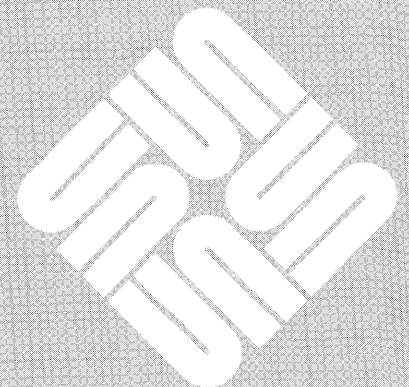




SunDraw™ Quick Start Guide



SunDraw™ Quick Start Guide



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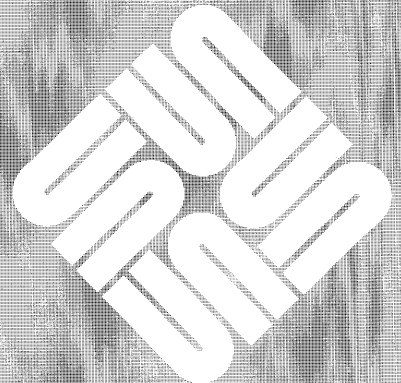
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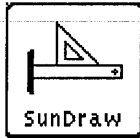
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A Quick Start Guide to SunDraw



This book is your quick start guide to SunDraw. Use it as a companion to these books:

- The *SunDraw Tutorial*
- The *SunDraw User's Guide*

If you are not familiar with SunDraw or have never used a computer-based drawing program, read the *SunDraw Tutorial*. This book gives you an introduction to SunDraw. Refer to the *SunDraw User's Guide* for detailed information about a feature or function.

If you have not yet installed SunDraw, refer to the *Installation Guide for SunWrite, SunPaint, and SunDraw*.

1.1. About the Illustrations In This Book

A combination of SunDraw and SunPaint were used to prepare all of the illustrations in this book.

1.2. Terms and Conventions Used In This Book

Terms that are special to SunDraw and may be new to you, are introduced in italic font, for example *vector file*. These terms are defined when they are introduced.

The *Italic* font may also be used to specify variables or parameters that you or the system will replace with an appropriate word or string of characters.

The **bold typewriter font** represents commands you enter at the keyboard, exactly as shown. Typewriter font represents what the system prints on your workstation screen or printer, or the name of a file.

The **bold roman font** is used in the text for the names of SunDraw buttons, settings, menus, and menu items.

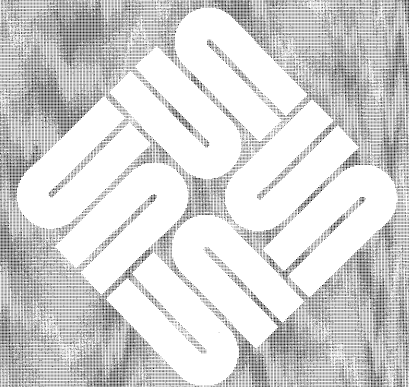
1.3. Getting Software Help

If you should need help using this product or the accompanying documentation:

- See the *Read This First* document for known problems and solutions. A *Read This First* document is supplied with every software product. Your system administrator or the person who installed this software should have a copy.
- Look for articles in the *Software Technical Bulletin*. The technical contact person named in your service contract with Sun should have your company's master copy. Check the cumulative index for relevant articles.
- If the *Read This First* and the *Software Technical Bulletin* do not help, while your software is under warranty or under a software service contract, you may get help from Sun by calling the telephone number shown in the *Read This First*.
- You can order a support contract through your local Sun sales office.

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A Guide to Menus and Windows

This chapter is a quick reference to SunDraw window, menu, and mouse functions.

2.1. How to Start SunDraw

You use SunPaint in the SunView window environment. If you are not familiar with SunView, read the "SunView 1 Beginner's Guide" before you start SunPaint.

Type the following command from a SunView Shell Tool or Command Tool, then press the **Return** key.

```
% sundraw &
```

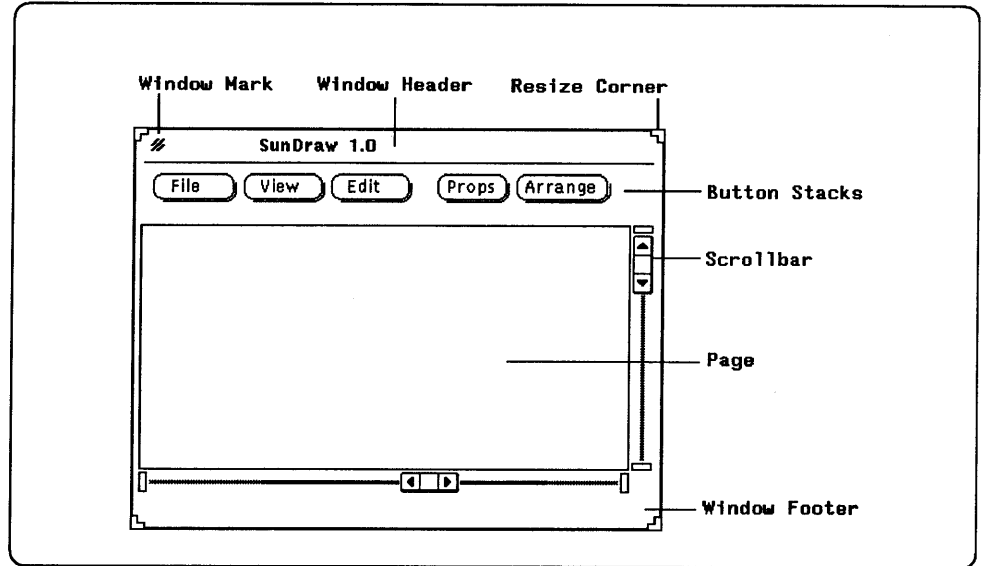
Starting SunDraw With an Open File

To start SunDraw with an open file, type the following command from a SunView Shell Tool or Command Tool, then press the **Return** key.

```
% sundraw filename &
```

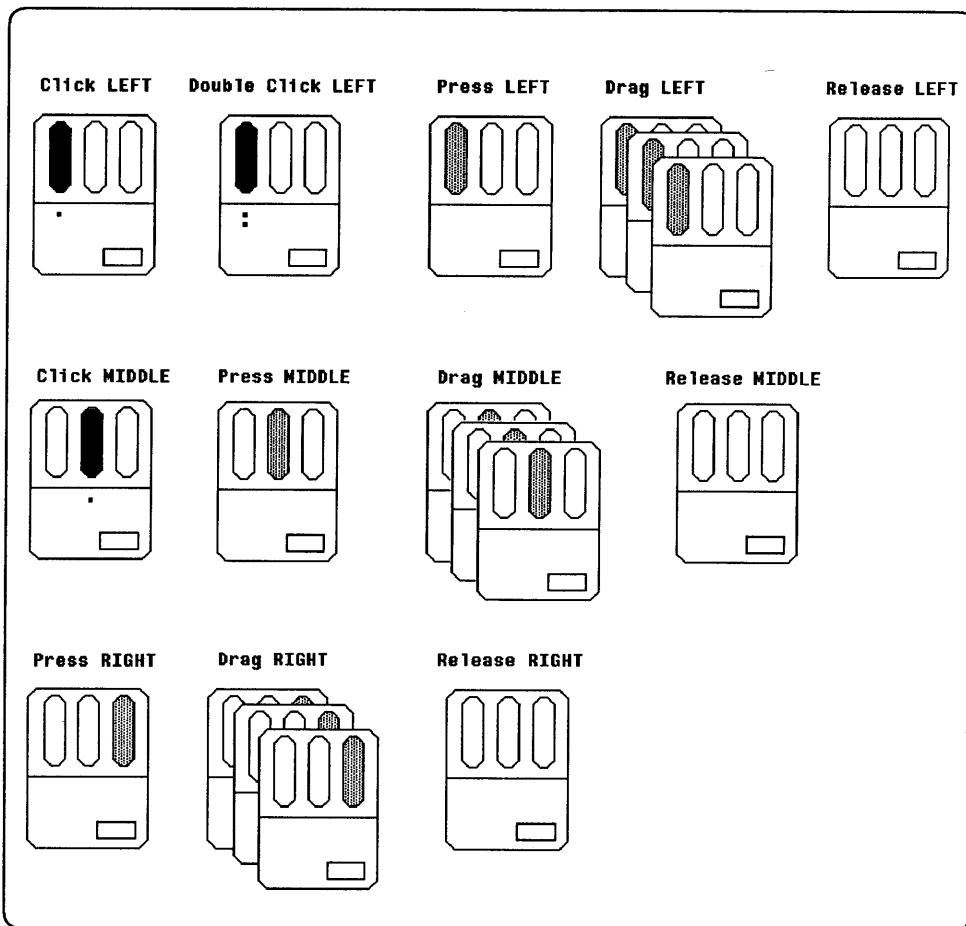
2.2. The SunDraw Window

The following illustration shows the SunDraw Window as it appears when you start SunDraw.



