the cube's angle to multiples of 45°, press SHIFT while drawing or editing the cube.
- To constrain the cube to angles that are multiples of 60°, press CTRL while anchoring them.

To edit a cube, double-click it with the Arrow tool or select it and choose **Object: Edit Cube**.

When the cube is in edit mode, a round handle appears in the center of each face. Drag these handles to edit the cube. Press ESC to exit edit mode and select the cube.

Dimensioning tool



The Dimensioning tool places dimension measurements in Canvas documents. The dimension objects created by the tool consist of text, arrows, and other elements you can easily customize.

The Dimensioning tool uses the default colors, patterns, pen size, arrowhead, and pen mode. It also uses the default text attributes. See [Object Properties](#) and [Text menu commands](#) for more information.

When the Dimensioning [external tool](#) is active, the Dimensioning tool icon appears in the Object Tools palette.

The Dimensioning tool is really 15 tools in one; the 15 options, represented by icons in the Dimensioning tool palette, measure different types of objects in various ways. Press the Dimensioning tool icon to display the Dimensioning palette. Click an icon in the palette to select an option. To keep the Dimensioning palette open, drag it away from the Object Tools palette.



Dimensioning tool options:

Horizontal, Horizontal Chain, Horizontal Baseline

Vertical, Vertical Chain, Vertical Baseline

Oblique, Oblique Chain, Oblique Baseline

Perpendicular, Object Side, Angle

Radius, Diameter, Center

- Horizontal, Vertical, and Oblique options measure the distance between two points.
- Chain options (Horizontal, Vertical, and Oblique) measure the distances between a series of points.
- Baseline options (Horizontal, Vertical, and Oblique) measure the distances between each of a series of points and a single baseline.
- The Perpendicular option measures the perpendicular distance from a line to a point.
- The Object Side option measures the length of any side of an object.
- The Angle option measures the angle between two lines.
- Radius and Diameter options measure the radius or diameter of ellipses, circles, and arcs.
- The Center option places a cross mark at the center of an ellipse or circle.

To use the Dimensioning tool, choose the option of the tool that you want to use and follow the instructions that appear at the pointer. For example, when the pointer text reads *Click First Point*, click the point on the object where you want to begin measuring. When the pointer text reads *Anchor*, click to set the [dimension object](#) in place. When you complete a dimension object, it appears with [selection handles](#) around it.

You can use [Smart Mouse Manager](#) constraints in conjunction with the Dimensioning tool. These constraints can, for example, snap the dimensioning object to the object you are dimensioning.

While creating a dimension object you can edit it in the following ways:

- To center the dimension text, press CTRL while positioning the dimension object.
- To align the text for each dimension in a chain dimension object, press SHIFT while positioning the dimension object.
- To constrain a Center, Radius, or Diameter dimension object to multiples of 45°, press SHIFT while anchoring it.
- To cycle through the possible angles when using the Angle option, press TAB.

When a dimension object is selected you can edit it in the following ways:

- To resize it, drag a selection handle.
- To move the dimension object, drag it.

- To change the dimension object's pen size, pen pattern, and other properties, use the appropriate Tool Box palette icons.

To configure the available dimensioning options, double-click the Dimensioning tool icon to open the Dimensioning Manager dialog box. The **Managers: Dimensioning** command also opens this dialog box.

You can also use the Dimensioning Manager to edit existing dimension objects. To do so, double-click a dimension object, or select it and choose **Managers: Dimensioning**.

Dimension objects can be converted to object groups, ungrouped, and edited by individual components using the Convert To submenu. Chain and baseline dimension objects must be ungrouped before you can convert them to object groups.

GridMaker tool



The GridMaker tool draws grids with varying numbers of rows and columns.

The tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

When the GridMaker [external tool](#) is active, the GridMaker tool icon appears in the Object Tools palette. To specify the number of boxes in the rows and columns drawn by the GridMaker tool, double-click the GridMaker tool icon to open the [GridMaker Manager](#). The **Managers: GridMaker** command also opens this dialog box.

To draw a grid, select the GridMaker tool from the Object Tools palette, position the pointer where you want to place one corner of the grid, and drag to where you want to place the opposite corner.

- To create square grids, press SHIFT while dragging.
- To create a grid from the center outwards, press CTRL while dragging. The point where you begin dragging will be the center of the grid.

You can also use the GridMaker Manager to change the number of rows and columns in an existing grid. To do so, use one of the following methods:

- Double-click the grid. This method is available when Enter Edit Mode is selected under "Double-Clicking" in the Preferences dialog box.
- Select the grid and choose **Object: Edit GridMaker**.

To modify individual lines in the grid, convert the object to a group by choosing **Object: Convert To, Group** (CTRL+ALT+G). Then choose **Object: Ungroup** (CTRL+U). Canvas selects the individual lines in the grid. Press ESC to deselect the lines.

Macros tool



The Macros tool displays a palette containing the current MacroObjects. Use this palette to place MacroObjects in the document.

When the Macro Object external tool is active, the Macros tool appears in the Object Tools palette.

To display the Macros palette, press the Macros tool icon. To keep the palette open, drag it away from the Object Tools palette.

To place a MacroObject in the document, select it from the Macros palette, and position the pointer where you want to place the MacroObject. Click to place the MacroObject at its original size, or drag to draw it to the size you want.

- To make a MacroObject's bounding rectangle square, press SHIFT as you drag.
- To draw a MacroObject from the center outward, press CTRL as you drag.

You can use the Macros submenu options to load a macro set, save the current macro set, and clear the current macro set.

Multigon tool



The Multigon tool draws polygons with a specified number of sides.

The tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

When the Multigon [external tool](#) is active, the Multigon tool icon appears in the Object Tools palette.

To specify the number of sides and the style of objects the Multigon tool draws, double-click the Multigon tool icon to open the [Multigon Manager](#). The **Managers: Multigon** command also opens this dialog box.

To draw a multigon, select the Multigon tool from the Object Tools palette, position the pointer where you want to begin and drag to draw.

- To constrain the multigon's [bounding rectangle](#) to a square, press SHIFT as you drag.
- To create the multigon from the center outwards, press CTRL as you drag. The point where you begin dragging will be the center of the multigon. A multigon can also be rotated as you drag using this method.
- To smooth the multigon, press ALT as you drag.

See the [Polygon tool](#) for information on editing multigons.

Parallel Lines tool



The Parallel Lines tool draws lines, polygons, and smooth polygons with a specified number of parallel lines making up the object segments. Each line can have different properties, and the lines can be evenly or unevenly spaced.

When the Parallel Lines external tool is active, the Parallel Lines tool appears in the Object Tools palette. The Parallel Lines tool offers three options – Line Segment, Polygon, and Smooth Polygon – represented by icons in the Parallel Lines palette. Press the Parallel Lines tool icon to open the palette. Click an icon in the palette to select the option. You can keep the palette open by dragging it away from the Object Tools palette.

