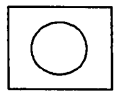
Art Designer™: Charts and Drawings

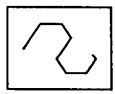
ART DESIGNER QUICK REFERENCE

To use any tool or function, select it. Move any cursor over the icon or function label you want to select and press the **Mark** button.

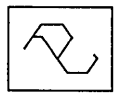
Tools



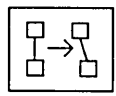
CIRCLE draws circles and ovals.



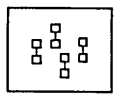
CONNECTED LINE draws objects composed of line segments.



CONNECTED LINE REPLACE changes the shape of an object by replacing a part of the object with a newly-drawn connected line.

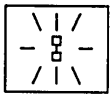


CONNECTED MOVE pulls and twists an object without separating the original points.

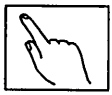


COPY duplicates an object.

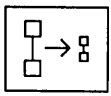
DELETE eliminates an object or group of objects from the work area.



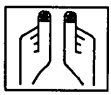
HIGHLIGHT shows what object is currently picked. Highlight displays a picked object simply as an outlined figure, without any fill or color.



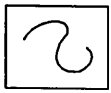
PICK identifies the object a task will be performed on. A hand cursor appears when Pick is operational.



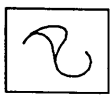
SCALE AND MOVE moves objects from one part of the screen to another or proportionally changes the size of objects.



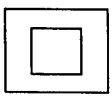
SCULPT allows you to change the shape of an object in much the same way a potter shapes clay, by molding and smoothing portions of its shape.



SKETCH draws objects consisting of unsegmented or "smooth" lines.



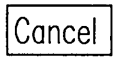
SKETCH REPLACE changes the shape of an object by replacing a part of an object with a newly drawn sketched line.



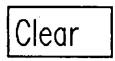
SQUARE draws squares and rectangles.

UNPICK removes the pick from an object. When you are through working on a picked object, you unpick it.

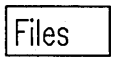
Functions



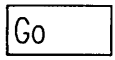
CANCEL interrupts an operation in progress.



CLEAR removes all drawings and text from the active work area.

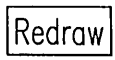


Selecting FILES displays a menu that allows you to select the Save Chart Format, View Files, Get Picture, Save Picture or Set Default Directory functions.



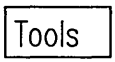
Select GO to enter text and execute functions.

Select PRINT when you want to print a drawing or chart to an output device.

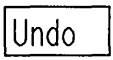


REDRAW "cleans" holes and gaps left when you have moved objects on the screen. It also reflects the correct order in which objects are overlaid.

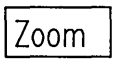
The SET UP function allows you to customize the Mouse and Grid.



The TOOLS function displays a menu that gives you access to the Chart, Drawings, and Text Tools menus.



UNDO restores the last deleted object to the screen.



ZOOM zooms in on the portion of the work area you choose.

ART DESIGNER: CHARTS AND DRAWINGS

Specifications Subject to Change.

First Edition (July 1986) 09-01134-01

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OVERVIEW

The Art Designer is a powerful software package that turns your workstation into an artist's tool. Using the Art Designer, you can

- create charts and graphs from Extended Multiplan worksheets
- draw original illustrations on your workstation screen
- customize your chart or drawing by adding colors, fill patterns, and different line types
- add different styles and sizes of text
- copy, stretch, move, enlarge, and reshape charts and drawings
- save what you create on a disk for future use
- print out charts and drawings on a plotter, laser printer, or dot matrix printer

The Art Designer has two major capabilities: it allows you to create and modify drawings and graphs. That portion of the Art Designer that enables you to create and modify graphs can be purchased as a separate program called the Chart Designer.

Figure 1-1 shows how the Art Designer and Chart Designer features combine to create a powerful and flexible software tool.

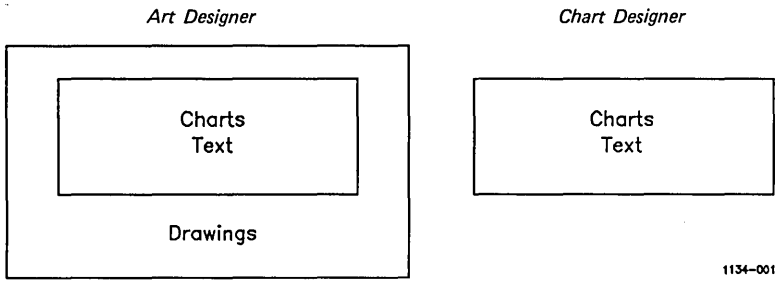


Figure 1-1. Art Designer and Chart Designer

You can create original drawings on your workstation screen using the Art Designer. The Chart Designer is part of the Art Designer; it works with Extended Multiplan to create line, bar, and pie charts.

Both programs, when packaged together, are simply called the Art Designer. Remember that the Chart Designer features are wholly combined within the Art Designer.

The Chart Designer is sold separately from the Art Designer. You may only have the Chart Designer. If this is the case, or if you are not sure if you have both programs, see the note to Chart Designer users below.

WHAT YOU NEED

To create charts with the Chart Designer, you must use data from an Extended Multiplan worksheet. Therefore, you need to have Extended Multiplan installed on your workstation. However, you do not need Extended Multiplan to create drawings with the Art Designer.

If you have the Document Designer installed on your workstation, you can integrate charts and drawings with documents. See Getting Started: Integrating Objects in the Document Designer for more information.

If your workstation has not already been set up so that the Art Designer interfaces with Extended Multiplan or Document Designer, consult your system administrator or see Chapter 10 of this manual.

BEFORE USING THIS MANUAL

This manual is designed to be used with the Getting Started with Charts and Getting Started with Drawings booklets. They provide a step-by-step introduction to many of the Art Designer's features.

If you have not worked through these booklets, do so now. They prepare you for the information presented in this manual.

To find information quickly, use the Reference section. To refine your technique, study the Concepts section.

HOW TO USE THIS MANUAL

You do not need to read through this entire manual before you can start using the Art Designer. In fact, if you have gone through the Getting Started booklets, you already have some basic knowledge.

To get started with the Art Designer:

1. Work through the Getting Started booklets.

2. Read Chapters 2 and 3 of this manual. These chapters explain important concepts you need to know to use the Art Designer effectively.

3. Use the Art Designer and look up anything you don't understand in the Reference section. Most basic questions are answered in the Reference section.

4. Use the other chapters as you need them. Each chapter describes how to perform a specific task with the Art Designer. For example, to print out your drawing, see Chapter 8. If you want to add text to a chart, see Chapter 5.

HOW THIS MANUAL IS ORGANIZED

This chapter, "Overview," provides a general description of the Art Designer and its features, and explains how to use this manual.

Chapter 2, "Starting Out," describes the fundamental components of the Art Designer software.

Chapter 3, "Basic Techniques," describes how to use the different features of the Art Designer, including how to save, store, and retrieve the drawings you create.

Chapter 4, "Working with Charts," explains how graph data is created in Extended Multiplan, and is transferred to the Chart Designer. It also describes how to use the Chart Tools menu to modify and create bar, line, and pie graphs.

Chapter 5, "Working with Text," describes how to enter and edit text in a drawing or chart.

Chapter 6, "Working with Drawings," describes the drawing tools and how to use them to create drawings. It also discusses how to plan your drawing and what to consider before you print.

Chapter 7, "Advanced Features," explains how to use advanced features, including Grid and Zoom.

Chapter 8, "Printing," describes printing techniques for printing a chart or drawing on a plotter, laser printer, or dot matrix printer.

Chapter 9, "The Unexpected," provides some solutions to typical problems you may encounter when you use the Art Designer, including error codes, the cause of the error, and appropriate resolutions.

Chapter 10, "System Administration," provides technical information for the system administrator.

Chapter 11, "Reference," presents, in alphabetical order, descriptions of each feature in the Art Designer.

Appendix A, "The Picture Library," is a collection of pictures that is included with the Art Designer.

A quick reference card is also provided with this manual.

FOR CHART DESIGNER USERS

This manual describes both the Art and the Chart Designer. If you have the Chart Designer only, simply skip over the information that does not pertain to you.

Many of the features are the same in both programs. Parts of Chapter 3 and all of Chapter 6 discusses features not applicable to the Chart Designer. The other chapters discuss features common to both programs.

If you are not certain if you have both Art and Chart Designer, check with your system administrator. Or, see "Using Menus" in Chapter 2 for an easy method of identifying whether or not you have both programs.

CONVENTIONS

Throughout this manual, the following conventions are used:

When an important concept or useful technique is introduced, a "Key Idea" or "Hint" box like this appears:

HINT

Complete the Getting Started booklets before beginning the next chapter.

The names of Art Designer tools and commands are capitalized.

Example:

Use the Connected Line tool to draw a straight line.

The names of keyboard keys and words that appear on the workstation screen appear in **boldface** type.

Example:

Select **Save Chart Format** on the screen, type in the file name, and press **Go.**

Important terms introduced for the first time are underlined and defined in the Glossary.

Example:

You select icons to use tools.

RELATED DOCUMENTATION

The documents described below provide additional information related to the contents of this manual.

For a complete list of Convergent Technologies publications, see the "Guide to Technical Documentation" in the Executive Manual or similar command-line interpreter manual for your operating system.

Introductory

Context Manager Manual
Executive Manual
Status Code Manual

Operating Systems

CTOS Operating System Manual

Office Automation

Document Designer Reference Manual
Extended Multiplan User's Guide
Extended Multiplan Reference Manual
Getting Started
Mouse Services Manual

Communications

Asynchronous Terminal Emulator Manual

The Context Manager Manual describes and teaches the use of the Context Manager, which allows the user to run applications concurrently and interchange them on the screen almost instantly.

The Executive Manual describes the command interpreter, the program that first interacts with the user when the system is turned on. It describes available commands and discusses command execution, file management, program invocation, and system management. It also addresses status inquiry, volume management, and execution of batch jobs.

The Status Codes Manual contains complete listings of all status codes, bootstrap ROM error codes, and CTOS initialization codes. The codes are listed in numerical order along with any message and an explanation.

