

Version Information

Product

SmartSketch LE for the Windows 95, Windows 98, and Windows NT 4.0 and higher operating systems

Product Number

SGBY247AA-0300A

Version

03.00.85.04

Date

31-July-1999

Description

SmartSketch LE is a technical drawing and diagramming product. It is the baseline for a line of add-ins and solutions for the technical drawing, CAD, and professional/business diagramming marketplace. It is a limited edition of the full product that may be used throughout the office and is specifically designed to work with the Microsoft Office products.

Late Breaking Information

Mathcad® Integration

Mathcad® 8 Professional provides the calculating and analytical power necessary to solve a wide range of math, science, and engineering problems. In cooperation with MathSoft, SmartSketch now delivers a Mathcad component that allows integration between the two products. You can access this component from the Mathcad Insert Component menu. It allows you to insert SmartSketch designs into Mathcad Professional documents and link variables without programming.

You can find details of this integration in the SmartSketch\Samples\Mathcad\Readme.rtf file. This directory also contains several sample files.

Linked AutoCAD and MicroStation Files

SmartSketch LE does not support IGR files that contain links to AutoCAD or MicroStation files. Opening and working with these files produces error messages. You can upgrade to the full product, SmartSketch, for support of AutoCAD and MicroStation files.

<http://www.SmartSketch.com>

Display Priority

When symbols are glued to symbols that are glued to other symbols, the display priority is sometimes incorrect and symbols nested inside other symbols can be obscured. This display issue occurs only if there are more than three symbols glued on top of each other. You can rectify the display by using the F5 key to refresh the window.

Additional late breaking information is contained in the SmartSketch Knowledge Base. To get to the knowledge base, click the following link:

<http://www.intergraph.com/SmartSketch/LE/support>

Installation

System Requirements

- Microsoft Windows 95 B, Windows 98, or Windows NT 4.0 with SP3 or higher
- Microsoft Internet Explorer 4.0 or higher required to view Programming guide.
- Pentium 133 microprocessor or higher
- 64 MB RAM recommended
- 60 MB disk space for minimum installation (120 –170 MB disk space recommended)
- CD-ROM drive
- 800 x 600 resolution or higher
- Microsoft or Microsoft-compatible mouse (IntelliMouse® recommended)

Installing SmartSketch

SmartSketch LE 3.0 automatically uninstalls any previous version of Imagineer Technical or Imagination Engineer upon installation.

- 1 Determine whether to install from the CD or the network. Install from the network if you want to load symbols and tutorials in a networked location for distributed access.

From a CD-ROM drive—Insert the CD into its drive. If the installation does not start on your Windows® system, run **Setup** from your CD-ROM drive. Click setup.exe.

From a Network—From **Start** on the taskbar, click Run, and enter the path on your network to the SmartSketch setup.exe file. Please record your installation path for quick reference:

Note We recommend a UNC network connection, such as \\myserver\share\setup, so you can easily access the symbols and tutorials after installation.

- 2 Follow the installation instructions on your screen. Choose an installation option from below:

TypicalCompact

Custom

- 3 Set up your path to access the tutorials and symbols, unless you installed them using the **Custom** option.

For CD installations—Leave the CD in the CD-ROM drive to access tutorials and symbols.

For network installations—Verify the network drive or UNC network connection where the product was installed.

 [System Management Services \(SMS\) Support](#)

Registering Your Software Gives You

- Free Email support
- Product updates and bulletins about related products
- Extra symbol set

Ways to register

- Check the **I would like to register SmartSketch now.** box on the **Installation Completion** dialog box.
- Click **Register SmartSketch LE** on the **Help** menu.

System Management Services Support (SMS)

SmartSketch setup supports installation of SmartSketch over a network. However the SMS administrator should ensure the following before running a silent setup over a network.

- 1 SmartSketch or previous versions should be uninstalled prior to network installation.
- 2 The client machines should not have a directory by the same name to which SmartSketch is to be installed.
- 3 The client machine should have the following free disk space available:
 - TEMP Dir Drive: 3000 kb
 - System Drive: 4800 kb
 - Additional hard drive space for Typical installation: 123,000 kb
 - Additional hard drive space for Compact installation: 59, 000 kb
 - Additional hard drive space for Custom installation: 165, 000 kb

The figures shown above are the maximum disk space that the product can use because of the file system overhead.

Three response (.iss) files are included with the product. The administrator can use them or create his own .iss file by running Setup -r from a command line.

If you choose to record your own .iss file:

- 1 Choose 'No' to indicate not to reboot the machine after installation. The setup will update the system when it is next rebooted. If you must choose 'Yes' to reboot immediately after setup, edit the .iss file you created as following:

In the Dialog box data keynames section change the BootOption=0 for [SdFinishReboot-0] to BootOption=3.

- 2 In the [File Transfer] section change OverwriteReadOnly=NoToAll to OverwriteReadOnly=YesToAll.

A PDF file is also provided for use with the SMS server. You may create you own PDF file or import the one that is provided.

Setup.log is the default name for the silent setup log file. You can specify a different name and location for Setup.log using the -f1 and -f2 switches with Setup.exe. The [ResponseResult] section of Setup.log file contains the result code indicating whether or not the silent setup succeeded.

Setup.log

Setup.log is the default name for the silent setup log file, and its default location is Dis in the same folder as Setup.ins. You can specify a different name and location for Setup.log using the -f1 and -f2 switches with Setup.exe .

The Setup.log file contains three sections. The first section, [InstallShield Silent], identifies the version of InstallShield Silent used in the silent setup. It also identifies the file as a log file.

The second section, [Application], identifies the installed application's name and version, and the company name.

The third section, [ResponseResult], contains the result code indicating whether or not the silent setup succeeded. An integer value is assigned to the ResultCode keyname in the [ResponseResult] section. Setup places one of the following return values after the ResultCode keyname:

- 0 Success.
- 1 General error.
- 2 Invalid mode.
- 3 Required data not found in the Setup.iss file.
- 4 Not enough memory available.
- 5 File does not exist.
- 6 Cannot write to the response file.
- 7 Unable to write to the log file.
- 8 Invalid path to the InstallShield Silent response file.
- 9 Not a valid list type (string or number).

- 10 Data type is invalid.
- 11 Unknown error during setup.
- 12 Dialog boxes are out of order.
- 51 Cannot create the specified folder.
- 52 Cannot access the specified file or folder.
- 53 Invalid option selected.

The Setup.log file for a successful silent setup of SmartSketch is shown below.

```
[InstallShield Silent]
Version=v5.00.000
File=Log File
[Application]
Name=SmartSketch LE
Version=03.00
Company=Intergraph Corporation
Lang=0009
[ResponseResult]
ResultCode=0
```

Setup.exe

Setup.exe is the main setup executable; it performs setup initialization and launches the appropriate Setup engine file (`_instxxx.ex_`, where xxx indicates the target platform) to execute the setup script (Setup.ins) on the target system.

You can pass command line switches directly to Setup.exe.

Syntax

Setup [switches]

Switches

These switches are optional. They are not case sensitive; upper- or lowercase letters can be used.

`/f<path\CompiledScript>` or `-f<path\CompiledScript>`

Specifies an alternate compiled script. Unless the compiled script (.ins file) also resides in the same directory as that of Setup.exe, the full path to the compiled script must be specified. `_setup.dll` must also reside in the same directory as your .ins file. For example, `setup -ftest.ins` will launch setup using Test.ins instead of Setup.ins.

`/f1<path\ResponseFile>` or `-f1<path\ResponseFile>`

Specifies an alternate location and name of the response file (.iss file). If this option is used when running Silent setup, the response file is read from the folder/file specified by `<path\ResponseFile>`. If this option is used along with the `-r` option, the response file is written to the folder/file specified by `<path\ResponseFile>`. If an alternate compiled script is specified using the `-f` switch, the `-f1` switch entry must follow the `-f` switch entry.

`/f2<path\LogFile>` or `-f2<path\LogFile>`

Specifies an alternate location and name of the log file created by Silent setup. By default, Setup.log log file is created and stored in the same directory as that of Setup.ins. If an alternate compiled script is specified using the `-f` switch, the `-f2` switch entry must follow the `-f` switch entry.

`/m<filename>` or `-m<filename>`

Causes Setup.exe to generate a Management Information Format (.mif) file automatically at the end of the setup. Do not include a path—the .mif file is always placed in the Windows folder. `<filename>` is optional. If you do not specify a filename, the resulting file will be called Status.mif.

`/m1<serial number>` or `-m1<serial number>`

Tells setup to place the indicated serial number in the created .mif file.

`/m2<locale string>` or `-m2<locale string>`

Tells setup to place the indicated locale in the .mif file. English (ENU) is the default; refer to Microsoft documentation for a complete listing of locale strings.

/r or -r

Causes Setup.exe automatically to generate a silent setup file (.iss file), which is a record of the setup input, in the Windows folder.

/s or -s

Runs Silent setup to execute a silent setup .

/SMS or -SMS

Prevents a network connection and Setup.exe from closing before the setup is complete. This switch works with setups originating from a Windows NT server over a network. Please note that SMS must be uppercase; this is a case-sensitive switch.

/z or -z

Prevents Setup.exe from checking the available memory during initialization. This switch is necessary when running a setup on a machine with more than 256 MB of memory; if it is not used, Setup.exe reports insufficient memory and exits.

Comments

Separate multiple command line switches with a space. But do not put a space inside a command line switch (for example, /r /finstall.ins is valid, but not /r/f Install.ins).

When using long path and filename expressions with switches, enclose the expressions in double quotation marks. The enclosing double quotes tell the operating system that spaces within the quotation marks are not to be treated as command line delimiters.

Response File

A normal (non-silent) setup receives the necessary input from the user in the form of responses to dialog boxes. However, a silent setup does not prompt the user for input. A silent setup must get its user input from a different source. That source is the file (.iss file).

A response file contains information similar to that which an end user would enter as responses to dialog boxes when running a normal setup. Silent setup reads the necessary input from the response file at run time.

The format of response files resembles that of an .ini file, but response files have .iss extensions. A response file is a plain text file consisting of sections containing data entries.

There are two ways in which you can create a response file: You can run the setup and have the setup record and create the response file for you, or you can write the response file from scratch.

Recording a response file

You have the option of letting Setup create the response file for you. Simply run your setup with the Setup.exe -r command line parameter. Setup will record all your setup choices in Setup.iss and place the file in the Windows folder.