Properties of the parallel lines in the objects drawn by the tool, such as color, dash style, and pen patterns, are set in the Parallel Lines Manager. The Line Segment and Polygon options of the tool also use the default fill pattern with the default foreground and background colors, as well as the default gradient fill and hatch pattern.

To specify properties for the parallel lines, double-click the Parallel Lines tool to open the Parallel Lines Manager. The **Managers: Parallel Lines** command also opens this dialog box.

To draw parallel line objects, select the appropriate tool option from the Parallel Lines palette.

- To use the Line Segment option, position the pointer where you want to begin, and drag to draw the line.
- To use the Polygon and Smooth Polygon options, click where you want to place the first vertex. Position the pointer where you want to place the second vertex (a parallel line segment follows the pointer), and click. Continue clicking to add segments. Double-click to place the last point. If you are using the Smooth Polygon option, Canvas smoothes the resulting polygon.

Parallel line objects can be converted to object groups, ungrouped, and edited by individual components using the Convert To submenu.

QuickTime tool



The QuickTime tool places QuickTime movies in Canvas documents. When the QuickTime external tool is active, the QuickTime tool icon appears in the Object Tools palette.

You must load the QuickTime external tool so you can use the QuickTime tool. You can use the

Managers: Tool Loader command to load the tool, or use the ToolPicker.

QuickTime for Windows must be installed on your computer for you to use the QuickTime tool. QuickTime for Windows is a package of libraries and programs from Apple Computer.

Placing a movie

To place a QuickTime movie in a Canvas document, select the QuickTime tool from the Object Tools palette. Click where you want to place the top-left corner of the movie, or drag to create a rectangle indicating the size you want the movie to be. A directory dialog box appears for you to select a QuickTime movie file.

After you place a QuickTime movie, you can select, move, resize, cut, copy, and paste it.

Playing a movie

To play a QuickTime movie that has been placed in a Canvas document, double-click the movie. To stop playback, click the mouse button.

The Movie Controller

The Movie Controller, at the bottom of the movie, controls playback and other functions. To use the controller, double-click the movie to make it active.

Volume control: Click the speaker symbol at the left of the controller to turn the movie sound on or off. When the sound is on, a vertical slider appears. Drag the slider to adjust the volume.

Start button: Click the right-facing arrow to play or pause the movie. The movie stops when it reaches the end.

Movie position: The Belt displays the current movie position. Drag the slider or click the Belt to move to a different frame in the movie. As you move the slider to the right, the movie advances.

Step buttons: Click the right- or left-facing arrow with vertical line to play the movie forward or backward one frame at a time.

Grow Box: Drag the box at the right end of the controller to resize the controller.

Pressure Pen tool



The Pressure Pen tool provides an interface with pressure-sensitive drawing tablets. The tool is compatible with Wacom pressure-sensitive tablets and others that are 100% compatible with Wacom tablets.

You can also use the Pressure Pen tool without a pressure-sensitive tablet. In this case, you drag the mouse to draw, and the tool translates drag speed into pen pressure.

When you draw with the Pressure Pen tool, whether using a tablet or the mouse, you create shapes that simulate brush strokes. The shapes are Bezier curve objects. See Bezier Curve editing for editing procedures.

An object drawn by the tool is filled with the default pen pattern, using the default foreground and background colors. It has no pen size (the default pen size is not used), but you can apply a pen size to the completed object.

The tool uses the default arrow and dash style; however, dashes and arrows appear only if you apply a (non-zero) pen size to the object. The tool also uses the default gradient fill, hatch pattern, and pen mode. See Object Properties for more information.

When the Pressure Pen external tool is active, the Pressure Pen tool appears in the Object Tools palette.

To use the Pressure Pen tool, select it from the Object Tools palette.

- If you use a pressure-sensitive tablet, greater pressure on the stylus produces thicker shapes. As you decrease pressure, the shapes become thinner. The number of pressure levels transmitted to Canvas is determined by the tablet and its Windows driver software.
- If you use the mouse, drag in the illustration area to draw. Drag slowly to draw thicker shapes, and faster to draw thinner ones.

To specify the minimum and maximum thickness of the shapes drawn by the Pressure Pen tool, as well as the tool's sensitivity to changes in stylus pressure (or mouse speed), double-click the Pressure Pen tool in the Object tools palette to open the Pressure Pen Manager. The **Managers: Pressure Pen** command also opens this dialog box.

Registration Marks tool



The Registration Marks tool places registration marks in a document.

When the Registration Marks external tool is active, the Registration Marks tool icon appears in the Object Tools palette.

To use the Registration Marks tool, select it from the Object Tools palette, position the pointer where you want to place the registration mark, and click.

Registration marks have a black foreground color, white background color, and solid white fill pattern. These properties cannot be changed.

The Registration Marks tool is useful when you want to create separations that place several illustrations on one negative. This makes it easy for a print shop to align each illustration to its own set of ink plates.

Smart Lines tool



The Smart Lines tool in the Object Tools palette draws Smart Lines, which are dynamic links between objects. Smart Lines are useful for creating drawings such as organizational charts and circuit diagrams. The Smart Lines tool uses the default colors, pen pattern, pen size, dash, arrow, arrowhead, and pen mode. See [Object Properties](#) for more information.

When the Smart Lines [external tool](#) is active, the Smart Lines tool icon appears in the Object Tools palette.

Types of Smart Lines

The Smart Lines tool offers five options, contained in the Smart Lines palette. Press the Smart Lines tool icon to open the palette. Click an option in the palette to select it. To keep the palette open, drag it away from the Object Tools palette.



Smart Lines options, from left: Basic, Fixed Length, Fixed Angle, Locked, and Square.

Basic draws Smart Lines at any angle and length. This type of Smart Line changes automatically if you move the linked objects. Basic is the default Smart Lines option.

Fixed Length draws Smart Lines that maintain a constant length. If you move one of the objects linked with a Fixed Length Smart Line, Canvas moves the other linked objects to maintain the Smart Line's fixed length.

Fixed Angle draws Smart Lines that maintain a constant angle. If you move one of the linked objects, Canvas moves the other linked objects to maintain the fixed angle of the Smart Line.

Locked draws Smart Lines that do not change length or angle if you move the linked objects. Objects linked by a Locked Smart Line move as a group.

Square draws Smart Lines composed of horizontal and vertical segments, which automatically adjust as you move a linked object.

Using Smart Lines

You can attach Smart Lines to objects at their centers and selection handle positions. You can also connect to a point on the screen.

To use the Smart Lines tool to link two or more objects, select a Link Type from the Smart Lines palette. Position the pointer on one object, or at a point on screen. The pointer becomes a crosshair when it is near an attachment point. Drag toward the other object, and the Smart Line snaps to an attachment point on the second object. Release the mouse button to establish the link.