2.3. Mouse Actions

The following illustration shows all of the mouse actions you use for the LEFT, MIDDLE, and RIGHT mouse buttons.

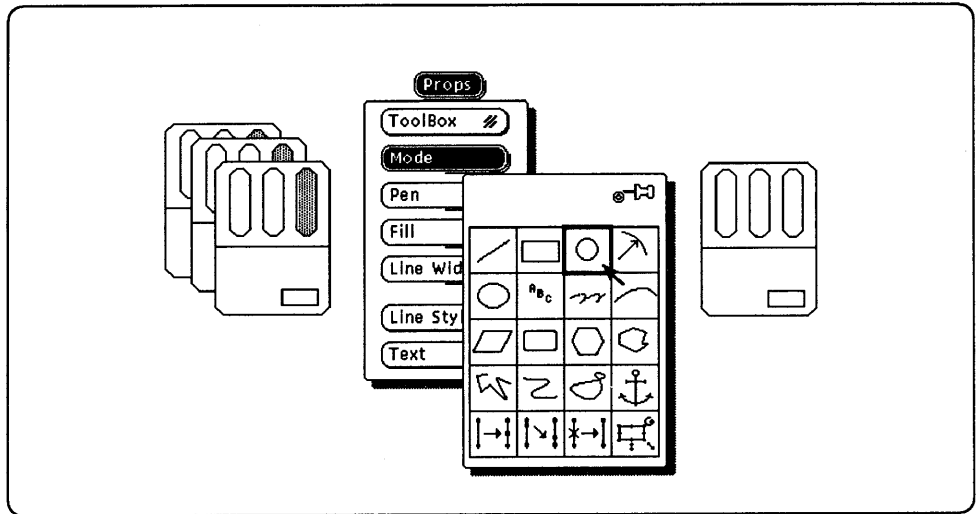


- Press** Press and hold the mouse button without moving the mouse.
- Drag** Press and hold the mouse button while you move the mouse.
- Click** Quickly tap and release the mouse button once or twice.
- Release** Release the mouse button you are pressing or dragging.

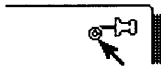
2.4. How to Display and Choose From a Menu

1. Point to the Button Stack or Abbreviated Button Stack
2. Press RIGHT to display the menu
3. Drag RIGHT to choose a button
4. Drag RIGHT to choose from the displayed menu
5. Release RIGHT after you make your choice

The Props and Mode menus are used in this example.



2.5. How to Pin Up a Menu

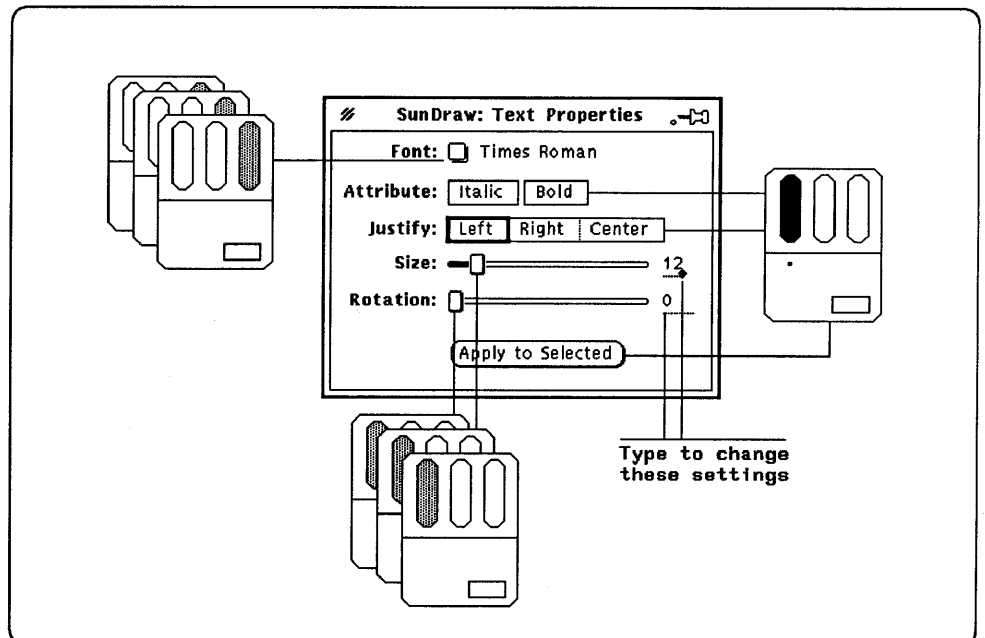


1. Choose the menu you want to pin up
2. Drag RIGHT to choose the Pushpin
3. Release RIGHT

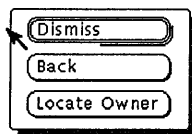
2.6. How to Choose From a Pop-up Window

1. Click LEFT on settings
2. Type new information in text entry fields
3. Drag RIGHT on Button Stacks to display menus
4. Drag LEFT on slider bars to change settings

The **Text Properties** window is used in this example.



2.7. How to Use a Pop-up Window Menu

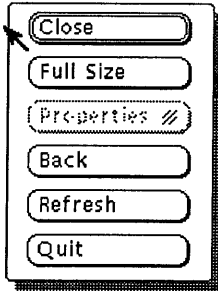


1. Press RIGHT anywhere on the Window border to display the menu
2. Drag RIGHT to highlight the button you want to use
3. Release RIGHT

The commands on the Pop-up Window menu are:

- **Dismiss:** Choose this command to dismiss the window.
- **Back:** Choose this command to move the window behind other windows.
- **Locate Owner:** Choose this command to move the SunDraw Window to the front.

2.8. How to Use the SunDraw Window Menu



1. Press RIGHT anywhere on the SunDraw Window border to display the menu
2. Drag RIGHT to highlight the button you want to use
3. Release RIGHT

The available commands on the SunDraw Window menu are:

- **Close:** Use this command to close the SunDraw Window to an Icon
- **Full Size:** Use this command to expand the SunDraw Window to the full Page size.
- **Back:** Use this command to move the SunDraw Window behind other windows.
- **Refresh:** Use this command to refresh the SunDraw Window if the screen display develops temporary anomalies.
- **Quit:** Use this command to quit SunDraw.

Note that the *Properties* command button is grayed. This is because properties are not available for the SunDraw window.

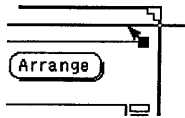
2.9. How to Change a Menu Default

1. Point to the Button Stack
2. Press the **[Control]** key and Drag RIGHT simultaneously
3. Choose the button you want to use for the menu default
4. Release RIGHT

2.10. How to Choose a Menu Default

1. Click LEFT on the Button Stack or Abbreviated Button Stack

2.11. How to Move a Window



1. Point to any location on the Window border
2. Drag LEFT. Move the mouse to *drag* the window to the new location.
3. Release LEFT.

2.12. How to Move a Window Back

1. Point to any location on the Window border
2. Drag RIGHT to display the Window menu
3. Choose **Back**
4. Release RIGHT

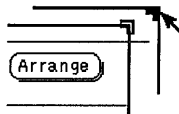
Alternatively, you can press the **[Front L5]** key.