The CTOS Operating System Manual describes the CTOS operating system. It specifies services for managing processes, messages, memory, exchanges, tasks, video, disks, keyboard, printer, timer, communications, and files. In particular, it specifies the standard file access methods: SAM, the sequential access method; RSAM, the record sequential access method; and DAM, the direct access method.

The Document Designer Reference Manual is a reference tool for users of the Document Designer. The manual discusses the capabilities of the Document Designer and describes in detail each of its commands. Information is included on integrating application systems with the Document Designer, generating automatic tables of contents, including voice annotations in documents, list processing, text manipulation, and system configuration.

The Extended Multiplan User's Guide introduces the new user to the spreadsheet program.

The Extended Multiplan Reference Manual is a reference tool for users already familiar with Extended Multiplan. It describes the Multiplan keyboard and screen, both basic and advanced operations, and printer configuration. Complete directories of all commands and functions are included.

The Getting Started booklets that accompany this manual provide a simple way to start using Art Designer and Chart Designer quickly.

The Mouse Services Manual describes the Mouse Server. It is directed toward programmers, but also contains some information for the end user.

The Asynchronous Terminal Emulator Manual describes the asynchronous terminal emulator.

2 STARTING OUT

Before you can become an expert with the Art Designer, you must learn the fundamentals. This chapter introduces the fundamental components and concepts of the Art Designer program.

When you finish this chapter, you will know how to

- invoke the Art Designer program
- use the keyboard and the Mouse
- select tools from a Tools menu
- use the Function menu
- work in the work area
- change work areas

SIGNING ON TO THE SYSTEM

To sign on to your workstation, you must complete the SignOn form. Your system administrator can help you if you do not know your user name or password. The SignOn form is explained in detail in the Executive Manual.

STARTING THE ART DESIGNER

You can invoke the Art Designer program in two ways:

- through the Context Manager
- through the Executive

THROUGH THE CONTEXT MANAGER

If you have the Context Manager on your workstation, display the Context Manager screen by pressing the **Action** key and the **Go** key simultaneously, as shown in Figure 2-1.

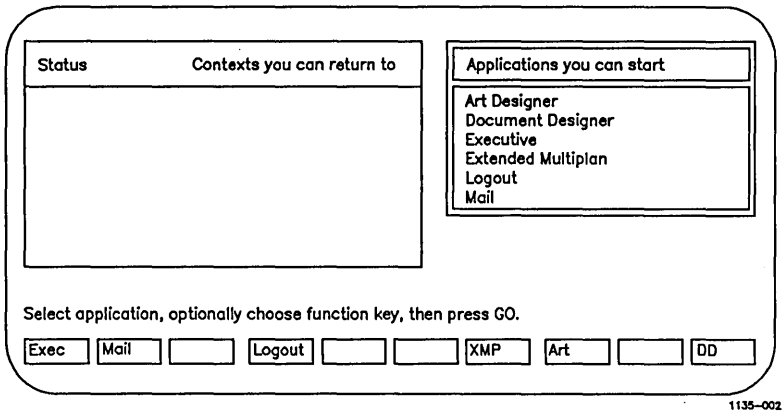


Figure 2-1. The Context Manager Screen

The Context Manager screen may not appear exactly like the one shown in Figure 2-1. It should, however, have the words **Art Designer** or **Chart Designer** displayed in the selection menu. (If it doesn't, see your system administrator.)

To invoke the Art Designer:

1. Use the **Arrow** keys to move the highlight cursor to the words **Art Designer.**

2. Press **Go.**

THROUGH THE EXECUTIVE

To enter the Art Designer through the Executive:

1. Type **Art Designer** in the command line.

2. Press **Go.** (See Figure 2-2.)

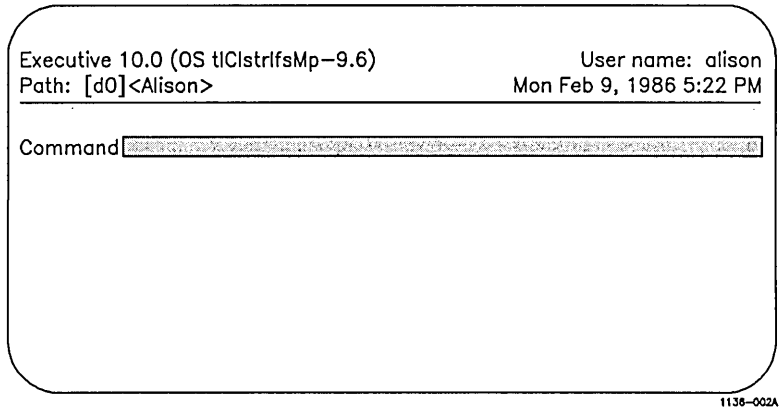


Figure 2-2. The Executive Command Line

An arrow appears briefly on the screen while the Art Designer is loading; then the Art Designer screen is displayed, as shown in Figure 2-3. To use the Art Designer screen, you need to know how to work with the keyboard and the Mouse.

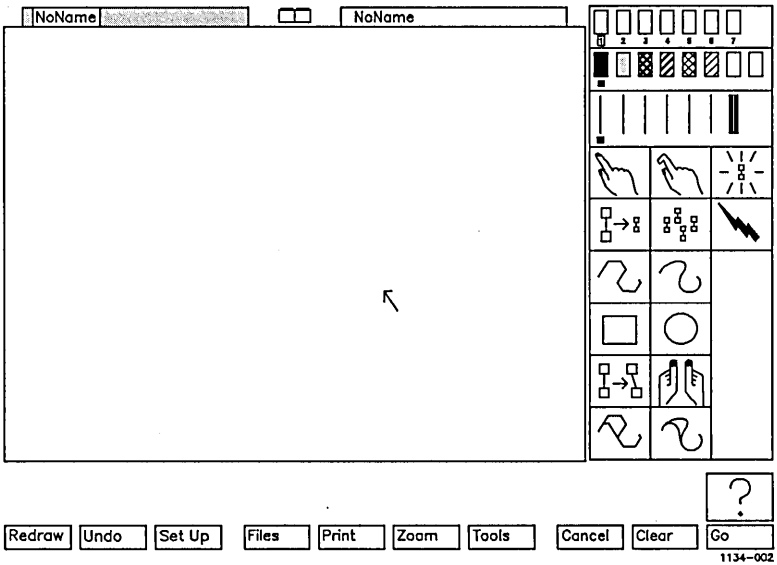


Figure 2-3. The Art Designer Screen

THE KEYBOARD

The keyboard on your workstation is similar to a typewriter keyboard. It has letter and number (alphanumeric) keys that you use to enter text. (See Figure 2-4.)

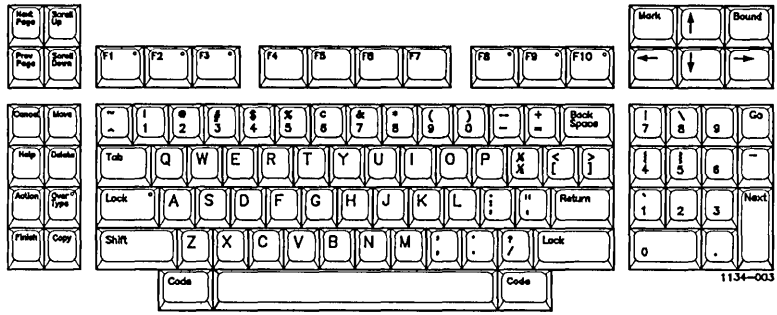


Figure 2-4. The Keyboard

The keyboard also has a top row of ten function keys, labeled **F1** through **F10.** You will use these keys to execute certain Art Designer commands. (See the discussion about the Function menu below for more details.)

The **Finish** key, in the lower-left corner of the keyboard, is used to exit the Art Designer. When you want to end a session, press **Finish.**

The **Go** key is used to complete certain tasks.

The **Arrow** keys, in the upper-right corner of the keyboard, can be used to move the cursor around the screen.

To practice using the **Arrow** keys:

1. Hold down the **Shift** key.

2. Press the appropriate **Arrow** key to move the cursor around the screen.

Notice that the arrow cursor displayed on your screen moves around rather slowly. For this reason, it is much easier and more efficient to use a Mouse to move the cursor in the Art Designer.

THE MOUSE

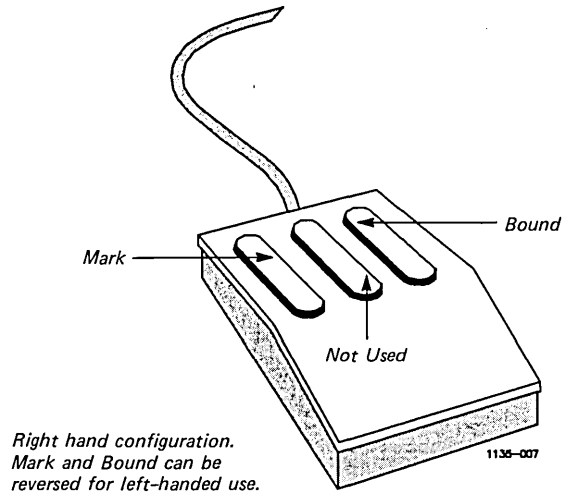
The Art Designer is best used with a small pointing device called a Mouse, as shown in Figure 2-5. By moving the Mouse on your desktop, you move the cursor on the screen.

The Mouse has three buttons, but the Art Designer requires that you use only the first and third buttons (see Figure 2-5).

The first button corresponds to the **Mark** key on your keyboard. The third button corresponds to the **Bound** key. The middle button is not used.

If the Mouse is not already installed, plug it into one of the two ports on the back of your keyboard. (The other port contains the cord that links your keyboard to the video display terminal.) See the Mouse Services Manual for further details on connecting the Mouse to your keyboard.

(The Mouse is set up for right-handed use. If you are left-handed, you can change the Mouse so that you can use it more easily. See "Mouse Hand" in the Reference section for details.)



Right hand configuration. Mark and Bound can be reversed for left-handed use.

Figure 2-5. The Mouse

THE ART DESIGNER SCREEN

The Art Designer screen has two main areas (as shown in Figure 2-6):

- the Work Area
- the Tools menu

You create drawings in the Work Area with tools you select from the Tools Menu.