Editing Smart Lines

You can change the Link Type or specify other properties for a Smart Line using the Smart Lines Specifications dialog box. To open this dialog box, double-click an existing Smart Line, or select the line and choose **Object: Edit Smart Line** (CTRL+E).

Link Type changes a Smart Line's link type. Other settings available in the Smart Lines Specifications dialog box depend on the Link Type you choose.

Length is a Fixed Length Smart Line's length in the current ruler unit of measure.

Angle is a Fixed Angle Smart Line's angle in degrees.

Vertical Start/Vertical Stop specifies, for a Square type Smart Line, whether vertical segments should be used at the start, end, or both ends of the Smart Line.

Spiral tool



The Spiral tool in the Object Tools palette draws spiral-shaped Bezier curves.

The tool uses the default colors, patterns, pen size, dash, arrow, arrowhead, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

When the Spiral [external tool](#) is active, the Spiral tool icon appears in the Object Tools palette.

To specify the number of spirals the tool draws in spiral objects, double-click the Spiral tool icon to open the Spiral Manager. The **Managers: Spirals** command also opens this dialog box.

To draw a spiral, select the Spiral tool from the Object Tools palette, position the pointer where you want to begin, and drag to draw.

- To constrain the spiral to a circular shape, press SHIFT as you drag.
- To create the spiral from the center outwards, press CTRL as you drag. The point where you begin dragging will be the spiral's center.

Spiral objects can be edited the same as any [Bezier curve](#). See [Editing Bezier curves](#).

Star tool



The Star tool draws star-shaped polygons.

The tool uses the default colors, patterns, pen size, dash, gradient fill, hatch pattern, and pen mode. See [Object Properties](#) for more information.

When the Multigon [external tool](#) is active, the Star tool icon appears in the Object Tools palette.

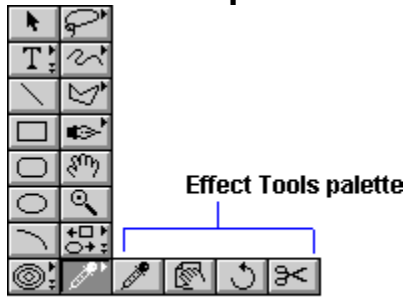
To specify the number of points and the style of stars the tool draws, double-click the Star tool icon to open the [Star Manager](#). The **Managers: Star** command also opens this dialog box.

To draw a star, select the Star tool from the Object Tools palette, position the pointer where you want to begin and drag to draw. Release the mouse button when you finish. The star appears with [selection handles](#) along its edges. You can also select an existing star by clicking it with the Arrow tool.

- To constrain the star's [bounding rectangle](#) to a square, press SHIFT as you drag.
- To create the star from the center outwards, press CTRL as you drag. The point where you begin dragging will be the center of the star.
- To create a smooth, flowerlike effect, press ALT as you drag.

You can edit a completed star as you would any other [polygon](#). See the [Polygon tool](#) for polygon editing procedures.

Effect Tools palette



Effect Tools palette icon

The Effect Tools palette contains external tools for editing objects. When you select a tool from the palette, it appears in the Effect Tools palette icon in the Tool Box.

Press the palette icon to open the palette. To keep the palette open, drag it away from the Tool Box. To move the palette, drag its title bar. To reshape the palette, drag its border. To close the palette, double-click its Control-menu box.

The tools in the Effect Tools palette are the Mover, Dropper, Point Rotate, and Split tools. Select a tool icon or a tool name in the list below for more information.



Select an effect tool topic:

[Dropper tool](#)

[Mover tool](#)

[Point Rotate tool](#)

[Split tool](#)

Dropper tool



The Dropper tool changes the default foreground or background color to one you select from an object. You can also apply colors to objects with the Dropper tool.

When the Dropper external tool is active, the Dropper tool icon appears in the Effect Tools palette.

To use the Dropper tool, select it from the Effect Tools palette and point to the color you want to select.

- To change the default foreground color, click a color.
- To change the default background color, click a color using the right mouse button.
- To apply the default foreground color to an object's foreground, press SHIFT and click the object.
- To apply the default foreground color to an object's background, press CTRL and click the object.
- To apply the default background color to an object's background, press SHIFT and click the object with the right mouse button.
- To apply the default background color to an object's foreground, press CTRL and click the object with the right mouse button.

Mover tool



The Mover tool repositions all objects in a document.

When the Mover external tool is active, the Mover tool icon appears in the Effect Tools palette.

To move all objects in a document, select the Mover tool, and drag in the direction you want to move the objects. The Mover tool repositions all objects regardless of the layer they are on, or if they are selected or not. It also moves locked objects.

Point Rotate tool



The Point Rotate tool rotates selected objects around any point.

When the Point Rotate external tool is active, the Point Rotate tool icon appears in the Effect Tools palette.

The Point Rotate tool rotates objects in one-degree increments, clockwise or counterclockwise. You can rotate objects using the mouse or by specifying rotation in degrees.

To use the Point Rotate tool, select the objects you want to rotate, then select the tool.

- To rotate using the mouse, position the pointer where you want the center of rotation to be (you can choose any point in the document), and drag in the direction you want to rotate the selection. A line extending from the rotation point acts as a rotation lever. You can drag from any point along the line.
- To rotate a copy of the selection while leaving the original in place, press CTRL as you drag.
- To specify rotation angle, press SHIFT as you click the rotation point. In the Rotation Specifications dialog box, specify a rotation angle in degrees (a positive number for clockwise rotation, a negative number for counterclockwise rotation).

You can restore an object to its original orientation by selecting the object and choosing the **Effects: Remove Effects** command.

Rotating draw objects such as rectangles and ovals with the Point Rotate tool converts them into polygons or Bezier curves. After you rotate text, you can edit it by double-clicking the object.

Split tool



The Split tool opens a closed draw object (such as a rectangle) and can split one draw object into two. When the Split external tool is active, the Split tool icon appears in the Effect Tools palette.

To use the Split tool, select it from the Effect Tools palette, point to the edge of the object where you want to open it, (the pointer becomes a crosshair), and click. If the object is an open one, a line, or an arc, it splits into two objects. If it is a closed object, you can click another point on its edge to split it into two objects.

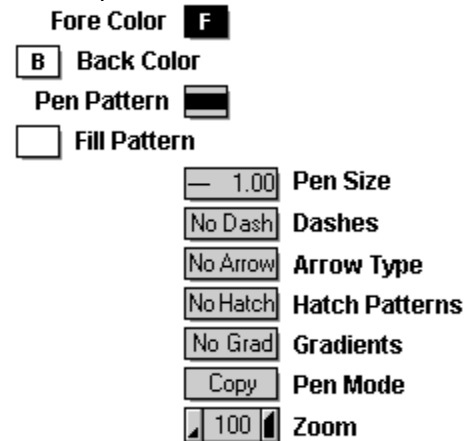
Draw objects such as rectangles and ovals are converted to polygons or Bezier curves when you use the Split tool. Two anchor points are added to the object where you click. See Bezier curve editing for information on using anchor points to reshape objects.