2.13. How to Move a Window Front

1. Point to any location on the exposed Window border
2. Click LEFT

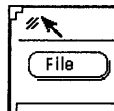
Alternatively, you can press the **Front L5**

2.14. How to Resize the SunDraw Window



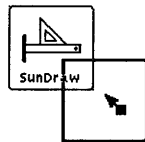
1. Point to a Resize corner
2. Drag LEFT. Move the mouse to increase or decrease the window size
3. Release LEFT

2.15. How to Close SunDraw



1. Point to the Window Mark on the Window header
2. Click LEFT

2.16. How to Move the SunDraw Icon



1. Point to the SunDraw icon
2. Drag LEFT to move the icon to the new location
3. Release LEFT

2.17. How to Open SunDraw From the Icon



1. Point to the SunDraw icon
2. Click LEFT

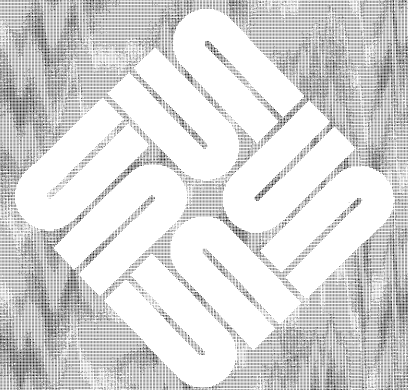
2.18. How to Quit SunDraw

1. Point to any location on the window border
2. Drag RIGHT to display the Window menu
3. Choose Quit
4. Release RIGHT



Drawing Objects

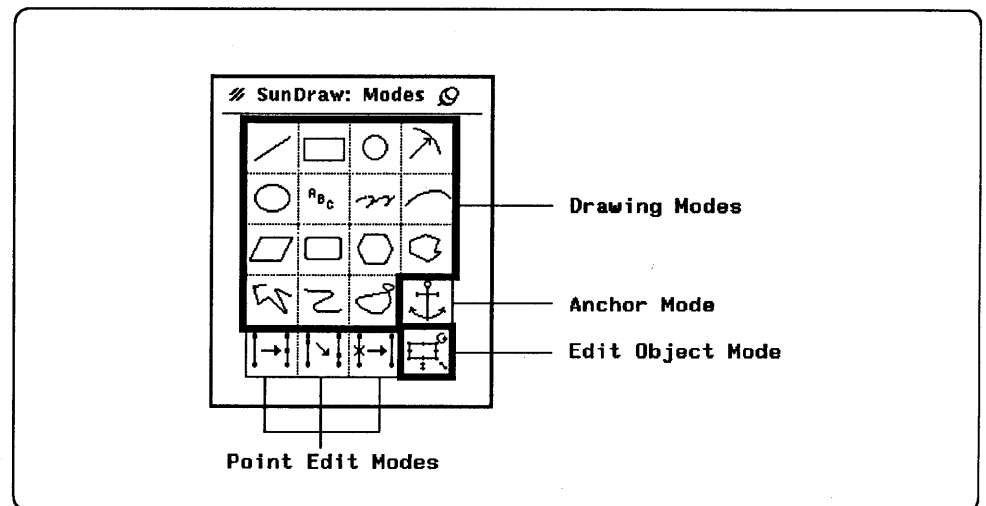
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Drawing Objects

The SunDraw **Modes** menu provides the following types of modes:



SunDraw starts in **Edit** mode—labeled “Edit Object Mode” in the illustration above. To draw an object, you choose a drawing mode. To choose a mode, Click **LEFT** on the mode setting.

After you draw an object you are automatically in **Edit** mode. You can then:

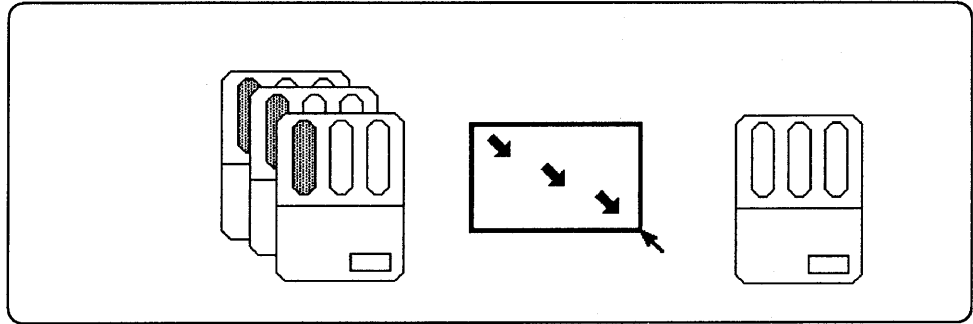
- Edit the object. Refer to Chapter 6 for information about object editing.
- Choose **Again** to return to the previous mode. The **Again** command repeats your previous action. For example, you draw a rectangle; you automatically go into **Edit** mode; you choose **Again**; you are back in **Rectangle** mode. You can choose **Again** from the **Edit** menu, or press the **(Again L2)** key.
- Choose another mode.

If you want to deliberately choose **Edit** mode instead of automatically going into **Edit** mode, you can set the **Hold Mode** Option. When you choose **Hold Mode** you do not automatically go into **Edit** each time you draw an object.

3.1. Drawing Two-Point Objects

Two-point objects are: **Line, Rectangle, Circle, Ellipse, Freehand, Round Rectangle, Polygon.**

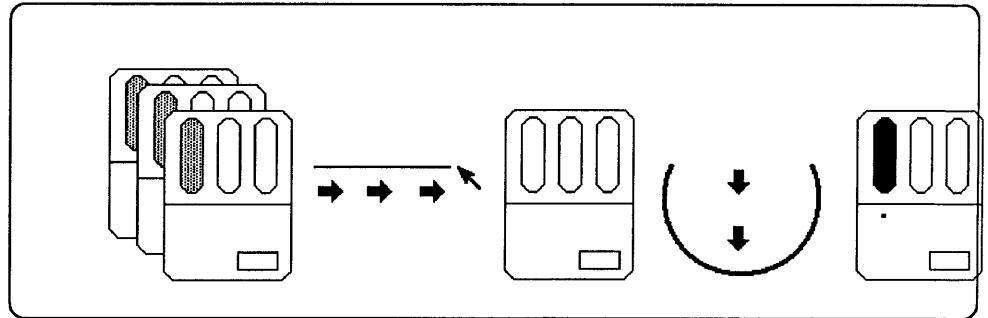
1. Choose a drawing mode
2. Point to a starting position on the Page
3. Drag LEFT to draw the object
4. Release LEFT at the ending position.



3.2. Drawing Three-Point Objects

Three-point objects are: **Arc, Curve, Parallelogram.**

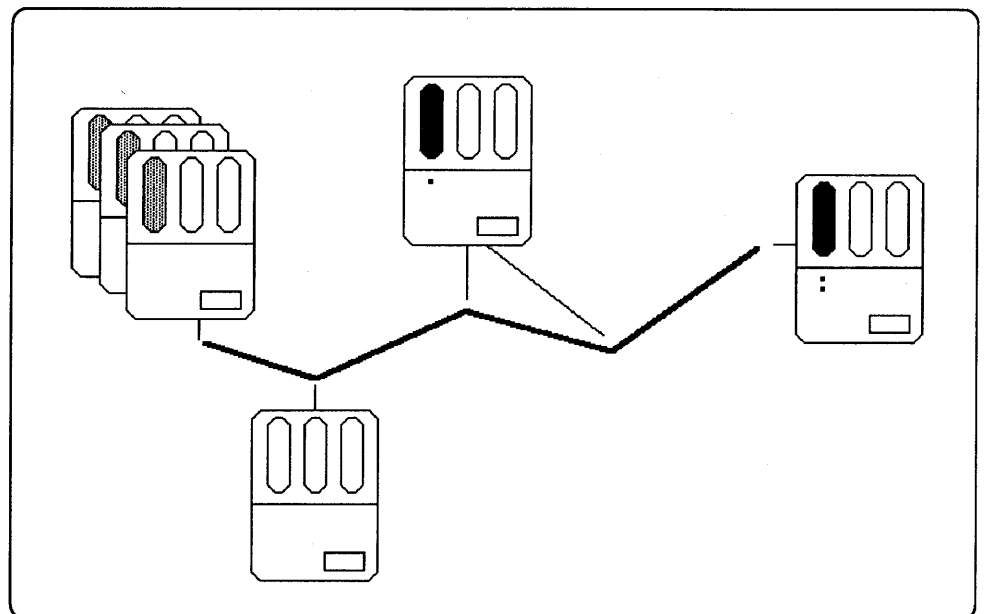
1. Choose a drawing mode
2. Point to a starting position on the Page
3. Drag LEFT to draw from point one to point two of the object.
4. Release LEFT
5. Move the pointer to define the arc, curve, or parallelogram. This is point three of the object.
6. Click LEFT at the ending position.