A tool is a feature you use to perform a task, such as drawing a circle, deleting an object, or copying an object in the work area.

The lower section of the Tools menu is made up of small pictures that represent the Art Designer tools available to you. These pictures are called icons.

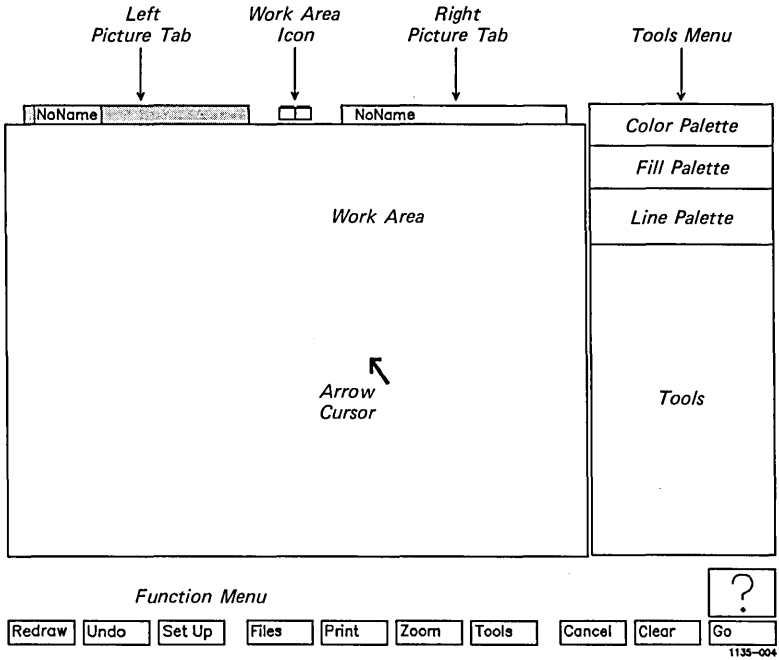


Figure 2-6. The Art Designer Screen

Other parts of the screen include the following:

- The Picture Tabs display the name of the current chart or drawing.
- The Work Area Icon is used to switch between single and dual work areas.
- The Text Entry Line is where text is typed.
- The Function menu items correspond to the function keys (**F1** through **F10**) on your keyboard.

Each part of the Art Designer screen is discussed in detail later in this chapter, except for the text entry line, which is discussed in Chapter 3.

MENUS

A menu in the Art Designer is similar to a menu in a restaurant; it lists the selections available to you.

Two menus are always displayed whenever you are in a work area:

- the Function menu
- the Tools menu

To activate a selection on one of these menus, you must select it.

SELECTING TOOLS AND FUNCTIONS

To select a tool or function:

1. Move the arrow cursor to the icon you want to select.

2. Press, then release, the **Mark** button. (This is called clicking the button.)

   The selected icon is highlighted, which means it displays brighter.

KEY IDEA

To use a tool or function, select it by moving the cursor over the appropriate icon and clicking the **Mark** button on the Mouse.

(If you are not using a Mouse, select a tool or function by pressing the **Mark** button on the keyboard.)

Try selecting an icon on the Tools menu by moving the cursor directly over an icon and clicking the **Mark** button. The icon is then highlighted. Click the **Mark** button again; the highlight disappears.

THE FUNCTION MENU

The Function menu appears along the bottom of the screen and contains ten boxes, called labels, that correspond to the function keys (**F1** through **F10**) on your keyboard. (See Figure 2-7.)

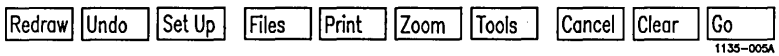


Figure 2-7. The Function Menu

To use a function, select its label on the Function menu; the label has the function name in it. You can also use a function by pressing the corresponding key on the top row of the keyboard.

POP-UP MENUS

Some functions have pop-up menus associated with them. A pop-up menu appears when you select the function label. You then make an appropriate choice from the pop-up menu. For example, to make a choice from the Tools pop-up menu:

1. Select **Tools** on the Function menu by moving the cursor over the Tools label and clicking the **Mark** button.

   The Tools pop-up menu appears, as shown in Figure 2-8.

   (If you have the Chart Designer only, the word **Drawings** does not appear on the Tools pop-up menu.)

2. Select **Cancel** on the Function menu to close the Tools pop-up menu.

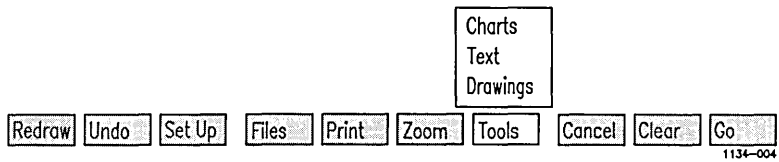


Figure 2-8. The Tools Pop-Up Menu

Selecting the **Cancel** label on the Function menu removes any pop-up menu from the screen.

From the Tools pop-up menu, you can select a Tools menu. Tools menus are discussed below.

Other functions on the Function menu are discussed in Chapter 3. Each function is described in detail in the Reference section.

The Tools Menu

The Tools menu is located on the right side of the Art Designer screen. It contains icons representing the various tools that you can use to create charts and drawings.

A tool is selected from a Tools menu. A function is selected from the Function menu.

Three different Tools menus exist, containing tools for Charts, Text, and Drawings. (See Figure 2-9.)

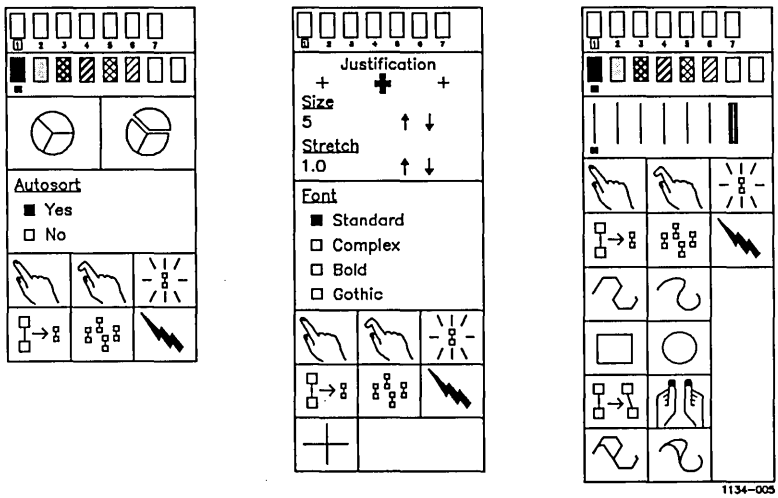


Figure 2-9. The Tools Menus

NOTE

If you have the Chart Designer only, you do not have a Drawings menu.

To choose a particular Tools menu:

1. Select **Tools** on the Function menu.

   A small menu pops up with the names of the Tools menus on it.

2. Move the cursor over the name of the menu you want to display.

3. To select the menu, click the **Mark** button on the Mouse.

   The Tools menu displays on the right side of the screen.

Now display each of the Tools menus available to you. Each tool on each menu is discussed in the following chapters and in the Reference section.

THE WORK AREA

The work area is the "blank canvas" where you create charts and drawings. You cannot draw anything outside of the work area.

If you try to draw a figure that goes beyond the borders or use a tool outside the work area, an error message appears and your action is ignored.

HINT

Think of the work area as being slightly smaller than a standard 8 1/2 by 11 piece of paper. If you create a drawing that fills the entire work area and print it out, it prints on standard paper with approximately one inch margins.

CHANGING WORK AREAS

At the top of the work area are two boxes, called picture tabs, with the names of picture files in them. (At this point, these tabs probably both say **NoName.**) One of the tabs is highlighted, as shown in Figure 2-10.

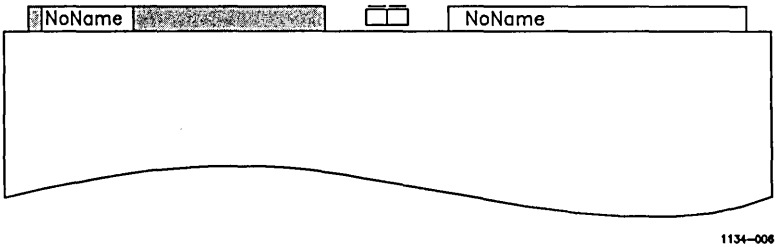


Figure 2-10. The Picture Tabs

These picture tabs are like tabs on a file folder. Just as a file folder has the name of the file on its tab, the name of the picture file appears on the picture tab.

The highlighted picture tab shows the name of the picture currently displayed on the screen. If you select the other picture tab, that tab is highlighted and its picture is displayed.

The work areas and the respective picture tabs are like two stacked file folders. The tab on top covers the one below it.

When you select a picture tab, the picture it "holds" moves "on top," where you can work on it. The picture on top is the active picture and the highlighted picture tab is the active picture tab. (See Figure 2-11.)

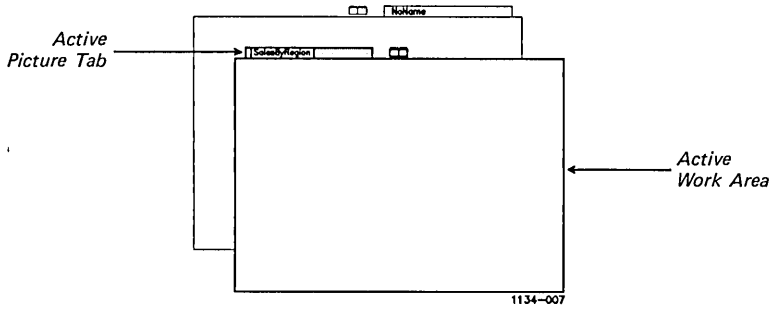


Figure 2-11. Changing Work Areas

The other picture still exists, but it is "covered" by the active picture. By selecting the picture tab, you can switch between the two pictures as often as you like.

THE DUAL WORK AREA

Sometimes you may want to view or work with two pictures at once. You can do this by switching to the dual work area, which displays two drawings side-by-side.

To display the dual work area, select the Work Area icon, which is located between the two picture tabs at the top of the screen. (See Figure 2-10.)

The dual work area is two small screens in the bottom half of the single work area. Each screen has all the features of the single work area, as shown in Figure 2-12.