All the Setup dialog box functions write values into the Setup.iss file when Setup runs in record mode (Setup -r).

Manually creating a response file

You can also create the response file completely by hand. As mentioned, the Setup.iss file is similar to an .ini file. The sections of an Setup response file must be in the following order:

- 1 [Response File Header Section](#)
- 2 [Response File Application Header Section](#)
- 3 [Response File Dialog Box Sequence Section](#)
- 4 [Response File Dialog Box Data Section](#)

Section names are contained in square brackets, as in [InstallShield Silent].

Data entries follow their section names, and consist of <name=value> pairs, as inDlg0=Welcome-0.

Follow these steps to create the response file:

- 1 Create a text file named Setup.iss using any text editor.
- 2 Enter the silent header into Setup.iss.
- 3 Enter the application header into Setup.iss.

- 4 Enter the dialog box sequence into Setup.iss.
- 5 Enter the dialog box data into Setup.iss.
- 6 Save and close Setup.iss.

Three sample response files (Typical.iss, Compact.iss and Custom.iss) are delivered with the product that may be used for Typical, Compact or Custom setup. or help familiarize you with the format.

Response file header

All response files begin with a response file silent header. The response file silent header allows InstallShield to identify the file as a legitimate InstallShield response file. It also helps to verify that the response file corresponds to an setup created with the proper version of InstallShield.

The format of the silent header is shown below. Enter the following lines at the beginning of your Setup.iss file:

```
[InstallShield Silent]
Version=v5.00.000
File=Response File
```

Use v5.00.000 in all response files.

Response file application header

The response file application header is the second block of information in the response file, immediately following the response file silent header. The response file application header allows setup developers to identify response files visually. It is not used by the setup script or by Setup.exe. Setup developers can use the application header to identify exactly which setup the response file is for, since it is often difficult to determine this by looking at the dialog box data.

The format of the application header is shown below. Enter the following lines into your Setup.iss file below the silent header:

```
[Application]
Name=SmartSketch LE
Version=03.00
Company=Intergraph Corporation
Lang=0009
```

Response file dialog box sequence

The third block of information in the response file, after the silent header and the application header, is the response file dialog box sequence. The dialog box sequence section lists all dialog boxes you would need to use in a normal setup (including custom dialog boxes), in the order in which they would appear. The dialog boxes are listed under the section heading [DlgOrder].

The dialog box numbering sequence begins at 0. There is no limit to the number of dialog boxes you can list.

The order and the number of dialog boxes is significant. When InstallShield Silent runs, if either the number or the order of the dialog boxes does not match the order or the number of the dialog boxes in the non-silent setup, the silent setup fails and the log file records the failure. Make one entry for each occurrence of a dialog box. A given dialog box may be listed more than once if it appears more than once in the setup.

The format for a dialog box sequence entry is Dlg<#>=<DialogIdentifier>. Dlg<#> consists of the letters Dlg and a sequence number. The first dialog box in the setup is Dlg0. Each dialog box after that increments the value of <#> by one.

<DialogIdentifier> is in the form functionname-<#>, where functionname is the name of the function that created the dialog box, and <#> represents the sequential order of that particular dialog box in the setup.

For custom dialog boxes, you can use any unique alphanumeric name for the functionname portion of <DialogIdentifier>. For example, you could refer to a custom dialog box as MyDialog. If the tenth dialog box in the setup were the second occurrence of the custom dialog box MyDialog, there would be an entry in the dialog box sequence section like this:

```
Dlg9=MyDialog-1
```

The <DialogIdentifier> expression will be used to identify the dialog box data section for the dialog box.

Always end the dialog box sequence section with a statement of the form Count=<number of dialog boxes> that specifies the exact number of dialog boxes listed in the dialog box sequence section. Count every entry. Since dialog box numbering begins with 0, the value of Count will always be 1 greater than the highest <#> value for a

dialog box sequence.

The example below lists two dialog boxes, the Welcome dialog box and the AskOptions dialog box. Enter your dialog box sequence list into Setup.iss as shown in the example below.

```
[DlgOrder]
Dlg0=Welcome-0
Dlg1=AskOptions-0
Count=2
```

Response file dialog box data section

The last block of information in a response file is the response file dialog box data. The response file dialog box data is a collection of sections containing the values returned by each dialog box identified in the dialog box sequence section. Each dialog box has its own section. The values listed are the same values that the dialog box returns in a normal, user input-driven setup.

Dialog box data section format

```
[<DialogIdentifier>]
Result=value
Keyname1=value
Keyname2=value
```

The format for a dialog box data section is shown above. The [<DialogIdentifier>] section header identifies the specific dialog box and is followed by the dialog box data entry list. <DialogIdentifier> is the same expression used to list the dialog box in the dialog box sequence section.

Data entry items are in the format keyname=value. The keyname is a name for a value returned by a dialog box and recorded in the response file. All dialog boxes return a value for the keyname Result, reflecting the button that was clicked to end or exit the dialog box. Many dialog boxes will also set or return a value in a variable.

For example, in a non-silent setup the AskDestPath dialog box returns the destination location in the svDir parameter. The line in the our script might look like the following:

```
nResult = AskDestPath( szTitle, szMsg, svDir, 0 );
```

The corresponding dialog box data entry in the Setup.iss file for a silent setup might look like the following:

```
[AskDestPath-0]
Result=1
szPath=C:\Program Files\SmartSketch
```

In the above example, Result=1 is equivalent to clicking the Next button in the dialog box, and szPath=C:\Program Files\SmartSketch is the value returned in the svDir parameter of AskDestPath.

The name of the variable used in the script is meaningless relative to the Setup.iss file. However, in the Setup.iss dialog box data sections, each built-in and Sd dialog box has its own set of keynames which map to its parameters. The keynames are important and must be exact as defined for each dialog box. Refer to Dialog box data keynames list, below.

Result standard values

All dialog boxes return a keyname value called Result, indicating which push button was clicked to end the dialog box. Unless otherwise indicated, the Result standard values are:

12 for the Back button

1 for the Next or OK button

Recording component and subcomponent selections

Some dialog box functions allow the user to select components and subcomponents. There are three kinds of dialog box data keyname entries used to record component and subcomponent selections in response files: type, count, and <#> (described below).

Every set of component selections and every set of subcomponent selections has one type keyname entry, one count keyname entry, and as many <#> keyname entries as are required to document each individual component or subcomponent selection.

When creating keynames to record component selections, precede the type, count, and <#> keyname entries with the word "Component", thus:


```
Component-type
Component-count
Component-0
```

When creating keynames to record subcomponent selections, precede the type, count, and <#> keyname entries with the name of the component to which the subcomponents belong, thus:

```
Program Files-type
Program Files-count
Program Files-0
Program Files-1
```

To create complete value entries, use the equal sign to attach the values to the keynames. (The types of values assigned to each kind of keyname are described below.) The following example shows complete value entries for two components, Program Files and Binary Files, and two subcomponents of Program Files, Executables and Support Elements:

```
Component-type=string
Component-count=2
Component-0=Program Files
Component-1=Binary Files
Program Files-type=string
Program Files-count=2
Program Files-0=Executables
Program Files-1=Support Elements
```

Type keyname entry

The type keyname indicates the data type of the components or subcomponents list. Since InstallShield dialog boxes currently use only string lists for components and subcomponents lists, type is always equal to "string", as in Component-type=string. Future versions may use number lists, in which case type could equal "number".

Count keyname entry

Count is equal to the number of selections for a given component or subcomponent entry. For example, if two components were selected for installation in the ComponentDialog dialog box, the count dialog box data entry would be Component-count=2. If two subcomponents of the Program Files component were selected, there would be a Program Files-count=2 entry.

<#> keyname entry

The number portion of the <#> keyname entry is simply a sequential (one-up) number, beginning with 0, that numbers each recorded component or subcomponent selection. Since numbering begins with 0, the greatest number value will always be one less than the value of count.

The value assigned to a <#> keyname entry is the selected component's or subcomponent's visible name (the string passed as the second parameter to ComponentAddItem when the components or subcomponents list was built).

For example, assume the ComponentDialog dialog box offers the user a component selection of Program Files, Help Files, Sample Files, and Utilities. If the user selects Program Files and Help Files, then the dialog box data section for that instance of the ComponentDialog dialog box will have two list item entries and will look something like this:

```
[ComponentDialog-0]
szDir=C:\MYAPP\FILES
Component-type=string
Component-count=2
Component-0=Program Files
Component-1=Help Files
Result=1
```

The following example shows how subcomponent list selections are recorded. The example is for an instance of the SdComponentMult dialog box. The example shows that two components—Program Files and Help Files—were selected. It also shows that four subcomponents were chosen—Main Files, Aux. Files, Main Help, and Tutorial Files. Main Files and Aux. Files are subcomponents of Program Files, and Main Help and Tutorial Files subcomponents of Help Files.

```
[SdComponentMult-0]
Component-type=string
Component-count=2
Component-0=Program Files
Component-1=Help Files
Program Files-type=string
Program Files-count=2
Program Files-0=Main Files
Program Files-1=Aux. Files
Help Files-type=string
Help Files-count=2
Help Files-0=Main Help
Help Files-1=Tutorial Files
Result=1
```

Dialog box data keynames list

The dialog box data keynames for the dialog boxes are listed in the table below. The first column contains the dialog box names. The second column lists the keynames applicable to each dialog box. The third column contains descriptions of the values associated with the keynames.

Dialog box	Keyname	Description
AskYesNo-<#>	Result	1 = User selected "Yes" 0 = User selected "No"
SdAskDestPath-<#>	Result szDir	Standard values The path entered in the Destination Directory edit Field
SdComponentMult-<#>	Result Component-type, <subcomponent>-type Component-count, <subcomponent>-count Component-number, <subcomponent>-<#>	Standard values String (the only value currently allowed) The total number of component or subcomponent selections The selected item's number in the list (numbering begins with 0)
SdConfirmNewDir-<#>	Result	1 = User selected "Yes" 0 = User selected "No"
SdConfirmRegistration-<#>	Result	1 = User selected "Yes" 0 = User selected "No"
SdFinishReboot-<#>	Result	1 = Finish BootOption 0 = Do not restart Windows or the machine 2 = Restart Windows 3 = Reboot the machine
SdLicense-<#>	Result	12 = Back 1 = User selected "Yes"
SdRegisterUser-<#>	Result szName szCompany	Standard values The text entered in the Name field The text entered in the Company field

	szSerial	The text entered in the Serial (number) field
SdSelectFolder-<#>	Result szFolder	Standard values The folder name entered in the Program Folder field
SdSetupType-<#>	Result	12 = Back Or, when the Next button is clicked: 301 = Typical radio button is currently selected 302 = Compact radio button is currently selected 303 = Custom radio button is currently selected
	szDir	The path entered in the Destination Directory edit field
SdStartCopy-<#>	Result	Standard values
SdWelcome-<#>	Result	Standard values

Starting the Software

To start SmartSketch, click Start on the Windows Taskbar, then click Programs and, in the Intergraph SmartSketch menu item, click SmartSketch.