Object property palettes

The icons in the bottom half of the Tool Box open palettes of object properties. These palette icons are shown below, with the name of the associated palettes.

The object properties controlled by the palettes are colors, patterns, pen size, dashes, arrows and arrowheads, hatch patterns, gradients, and pen mode. The Zoom palette icon controls the magnification level for viewing documents.

Click a palette icon below for more information.



Using object property palettes

To open a palette, click the palette icon. Select a property from the palette by clicking it. In some palettes, you can use the arrow keys to move through the palette, and press ENTER to select a property. When you select a property, the palette closes.

You can use the palettes to set default properties and to change properties of existing objects.

- To change a default property, make sure no objects are selected (press ESC twice). Select the properties you want from the properties palettes. The palette icons show the default properties. These default properties apply to objects you create, not existing objects.
- To change properties of existing objects, select the objects, and then select the properties you want from the properties palettes.

Using palettes in floating windows

To keep a palette open in a floating window, drag the palette away from the Tool Box. You can place the palette anywhere on the screen and select properties from it as usual.

To move a palette floating window, drag its title bar. To reshape it, drag the border. To close the palette, double-click its Control-menu box or chose Close from the Control menu.

To close all open palettes, choose Close All from any palette's Control menu.

If a palette has an associated dialog box, you can choose a command from the palette's Control menu to open the dialog box. For example, to customize patterns in the Patterns palette, choose **Patterns** from the palette's Control menu.

Select a palette topic:

[Fore Color palette](#)

[Back Color palette](#)

[Pen Pattern palette](#)

[Fill Pattern palette](#)

Pen Size palette

Dashes palette

Arrow Type palette

Arrowheads palette

Hatch Patterns palette

Gradients palette

Pen Mode palette

Zoom palette

Fore Color palette

F

The Fore Color palette icon displays the default foreground color, and opens the Colors palette.

To choose a new foreground color, click the Fore Color palette icon to open the palette, then click a color in the palette to select it.

- To change the default foreground color, make sure no objects are selected when you choose a color.
- To change an object's foreground color, select the object before choosing a color.

Custom displays the Color Info dialog box for you to edit the default color. The options in this dialog box are also in the Color Manager. See Color Manager for information on editing colors.

Find opens a dialog box for you to locate a named color in the color palette. See the Find command for more information about finding a color.

Double-click the Fore Color palette icon or the Colors palette to open the Color Manager, to edit a color and work with color palettes. The **Managers: Colors** command also opens this dialog box.

If you tear off the Colors palette, you can choose both foreground and background colors from the palette. To specify which type of color you are selecting, click the Fore or Back icon at the top of the palette before clicking a color.

Back Color palette

B

The Back Color palette icon displays the default background color, and opens the Colors palette.

To choose a new background color, click the Back Color palette icon to open the palette, then click a color in the palette to select it.

- To change the default background color, make sure no objects are selected when you choose a background color.
- To change an object's background color, select the object before choosing a background color.

Custom displays the Color Info dialog box to edit the default background color. The options in this dialog box are also in the Color Manager. See Color Manager for information on editing colors.

Find opens a dialog box for you to locate a named color in the color palette. See the Find command for more information.

To open the Color Manager, double-click the Back Color palette icon or the Colors palette. Use the Color Manager to edit and create colors and color palettes. The **Managers: Colors** command also opens this dialog box.

If you tear off the Colors palette, you can choose both foreground and background colors from the palette. To specify which type of color you are selecting, click the Fore or Back icon at the top of the palette before clicking a color.

Pen Pattern palette



The Pen Pattern palette icon displays the default pen pattern. The pen pattern applies to lines and object outlines. To choose a new pen pattern, click the icon to open the Patterns palette. Click a pattern to select it.

- To change the default pen pattern, make sure no objects are selected and choose a pen pattern.
- To change an object's pen pattern, select the object before choosing a pen pattern.

To edit the available patterns, double-click the Pen Pattern palette icon or the Patterns palette to open the Pattern Manager. The **Managers: Patterns** command also opens this dialog box.

Fill Pattern palette



The Fill Pattern palette icon displays the default fill pattern. To choose a new fill pattern, click the icon to open the Patterns palette, and click a pattern in the palette.

- To change the default fill pattern, make sure no objects are selected and choose a fill pattern.
- To change an object's fill pattern, select the object before choosing a fill pattern.

Double-click the Fill Pattern palette icon or the Patterns palette to open the Pattern Manager, to edit the available patterns. The **Managers: Patterns** command also opens this dialog box.

Pen Size palette



The Pen Size palette icon displays the default pen size. Pen size is the thickness, measured in points, of lines and object outlines.

To choose a new pen size, click the icon to open the Pen Size palette. Click a pattern to select it.

- To change the default pen size, make sure no objects are selected, and choose a pen size.
- To change an object's pen size, select the object before choosing a pen size.

Choose the **Custom** button to open the Custom Pen Manager. Select a pen size to change and specify the custom size in points. When you customize a pen size in this way, the custom size is available until you select another pen size.

To edit the available pen sizes, double-click the Pen Size palette icon or the Pen Size palette to open the Pen Manager. The **Managers: Pens** command also opens this dialog box.

Dashes palette

No Dash

The Dash palette icon displays the default dash style. To choose a new dash style, click the Dash palette icon to open the Dashes palette.

- To change the default dash style, make sure no objects are selected and choose a dash style.
- To change an object's dash style, select the object before choosing a dash style.

You can change the dash style of any draw object except those created with the Dimensioning, Cube, Parallel Lines, and GridMaker tools.

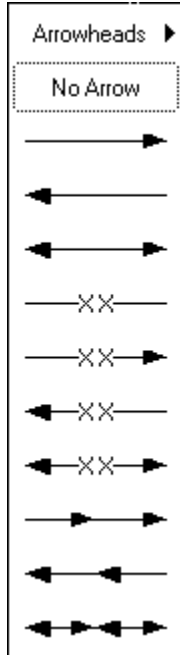
To edit the available dash styles, double-click the Dash palette icon or the Dashes palette to open the Dash Manager. The **Managers: Dashes** command also opens this dialog box.

Arrow Type palette

No Arrow

The Arrow Type palette icon displays the default arrow type.

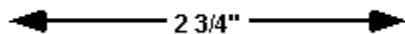
Click the icon to open a palette of arrow types. Arrow types can apply to lines, arcs, polygons, and Bezier curves.



- To change the default arrow type, make sure no objects are selected when you choose an arrow type.
- To change an existing object's arrow type, select the object, and then choose an arrow type.