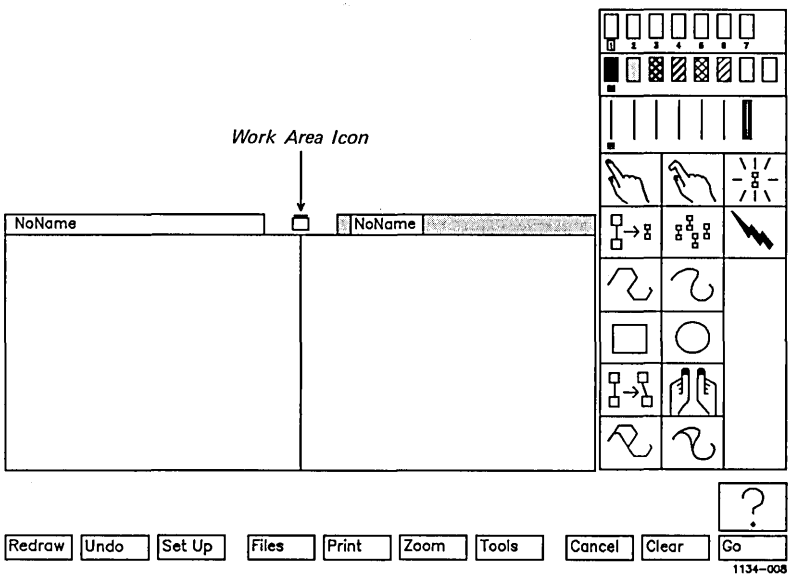


Figure 2-12. The Dual Work Area

When you work in the dual work area, you can combine portions of two pictures by copying from one work area to the other. (See "Copy" in the Reference section for more details.)

To return to the single work area, select the Work Area icon.

SUMMARY

- You create drawings on the Art Designer screen. It has two main sections: the work area and the Tools menu.

- The Mouse is used to move the cursor around the screen. The Mouse can be set up for left-handed use.

- To use a tool or function, select it by placing the cursor over the appropriate icon or label and clicking the **Mark** button on the Mouse.

- The Function menu and a Tools menu are displayed when you are in a work area. There are three Tools menus: Charts, Text, and Drawings.

- A pop-up menu is a box that pops up when certain functions are selected. It has various options you can select. **Cancel** (on the Function menu) dismisses a pop-up menu.

- The Picture Tab shows the name of a picture file. If you select a Picture Tab, that picture displays and becomes active.

- The dual work area displays two pictures side-by-side. Select the Work Area icon to go back and forth between the dual and single work areas.

3 BASIC TECHNIQUES

This chapter explains how to use some of the tools you need to create and modify charts and drawings.

When you finish this chapter, you will know how to

- draw a simple figure
- identify an object
- pick and unpick an object or group of objects
- use each of the Art Designer's basic tools
- save picture files to a disk
- retrieve picture files from a disk
- change from one directory to another

DRAWING A SIMPLE FIGURE

SQUARES AND CIRCLES

For now, you will learn how to use the most basic drawing tools: the Square and the Circle.

As you read through the explanations in this chapter, it will be useful to have a simple figure in your work area, so you can actually perform what you are reading about.

Chart Designer Users

The Chart Designer program does not have any drawing tools, so you won't be able to use the squares and circles in this chapter. Instead, use a letter or group of letters so you can practice what you read. See Chapter 5 to learn how to create text.

To draw a square or rectangle:

1. Select the Square icon on the Drawing Tools menu by moving the cursor over the icon and clicking the **Mark** button. (See Figure 3-1.)

2. Move the cursor into the work area.

3. Press and hold the **Mark** button.

4. Drag the cursor diagonally, toward any corner of the screen.

   As you drag the cursor, a box "grows" on the screen, as shown in Figure 3-2.

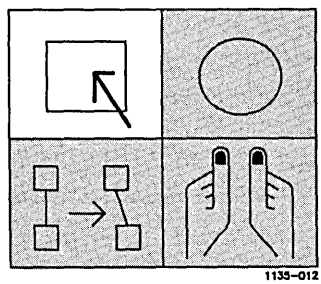


Figure 3-1. The Square Icon

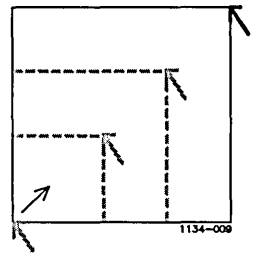


Figure 3-2. Moving the Cursor Diagonally

5. Release the **Mark** button.

   A square appears on the screen.

You use the same technique to draw circles or ovals with the Circle tool:

1. Select the Circle icon and drag the cursor diagonally, toward any corner of the screen.

   As you drag the cursor, a box "grows" on the screen.

2. Release the **Mark** button.

   A circle is drawn.

Draw several squares and circles. Then proceed with the rest of this chapter.

CLEARING THE WORK AREA

After you have drawn several circles and squares, you can clear the work area by selecting **Clear** on the Function menu. When you do, everything drawn in the work area disappears.

To clear the screen:

1. Select **Clear** on the Function menu.

   A small pop-up menu appears, as shown in Figure 3-3.

2. To clear the work area, select **Yes** on the Confirmation menu.

   If you don't want to clear the work area, select **No.**

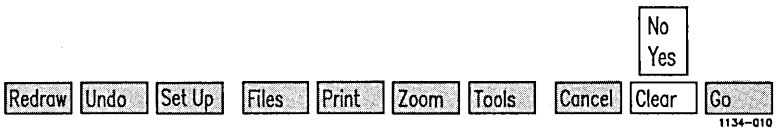


Figure 3-3. A Confirmation Menu

WORKING WITH OBJECTS

When you draw circles and squares in the work area, you create objects. An object is an individual element of a drawing.

The Art Designer is an object-based system. When you perform a task, you work with the entire object, not just a part of it. (The technical name for this type of system is a vector system.)

When you create a drawing with the Art Designer, you assemble it out of individual objects. You can draw a simple picture of a building, for example, using a large rectangle as a facade and small rectangles as doors and windows. (See Figure 3-4.)

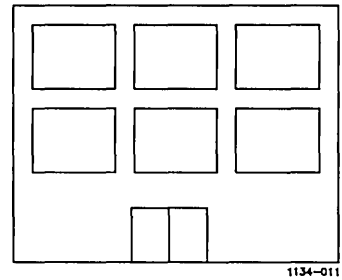


Figure 3-4. A Building Made of Squares

Now use the Square tool to draw a building similar to the one in Figure 3-4. Don't be concerned if it doesn't look exactly like the building shown in the illustration.

Although the building appears to be a unit, it is actually made up of several separate objects. You can delete or modify parts of a drawing without affecting the rest of the drawing.

For example, if you delete one of the windows on the building, no other part of the building is affected; only the window is deleted.

To delete a window in the building (or delete any other object):

1. Select the Delete icon on the Tools menu.

   A Lightning Bolt cursor appears.

2. Move the Lightning Bolt cursor over the window you want to delete.

3. Hold down the **Mark** button and move the Mouse in any direction.

   A box-shaped cursor appears.

4. Move the Mouse to one side and slightly upward so that the box-shaped cursor drags across an edge of the window.

5. Release the **Mark** button.

   The window is deleted. Everything else is left intact.

KEY IDEA

Figures are made up of individual objects. Each object can be worked on separately.

PICKING OBJECTS

To work with an object, you must pick it. Picking an object identifies it as the one you want to work with. To use some of the tools discussed in this and subsequent chapters, you need to know how to pick objects.

Picking an object is easy to do. Follow these steps:

1. Select the Pick icon (the one with the extended index finger) on the Tools menu.

   The Hand cursor appears, as shown in Figure 3-5.

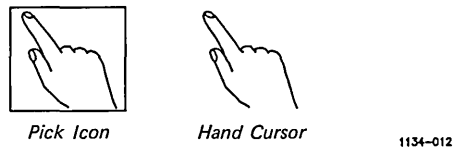


Figure 3-5. The Pick Icon and the Hand Cursor

2. Move the hand cursor over the object you want to work with.

3. Hold down the **Mark** button.

4. While holding down the **Mark** button, move the Mouse to one side and slightly upward.

   A box-shaped cursor appears.

5. Drag the cursor over any edge of the object, as shown in Figure 3-6.

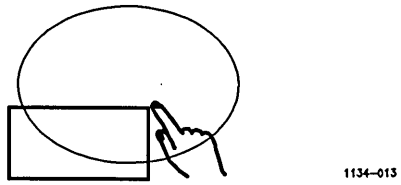


Figure 3-6. Picking an Object

6. Release the **Mark** button.

   The object is now picked.

   If you have not caught the edge of the object with the box cursor, an error message appears and the object is not picked. Repeat the steps above.

When an object is picked, a broken-line box surrounds it, as shown in Figure 3-7.

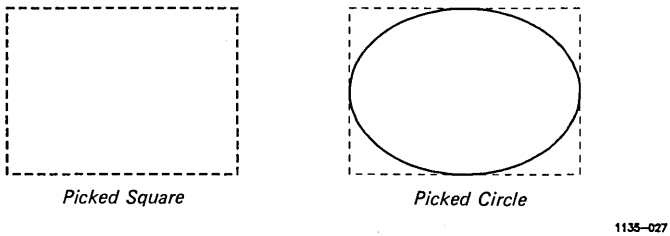


Figure 3-7. A Picked Square and a Picked Circle

HINT

You pick an object by surrounding it with the box cursor or by dragging the box cursor across an edge of the object.

An object remains picked for as long as you choose. This means that you can perform more than one task on a picked object. For example, you can pick an object, change its color, shrink it, and copy it without having to pick the object each time you change tasks.

PICKING MORE THAN ONE OBJECT

You can pick more than one object simultaneously. To work on several objects at once, drag the box cursor across an edge of each object. (It does not matter which edge you choose.) See Figure 3-8.