Drawing Multi-Point Objects

Multi-point objects are: Irregular Polygon, Polyline, Bezier Curve, Cyclic Bezier Curve.

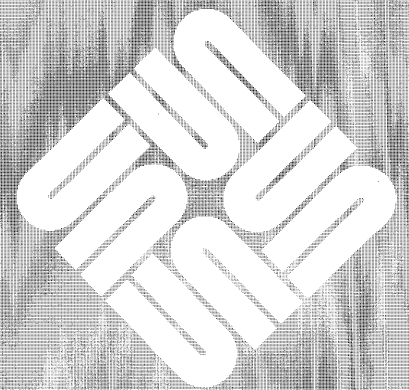
1. Choose a drawing mode
2. Point to a starting position on the Page
3. Drag LEFT to draw from point one to point two of the object.
4. Release LEFT
5. Move the pointer to the next point.
6. Click LEFT
7. Continue specifying points by moving the pointer and Clicking LEFT until you reach the last point.
8. Double Click LEFT at the end point.

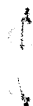




Repeating and Correcting

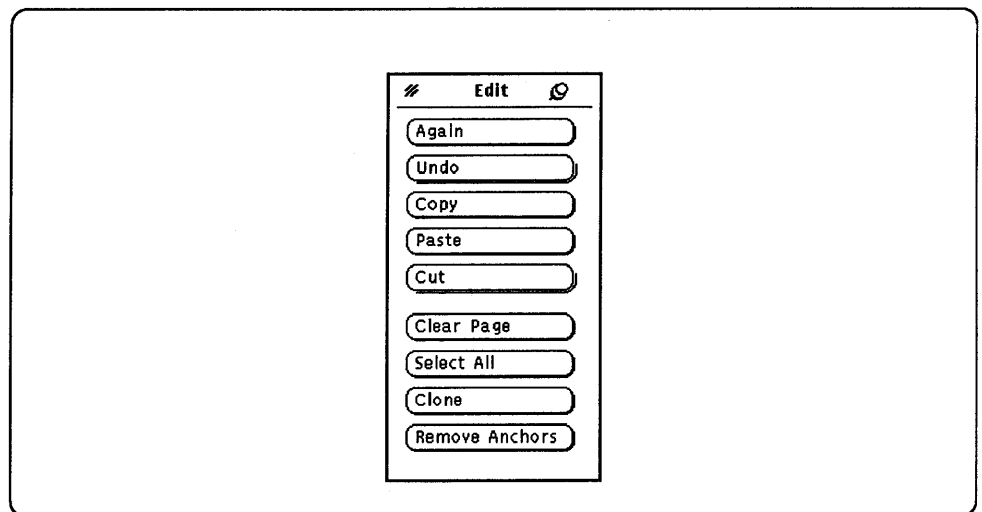
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Repeating and Correcting

You choose repeating and correcting functions from the **Edit** menu.



4.1. Again

Choose **Again** from the **Edit** menu to repeat your last action. This can be an action such as **Clone**, a menu choice, or a drawing action.

The **Again** command is also available from the keyboard. To use **Again** from the keyboard, press the **(L2)** function key.

4.2. Undo

Choose **Undo** from the **Edit** menu to undo up to five actions. You can use **Redo** to undo an undo command.

The **Undo** command is also available from the keyboard. To use **Undo** from the keyboard, press the **(Undo L3)** function key.

4.3. Redo

Choose **Redo** from the **Edit** menu to redo up to the last five **Undo** commands.

4.4. Clear Page

Choose **Clear Page** from the **Edit** menu to remove the entire contents of the Page. If you accidentally choose **Clear Page**, immediately choose **Undo** to restore the Page.

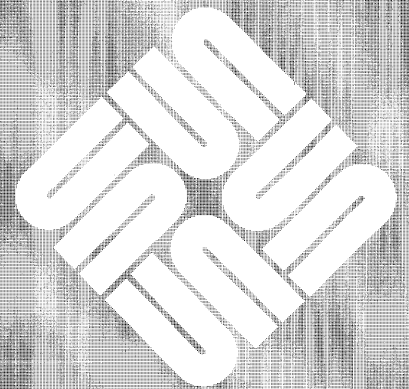
4.5. Delete

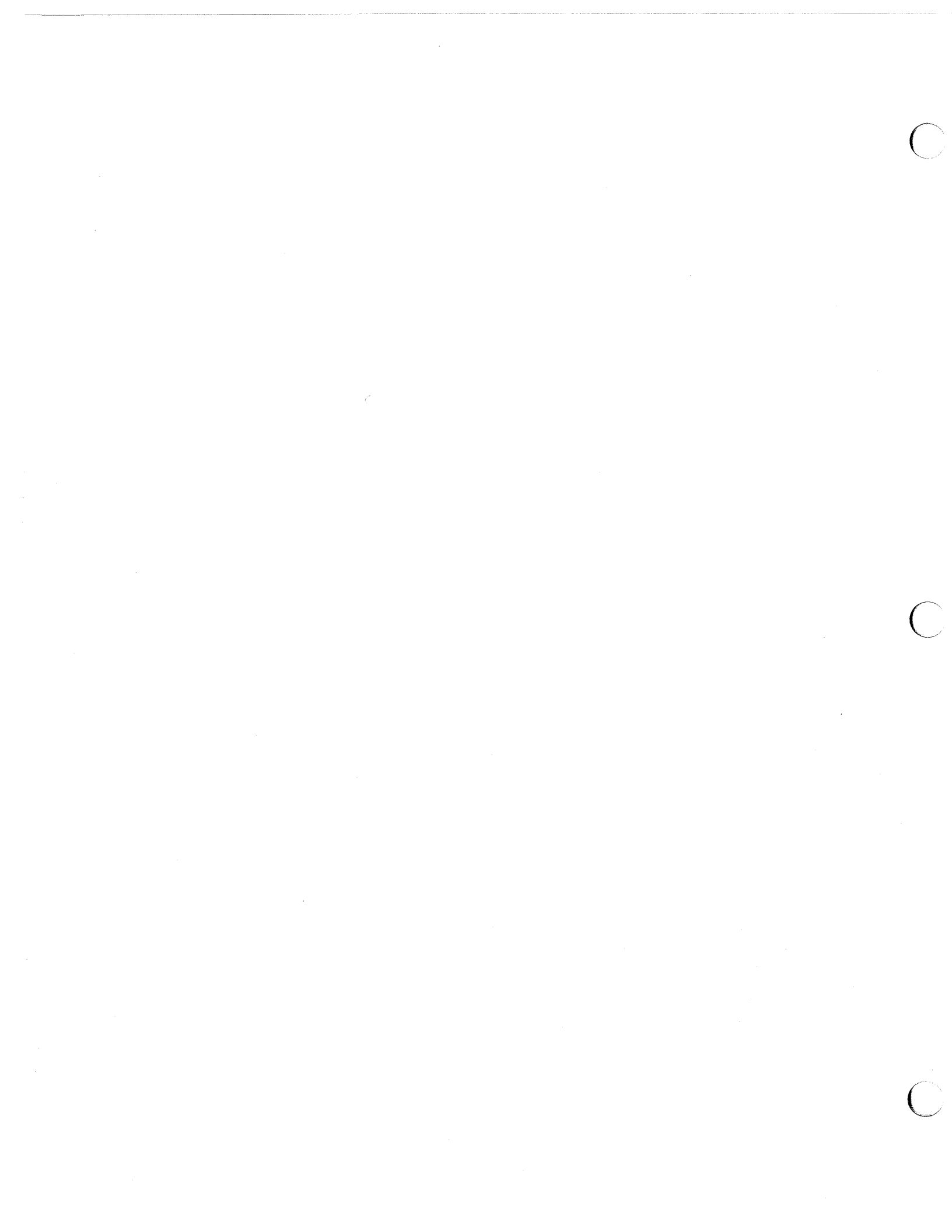
Choose **Delete** from the **Edit** menu to delete all selected objects on the Page. You can restore deleted objects if you use **Undo** immediately after you use **Delete**.