The arrow types in the palette show where arrowheads and dimension data will appear on appropriate objects. The arrow types show the default Arrowhead (see the Arrowheads palette for more information.)

Arrow types with 'XX' place dimensions on lines and arcs.



The default text settings apply to the dimension text. See the Text menu commands for more information. The three arrow types at the bottom of the palette add arrowheads to each segment of a Bezier curve, polygon, or smooth polygon.



Arrowheads palette

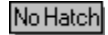
You can display the Arrowheads palette, which contains a variety of arrowheads, from the Arrow Type palette. Click the Arrow Type [palette icon](#), and click the word *Arrowheads* at the top of the palette to open the Arrowheads palette.



Canvas applies the default arrowhead to all arrow types that have line terminators. In the Arrow Type palette, these arrow types show the default arrowhead.

You can edit the arrowheads using the [Arrowhead Manager](#).

Hatch Patterns palette



The Hatch Patterns palette contains hatch patterns you can apply to draw objects. The palette contains hatch patterns you have saved using the Hatch Manager dialog box, and default hatch patterns.

To open the Hatch Patterns palette, click its palette icon. The palette is available when the Hatch Patterns external tool is active.

To apply a hatch pattern to one or more draw objects, select the objects, click the Hatch Patterns palette icon, and drag through the Hatch Patterns palette to enclose your choice in the selection box. Canvas applies the hatch pattern to the selected objects. Choose None to remove an existing hatch pattern.

To edit the available hatch patterns, you can double-click the Hatch Patterns palette icon or the Hatch Patterns palette to open the Hatch Manager. This is equivalent to choosing the **Managers: Hatch** command.

Gradients palette

No Grad

The Gradients palette contains color gradients you can use to fill draw objects. The palette contains gradient fills you have saved using the Gradient Fill Manager dialog box, and default gradients.

To open the Gradients palette, click its palette icon. The palette is available when the Gradient Fill external tool is active.

To apply a gradient to one or more draw objects, select the objects, and select the gradient you want from the Gradients palette. Choose "None" to remove an existing gradient.

Canvas applies the gradient to the selected objects. If an object has a fill pattern, the gradient covers it.

A gradient's settings are specified in the Gradient Fill Manager. The following options determine the way a gradient fills an object:

- If the Center option is Mouse Point, the pointer changes to a crosshair with the words *Pick Center*. Click to establish the center of the fill and Canvas applies the fill.
- If the Method is set to Directional and Center is set to Object Center, a line appears beginning at the center of the selection. Move the pointer in the direction you want Canvas to apply the gradient. A line follows your movements. Click to fill the object.
- If the fill uses the Mouse Point option for its Center and the Method set to Directional, the pointer changes to a crosshair with the words *Pick Center*. Position the pointer where you want the gradient to begin, and drag in the direction you want the gradient to fill. Release the mouse button to fill the object.

To create or edit the gradients in the palette, you can double-click the Gradients palette icon or the Gradients palette to open the Gradient Fill Manager. This is equivalent to choosing **Managers: Gradient Fill**.

Pen Mode palette



The Pen Mode palette icon displays the default pen mode. To change the pen mode, click the icon to open the Pen Mode palette, and click a mode in the palette.

- To change the default pen mode, make sure no objects are selected and choose a pen mode.
- To change an object's pen mode, select the object before choosing a pen mode.

The Pen Mode palette has four pen modes: Copy, Or, Xor, and Bic. Each mode has a reversal: Not Copy, Not Or, Not Xor, and Not Bic. Reversals switch the foreground and background color of the object before performing the transformation. Pen mode effects can be printed by Windows-graphics compatible printers; PostScript printers recognize only the Copy pen mode.

- **Copy/Not Copy** displays objects as opaque.
- **Or/Not Or** displays the background parts of objects as transparent.
- **Xor/Not Xor** (Exclusive OR) inverts colors where an underlying image is black.
- **Bic/Not Bic** (erase) displays foreground parts of objects as white, and white areas as transparent.

Zoom palette



The Zoom palette icon shows the current magnification level. To change the magnification level, click the palette icon, and choose a preset level from the top of the palette or drag the slider. The level you choose appears on the left of the palette.

To zoom in on or out from a particular object, select the object and choose a magnification level from the Zoom palette. Click the Zoom In or Zoom Out buttons to go to the next higher or lower magnification level. To keep the Zoom palette open, drag it away from the Tool Box. To move it, drag its title bar. To close the palette, double-click its Control-menu box.

Keyboard shortcuts for commands

You can execute many commands by using keyboard shortcuts. In the menus, the combination of keys to execute a command appears after the command.

In some cases, you press a function key (F1 through F12) alone, or in combination with SHIFT and CTRL, to execute a command. Many other commands have keyboard shortcuts using CTRL and SHIFT in combination with character or numeric keys. Also, many commands have a key sequence using ALT and the underlined letters in a menu and command name.

The Command shortcuts topic displays an alphabetical list of all commands that have keyboard shortcuts, including function keys and character key sequences.

Select a command shortcut topic:

Function key shortcuts

Command shortcuts

Function key shortcuts

The following table shows Function Key shortcuts for Canvas commands. To choose commands in the "Plain Key" column, press the corresponding Function Key. To choose commands in the ALT, CTRL, SHIFT and CTRL+SHIFT columns, press the appropriate key(s) as you press the corresponding Function Key. For example, to execute the Hide Other Layers command, hold down SHIFT and press F2, then release both keys.

Key	Plain Key	ALT	CTRL	SHIFT	CTRL+SHIFT
F1	Help				
F2	Layer Specs			Hide Other Layers	Show Other Layers
F3	Home View			Reduce To Fit	
F4	Blend	Exit	Close	Tile	
F5	Refresh			Cascade	
F6	Align			Guides	
F7	Object Specs			Show/Hide Information Box	
F8	Scale			Show/Hide Size	Smart Mouse
F9	Grids			Show/Hide Grid	Snap To Grid
F10	Drawing Size			Show/Hide Page Breaks	
F11	Rulers			Show/Hide Rulers	
F12	Slides				

Command shortcuts

The following table shows all Canvas command shortcuts. A plus sign between keys means to hold down the key or keys as you press the final key, and then release all keys.