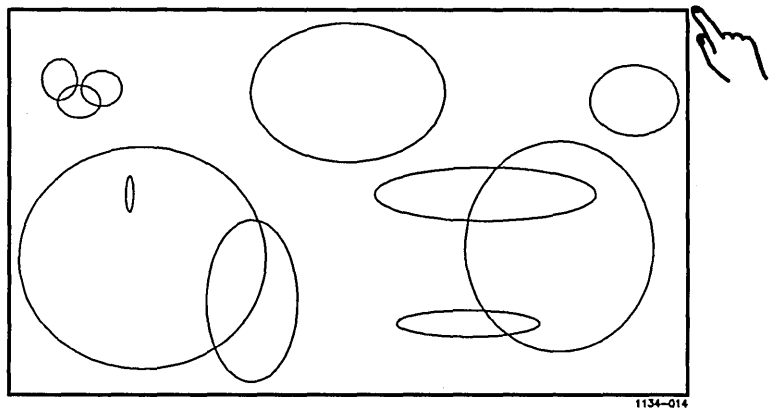


Figure 3-8. Picking Several Objects at Once

For example:

1. Use the Circle and Square tools to draw several objects on the screen.

2. Select the Pick icon.

   The Hand cursor appears.

3. Hold down the **Mark** button and drag the box-shaped cursor across an edge of each object. Or surround the objects with the box-shaped cursor. (See Figure 3-8.)

4. Release the **Mark** button.

   The group of objects is picked.

The Art Designer regards a picked group of objects as a single object. You can copy, move, change colors, or perform any other task and the entire group of objects is affected.

PICKING AN OBJECT WITHOUT SELECTING THE PICK ICON

Some of the Art Designer's tools require that you pick an object before you can use the tools. If a tool requires that you pick an object, the Hand cursor appears when you select the icon for that tool. Simply pick the object you want to work with; then continue with your task.

This method of picking will become clearer as you become more familiar with the basic tools introduced later in this chapter. For now, simply remember that selecting the Pick icon is just one way of making the Hand cursor appear.

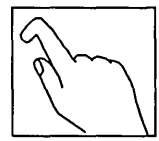
UNPICKING OBJECTS

When you are finished working with an object, you unpick it. There are three ways to unpick objects:

- Select the Unpick icon.
- Pick another object.
- Use the **Bound** button.

When you unpick an object, the box that surrounds it disappears.

If you have selected the Unpick icon to unpick an object, the Hand cursor remains ready to pick another object. (See Figure 3-9.) If you do not want to pick another object, select another tool after you have unpicked the object.



1134-016

Figure 3-9. The Unpick Icon

Selecting the Unpick icon is similar to using a switch on a lamp. When you unpick an object this way you turn Pick off, but you are immediately able to turn it on again by picking a new object.

Another way to unpick the object you are currently using is to pick another object.

When the Pick icon is highlighted, you can also unpick an object using the **Bound** button. Hold down the button, drag the box cursor across the edge of an object, then release the **Bound** button.

You can also pick a group of objects and then unpick individual objects within the group. For example, if you want to change the color of a group of objects and copy all but one of them, you would follow these steps:

1. Pick the group.

2. Change the color on the Color Palette.

3. To unpick the object you do not want to copy, use the **Bound** button and drag the box-shaped cursor across the edge of the object you want to unpick.

   You can unpick with the **Bound** button only if the Pick icon is active.

4. Copy the other objects, which remain picked.

BASIC TOOLS

Now that you know how to pick and unpick an object, you are ready to try some of the Art Designer's tools. Six basic tools appear on each Tools menu. They are shown and described briefly in Table 3-1 below. Each of these tools is discussed in detail in Chapter 11, "Reference."

Table 3-1

ART DESIGNER TOOLS

Tool	Icon	Description
Pick		Identifies the object a task will be performed on. A hand cursor appears when Pick is operational.
Unpick		Removes the pick from an object. When you are through working on a picked object, you unpick it.
Highlight		Shows what object is currently picked. Highlight displays a picked object simply as an outlined figure, without any fill or color.
Scale and Move		Moves objects from one part of the screen to another or proportionally changes the size of objects.
Copy		Duplicates an object.
Delete		Eliminates an object from the work area.
Connected Line		Draws objects composed of line segments.
Sketch		Draws objects consisting of unsegmented or "smooth" lines.
Square		Draws squares and rectangles.
Circle		Draws circles and ovals.
Connected Move		Pulls and twists an object without separating the original points.
Sculpt		Changes the shape of an object in much the same way a potter shapes clay, by molding and smoothing portions of its shape.
Sketch Replace		Changes the shape of an object by replacing a part of the object with a newly drawn sketched line.
Connected Line Replace		Changes the shape of an object by replacing a part of the object with a newly drawn connected line.

FILES

Once you create drawings, you will probably want to save them for future use. The Art Designer charts and drawings are saved in picture files on a disk. A picture file is any picture that you give a name and save on a disk.

The Files function manages your picture files. Using the Files function, you can

- save pictures to a disk
- load pictures from the disk into the work area
- list the names of the picture files in your current directory
- display pictures quickly so you can browse through the files on a disk
- change your working directory

When you select the Files icon, a pop-up menu appears, as shown in Figure 3-10.

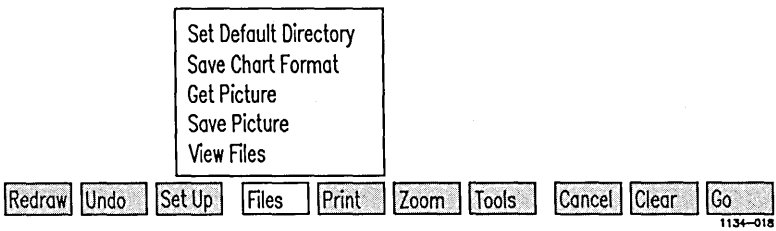


Figure 3-10. The Files Pop-Up Menu

From the Files pop-up menu, select the Files function you want to perform.

SAVING PICTURES

To save a picture to a disk:

1. Select **Files** on the Function menu.

2. Select **Save Picture** on the Files pop-up menu.

3. Delete any name that may already be in the text entry line.

4. Type the name of the file you want to save into the text entry line. (See Figure 3-11.)

   You may use any combination of up to 32 letters and numbers in a file name.

5. To save the picture to disk, select the Go icon.

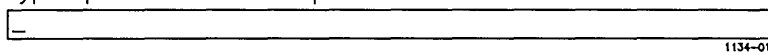


Figure 3-11. The Text Entry Line

HINT

The file name from the active picture tab is automatically entered into the text entry line. If you do not want to work on that file, delete the name and type in the name of the file you want to use.

Now, following the above procedure, save a picture you have created. (If you don't have a picture in the work area, create one now.) Name the picture "Picture1" or another name you can remember easily.

It is a good idea to save frequently. Any drawing or chart you create becomes a permanent part of the picture file on a disk only when you save it.

If you make changes to a picture you have retrieved from a disk, the old file on the disk is overwritten with the updated version when you save the picture. If you want to keep the original picture, save the edited version under a different name. In this way, both versions are saved on the disk.

By saving frequently during a work session, you will avoid losing all your work if, for any reason, the computer's power goes off. If the unexpected occurs, and the power does go off, you lose only the work you have completed since the last time you saved.

How often should you save? It depends on how much work you are willing to lose. It is probably wise to save every fifteen minutes or so. This way, you never lose more than a few minutes worth of work.

If you end your work session without saving, all your work since the last save will be lost.

RETRIEVING PICTURES

To work on a picture you have previously saved, use the Get Picture function. The picture you get from the disk is displayed in the active work area. (The active work area is the one with the highlighted picture tab.)

To get a picture from the disk:

1. Select **Files** on the Function menu.
2. Select **Get Picture** on the Files pop-up menu.
3. Type the name of the file you want to get into the text entry line.
4. To load that picture into the active work area, select the Go icon.

Now, use the above procedure to retrieve the picture file you created when you learned how to save files to the disk.

Getting a new picture clears the work area of any picture that is displayed. Save any picture you want to keep before you load in a new picture.

VIEWING FILES

To see the picture files in your directory, use the View Files function. When you select View Files, an alphabetical list of the picture files in your directory is displayed above the temporary viewing area. (See Figure 3-12.)

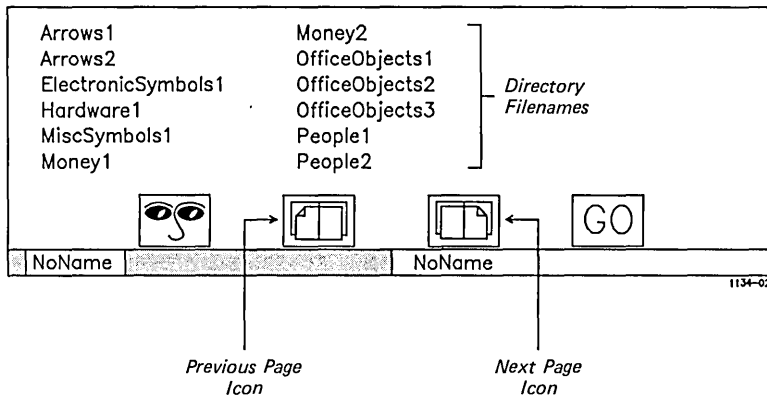


Figure 3-12. Viewing Files

If the picture file names cannot be contained on one page, use the Next Page and Previous Page icons to move from page to page.

When you move the arrow cursor over a particular file name and select it, that name is entered into the active picture tab and the text entry line.

This is the best way to get pictures from the disk because you do not need to type the file name when you select it from the directory listing.

To view the contents of a file, select the Preview icon before you select the picture name. The picture appears in the active screen of the temporary viewing area. (See Figure 3-13.)