Tools for Learning

On-line Help

The SmartSketch on-line Help contains reference information about commands, dialog boxes, and procedures.

To get on-line Help, start SmartSketch. Once you are in SmartSketch , you can click SmartSketch Help on the Help menu.

Getting Started

Getting Started contains lessons that teach you how to use SmartSketch . To launch this learning tool, click Start on the Windows Taskbar. Then, click Programs and, in the Intergraph SmartSketch menu item, click Getting Started.

How to Contact Intergraph

Customers worldwide can use the following on-line support services (in English):

- World Wide Web at <http://www.intergraph.com/SmartSketch/LE/default.asp>

You can use any of the popular browsers to connect to the SmartSketch Web site.

Note You can also obtain technical support at the following web address, after you register the product:

<http://www.intergraph.com/SmartSketch/LE/support>

- [E-mail](#)

Outside North America

For general information or details about service options outside of North America, contact your local [Intergraph office](#).

E-mail

For general information about SmartSketch , send e-mail to the following address: SmartSketch@ingr.com

Any type of Internet e-mail software may be used to submit a service request. You can also connect to the SmartSketch support page and submit a service request.

To Create Your Own Support Request

- 1 Start your e-mail software and create a message.
- 2 In the e-mail message, address the message as follows: service@intergraph.com.
Note If your e-mail message does not deliver when you send it, you might need to add brackets, SMTP (Simple Mail Transfer Protocol), or other qualifiers to the address, depending on the software you are using. For example, you may need to add brackets as in the following example:
[SMTP: service@intergraph.com]
- 3 In this Help window, place the mouse cursor by the text and drag to select all the following lines:
[SERIAL #]
[NAME]
[PHONE]
[MPATH]
[PRODUCT] SMARTSKETCH
[VERSION]
[DESCRIPTION BELOW]
- 4 On the Edit menu, click Copy.
- 5 In the e-mail message, paste the information that you copied. The E-mail must contain all the lines.
- 6 After each item in brackets, type the appropriate information. [PRODUCT] is already filled out.
When entering information after the item [DESCRIPTION BELOW], please limit each line of the problem description to a maximum of 60 characters.
- 7 Send the e-mail message. You will receive an e-mail message later to verify the worksheet number or indicate why your service message did not process correctly.

Security Information

SmartSketch for Windows NT 4.0 or higher, Windows 95, and Windows 98 will run under user, administrator, or guest privileges.

Worldwide Intergraph Contacts

{button A,JI('','AlphaA')} {button B,JI('','AlphaB')} {button C,JI('','AlphaC')} {button D,JI('','AlphaD')} {button E,JI('','AlphaE')} {button F,JI('','AlphaF')} {button G,JI('','AlphaG')} {button H,JI('','AlphaH')} {button I,JI('','AlphaI')} {button J,JI('','AlphaJ')} {button K,JI('','AlphaK')} {button L,JI('','AlphaL')} {button M,JI('','AlphaM')} {button N,JI('','AlphaN')} {button O,JI('','AlphaO')} {button P,JI('','AlphaP')} {button Q,JI('','AlphaQ')} {button R,JI('','AlphaR')} {button S,JI('','AlphaS')} {button T,JI('','AlphaT')} {button U,JI('','AlphaU')} {button V,JI('','AlphaV')} {button W,JI('','AlphaW')} {button X,JI('','AlphaX')} {button Y,JI('','AlphaY')} {button Z,JI('','AlphaZ')}

Special Note about Latin American Countries

A

Argentina

Asia, Southeast (Not Elsewhere Specified)

Australia

Austria

B

Bahamas

Bahrain

Barbados

Belgium

Bolivia

Brazil

C

Canada

China, People's Republic

Chile

Colombia

Costa Rica

Czech Republic

D

Denmark

E

Ecuador

Egypt

El Salvador

F

Finland

France

G

Germany

Greece

Guatemala

H

Hong Kong

Hungary

I

India

Indonesia

Ireland

Israel

Italy

J

Japan

Jordan

K

Korea

Kuwait

L

Latin American Countries (Not Elsewhere Specified)

Lebanon

M

Malaysia

Mexico

N

Netherlands

New Zealand

Norway

O

Oman

P

Pakistan

Panama

Peru

Poland

Portugal

Puerto Rico

Q

R

Romania

Russia

S

Saudi Arabia

Singapore

Slovak Republic

South Africa

Spain

Sweden

Switzerland

T

Taiwan

Thailand

Trinidad and Tobago

Turkey

U

United Arab Emirates

United Kingdom

United States

Uruguay

V

Venezuela

Vietnam

W**X****Y**

Yemen

Z

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The Web browser cannot start

You cannot view this information if you do not have Web browser software. To load a Web browser, you can run **Setup** again and choose an option to load Internet Explorer from the CD-ROM that came with your software. Then, you can click the link in the **Read Me Help** document again to activate the Internet Explorer and view the HTML page.

The Web browser cannot start

You cannot view this information for one of the following reasons:

- You do not have Web browser software. To load a Web browser, you can run **Setup** again and choose an option to load Internet Explorer from the CD-ROM that came with your software. Then, you can click the link in **the Read Me Help** document again to activate the Internet Explorer and view the HTML page.
- You do not have an Internet connection. To get a connection, you can call an Internet service provider.
- Your modem is not connected to the Internet. You should connect first and then click the link again to view this information.

Cannot start e-mail

If you do not have e-mail software loaded or do not have a connection to the Internet, you cannot click this button to send e-mail messages. To obtain a connection to the Internet, you should contact a local Internet provider.

If your e-mail software does not start, you can follow the instructions, [To Create Your Own Request](#), in the E-mail Help topic.

SBL2.HLP cannot start

If you loaded on-line Help to your hard drive, open the Windows Explorer and double-click on this document: \PROGRAM FILES\Smartsketch\PROGRAM\RES DLLS\009\SBL2.HLP. If you did not load Help to your hard drive, you can double-click the SBL2.HLP document from the software CD-ROM.

What's New for SmartSketch LE V 3.0

SmartSketch LE 3.0 is a technical drawing and diagramming product. It is the baseline for a line of add-ins and solutions for the technical drawing, CAD, and professional/business diagramming marketplace. SmartSketch LE is a limited edition of the full product

Tip You might want to print this topic. Right-click in the topic window and click Print Topic.

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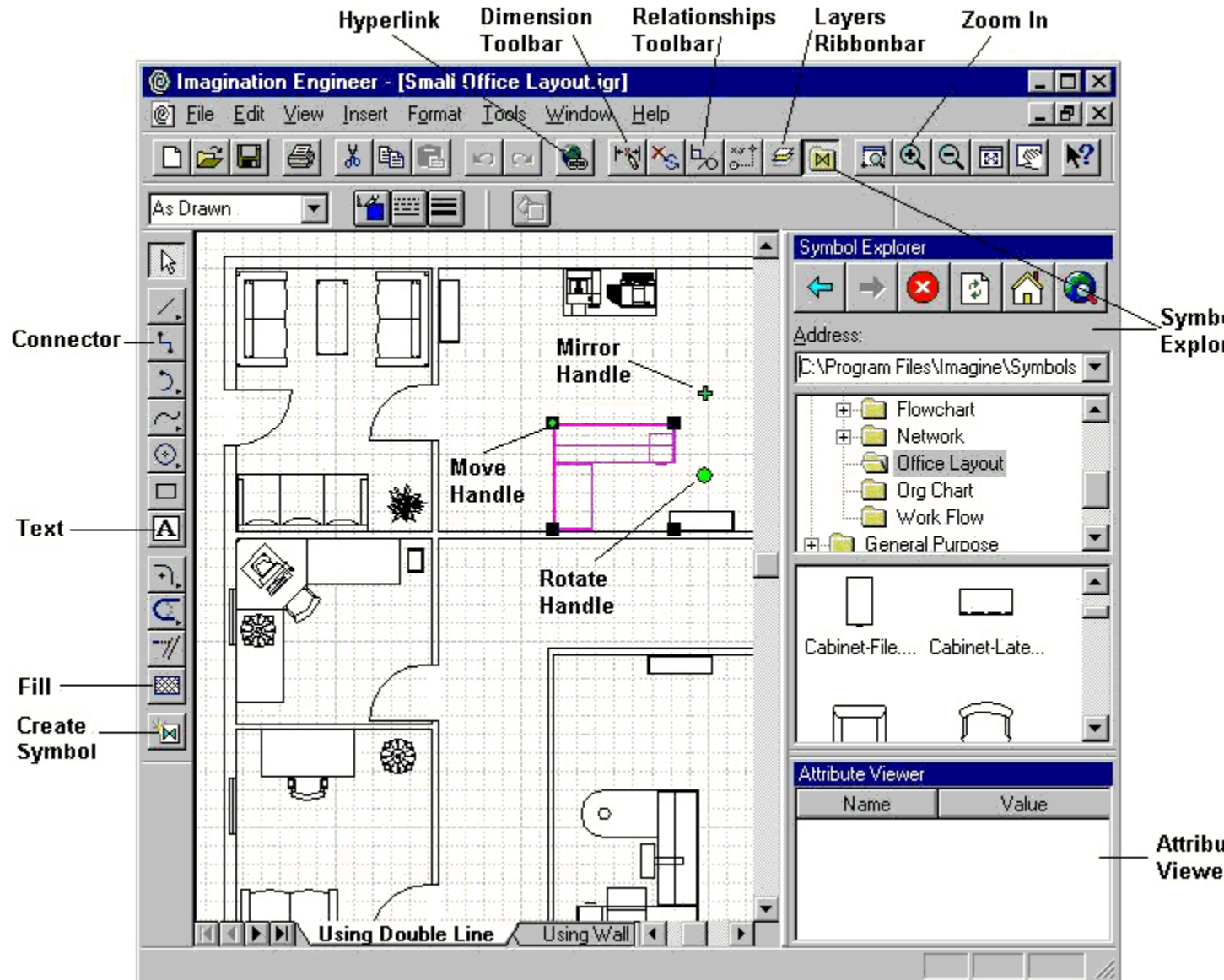
Templates Overview