Command	Key combination
Again	ALT+ENTER
Align	F6
Arrange, Bring To Front	CTRL+F
Arrange, Send To Back	CTRL+B
Arrange, Shuffle Down	CTRL+]
Arrange, Shuffle Up	CTRL+[
Blend	F4
Break Composite	CTRL+SHIFT+K
Cascade	SHIFT+F5
Clear	DELETE
Close	CTRL+F4

Contents	F1
Convert To, Bezier Curve	CTRL+ALT+B
Convert To, Group	CTRL+ALT+G
Convert To, Polygon	CTRL+ALT+P
Copy	CTRL+C
Curves, Join	CTRL+ALT+J
Curves, Select All Anchors	CTRL+ALT+A
Curves, Smooth	CTRL+ALT+S
Curves, Unsmooth	CTRL+ALT+U
Cut	CTRL+X
Display, Refresh	F5
Drawing Size	F10
Duplicate	CTRL+D
Duplication	CTRL+SHIFT+D
Edit (Concentric Circle, Curve, Cube, Dimensioning, GridMaker, Parallel Line, Polyon, Smart Line)	CTRL+E
Exit	ALT+F4
Grids	F9
Group	CTRL+G
Guides	SHIFT+F6
Image Effects, Crop Image	CTRL+Y
Image Effects, Trace Edges	CTRL+`
Justification, Center	CTRL+SHIFT+C
Justification, Full	CTRL+SHIFT+F
Justification, Left	CTRL+SHIFT+L
Justification, Right	CTRL+SHIFT+R
Kerning, Loosen	CTRL+SHIFT+→
Kerning, Tighten	CTRL+SHIFT+←
Layer Specs	F2
Layers, Hide Other Layers	SHIFT+F2
Layers, Layer #1	CTRL+SHIFT+1
Layers, Show Other Layers	CTRL+SHIFT+F2
Leading, Loosen	CTRL+SHIFT+↓
Leading, Tighten	CTRL+SHIFT+↑
Lock	CTRL+L
Make Composite	CTRL+SHIFT+M
New	CTRL+N
Object Specs	F7
Open	CTRL+O
Paste	CTRL+V
Print	CTRL+P
Revert	CTRL+R
Rulers	F12
Save	CTRL+S

Save As	CTRL+SHIFT+S
Scale	F8
Select All	CTRL+A
Selection	CTRL+SHIFT+A
Show/Hide, Grid	SHIFT+F9
Show/Hide, <u>Information Box</u>	SHIFT+F7
Show/Hide, Page Breaks	SHIFT+F10
Show/Hide, Rulers	SHIFT+F11
Show/Hide, Size	SHIFT+F8
Size, Increase	CTRL+SHIFT+>
Size, Reduce	CTRL+SHIFT+<
Slides	F11
Smart Mouse	CTRL+SHIFT+F8
Snap To Grid	CTRL+SHIFT+F9
Style, Bold	CTRL+SHIFT+B
Style, Italic	CTRL+SHIFT+I
Style, Lowercase	CTRL+SHIFT+[
Style, Outline	CTRL+SHIFT+O
Style, Plain	CTRL+SHIFT+P
Style, Shadow	CTRL+SHIFT+W
Style, Small Caps	CTRL+SHIFT+\
Style, Strikethrough	CTRL+SHIFT+H
Style, Subscript	CTRL+SHIFT+-
Style, Superscript	CTRL+SHIFT++
Style, Title	CTRL+SHIFT+;
Style, Underline	CTRL+SHIFT+U
Style, Uppercase	CTRL+SHIFT+]
Tile	SHIFT+F4
Type	CTRL+T
Undo	CTRL+Z
Ungroup	CTRL+U
Unlock	CTRL+K
Views, Home View	F3
Views, Reduce To Fit	SHIFT+F3
Views, Zoom In	CTRL+ALT++
Views, Zoom Out	CTRL+ALT+-

Tool shortcuts

The following shortcuts provide special functions for tools and palettes:

Action	Shortcut
Select multiple objects with the Arrow tool	Press SHIFT and click the objects
Duplicate object with the Arrow tool	Press CTRL and drag the object
Make a trail of copies with the Arrow	Press CTRL+ALT and drag the object

tool

Type text inside an object	Select the object and type
Display the Fonts menu	CTRL + press the Text tool icon
Display the (text) Size menu	SHIFT + press the Text tool icon
Display the Styles menu	Press the Text tool icon
Select the Hand Tool	Press SPACEBAR
Select the previous tool	Press ALT
Display a tool or palette manager dialog box	Double-click the tool or <u>palette icon</u>
Zoom In	CTRL+ALT+Plus
Zoom Out	CTRL+ALT+Minus
Zoom In or Out 800%	CTRL+ALT+click with Pencil tool
Center text in a <u>dimension object</u>	Press CTRL as you anchor the text
Align Horizontal, Vertical, and Oblique Chain dimension objects	Press SHIFT as you anchor the dimension objects
Display the Color Manager dialog box	Double-click the Fore or Back Color palette icon
Display the Color Info dialog box	Double-click a color in the Colors palette
Place a ruler in the <u>illustration area</u>	Press CTRL and drag from a ruler

Layer shortcuts

To go to the next layer and hide the current layer

Press CTRL and click an arrow on the Layers palette icon, or choose the layer from the Layers palette.

To go to the next layer (visible or not) without hiding the current layer

Choose the layer from the Layers palette, or press SHIFT+ALT and click an arrow on the Layers palette icon.

To change a layer to visible or invisible

Press SHIFT and choose the layer name from the Layers palette.

Editing objects

Selecting objects

To select multiple objects, press CTRL as you use the Arrow tool to draw a selection rectangle that touches the objects.

To select an object hidden by the selected object, press TAB and click with the Arrow tool where the objects meet.

To temporarily reverse the Select Across All Layers setting in the Preferences dialog box, press CTRL+TAB when you click an object or drag a selection rectangle over multiple objects. You can also press CTRL+TAB when choosing the **Edit: Select All** command.

Copying objects

To drag a copy of an object away from the original, press CTRL and drag from the object with the Arrow tool.

To drag multiple copies of an object away from the original, press CTRL and ALT and drag from the object with the Arrow tool.

Editing objects

To constrain an object to a 45° angle, press SHIFT while dragging the object.

To draw or resize a selected object from the center, press CTRL as you drag a selection handle.

To scale a selected paint or text object, press ALT and drag a selection handle.

To scale a select paint or text object proportionally, press SHIFT and ALT and drag a corner selection handle.

To rotate a copy of a selected object, press CTRL while choosing a rotate command from the Effects menu.

To open a selected oval, press ALT, click the Arc tool icon, and drag around the oval.

Editing Bezier curves

A Bezier curve is one of the most powerful objects in Canvas because of the numerous editing options available.

In general, a Bezier curve can be modified the same as any draw object. You can select, move, and reshape the entire object. You can change properties such as pen size, dash style, colors, and patterns. See Basic Procedures for information on selecting, moving, and reshaping objects. See Object Property Palettes for information on changing properties.

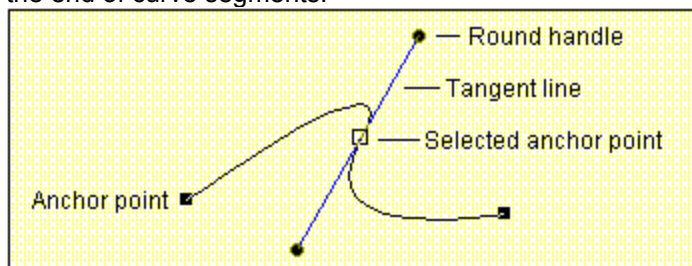
After placing a Bezier curve in edit mode, you can reshape segments of the curve. You can use several modifier keys and a pop-up menu as you edit curve segments.