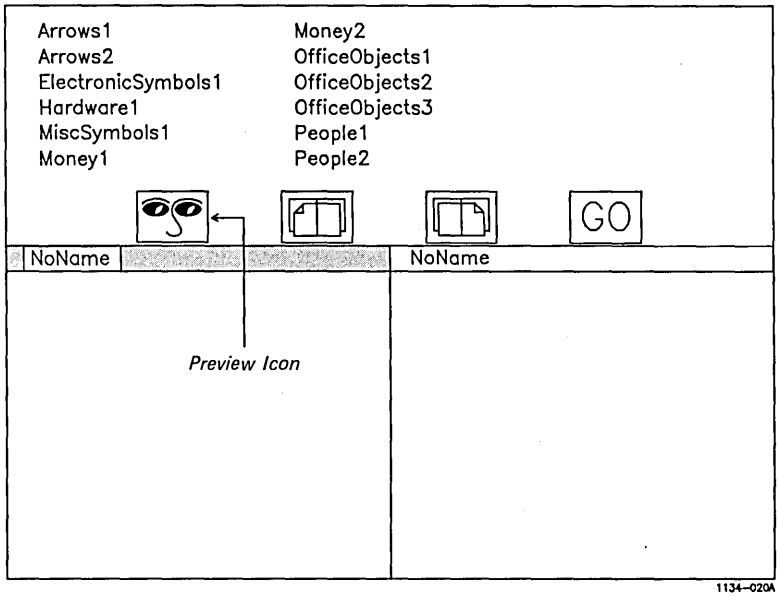


Figure 3-13. The Temporary Viewing Area

The temporary viewing area looks like the dual work area with its side-by-side screen. Note that you cannot work on the pictures displayed in the temporary viewing area.

To display two pictures side-by-side in the temporary viewing area, select the other picture tab and select the file name from the directory listing.

When you want to work on a picture (or pictures) displayed in the temporary viewing area, select the Go icon. The picture is then loaded into the active work area.

If you decide not to work with the files you have previewed, select **Cancel** on the Function menu (or press **F8**). The picture that was active before you previewed other files is displayed in the active work area.

Here's an example of how you might use the View Files function:

1. To go into the dual work area, select the work area icon (located between the picture tabs at the top of the work area).

2. Select **Tools** on the Function menu.

3. Select **View Files** from the pop-up menu that appears. The list of file names appears.

4. Use the Next Page and Previous Page icons (located below the file names) to page through the directory.

5. To view the files in your directory, select the preview icon.

6. Select the picture tab of the work area in which you want your picture to display.

7. Select the name of the file you want to preview.

   The file appears in the new active work area.

8. To preview a file in the other work area, select the other picture tab.

9. Select the name of the file you want to preview.

   The file appears in the new active work area.

10. When the files being previewed are the ones you want to work with, select the Go icon.

11. The files are loaded; you are in the dual work area once again.

    When you wish to work with one of the pictures in the single work area:

12. Select the picture tab of the picture you want to work with.

13. Select the work area icon between the picture tabs.

    Your picture appears in the single work area.

Going into the dual work area before viewing and selecting files allows you to immediately work with both pictures visible as soon as you select **Go.** However, it is not necessary. You can view and select files from the single work area by following steps 2 through 10, which may be more efficient if you're working with only one picture.

The View Files function provides a simple way to preview and load a picture you want to work with. Practice working with these functions until you feel comfortable.

CHANGING THE DEFAULT DIRECTORY

You can view or work with files from another directory by using the Set Default Directory function.

A directory is like a file cabinet for your picture files. Changing directories gives you access to the files in a different "file cabinet."

To change directories, follow these steps:

1. Select **Set Default Directory** on the Files pop-up menu.

   The name of the current volume and directory appears in the text entry line.

2. Delete the old volume and/or directory name and type in the name of the new volume and/or directory.

3. Press **Go.**

After you have changed directories, use View Files to display the list of files available to you.

SUMMARY

- When you want to work on an object in your work area, you must first pick it.
- Six tools appear on every Tools menu: Pick, Unpick, Highlight, Scale and Move, Copy, and Delete.
- Use functions by selecting a label on the Function menu and then selecting from the displayed pop-up menu.
- Save picture files frequently to avoid losing the work you have completed.
- The View Files function displays a list of the picture files in your directory.
- Quickly preview your picture files by displaying them in the temporary viewing area.
- To work in a different directory, use the Set Default Directory function.

The Chart Designer uses data from an Extended Multiplan worksheet and translates it into a pie, bar, or line graph. To create a new chart with the Chart Designer, you must have Extended Multiplan installed on your workstation.

This chapter describes the types of charts and graphs available to you and explains how to work with them using the Chart Designer.

CREATING A GRAPH FROM A MULTIPLAN WORKSHEET

A graph can be created only from the data in an Extended Multiplan worksheet. Thus, you must first go into Extended Multiplan to create new graphs. Once you create or load a worksheet, you can go directly from Extended Multiplan to the Art Designer. When you save a graph in Art Designer, you can work with it as you would any other art file.

A sample worksheet called "SalesByRegion" is provided on the Art Designer release diskette (and should be on your computer system currently).

You are now going to create a graph from data in the SalesByRegion worksheet. Before you begin, you should be in the Context Manager.

1. Use the **Arrow** keys to move the highlight cursor to "Extended Multiplan" and press **Go.**

   A blank worksheet appears.

   To load SalesByRegion into Extended Multiplan, invoke the **Transfer Load** command:

2. Press **T,** then press **L**

   A command line appears at the bottom of the screen.

3. Type **[sys]<sys>SalesByRegion**

   If you make a mistake, press **Backspace** to erase the error; then retype.

4. Press **Return.**

   The SalesbyRegion worksheet appears on the screen, as shown in Figure 4-1.

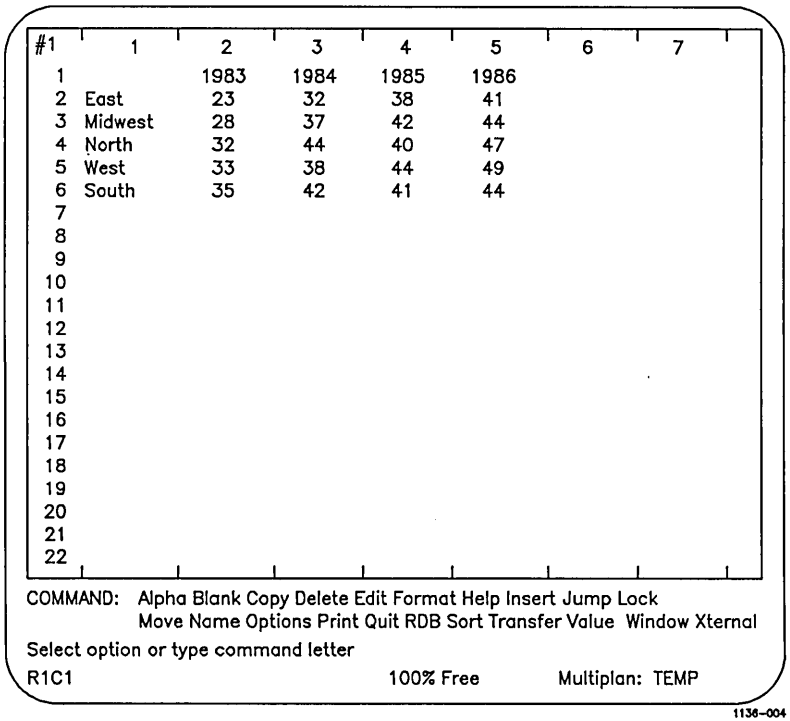


Figure 4-1. The SalesByRegion Worksheet

NOTE

If the SalesByRegion worksheet is not on your disk, the workstation beeps and displays this message:

Cannot read file.

To remove the message, press **Cancel.**

You need to create the worksheet; turn to Appendix A in Getting Started: Integrating Objects in the Document Designer for instructions on how to do so. The data in the worksheet shown in Figure 4-1 produces SalesByRegion.

Observe the **Graph** command on the command menu at the bottom of the screen. When you invoke this command, you are telling Extended Multiplan that you want to send the data you select to Art Designer. When Art Designer receives the data that you select, it transforms the numbers into a graph or chart.

5. To invoke the **Graph** command, press **G**

   The Graph menu appears.

6. To select "pie" on the Graph menu, press **P**

   The Graph Pie menu appears. Extended Multiplan chooses pie commands for each of the pie command fields; in this case, column 1 for the segment labels and column 2 for the values (1983 sales figures).

   Column 1 is the correct choice for the segment labels, but you want a pie chart based on the 1986 sales figures.

7. Press **Tab.**

8. Type **c5**

9. Press **Go.**

The Art Designer screen appears; after a few moments, the SalesByRegion pie chart is displayed. (See Figure 4-2.)

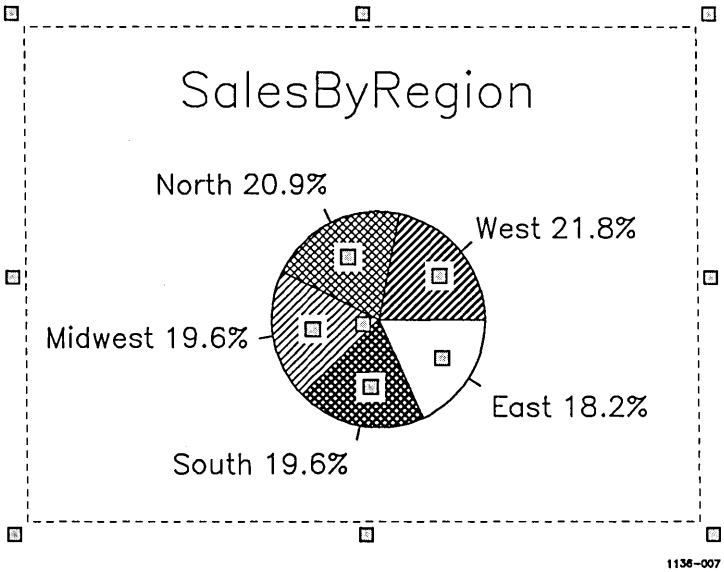


Figure 4-2. The SalesByRegion Pie Chart

For more details on using Extended Multiplan to create graphs, see the Extended Multiplan Reference Manual.

HINT

To change the appearance of a graph in the Chart Designer, you have to change the numerical data in the graph. To do so, return to Extended Multiplan and either modify the worksheet or change the "values" field in the graph menu.

SAVING A GRAPH TO DISK

To save the file you have just created:

1. Select **Files** on the Function menu.

   The Files menu displays.

2. Select **Save Picture.**

   Your graph displays in a temporary viewing area, along with an entry line, located just above the Function menu.

   Make sure that the correct file name is displayed in the entry line. If it is not, use the **Backspace** key (or **Code-Delete**) to remove the name. Then enter the correct file name.