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Content Overview

Improved User Interface

In Version 3.0, we've made several changes to the user interface (UI) based on feedback from our customers and to incorporate new features and changes to the product. Let's take a look at the main interface:

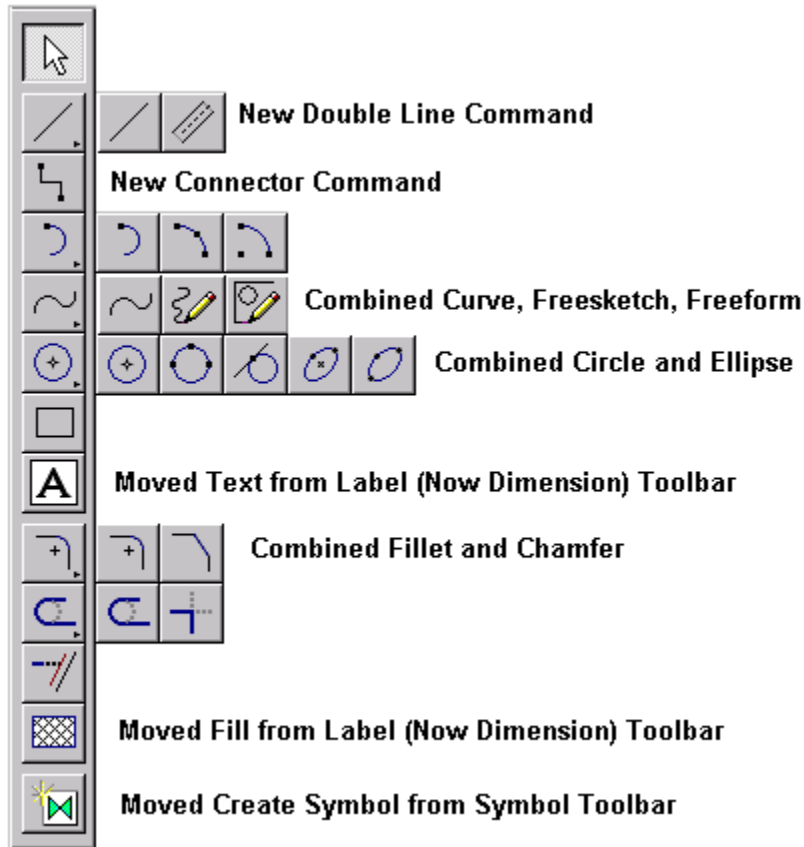


Changes to the Main Toolbar include:

- Added Hyperlink command
- Added Relationship toolbar (Relationships were moved from Change toolbar)
- Added Layers ribbon bar
- Removed Symbols button
- Renamed the Label toolbar to Dimension
- Added Zoom In command
- Moved Create Symbol command to the Draw toolbar (mentioned below)
- Replaced Browser button with the Symbol Explorer button
- Added new Symbol Explorer along with the Attribute Viewer

All the new features are discussed in greater detail in later parts of this document

Here are the changes made to the Draw Toolbar:

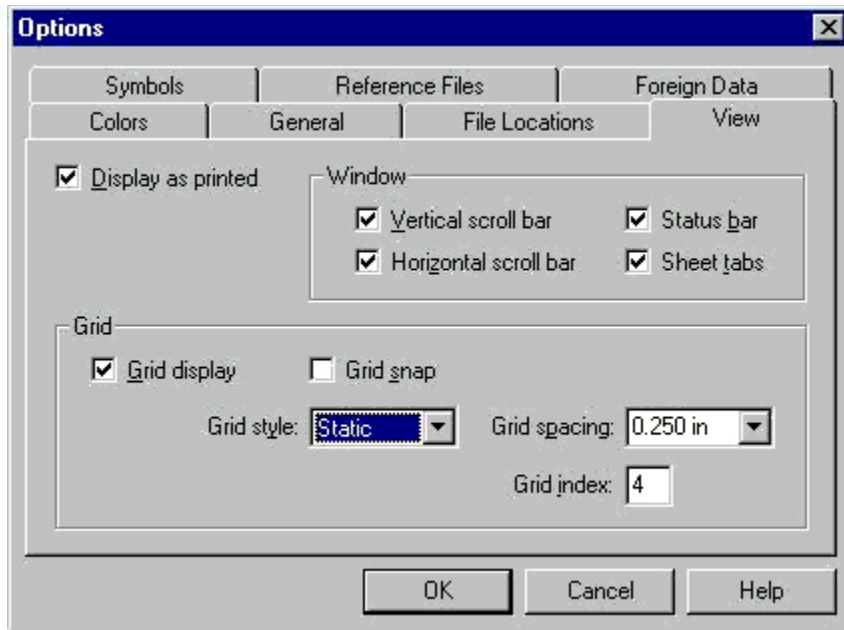


Changes to note on the Draw toolbar include:

- Added the Place Double Line command
- Removed the Line command; replaced entirely with the Line/Arc command - no longer supports button down mode.
- Added the Connector command.
- Combined the Curve, Freesketch, and Freeform commands on one fly-out menu.
- Combined the Circle and Ellipse commands on one fly-out menu.
- Added Text command (moved from the Label toolbar).
- Combined the Fillet and Chamfer commands on one fly-out menu.
- Added the Fill command (moved from the Label toolbar).
- Added the Create Symbol command (moved from the Symbol ribbon bar).

Grid Display and Grid Snap

A grid can now be displayed to aid in precision drawing. The options for Grids are located under Tools>Options on the View tab as displayed below. The Grid Display and Grid Snap toggles are also available on the View Menu and on the right mouse shortcut when the Select Tool is active. Grid Snap can also be toggled using the F3 key.



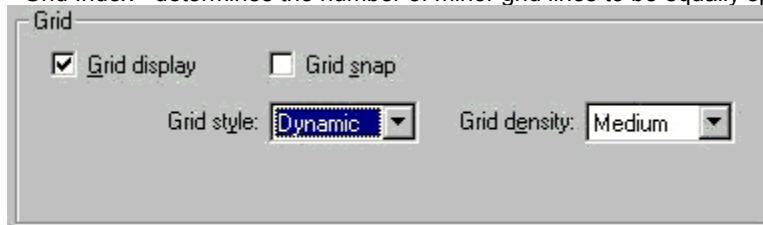
Grid Display - turns the display of the grid on and off. Note that grid lines will not print out.

Grid Snap - turns the grid snap on and off. Grid Snap places the cursor on grid intersections during placement and modification commands. Note that the SmartSketch options and Alignment Indicator override the Grid Snap. You can suppress SmartSketch and Alignments by holding down the Alt key.

Static Grid Style - maintains a grid with a constant minimum spacing

Grid Spacing - determines the distance between major grid lines

Grid Index - determines the number of minor grid lines to be equally spaced between the major grid lines



Dynamic Grid Style - allows the grid spacing to change based on the Zoom magnification.

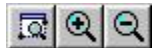
Grid Density - sets the dynamic grid spacing to a Fine, Medium, or Course setting



Zoom In

A Zoom In command is now available on the Main toolbar. Zoom In enlarges the display of elements around a specified point in the active window. If you have an IntelliMouse or a three-button mouse, you can zoom in by rolling the wheel of the IntelliMouse.

Persistent Zoom Commands



The Zoom commands (Zoom Area, Zoom Out, and Zoom In) now stay active until another command, the right mouse button, or the Escape key is chosen.

Right Mouse in Drawing Space



The following shortcut menu has been added for right mouse clicks anywhere in the drawing space.

Grid Display and Grid Snap - toggle on and off the display of grids and the grid snap lock.

Properties brings up the properties of the file (same as File > Properties from the main menu)

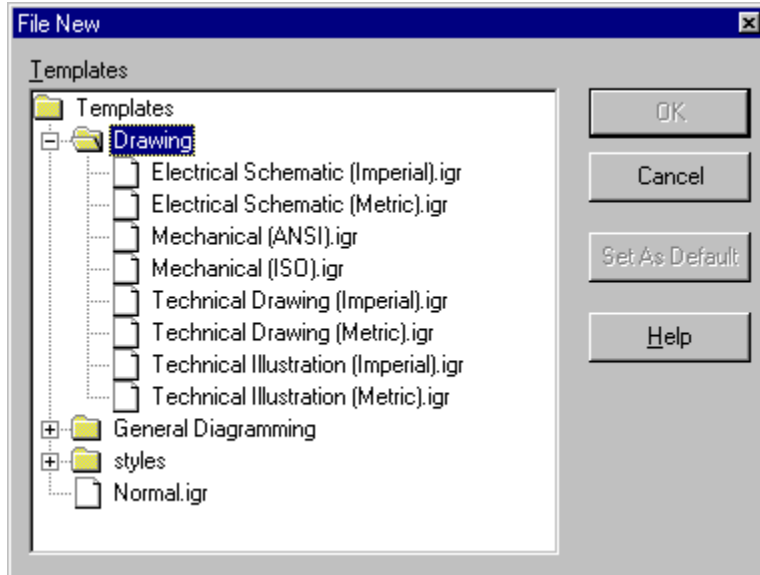
The other options are self-explanatory.

Template Solutions

Version 3 introduces new templates that set up the appropriate units, scale, toolbars, and symbols to produce a specific type of drawing.

File New Dialog Box

The templates are presented in the File New dialog box. This dialog box now supports double click to create documents.



Task Specific UI

When a specific template is chosen, several things happen to provide a task specific environment:

The appropriate tools are presented:

- Schematic drawings (primarily created using symbols, connectors, and text at a 1:1 scale) The Schematic toolbar is shown with the Select Tool, Connector, Delete, Text, Fill, Grid Display On/Off, and Grid Snap On/Off.
- Precision drawings (primarily created using drawing tools)
- The Draw toolbar is shown with the Select Tool, Line, Connector, Arc, Curve, Circle, Rectangle, Text, Fillet,

Trim, Extend, Fill, and Create Symbol.

Note: You can bring up the Draw toolbar if necessary using the View/Toolbars menu.