Placing Bezier curves in edit mode

To place Bezier curves in edit mode so you can reshape segments, do one of the following:

- Double-click the Bezier curve with the Arrow tool (assuming that "Enter Edit Mode" is selected as a Double-Clicking preference in the Preferences dialog box).
- Select one or more Bezier curves, and then choose the **Object: Edit Curve** command (CTRL+E).

When a Bezier curve is in edit mode, anchor points appear as small filled squares. Anchor points mark the end of curve segments.



When you point to an anchor point, the pointer becomes a small crosshair (+). You can drag an anchor point to move it.

Selecting anchor points

To select anchor points for editing, do one of the following:

- Click an anchor point to select it. This deselects other selected anchor points.
- Drag a selection rectangle around one or more anchor points to select them.
- Press SHIFT as you click each anchor point you want to select.
- Click a curve segment to select the anchor points at each end.

When selected, an anchor point is hollow and its tangent lines are displayed. When multiple anchor points are selected, you can drag one anchor point to move it and the other selected points will also move.

Tangent lines

Tangent lines control the shape of curve segments. Tangent lines have round handles you can drag to lengthen or shorten the tangent line.

The angle of a tangent line controls the slant of a curve segment, while the tangent line's length determines the size of the segment. On color monitors, tangent lines are blue.

Reshaping curve segments

To reshape a curve segment, select an anchor point, and drag the handle of a tangent line. Changing the angle of the tangent line changes the slant of the curve segment. Changing the length of the tangent line changes the size of the curve segment.

You can also use the following procedures to edit tangent lines:

- To move both handles of a tangent line simultaneously, press CTRL as you drag a handle. The second handle will reflect your movement.
- To change the length of a tangent line without changing its angle, press CTRL+ALT while dragging a handle.
- To delete the tangent lines from an anchor point, press TAB and click the anchor point. To restore the tangent lines, press TAB and double-click the anchor point.

Adding to a Bezier curve

- To add an anchor point on the curve, press CTRL and click where you want to add the anchor point.
- To add a segment to the end of a selected open Bezier curve, select the Bezier curve tool from the Tool Box and click or drag to add the segment.

Removing anchor points

To remove an anchor point, do one of the following:

- Press SHIFT+CTRL as you click an anchor point.
- Select one or more anchor points and press DELETE.

Closing and opening Bezier curves

To close an open Bezier curve, press ALT as you click either endpoint of the curve. To close the curve with a straight line segment, press CTRL+ALT as you click an endpoint.

To open a closed Bezier curve, press ALT and click the anchor point where you want to open the curve. Canvas adds a new anchor point where you click. You can drag the anchor point away to open the curve.

Creating cusps

To make a cusp from an anchor point, select the point and then do one of the following:

- Press TAB and drag either handle, breaking the alignment of the tangent lines.
- Press TAB and click the anchor point to delete both tangent lines. To restore the tangent lines, press TAB and double-click the anchor point.

Cusps (selected)



Restoring a cusp

To change a cusp to a standard anchor point:

- Press TAB and click a handle to align the tangent lines.
- If the cusp has no tangent lines, press TAB and double-click the anchor point to add two tangent lines.

Select a Bezier curve topic:

Using the Bezier pop-up menu

Modifying curves while drawing

Using the Bezier pop-up menu

When a Bezier curve is in the edit mode, you can point to a segment, anchor point, tangent line, or handle, and open a menu of options by clicking the right mouse button. The menu offers options to change an anchor point to a cusp or return a cusp to a standard anchor point; add or delete an anchor point; close an open Bezier curve or open a closed curve; and straighten a curve segment.

Delete Point	Removes a selected anchor point
Add Point	Adds anchor point where you clicked right button
Break	Splits Bezier curve at selected anchor point
Join	Closes an open curve by joining endpoints
Cusp Off/On	Aligns or unaligns tangent lines
Delete Handle	Removes one tangent line from anchor point
Add Handle	Adds 1 or 2 handles to cusp anchor points
Straighten	Converts a segment to a straight line

Bezier curve editing menu

The options available in the curve editing menu depend on the part of the Bezier curve you point to (anchor point, segment, tangent line, or handle) when you click the right mouse button.

Delete Point: To remove an anchor point, point to the anchor point, click the right mouse button, and choose Delete Point

Add Point: To place a new standard anchor point, point to the place where you want to add the anchor point, click the right mouse button, and choose Add Point

Break: To open a closed Bezier curve, point to an anchor point, click the right mouse button, and choose Break to place a new endpoint.

Join: To join the endpoints of an open Bezier curve with a new segment, point to one of the endpoints, click the right mouse button, and choose Join. To make the new segment a straight one, press CTRL as you choose the Join command.

Cusp Off/On: To create a cusp from a standard anchor point, select the anchor point, point to a handle of the tangent line, click the right mouse button, and choose Cusp On. To return a two-handle cusp to a standard anchor point, select the cusp, point to the handle of the tangent line that you want the other handle to align to, click the right mouse button, and choose Cusp Off.

Delete Handle: To remove a tangent line from an anchor point, select the anchor point, point to the handle you want to remove, click the right mouse button, and choose Delete Handle.

Add Handle: To add a tangent line to an anchor point that has none or only one tangent line, point to the anchor point, click the right mouse button, and choose Add Handle. Two tangent lines appear if the anchor point has none; one tangent line appears if the anchor point has one.

Straighten: To convert a segment to a straight line, point to the segment, click the right mouse button, and choose Straighten.

Modifying curves while drawing

- To remove the last segment drawn, press DELETE.
- To constrain a tangent line to a 45° angle, press SHIFT while dragging to position the tangent line.
- To join the curve to an existing Bezier curve, click the end of the existing curve.
- To create a straight line segment of a Bezier curve, press CTRL as you drag to create the second anchor point for the segment.
- To create a segment independent of the preceding anchor point, press CTRL while creating the segment's second anchor point. The preceding anchor point becomes a one-handle cusp.

Glossary of Terms

Active document
Anchor point
Autogrid
Background color
Bezier curve
Bitmap
Bounding rectangle
Canvas desktop
Canvas Prefs file
Clipboard
CMYK
Color separations
Color system
Cusp
Depth
Dimension Object
Dithering
Draw object
Embedding
External tool
File format
Floating window
Foreground color
Hatch pattern
Illustration area
Information Box
Layer
Lightness
MacrObject
OLE
Paint Object
Palette icon
Pica
Picture object
Pixel
Polygon
PostScript
Process color printing
Resolution
Saturation
Segment
Selection handles
Selection rectangle
Server program
Smart pointer
Smooth polygon
Source file
Stacking Order
Tool Box
Tool Set
Trap

Active document

The document that has the focus of the program. The title bar of the active document window is highlighted. If the document is minimized, its name is highlighted.