3. Select (or press) **Go.**

RETRIEVING A GRAPH FROM DISK

Once you save a graph in a file on your system, you can load the graph into the Chart Designer as follows:

1. Select **Files** on the Function menu.

   The Files menu displays.

2. Select **Get Picture** on the Files menu.

3. Type the graph name into the text entry line.

4. Press **Go.**

   The graph is loaded into the Chart Designer work area.

If the Chart Tools menu is not already displayed, select **Charts** from the Tools menu. The menu will then be displayed.

THE CHART TOOLS MENU

When you select **Charts** from the Tools pop-up menu, one of three Chart Tools menus displays, as shown in Figure 4-3.

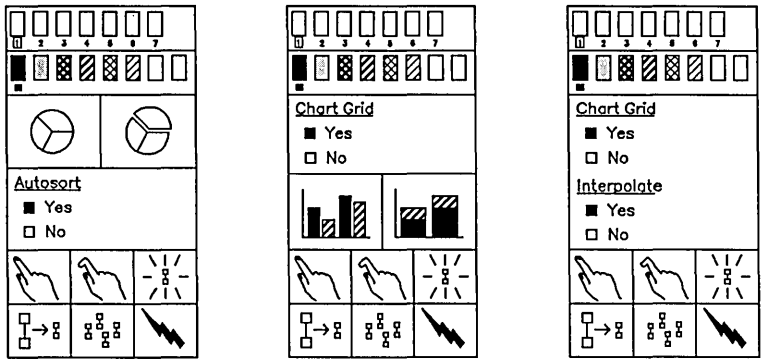


Figure 4-3. The Chart Tools Menus

As you can see, the menus are similar in appearance. However, each type of graph has its own Tools Menu containing the tools that are most useful for that particular type of graph.

When you load in a bar, pie, or line graph from Extended Multiplan, the appropriate menu displays automatically.

MODIFYING GRAPHS

To use the Chart tools, load in the sample graph, "SalesByRegion," (or any other graph you want to work with), by selecting **Get Picture** on the Files pop-up menu. Type in the graph name and press **Go.**

"SalesByRegion" should be in your [Sys]<Sys> directory. If not, it is on the software distribution disk. You can, if you prefer, create your own graph in Extended Multiplan. The data in the sample worksheet in Figure 4-1 produces the "SalesByRegion" graph.

When the graph appears in the work area, notice that certain segments have segment handles on them, as shown above in Figure 4-2.

Although these handles are similar in appearance to the Scale and Move handles (which also appear when the graph is loaded into the work area), they are used differently.

Each segment handle is associated with a segment of the graph. By selecting a handle you can modify the segment associated with it. For example, to change the fill pattern of a pie segment, follow these steps:

1. Select the segment handle on the segment you want to modify.

2. Select a fill icon on the Fill Palette.

The Chart Designer redraws the graph with the new fill pattern in the selected segment.

You can change the color or line type of any chart in the same way by selecting from the Line or Color Palettes.

To deselect a handle, select **Cancel** on the Function menu.

THE GRAPH AS AN OBJECT

As you worked through the above example, you probably wondered why you didn't pick the segment you wanted to change. (If you were changing an object in a drawing, you would pick it.)

The Chart Designer regards the entire graph as one object; the individual pieces are not separate objects. Consequently, you can easily manipulate the graph as a whole. For example, rather than having to pick every element to Scale or Move the graph, you can use the hand cursor to pick any part of it; the entire graph will then be picked.

When you enter the Chart Designer from Extended Multiplan, the graph is automatically picked.

There are two ways to work with individual elements of a graph. You already know how to change the color or fill of individual portions of the graph if that piece has a handle. The second element that can be modified as a separate object is text.

If there is more than one chart in the work area, you must pick one before you can modify any of its attributes.

You can pick any label, title, or legend as a separate object and move, stretch, copy, or delete it. To change text, you need to use the Text Tools menu, discussed in Chapter 5.

WORKING WITH DIFFERENT TYPES OF GRAPHS

The type of graph your data appears in is determined in Extended Multiplan. To create a line or pie graph from data that currently appears as a bar graph, you need to return to the Extended Multiplan menu and use the **Graph** command to change the graph type.

To return to Extended Multiplan from the Chart Designer:

1. Press **Finish.**

   If you have not saved since your last graphics operation, the following message appears:

   Select **GO** to continue and lose modified picture, else Cancel.

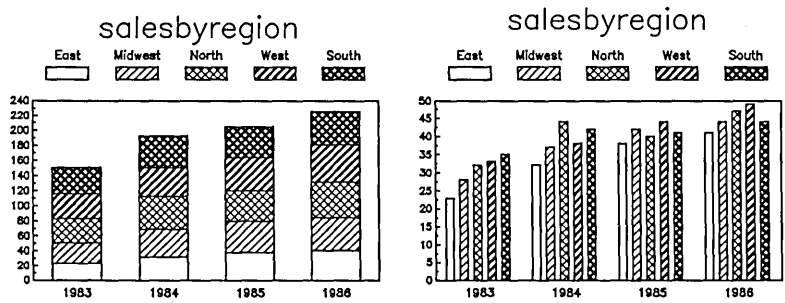
   If you want to save your graph and avoid losing the modifications made since the last save, see "Saving a Graph to Disk" above. After saving, go back to Step 1 and start again.

2. If you do not want to save, select **Go.**

   The Extended Multiplan screen with the current worksheet appears. You can now make the appropriate changes.

BAR/STACKED BAR GRAPH

There are two ways to display bar graph data: as a standard (comparative) bar or as a stacked bar, both shown in Figure 4-4.



Stacked Bar

Standard (Comparative) Bar

Figure 4-4. Comparative and Stacked Bar Graphs 1134-023

To change the graph type, select the appropriate Graph Type icon on the menu.

If you would like a grid of horizontal lines on your bar graph, select **Yes** under the Chart Grid heading on the Chart Tools menu. Thin lines are then drawn to define the vertical (Y-axis) increments. (See Figure 4-5.)

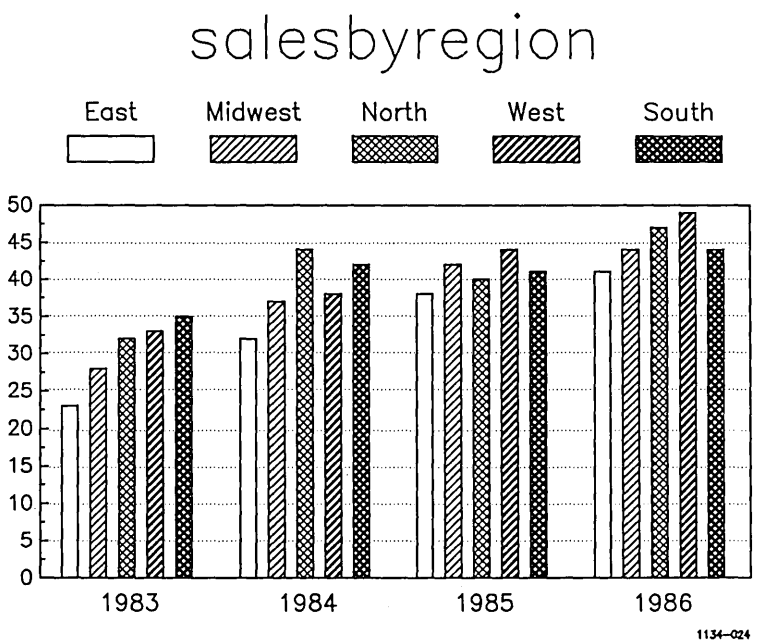


Figure 4-5. The Chart Grid

LINE GRAPHS

Modify line graphs in the same way as you would other graphs. When the Chart Designer encounters a blank cell in an Extended Multiplan worksheet, it inserts a break in the line on the graph. (See Figure 4-6.)

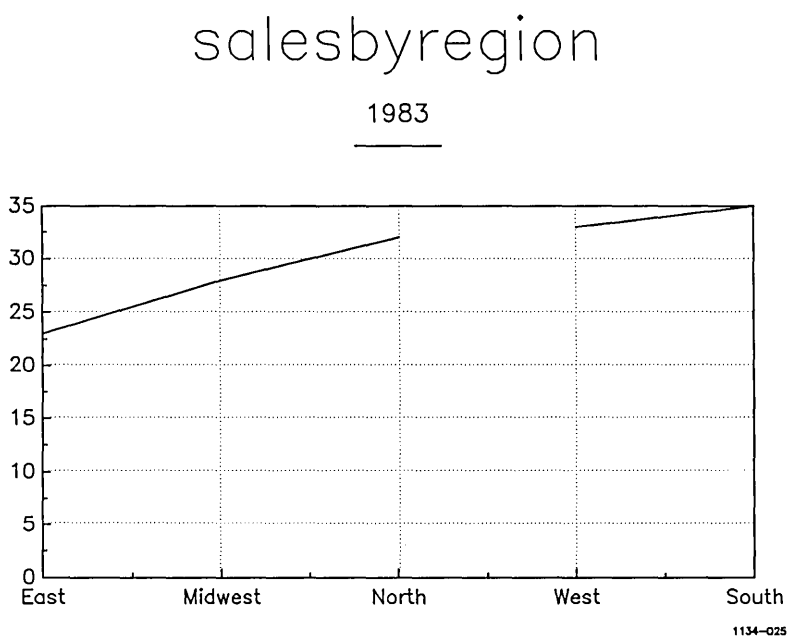


Figure 4-6. Blank Cells and Broken Lines

If you select **Interpolate** on the Tools menu, the break is eliminated. The Chart Designer locates the next cell with a value in it and draws the line from that point. The line is then unbroken.

If you want a grid of horizontal and vertical lines on your line graph, select **Yes** under the Chart Grid heading on the Chart Tools menu. Thin lines are displayed to define the vertical (Y-axis) and horizontal (X-axis) increments.

AXES MENUS

The Chart Designer has two axes menus that enable you to change the attributes of the axes on a bar or line chart. (The X-axis is horizontal; the Y-axis is vertical. See Figure 4-7.)