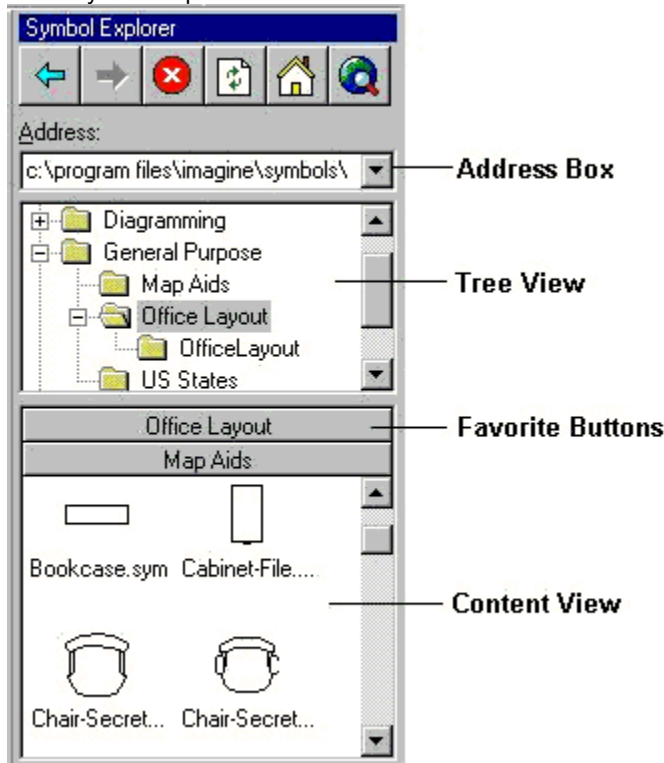
- The file is set up with appropriate settings: Units (Imperial or Metric), Drawing Scale, Line Styles, Fill Styles, Borders, etc.
- The Symbol Browser displays the appropriate symbol set for the task. Note: You can change the default location using the File/Properties Browser tab.



Symbol Explorer

Symbol Explorer provides a simple user interface to allow you to navigate to different directories and their content. This feature replaces the Symbol browser from V2. The Symbol Explorer is comprised of an Address Box, Tree View, Content View, and Favorite Buttons. If the path in the Address Box is set to an http address, then a typical Internet Explorer View is displayed in place of the Tree View, Content View, and Favorite Buttons.

The Symbol Explorer can be docked and resized.



The Tree View pane uses the same navigation as the Windows Explorer to reveal or conceal directories from a user defined root level directory. The right mouse menu provides you a means of creating Favorite buttons as shortcuts to directories.

The Favorite Buttons provide shortcuts to directories (displayed or non-displayed). Display of Favorites is controlled from the right mouse menu over the favorite buttons or the content view.

The Content View pane displays a list view of content, and can display one or more Favorite Buttons. This pane supports the filtering of file types in the list view from the right mouse menu. Symbols can be drag and dropped from this window.

The Explorer View is only displayed when the browser path or address box is set to an http address. This view provides equivalent functionality for viewing html files as does Microsoft's Internet Explorer, and is used for legacy customers that may have legacy html file for content viewing. Internet Explorer is required for this feature and Internet Explorer 4.0 is supported. Internet Explorer is not required for standard symbol browsing.

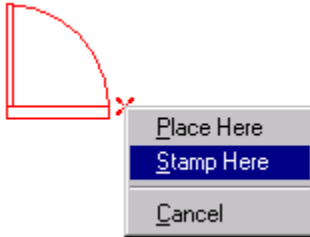
Symbols

Symbol functionality has been improved to allow you greater flexibility on drag and drop, modifications, and

symbol to symbol/symbol to geometry behavior. We have delivered new symbol sets for each industry to take advantage of these new features.

Stamp mode on drop

Using the Right mouse button to drag in a symbol will cause a menu to appear prompting to Place, Stamp, or Cancel the symbol in dynamics. The Stamp mode provides an optional method for placing many instances of the same symbol into your drawing. Holding down the <Ctrl> key while dragging a symbol from the Symbol Explorer will start the Stamp mode automatically.



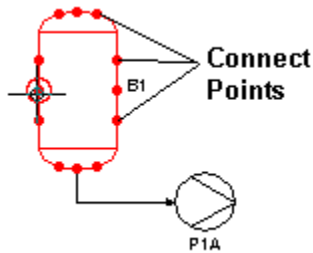
Dynamic display on drop

A picture of each symbol is now displayed on the cursor as you drag it into your drawing from the Symbol Explorer or from Windows Explorer. This provides greater accuracy as you place the symbol into your drawing.



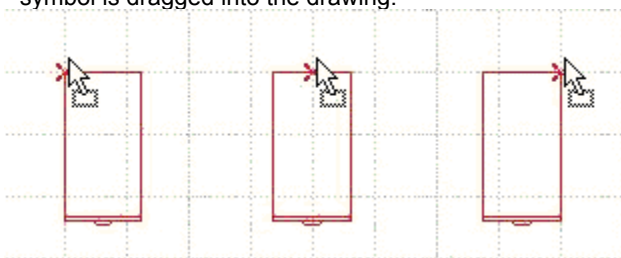
Connect Points

Connect points define the location and angle where connectors can automatically attach to symbols. The connect points on a symbol will display while you are placing a connector and you pass your cursor over a symbol or element. If a symbol has no connect points defined, the connector will locate and attach to key points on the symbol. Connectors will also attach to key points of generic elements such as lines, arcs, and circles.



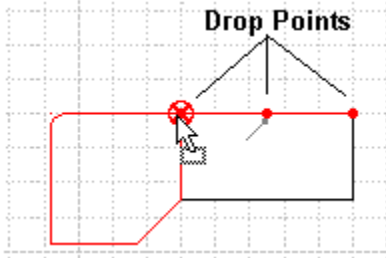
Drag Points

A drag point is the point to which the mouse cursor attaches to a symbol for dragging and dropping. A symbol can have multiple drag points which can be toggled using the up and down arrows on the keyboard as the symbol is dragged into the drawing.



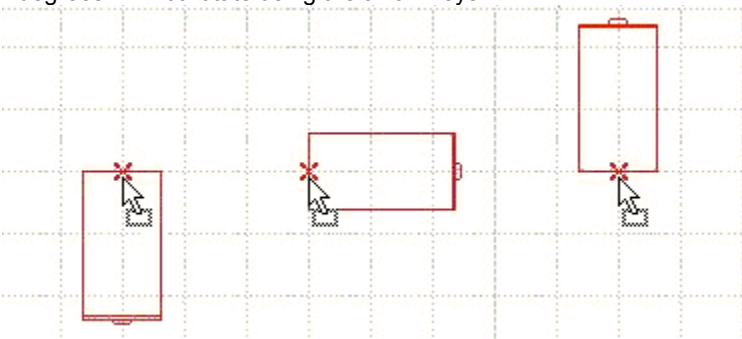
Drop Points

Drop points on a symbol define logical targets for labels and other symbols. A physical association is created when another symbol or a label is dragged and released on this point.



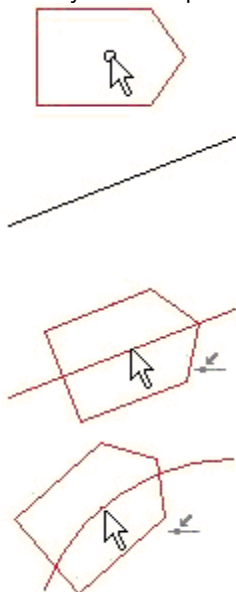
Rotation

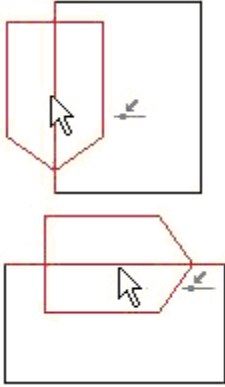
Another new feature available as a symbol is dragged is the ability to rotate it using the left/right arrow keys. If no rotation angle is specified, the rotation angle will default to 90 degrees. A symbol defined with a rotation of 0 degrees will not rotate using the arrow keys.



Alignment

Symbols and labels can be created with special alignment behavior. This behavior allows the symbol or label to automatically rotate and align itself parallel to another graphical object during drag and drop placement or when the symbol is repositioned after placement.

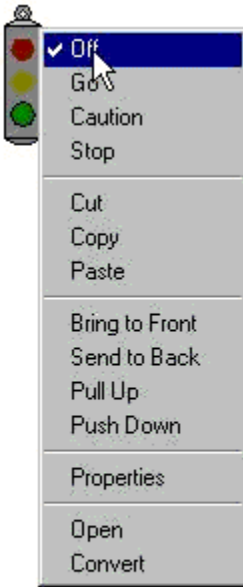


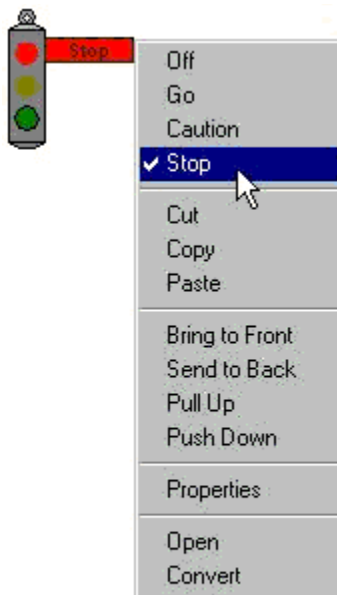
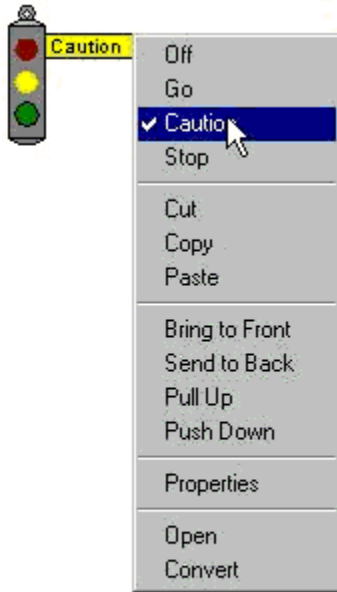


Multiple Representation

Symbols can be created with multiple graphical representations. After the symbol is placed, a right mouse click will display a menu containing a list of names of each representation available for the symbol. This example illustrates the use of a symbol with multiple representations.