Anchor point

A point marking one end of a Bezier curve segment. When selected, anchor points show one or more tangent lines and handles that control the segment shape.

Autogrid

Horizontal and vertical guidelines that the pointer can snap to as you create or edit objects. The **Layout: Grids** command configures the grid; **Layout: Snap To Grid** turns the snap feature on and off.

Background color

The color represented by white pixels in fill and pen patterns, and brush and nozzle shapes. For example, if a draw object has a solid white fill pattern, it is filled with solid background color.

Bezier curve

A curve composed of one or more segments. Each segment has anchor points at its ends. A handle attached to each anchor point determines the curve's shape.

Bitmap

An array of pixels, as in a Canvas paint object.

Bounding rectangle

The smallest rectangle that encloses an object, shown by selection handles when the object is selected.

Canvas desktop

The Canvas work environment window containing the Tool Box, menus, and documents.

Canvas Prefs file

A Canvas document used as a template for new documents. The document stores the settings of dialog boxes, tools, palettes, and some menu options.

Clipboard

A storage area in memory for cut or copied items that you can paste into the same or another document. The **Window: Clipboard** command opens a window that shows the Clipboard's contents.

CMYK

Color system used in the printing industry in which a color is defined by its cyan (C), magenta (M), yellow (Y), and black (K) components. The CMY system uses the same colors except black.

Color separations

Images containing the separate color components of an illustration. Process color separations correspond to the cyan, magenta, yellow, and black components of the illustration. Spot-color separations correspond to the designated spot colors in an illustration. Color separations are used for commercial color printing.

Color system

A measuring system for defining colors as specific sets of components. Canvas supports the RGB (red, green, blue), HSL (hue, saturation, lightness), and CMYK (cyan, magenta, yellow, black) color systems.

Cusp

A superimposed point on a polygon that cannot be smoothed. On a Bezier curve, an anchor point whose tangent lines are not aligned. Cusps allow for the creation of corners on Bezier curves.

Depth

The amount of information (number of bits) defining color in a paint object. As the number of bits increases, so does the number of possible shades for the paint object. Canvas supports 1-bit, 4-bit, 8-bit, and 24-bit paint objects.

Dimension Object

Object, created by the Dimensioning tool, composed of dimension text, arrows, and witness lines.

Dithering

A visual effect that arranges groups of pixels of relatively few colors in patterns to give the appearance of a broader range of colors.

Draw object

A Canvas graphic element formed from a mathematical description of its shape. Also known as an object-oriented or vector graphic.

Embedding

Placing an object created in one program (the server) in a document of another program (the client). You can edit the embedded object by opening the server document from within the client document.

External tool

An extension to the Canvas program that provides a feature or command. See [About External Tools](#) for more information.

File format

The structure of information stored in a computer file. You can use various file formats when you open and save documents in Canvas. In this way, you can exchange files with programs that support common formats.

Floating window

A window that stays in front of document windows and can be positioned anywhere on screen.

Foreground color

The color represented by black pixels in fill and pen patterns, and brush and nozzle shapes. For example, if a draw object has a pen pattern of solid black, the object's outline will be solid foreground color.

Hatch pattern

Object-oriented fill pattern composed of line groups.

Illustration area

The white rectangle in a Canvas document window, representing the printable area of the document.

Information Box

The box at the bottom of a document window shows data on the pointer's position, type of selected object, and dimension data. See [Information Box](#) for details.

Layer

A transparent level in a Canvas document used to organize objects. You can use as many layers in a document as your computer's memory allows.

Lightness

The amount of black or white in a color. Using the HSL color system in the Color Manager and Color Info dialog box, you can set a lightness value of 0% (black) to 100% (white) in 0.01% increments.

MacroObject

A Canvas object that can be stored and then inserted into a document at any scale by clicking or dragging. MacroObjects appear in the Macros palette and can be saved separately from the document in which they are created, in macro sets.

OLE

An acronym for Object Linking and Embedding, a feature of Windows that makes it easy to share information and objects between programs. Canvas is capable of using linking and embedding to share and receive information.

Paint Object

A Canvas object composed of an array of pixels. Such objects are sometimes called *bitmaps*. In Canvas, paint objects can have a resolution of 16 to 2304 dpi and a depth of 1, 4, 8, or 24 bits.

Palette icon

An item that opens a palette of tools or options. A palette icon displays its current setting.

Pica

A unit of measurement used in graphics and printing. One pica equals 12 points or approximately 1/6 of an inch.

Picture object

A graphic item treated as a single object. Information attached to the object allows it to maintain image quality when scaled.

Pixel

Abbreviation for *picture element*, an individual dot in a Canvas paint object or an image on a computer screen.

Polygon

A multi-sided geometric figure composed of line segments. There is a vertex at each endpoint of a polygon segment.

PostScript

A page-description computer language, created by Adobe Systems, Inc., that defines the appearance of printed type and images.

Process color printing

A printing method that uses four ink colors (cyan, magenta, yellow, and black), to reproduce full-color images.

Resolution

Measure of the pixel size forming an image. Resolution is expressed as dots per inch (dpi). Smaller pixels results in higher resolution and finer detail.

Saturation

The intensity of a color; that is, how strong the color appears. As you move outward along a radius of the color wheel, a color goes from zero saturation in the center to full saturation at the wheel's edge.

Segment

A line or curve between two points, such as in a polygon or Bezier curve.

Selection handles

Small squares that appear at the corners and midpoints of an object's bounding rectangle when the object is selected.

Selection rectangle

A dashed rectangle that appears as you drag the Arrow tool to enclose items you want to select.

Server program

A Windows program in which you create items that you can link to and embed in other documents.

Smart pointer

A symbol that represents a Smart Mouse constraint that is in effect.

Smooth polygon

A polygon with rounded, rather than angular, segments and corners.

Source file

The original document in which a linked object was created.

Stacking Order

Stacking order is the arrangement of objects on a document layer. When you create an object, it is stacked in front of other objects on that layer.

Tool Box

The box on the left of the Canvas desktop contains icons for tools and palettes, which you use to create and modify objects.

Tool Set

A customized selection of external tools created in the ToolPicker dialog box. The active Tool Set determines which external tools are loaded when you start Canvas.

Trap

A slight overlap of colors in adjoining areas to avoid gaps caused by color-registration problems in commercial printing.

Objects are discrete items in a Canvas document. Object types include draw object, paint object, text object, and composite object.

Default properties are attributes (such as colors and fill pattern) that apply to objects you create. Default properties do not affect existing objects.