Alternatively, you can use the **⌘L** key.

Clipboard Functions

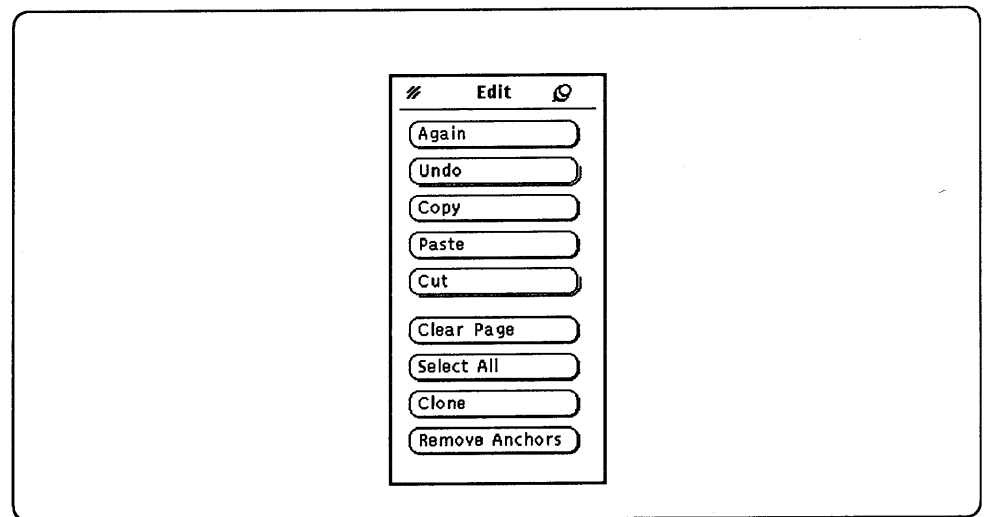
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Clipboard Functions

You choose the **Clipboard** functions **Copy**, **Paste**, and **Cut** from the **Edit** menu.



The **Clipboard** is a temporary storage location for raster images. SunDraw, SunPaint, and SunWrite share the same Clipboard. You can cut or copy a region from SunPaint and paste it into SunDraw or SunWrite. Or, you can cut or copy an object from SunDraw, then paste it into SunPaint or SunWrite. Of course, you can always cut, copy and paste within SunDraw.

5.1. Copy

When you choose **Copy**, select objects are *copied* from the Page to the Clipboard. The objects are then in two places—the Page and the Clipboard.

5.2. Paste

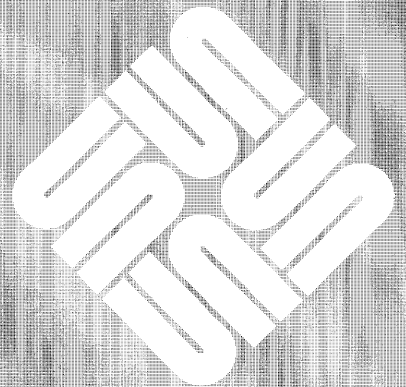
When you choose **Paste**, the last image that was cut or copied to the Clipboard is displayed in the center of the Page. You can move the object to a different location if you wish. If you have the SunDraw Window resized to a small size over a large Page you may not see the object when it is pasted. This is because the center of the Page may not be visible. You can use **Zoom** to get an overview of the Page. When you locate the object, you can scroll or pan the Page to bring the object into view.

5.3. Cut

When you choose **Cut**, the selected objects are *moved* to the Clipboard.

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Edit and Perform Actions on Objects

6.1. Hold Mode

Options: Hold Mode

Hold Mode Off

You can choose to draw with the **Hold Mode** Option setting turned *on* or *off*. The **Hold Mode** setting is on the **ToolBox** window. To turn **Hold Mode** *on* or *off*, Click **LEFT** on the setting.

When the **Hold Mode** Option is off, you are automatically in **Edit** mode as soon as you have finished drawing an object.

Hold Mode On

When the **Hold Mode** option is on you can continue to draw objects without going into in **Edit** mode.

6.2. Selecting Objects

Selecting a Single Object

You must *select* an object before you can perform any action with it.

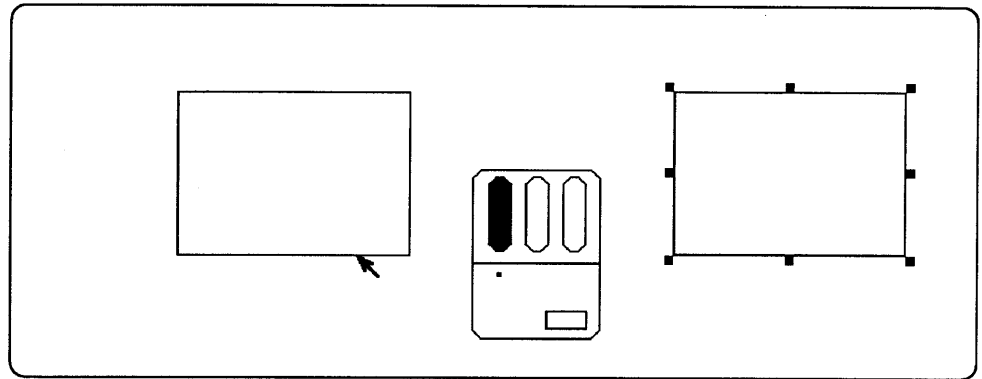
1. Choose **Edit** mode
2. Place the pointer on the object.

When the object has a transparent fill you place the pointer on the border of the object.

When the interior of the object is filled with a black, white, or gray pattern, you can place the pointer anywhere on the object.

3. Click **LEFT**

The object is selected. You can now edit it or perform other actions.



Selecting Multiple Objects

You can use any of the following methods to select multiple objects

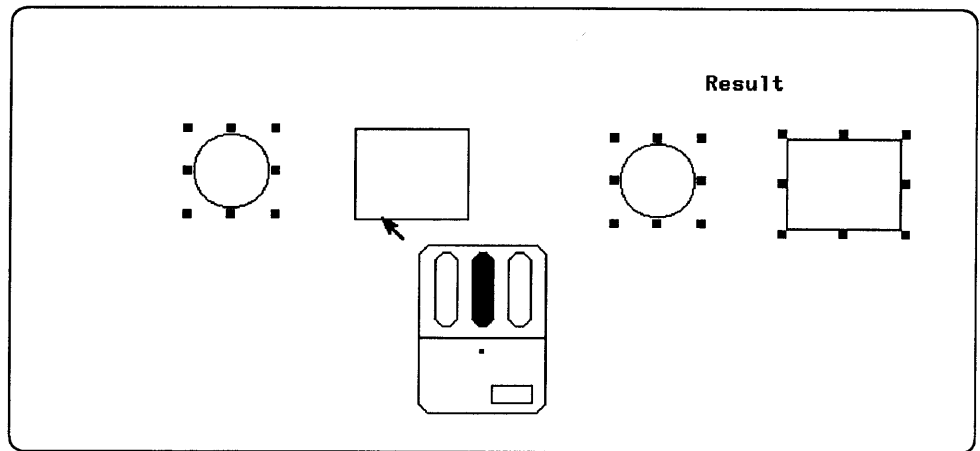
- You can extend the selection from one to several objects.
- You can use *marquee* selection to select them all at once
- You can choose **Select All** from the **Edit** menu.

Each method is described in the following sections.

Extending Selection

1. Choose **Edit** mode
2. Click **MIDDLE** on all of the objects you want to select.

You use the **MIDDLE** mouse button to *extend* or *reduce* selection. Clicking **MIDDLE** on an object acts as a “toggle” to select or unselect the object. See *Unselecting Objects* in this section.