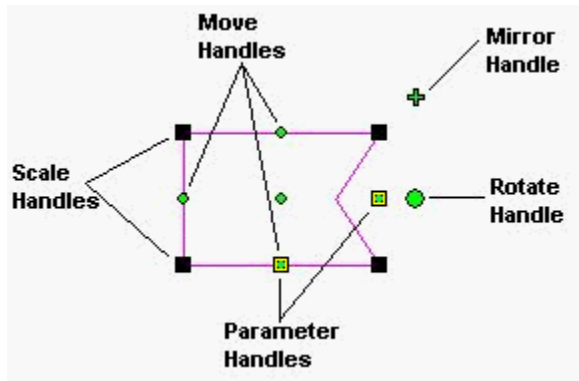






New Symbol Handles

Symbols can now have several different kinds of handles:



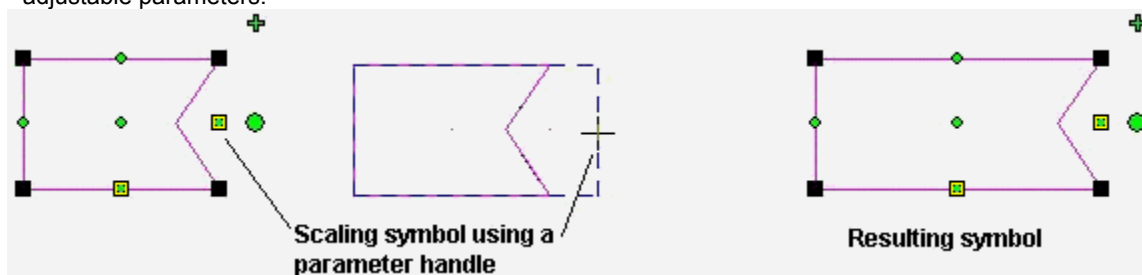
Scale handles are similar to those found in Version 2.0. Scale handles are the black boxes on the outside corners of the range box. Scale handles will allow you to scale a symbol uniformly in the X and Y directions.

Mirror handles are represented by a green plus next to the symbol.

Rotate handles are represented by a large green circle next to the symbol.

Move handles are represented by small green dots at various points on the symbol.

Parameter handles are represented by yellow boxes in the middle of the range box lines. Parameter handles allow you to scale the symbol in a predefined manner defined when the symbol was first created. Parametric symbols contain geometry constrained together using relationships, with driving dimensions that are defined as adjustable parameters.



Parametric Symbols

Parametric symbols are symbols containing graphics that are driven by one or more dimension. To create a parametric symbol, graphics must first be created using relationships to relate graphics together in a way that dimensions can be used to drive the resulting symbol size and shape.

Attributes and the Attribute Viewer

Attributes can help you work more efficiently by allowing you to enter and edit values for a symbol, object, or element. Attributes can include such items as the manufacturer, price, and other data. Attributes include properties and parameters.

Parameters are driving attributes assigned to elements or objects and usually contain a numerical value representing a dimension. A parameter refers to variables in a symbol document that drive dimensional values.

The **Attribute Viewer** displays the properties and parameters for a selected item. The viewer also allows you to edit the values of the properties or parameters.

Attribute Viewer	
Name	Value
Top	5.000 in
Class	Vessel Equipment
Type	Tower
Code	1B2E02
Name	Tower
Tag	TW398734
Inside Dia	
Length	
Max Pressure	
Min Pressure	

Note that you cannot edit the names of attributes in the Attribute Viewer (use right mouse>Properties); you can edit only their values. The viewer displays two columns, one for the name of the attribute and one for the value. Properties appear in plain text. Parameters appear in bold text. When editing attributes, you can only work on one element or object at a time. When more than one item in the document is selected, no attributes are displayed in the Attribute Viewer.

Labels

Labeling functionality now compliments all drawing workflows. Double-click any graphical object or symbol and a label will appear ready for text input. If a label already exists, the cursor will jump to the existing label ready for editing. Some labels will be symbols to be dragged and dropped into a drawing. Labels associate to another object or symbol such that when the object moves the label will follow.

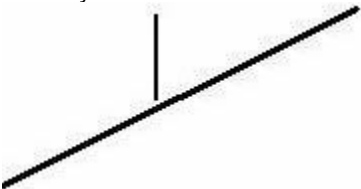
- 1 Double-click object.

Attribute Viewer	
Name	Value
Top	5.000 in
Class	Vessel Equipment
Type	Tower
Code	1B2E02
Name	Tower
Tag	TW398734
Inside Dia	
Length	
Max Pressure	
Min Pressure	

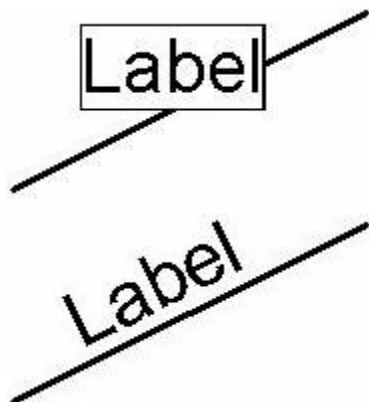
- 2 Cursor appears.



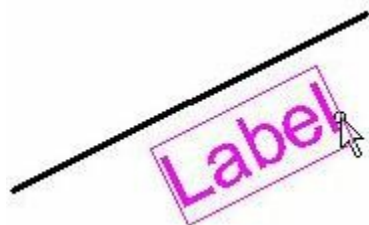
- 3 Key-in text.



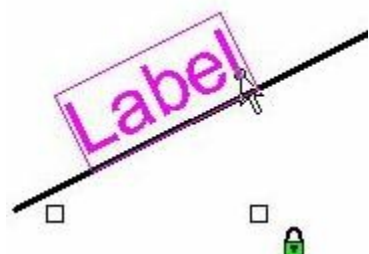
- 4 Label self-aligns to linear objects.



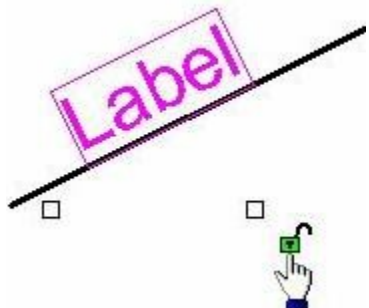
To move the label's position, simply click on the label and a small green lock will appear. Click on the lock and it will temporarily unglue the label so you can move the label to a new position. This behavior is the same for both types of labels: **Text Labels** (non-attributed) and **Smart Labels** (with attribution).



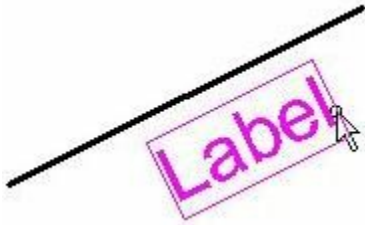
1 Click to reposition.



2 Click on lock/unlock.



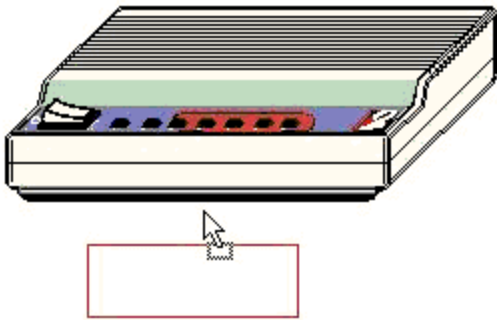
{
3 Move label with mouse pointer.



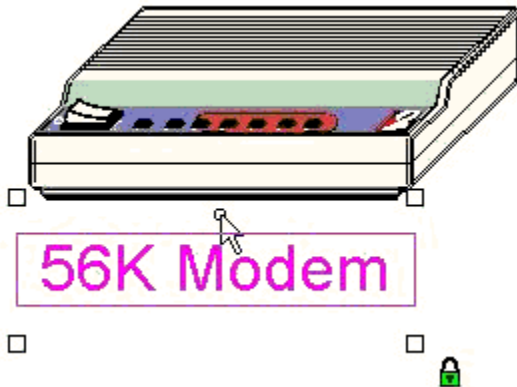
In addition to the behavior described above, a Smart Label is associated to an object or element's text attributes. A Smart Label displays the attributes of the element or object as text in the document. You can drag and drop Smart Labels from the Symbol Explorer into the current document. Smart Labels have a .SYM extension. As you change an element's or object's attributes in the Attribute Viewer or the Properties dialog box, the Smart Label's text displays those changes.

If an element or object has no attributes, and you drag a Smart Label to it, the element or object picks up the attributes of the Smart Label. For example, you might want to assign attributes to a valve, such as pressure and material type. If the Smart Label has the pressure and material type defined, and the valve does not, the Smart Label's pressure and material type are copied to the valve.

If an element already has values assigned to its attributes, a Smart Label placed on the element displays the values that are already assigned to the element. Now if the label is edited the attribution for the symbol will also be updated.



Drag in a Smart Label and touch a network symbol.



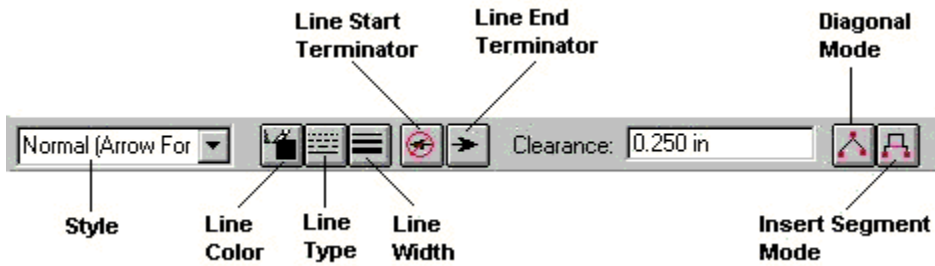
The Smart Label becomes associated to the network symbol and inherits the attribution.

New Commands

Connector



The Connector command is located on the Draw toolbar. This command connects two objects together with a connector. A connector will connect to native graphic objects such as lines and circles as well as complex objects like symbols and groups. Symbols can be predefined with specific connect points which are recognized by the Connector command. Refer to the Symbol section for more information on how to define connect points.



Style – Sets the line style for the connector. The Style dropdown lists several styles that automatically place start and end terminators. (Described in more detail in the next section)

Line Color – Sets the line color for the connector. You can click the More option to define custom colors with the Colors dialog box.

Line Type - Sets the connector line type and style.

Line Width - Sets the line width for the connector.

Line Start Terminator - Sets the terminator (arrow, slash, etc.) for starting the connector.