Using Marquee Selection

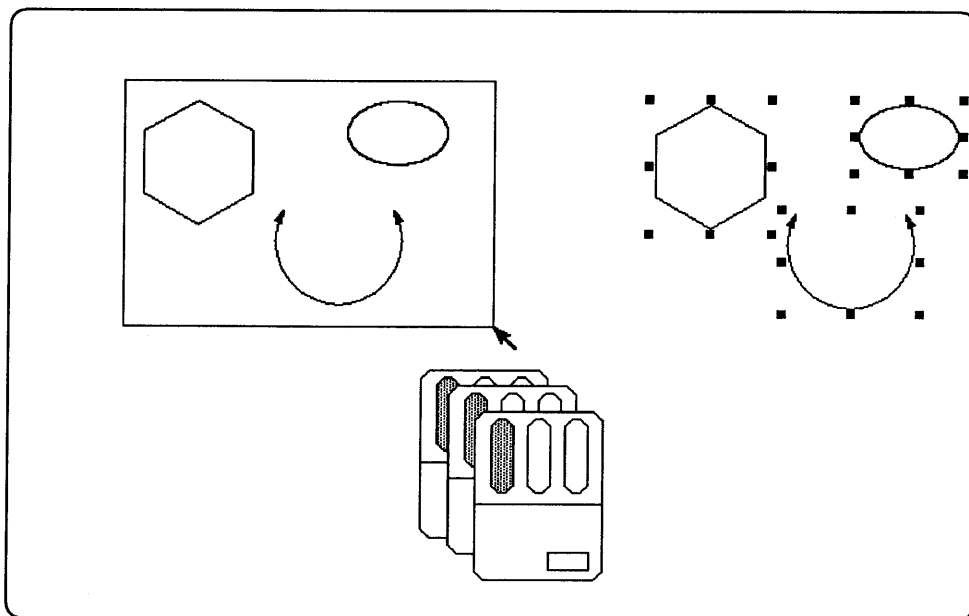
When you use the MIDDLE mouse button for marquee selection it acts as a selection toggle. If objects are unselected they are selected. If objects are selected they are unselected. When you want to select only, use the LEFT mouse button.

You can use either the LEFT or MIDDLE mouse button to *marquee* select.

1. Choose Edit mode
2. Point to any location on the Page outside the cluster of objects you want to select.

You are going to draw a bounding box that includes all the objects you want to select.

3. Drag LEFT or Drag MIDDLE to draw the bounding box around the objects.
4. Release LEFT or MIDDLE. All of the objects are selected and the bounding box disappears.



6.3. Unselecting Objects

There are several ways to unselect objects:

- Choose **Edit** mode, then Click **MIDDLE** on the objects you want to unselect.
- Choose **Edit** mode, then use the **Marquee** selection feature to drag a bounding box around the objects you want to unselect. Refer to the *Using Marquee Selection* heading in this section for more information about the **Marquee** feature.
- Click **LEFT** anywhere on the Page (except on an object). This action unselects all selected objects.
- Choose **Edit** mode, then Click **LEFT** on an object. Clicking **LEFT** on an object selects that object and unselects all other selected objects.

6.4. Moving Objects

You can move an object from one position to another on the Page. When you move one object, all other selected objects on the Page also move. So be sure to unselect any objects you don't want to move. To move objects:

1. Choose **Edit** mode from the **Modes** menu.
2. Unselect the objects you do not want to move.
3. Select the object or objects you want to move
4. Place the pointer on the border or interior of the object.
3. Drag **LEFT**, moving the object to the new position.
4. Release **LEFT**

You place the pointer on the border of transparently-filled objects. You can place the pointer on either the border or the interior of objects filled with a white, black, or gray pattern.

Sometimes an unusually large or complex object will take a while to move. If this is the case, you can use the **Drag Frame Only** function on the **Guides** menu to speed up the move. The moving process is faster because the object is represented by a "frame" instead of the actual object.

6.5. Copying Objects

You use the **Clone** function to copy selected objects. To copy an object:

1. Choose **Edit** mode from the **Modes** menu.
2. Select the object or objects you want to copy.
3. Choose **Clone** from the **Edit** menu.

6.6. Rotating Objects

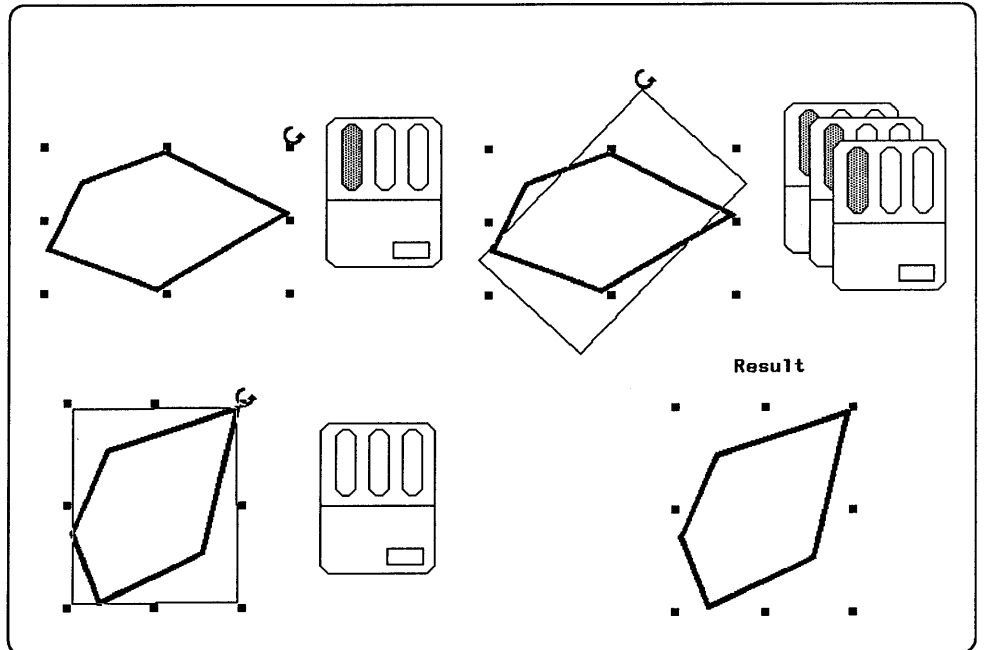
If the object is large, complex, or has an intricate fill pattern the *Stopwatch* symbol may appear. When the *Stopwatch* symbol disappears rotation is finished.



You can rotate an object any incremental degree within a full 360 degrees.

To rotate an object:

1. Choose **Edit** mode from the **Modes** menu
2. Select the object you want to rotate
3. Place the pointer on the Rotation Handle. The rotation symbol appears
The upper right corner handle is the *Rotation Handle*
3. Press **LEFT**. A rotation bounding box appears
4. Drag **LEFT** until you have reached the degree of rotation you want
5. Release **LEFT**

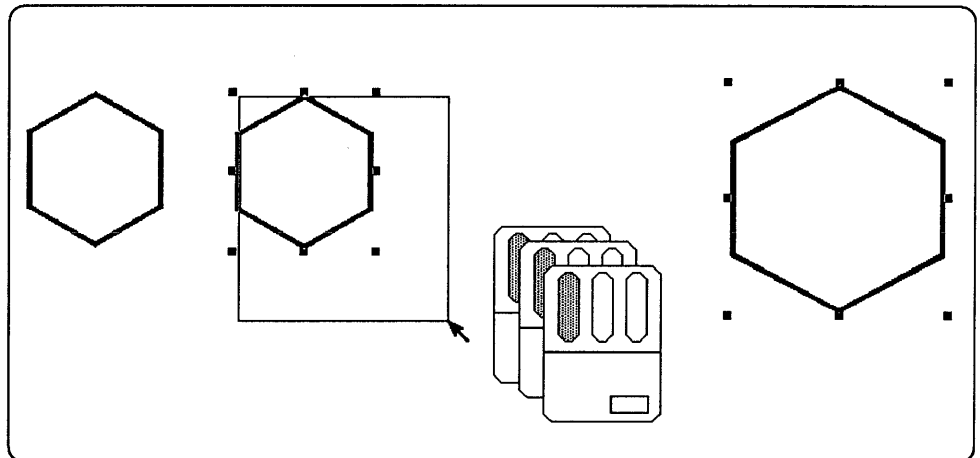


6.7. Stretching and Shrinking Objects

You use any handle to enlarge or reduce an object by *stretching or shrinking* it. You can stretch or shrink an object *proportionally or non-proportionally*.

Stretching or Shrinking Proportionally

When you stretch or shrink proportionally the original dimensions of the object remain in proportion to one another, even though you enlarge or reduce the object. You use any one of the corner handles to stretch or shrink proportionally. This illustration shows the object being stretched proportionally.

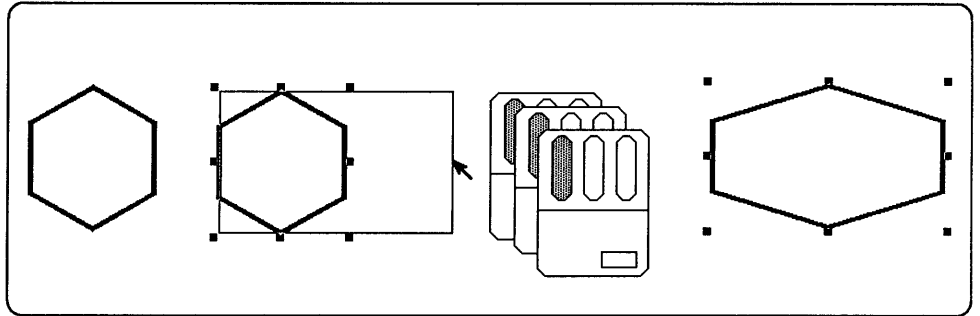


To stretch or shrink an object proportionally:

1. Choose **Edit** mode from the **Modes** menu
2. Select the object you want to stretch or shrink
3. Place the pointer on top of any *corner* handle
4. Press **LEFT**. A bounding box appears
4. Drag **LEFT** to enlarge or reduce the object
5. Release **LEFT**

Stretching or Shrinking Non-Proportionally

When you stretch or shrink non-proportionally, you can change the height-to-width or width-to-height ratio of the object. You use the side handles to stretch or shrink non-proportionally. This illustration shows the object being stretched non-proportionally.



To stretch or shrink an object non-proportionally:

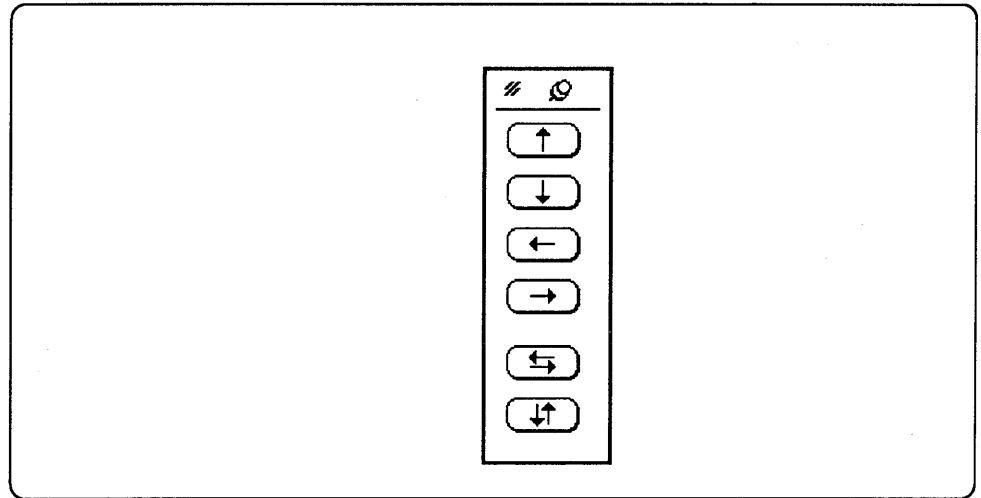
1. Choose **Edit** mode from the **Modes** menu
2. Select the object you want to stretch or shrink
3. Place the pointer on top of any *side* handle
4. Press **LEFT**. A bounding box appears
4. Drag **LEFT** to enlarge or reduce the object
5. Release **LEFT**

NOTE *The non-proportional handles are affected by the **Stretch** setting on the **Guides** menu. When **Stretch** is set to **non-proportional**, you can use the side handles. When **Stretch** is set to **proportional**, you can only use the corner handles.*

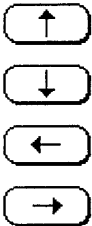
6.8. Nudging and Flipping Objects

You choose the **Move/Flip** menu from the **Arrange** menu. You use the menu to:

- **Nudge** objects pixel-by-pixel in one of four directions
- **Flip** objects horizontally or vertically



Nudge



To move selected objects pixel-by-pixel:

1. Choose **Edit** mode from the **Modes** menu
2. Choose the **Up, Down, Left, or Right** nudge button

To move up diagonally, choose **Up**, then choose **Left** or **Right**. To move down diagonally, choose **Down**, then choose **Left** or **Right**.

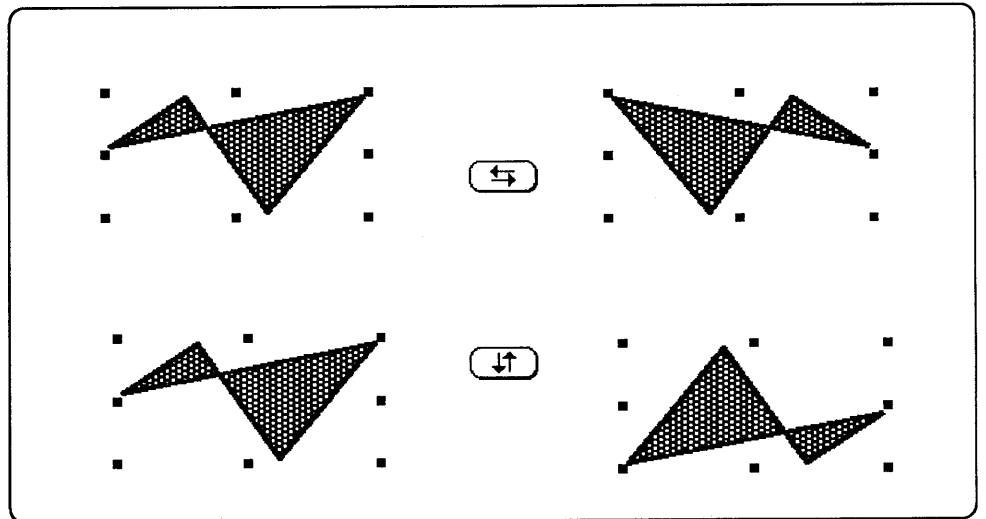
Flip Horizontally and Vertically



To flip objects horizontally or vertically:

1. Choose **Edit** mode from the **Modes** menu
2. Choose the **Left, Right, Up, or Down** flip button

This illustration shows objects flipped both horizontally and vertically.



6.9. Changing Appearances

You can easily change the appearance of selected objects. You can change the pen pattern, the line width, line style, or fill pattern. This section show you how to change the fill pattern, and the line width.

Change the Fill Pattern

There are four fill types, they are: white, black, transparent, and a variety of “gray” patterns.

To change the fill pattern:

1. Choose **Edit** mode from the **Modes** menu.

This step is not necessary if you have just drawn an object and it is selected.

2. Select the object you want to change.

If you have any other selected objects on the Page they will also be changed. Unselect any objects you do not want to change.

3. Display the **Fill** menu from the **ToolBox** window and choose a pattern.

Change the Line Width

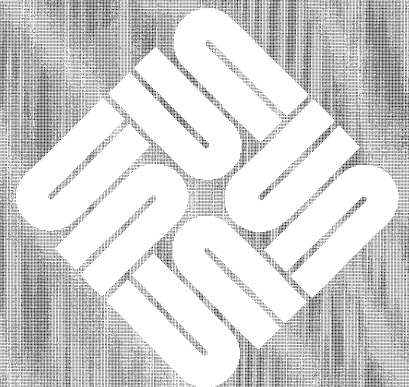
Just as you can change the fill pattern of an object, you can also change the line width of the pen border.

To change the line width of an object:

1. Select the object you want to change.
2. Display the **Line** menu from the **ToolBox** window.
3. Choose any line width.