Line End Terminator - Sets the terminator for ending the connector.

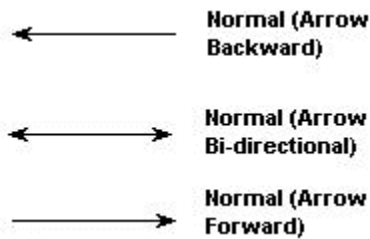
Clearance – Specifies the amount of space that is maintained between the connector and the connected element. (Also known as range avoidance.)

Diagonal Mode (Alt) – at placement time, switches the connector placement between drawing horizontal and vertical line segments or drawing diagonal line segments. At modification time, inserts a vertex in a line segment of the connector for diagonal placement. This option can also be activated using the Alt key.


Insert Segment Mode (Shift) - Inserts line segments into the connector. This option is available only when you are modifying a connector. This option can also be activated using the Shift key.

Line Terminators

As with Connectors, other linear geometry can contain start and end terminators. The following new styles have been added to the list of default line styles:



Hyperlink Command

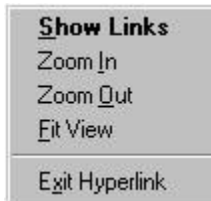
The Hyperlink command adds hyperlinks to objects, symbols, text, connectors, and elements, such as lines, circles, ellipses, and groups. Hyperlinks can be made to a file or a web page on the Internet. 

When using the Hyperlink command, special attention should be made to the message bar at the bottom of the screen. When the cursor is over an element and that element is highlighted, the prompt will read Left click to add a link, Right click for menu. The following dialog will then display when an element is chosen with a left click.



Note that you can add up to five hyperlinks to an element. Hyperlinks cannot be added to dimensions, elements contained in nested symbols, or fills.

If a right click is done while an element is highlighted, the following shortcut menu will display.



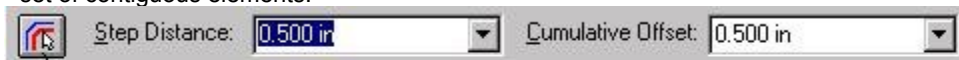
When the cursor is **not** over an element, the following prompt appears at the bottom of the SmartSketch window: Left click to highlight objects with links, Right click for menu. If a left click is chosen, all objects or elements with links will be highlighted. If a right click is chosen, the following shortcut menu will display:

On this menu, the Show Links option will also highlight all objects or elements containing links.



Offset Command

The Offset command is located on the Change toolbar. This command draws an offset copy of an element or a set of contiguous elements.



Offset Chain

Offset Chain - Selects a chain of continuous elements. If this option is not selected, Offset selects only an individual element.

Step Distance - Sets the distance from the base element to the offset copy.

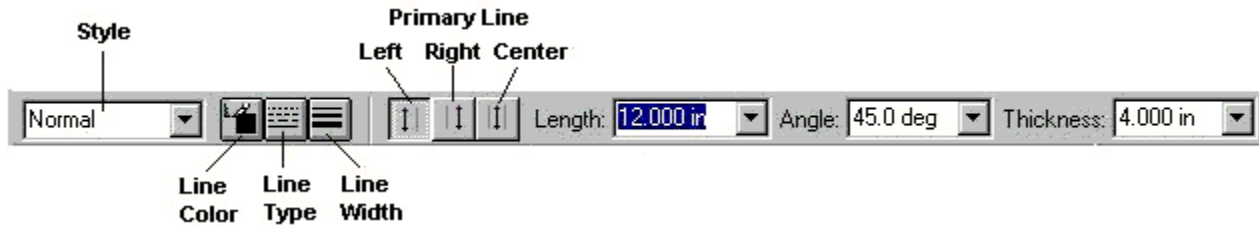
Cumulative Offset - Sets the total distance of the current offset graphic element from the original graphic element.



Double Line Command

The Double Line command places parallel lines or a series of connected parallel lines. When drawing a series of lines, the second point of one line is the first point of the next line.

The Double Line command cleans corners as lines are placed and puts endcaps on single lines. Doubleline also miters joints and trims as lines are drawn. This command is especially useful for drawing floor plans.



Left Primary Line - Indicates that you are drawing the double line from the left side.

Right Primary Line - Indicates that you are drawing the double line from the right side.

Center Primary Line - Indicates that you are drawing the double line from the center.

Length - Sets the length of the double line. This box accepts only positive values.

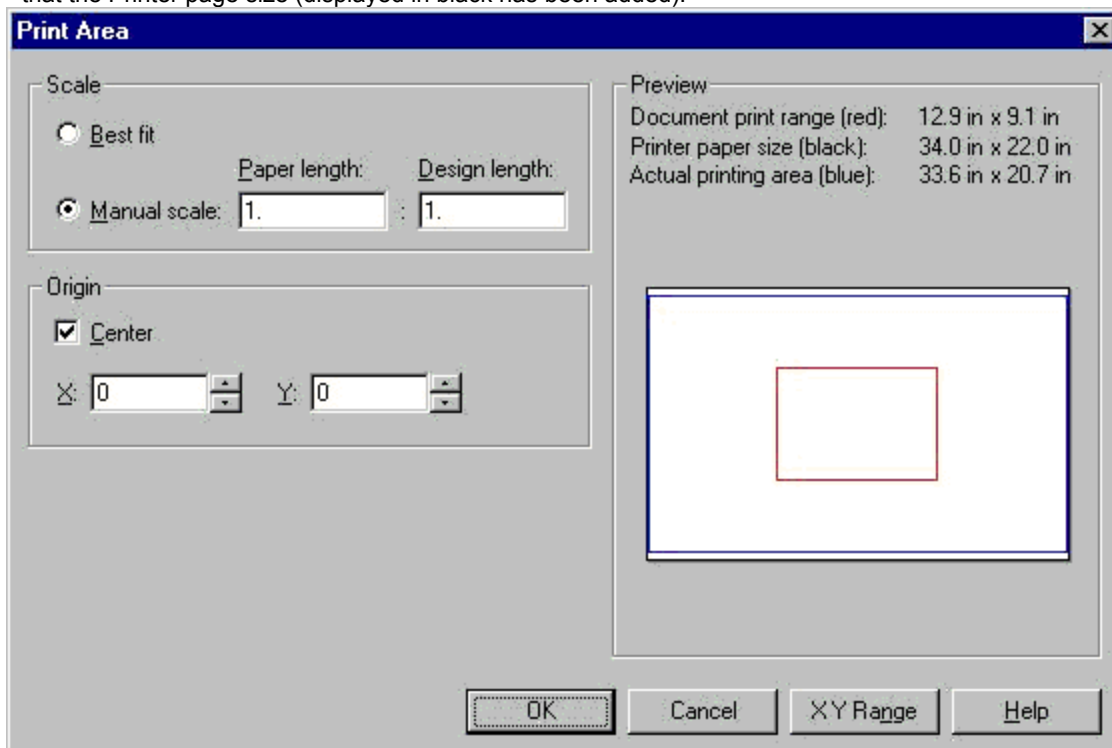
Angle - Sets the angle of the double line. This box accepts positive or negative values. A positive value is counterclockwise from the x axis, and a negative value is clockwise from the x axis.

Thickness - Determines the thickness of the double line. For example, for a 6 inch wide wall, you would change the thickness to 6 inches.

Enhancements

Printer Settings

The Printer Settings dialog has been improved to provide a better preview capability. Note in the picture below that the Printer page size (displayed in black has been added).

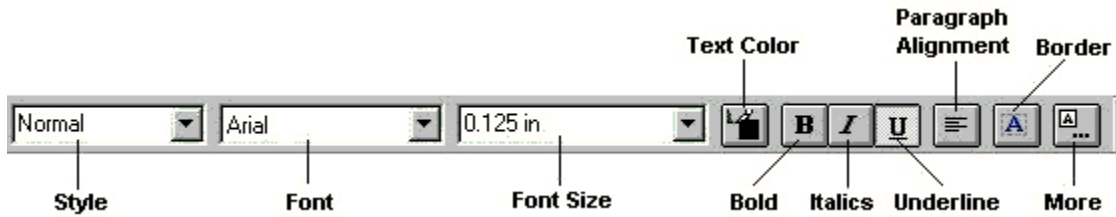


Text Options



As noted in the Draw toolbar section, the Text command was moved from the Label toolbar to the Draw toolbar. The Text command has been enhanced to include a new ribbon bar as well as a new properties dialog for selected text.

Text Ribbon Bar Changes:

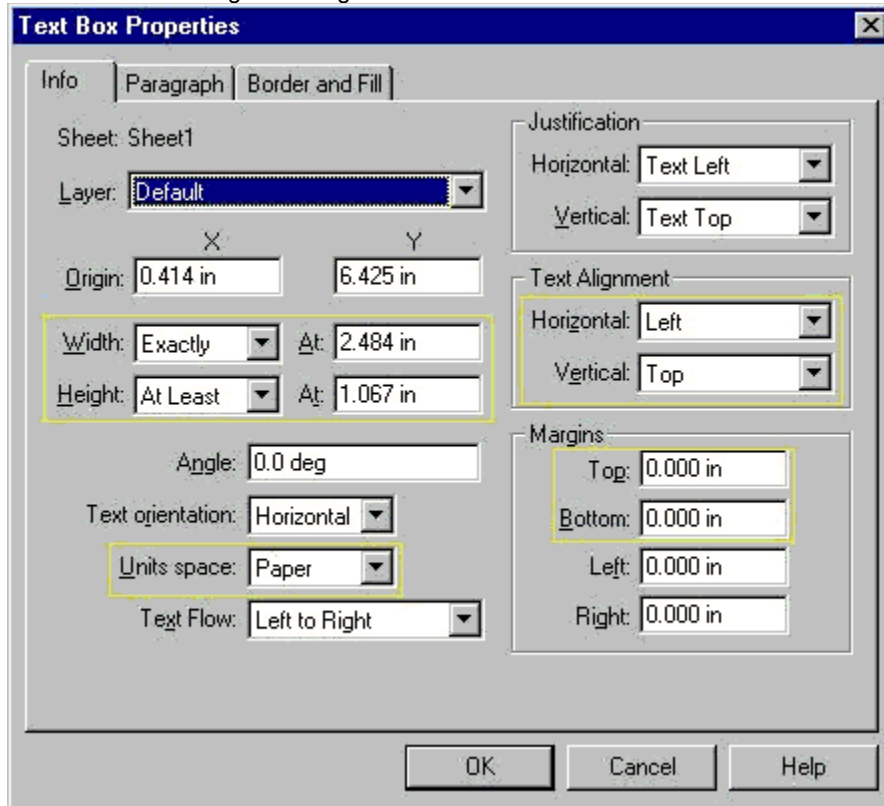


Added the Text Color button

Renamed Horizontal Alignment to Paragraph Alignment: Positions the paragraph to the left, center, or right of the text area edges when you are in edit mode.

Removed Vertical Justification

Removed Left to Right and Right to left from the More toolbar



Info Tab

Width – Sets the width of the text box to either at least (at least the value you specify), automatic (the text drives the width), or exactly at the value you specify in the At: field.

Height – Sets the height of the text box to either at least (at least the value you specify), automatic (the text drives the height), or exactly at the value you specify in the At: field.

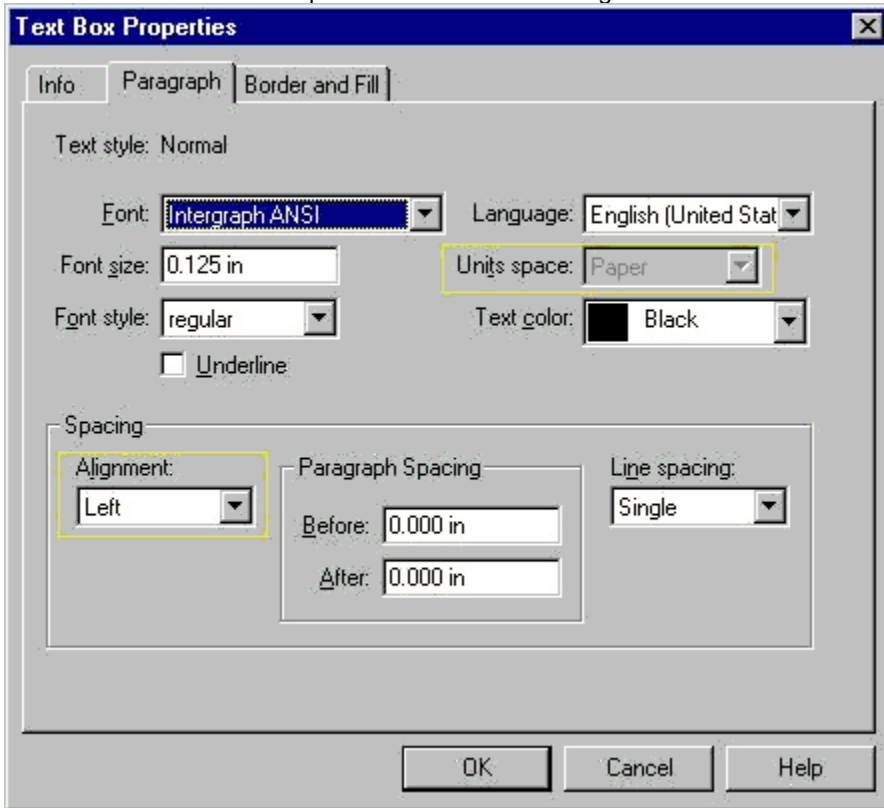
Unit Space – Sets the text box units to either paper units or to world units. Paper units represent units on an actual sheet of paper. Paper units are set in inches. Other units are also available. World units indicate real world

distances, but can be scaled down to fit a sheet of paper.

Justification – Horizontal and Vertical (moved from Paragraph tab)

Alignment – Specifies the placement of formatted text within the shape (text box).

Horizontal and vertical components must be defined together.



Margins – Sets the distance between the edge of the shape and the edge of the text area. Margins are in the same units as the text box. Top sets the distance between the top edge of the shape and the top edge of the text area. Bottom sets the distance between the bottom edge of the shape and the bottom edge of the text area.

Paragraph Tab

Units Space – Sets the paragraph to paper units or to world units. This control is modifiable only when you are creating new styles from the Format Styles dialog box. When you view this control from the Properties dialog box, it is read-only. It is modifiable from the Info tab since all paragraphs contained within a text box must be in the same units.

Spacing Alignment – Specifies how each paragraph is aligned within the block of formatted text. Values for horizontal alignment include Left, Center, and Right. If Text Orientation is horizontal, you modify all the paragraph alignment properties for all paragraphs within the text box. (These properties appear in the Text Alignment area of the Info tab.) If Text Orientation is vertical, you modify the shape alignment properties. (These properties appear in the Text Alignment area of the Info tab.)

Miscellaneous Text Changes

Single click places text box without wrapping, unless a carriage return is used.

Pressing End to go to end of line should now position cursor correctly when using arrow keys.

Text can be displayed in both World and Paper space.

Support for multiple styles (such as different color or font in same textbox).

Text displays in lime green color if font is not present on system.

New handle on textbox for origin point – denoted by an x.

Textbox supports precision placement

Text size can be specified by Point size – a value of 72 pt is equal to 1 inch.

Command Line Batch Printing

Command Line Batch Printing allows you to print SmartSketch documents from the command line, without having to bring up the SmartSketch interface. From a command line in an MS-Dos window, the syntax is as follows:

```
Imagine.exe<space>-p<space>-q<space><printer  
path><space>-c<space><integer for number of copies><space><document  
path><space><document path><space><document path, and so forth>
```

Here is an example: `imagine.exe -p -q -c 2 c:\temp\first file.igr c:\temp\second_file.igr`

Note that document paths are separated by spaces. If the filename contains a space, you must use double quotes. Also note that this command uses the print options that are set in SmartSketch except for the printer name and number of copies.

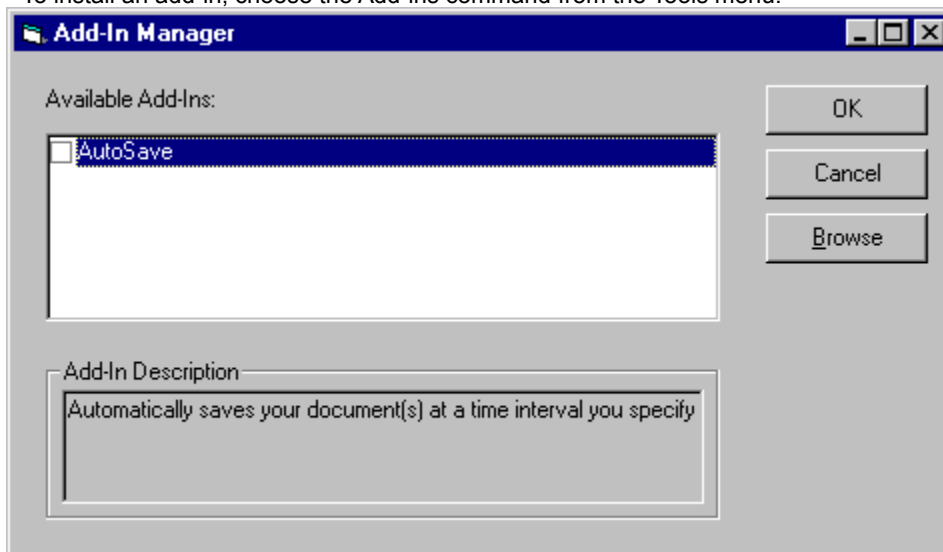
You can use the command line locally or remotely when the Windows NT Server Resource Kit is installed. You can print from local and network printers and plotters. You can also print more than one document by using an asterisk * in the file name as a wildcard. The software is compatible with AIM—PWV (Aim and Information Management—Print Without View).

Add-In Manager

Add-ins are commands or functions that add special capabilities to SmartSketch. The Add-In Manager allows you to select add-ins that are automatically available and ready to use when you start SmartSketch. With the Add-Ins command, you can install or remove:

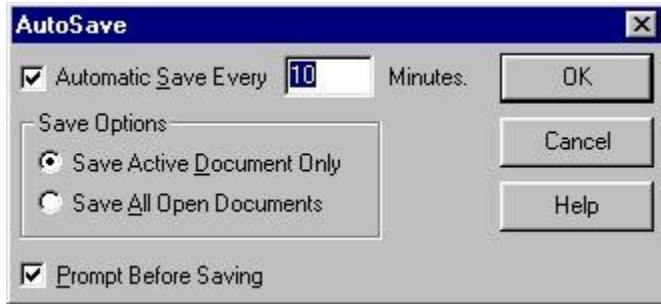
- Add-ins that come with SmartSketch.
- Add-ins that you have created.

To install an add-in, choose the Add-ins command from the Tools menu.



AutoSave

AutoSave automatically saves your document at specified time intervals. To activate this feature, select it from Tools>Add-Ins to add it to the Tools menu and then select Tools>AutoSave.



Templates Overview

Version 3 includes templates with industry specific symbols. Wherever possible we have used Industry Standards (i.e., ANSI, ISO, ASHRAE, IEEE, etc.) or Intergraph Standards. We have also used some customer symbol sets that represent standard practice where a standard was not available.

Template	Source of Symbols
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General Diagramming

Atlas Map (Metric)	IGR Symbol Set
Atlas Map (Imperial)	IGR Symbol Set
Basic Diagram (Metric)	IGR Symbol Set
Basic Diagram (Imperial)	IGR Symbol Set
Directional Map (Metric)	IGR Symbol Set
Directional Map (Imperial)	IGR Symbol Set
Flowchart (Metric)	IGR Symbol Set
Flowchart (Imperial)	IGR Symbol Set
Network Diagram (Metric)	Altima Technologies Inc
Network Diagram (Imperial)	Altima Technologies Inc
Office Layout (Metric)	IGR Symbol Set
Office Layout (Imperial)	IGR Symbol Set
Organization Chart (Metric)	IGR Symbol Set
Organization Chart (Imperial)	IGR Symbol Set
Workflow Diagram (Metric)	IGR Symbol Set
Workflow Diagram (Imperial)	IGR Symbol Set

Drawing

Electrical (Imperial)	IGR Symbol Set
Electrical (Metric)	IGR Symbol Set
Mechanical (ANSI)	IGR Symbol Set
Mechanical (ISO)	IGR Symbol Set
Technical Drawing (Metric)	IGR Generated
Technical Drawing (Imperial)	IGR Generated
Technical Illustrated (Metric)	IGR Symbol Set
Technical Illustrated (Imperial)	IGR Symbol Set

Sample Files

A set of drawing samples for version 3.0 is delivered in the SmartSketch\samples directory.