Opening and Saving Pictures

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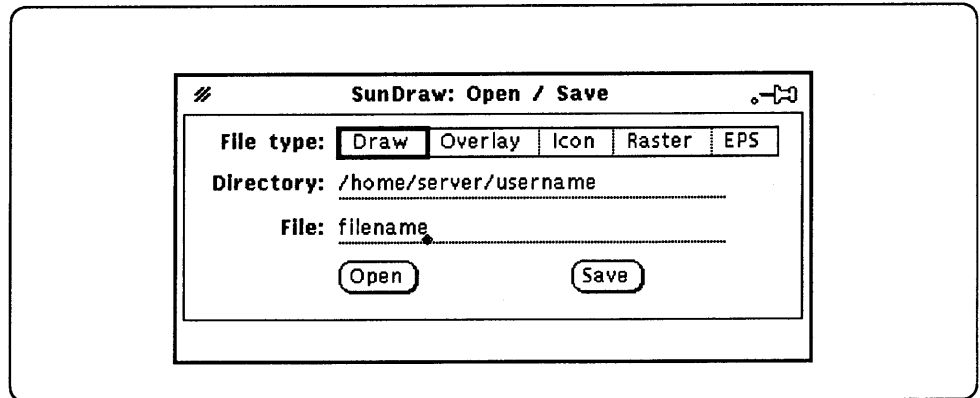
Opening and Saving Pictures

You can open and save SunDraw pictures as **Draw**, **Overlay**, **Icon**, **Raster**, or **EPS** files. Each file type is described in this chapter.

7.1. Opening Pictures

To Open a file

1. Choose **Open / Save** from the **File** menu to pop up the **Open / Save** window.



2. Click **LEFT** on the **File type** setting you want to use. You have five choices, **Draw**, **Overlay**, **Icon**, **Raster**, or **EPS**.
3. Change the **Directory** pathname to the directory pathname you want to use
4. Change the **File** to the file name you want to use.
5. Click **LEFT** on the **Open** button to display the file on the SunDraw Page

7.2. Saving Pictures

To Save a picture

1. Choose **Open / Save** from the **File** menu to pop up the **Open / Save** window.
2. Click **LEFT** on the **File type** setting you want to use. You have five choices, **Draw**, **Overlay**, **Icon**, **Raster**, or **EPS**.

When you choose **Draw**, **Icon**, **Raster**, or **EPS** the entire SunDraw Page is saved. When you choose **Overlay**, only selected objects on the Page are saved.

3. Change the **Directory** pathname to the directory pathname you want to use
4. Change the **File** to the file name you want to use.
5. Click **LEFT** on the **Save** button to save the current picture on the SunDraw Page.

Naming SunDraw Files

To help you or someone else identify the files you create with SunDraw, you should consider adopting the following file naming conventions:

- Name **Draw** files: `filename.draw` or `filename.dr`
- Name **Overlay** files: `filename.overlay` or `filename.ov`
- Name **Icon** files: `filename.icon` or `filename.ic`
- Name **Raster** files: `filename.raster` or `filename.rs`
- Name **EPS** files: `filename.eps`

You can use the following characters as part of a SunDraw file name:

a-z, A-Z 0-9, . / - _

If you try to save file with a name that includes any characters other than the ones listed above, the error message "Unallowable file name" appears. If this occurs, enter a new file that is composed of "allowable" characters.

7.3. Description of File Types

Draw Files

SunDraw is an *object-oriented* drawing program. This means that the objects you create are recognized by SunDraw as a specific forms with specific properties. This is quite different than a *pixel-oriented* (sometimes called raster-oriented) program like SunPaint which recognizes only masses of pixels, not individual objects.

Draw files are in *vector* format. The vector format preserves the object-orientation of SunDraw pictures. When you save a picture to a **Draw** file, you can open it again, then select objects and perform any actions you like. You can add new objects or delete existing ones. When you save to a **Draw** file, all of the objects on the SunDraw Page are saved, regardless of the selection status of the objects.

You can open a **Draw** file as an **Overlay** because these file types share the vector format. However, you cannot open a **Draw** file as any other file type. You cannot open a **Draw** file in SunPaint or SunWrite.

Overlay

You use **Overlay** files to open and save selected objects. You can save one or several selected objects to an **Overlay** file. **Overlay** files, like **Draw** files, are in vector format. You can open an **Overlay** file as a **Draw** file. However, you cannot open an **Overlay** file as any other file type. You cannot open an **Overlay** file in SunPaint or SunWrite.

Icon Files

Icon files are in SunView *icon* format. The Icon format is used to create icons, pointer symbols, and panel features for SunView programs. The *SunView 1 Beginner's Guide* describes the SunView Icon Editor. The *SunView 1 Programmer's Guide* describes the icon format and the ways that you can use icons. You can interchange SunDraw and SunPaint Icon files.

Raster Files

Raster files can be used by SunWrite, SunPaint, raster-oriented programs, or applications that accept raster files. SunDraw raster files contain the mapping of all white pixels and all black pixels as they appear on the screen.

EPS Files

EPS stands for **Encapsulated PostScript**. This file format type is specifically for saving pictures that you are going to include in SunWrite documents. The printed results of an EPS picture are superior to the printed results of a SunDraw raster file.

CAUTION

Once you save a SunDraw picture to EPS format you cannot reload it into SunDraw. This is not a problem unless you want to modify the file at some future time. To provide a safeguard, you might want to save any pictures you intend to use with SunWrite to two file types—EPS and Draw.

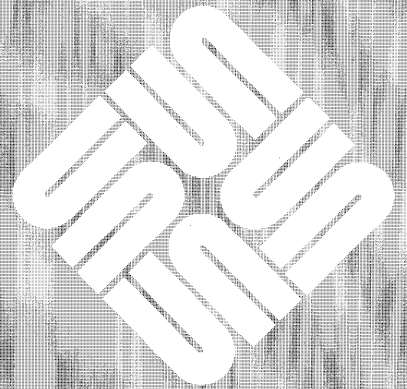
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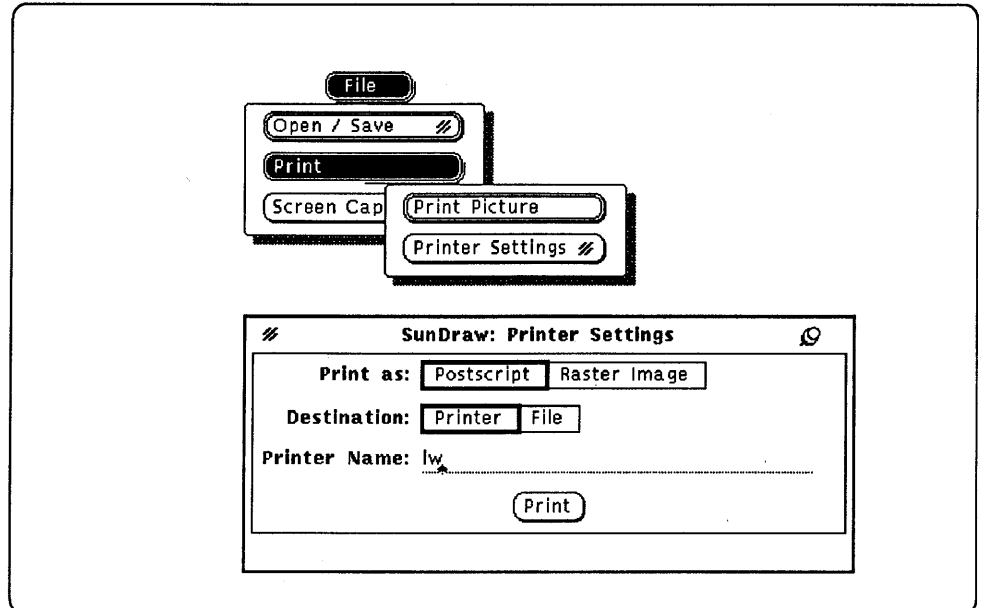




Printing Pictures

There are three ways you can print your current picture:

- Choose **Print Picture** from the **Print** menu. You display the **Print** menu from the **File** menu.
- Choose **Printer Settings** from the **Print** menu to pop up the **Printer Settings** window. Make any necessary changes to the settings. Click **LEFT** on the **Print** command button at the bottom of the window.
- If you have set **Print Picture** as the **Print** menu default, and have also set **Print** as the **File** menu default, you can Click **LEFT** on the **File Button Stack** to print your picture.



The *SunDraw User's Guide* provides detailed information about the **Printer Settings** window.



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