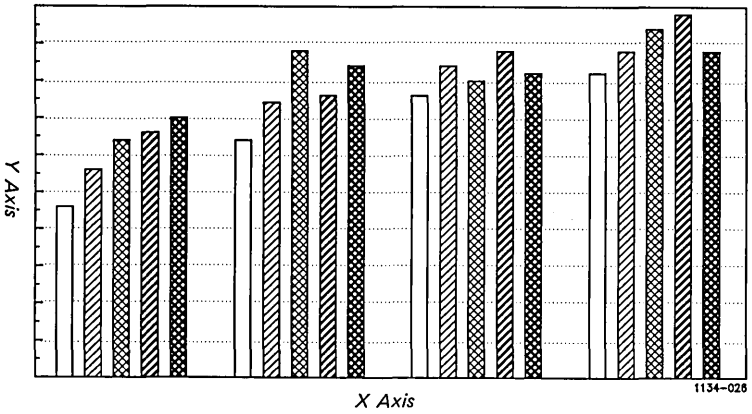


Figure 4-7. The X and Y-Axes

You can modify the attributes of the X-axis on bar charts. You can modify both X and Y-axes attributes on line charts. Each axis has a handle associated with it. Select the appropriate handle to display the Axes menu associated with that axis.

From each menu, you can define the following:

- a minimum (or starting) value
- a maximum value
- the spacing between labels
- the number of ticks (or hash marks) between labels

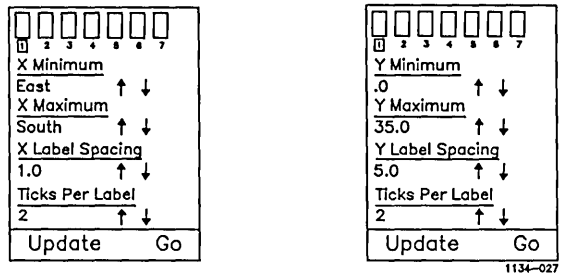


Figure 4-8. Axes Menus for Line and Bar Charts

The minimum value is the lowest number on the axis scale. Usually the scale starts at zero, but you can set it as high as you choose. By setting a higher minimum value, you avoid wasting space on the graph, especially when you chart information with similar numerical values.

For line charts, set a minimum value on the X-axis by defining the first label you want charted out. For example, on a SalesByRegion graph, you may have labels for North, South, East, and West, in that order. If you specify South as the minimum value, all the data associated with the South, East, and West labels is graphed. North appears before the defined minimum value; therefore, it is not graphed.

The maximum value is defined in the same way. If you define a maximum value that is smaller than the largest data value, the top of the chart is not shown.

The space between the labels is also defined with the Axes menus. You can specify any whole number as the interval between labels. For example, if you have a graph with a minimum value of 20, a maximum value of 80, and a label space of 10, the numbers 20, 30, 40, 50, 60, 70, and 80 would be the axis labels.

In addition to labels, you can specify that a certain number of ticks appear between each label. A tick is a small mark that designates a defined interval.

If you specify that five ticks be drawn for each label, the above example would have ticks drawn at 22, 24, 26, and 28 for the first label, and so on, for the rest of the labels. The numbers do not appear, just the tick marks.

To change any field on an axes menu, select the Up or Down Arrows that appear under each heading. The numerical value field on the screen changes accordingly.

You can also select the numerical value field. When you do, it highlights and a text entry line appears. Type in the desired value.

When you have specified the required axis information, select either **Update** or **Go.** Update redraws the chart with the new values and keeps the Axis menu displayed. Go redraws the chart with the new values and displays the Chart Tools menu.

If you decide not to make any changes, select **Cancel** and the Chart Tools menu redisplays.

PIE/EXPLODED PIE

This is not as messy as it sounds. A standard pie graph has all its triangular segments joined at a center point. An exploded pie takes one or more segments and emphasizes it by pulling out a segment as shown in Figure 4-9.

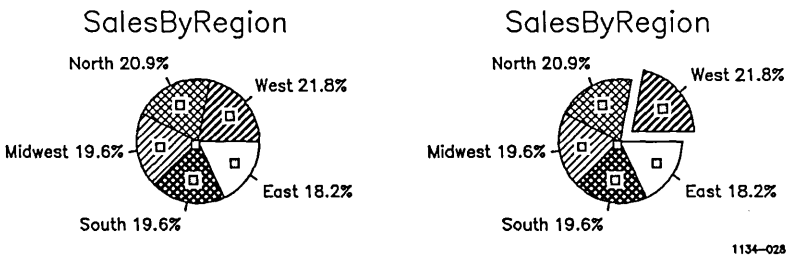


Figure 4-9. Pie and Exploded Pie Graphs

Exploding a pie is an excellent way to emphasize one portion of the graph's data. To explode a pie graph, follow these steps:

1. Select a segment of the pie by selecting the handle in the center of the segment.

2. To redraw the figure as an exploded pie, select the **Exploded Pie** option on the Tools menu.

Although the exploded segment may look like an individual object, it is still part of the graph as a whole. In other words, you cannot pick a pie segment as a separate object.

If you want the portions of your pie to be arranged from the lowest to highest percentages, select **Autosort** on the menu. As shown in Figure 4-10, the segments appear in clockwise order, beginning at the three o'clock position.

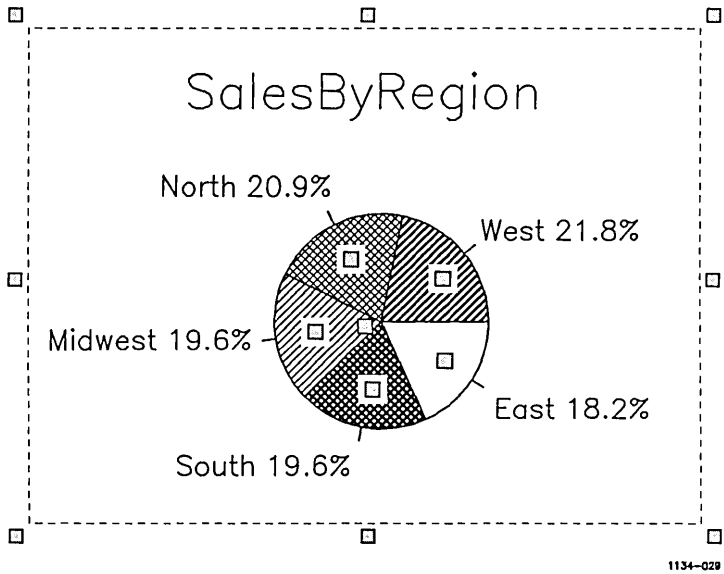


Figure 4-10. An Autosorted Pie Graph

SAVING THE CHART FORMAT

The chart format is everything in the chart except the specific data contained in the Extended Multiplan worksheet. It includes the colors, fill patterns, text, relationship between the parts, and any special attributes you have defined.

You can save a chart format and use it again when you want to create similar graphs. The Chart Designer puts your numerical data into the form specified by this chart format file.

For example, if you have four worksheets containing quarterly sales reports, you can create four graphs identical in format, but different in content.

To save a chart's format:

1. Pick the chart.
2. Select **Files** on the Function menu.
3. Select **Save Chart Format** on the pop-up menu.
4. Type the name of the chart format file into the text entry line.
5. Press **Go.**

To use the format file, specify its name when you create the graph in Extended Multiplan.

Note that the Chart Designer does not save the chart format file as a picture file. Consequently, its name does not appear in the listing when you View Files.

SUMMARY

- Graphs are created in Extended Multiplan and loaded into the Chart Designer.

- Use the Chart Designer to change the appearance of your graph. Use Extended Multiplan to change its numerical data or the type of graph.

- The entire graph is regarded as a single object. Modify individual segments by selecting their handles in the graph.

- Each type of graph has its own Tools menu, containing the tools most useful for working with that type of graph.

- The axes of a graph can be modified using the Axes menus.

- You can save the format of a graph (without its numerical data) for use later when you want to create similar graphs.

You can enhance many pictures and charts by adding descriptive text. The Text Tools menu contains the tools that enable you to create text in the size and typeface of your choice.

To display the Text Tools menu, select **Text** on the Tools pop-up menu. (See Figure 5-1.)

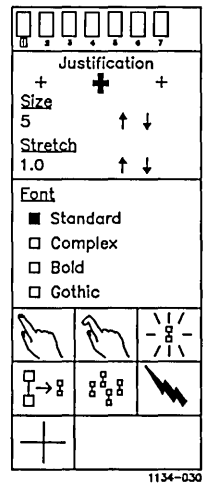


Figure 5-1. The Text Tools Menu

Text can be created and modified as words only through the Text Tools menu. With the other Tools menus, you can modify text as an object by changing its color or size, but you cannot change the text itself.

When the Text Tools menu is displayed, you can pick only text.

PLACING AND JUSTIFYING TEXT

The placement of the Text Marker determines where text will be placed in the work area. To place the Text Marker:

1. Select the Text Marker icon on the menu.

2. Move the arrow cursor to where you want the Text Marker to be placed.

3. To place the Text Marker, click the **Mark** button.

You can determine how the text will be placed in relationship to the Text Marker by using the **Justification** portion of the Tools Menu. (See Figure 5-2.)

- Left-justified text moves out from the Text Marker from left to right.

- Right-justified text moves out from the Text Marker from right to left.

- Center-justified text is divided into two equal portions, with the Text Marker as the midpoint.

Figure 5-2. Left, Center, Right Justification

To set justification:

1. Select the appropriate cross (left, center, or right) from under the heading **"Justification."**

2. Place the Text Marker.

3. Type in the text.

ENTERING TEXT

Text is typed into the text entry line. Whenever the Text Marker is selected, the entry line is also displayed. The text entry cursor shows you where the next character will appear in the text entry line. As you type, the cursor moves forward.

To enter text, begin typing until you are finished with one line. A warning message appears if the entry is too long to fit into the work area.

When you finish typing, press **Go**; the text is placed in the work area. If you have more than one line of text to enter, press **Go** after the first line. That line is placed in the work area and the Text Marker moves down, ready to place another line of text, with the same size, color, font, and justification.

CHOOSING THE SIZE AND FONT

With the Art Designer, you can define the size and font of your text.

To choose the text size, select the Up or Down Arrows under the **Size** heading on the Tools Menu. As you do, the numerical size indicator increases or decreases. When you reach the desired size, type in the text.

If you prefer, select the numerical size indicator display. When you do, it highlights. Then type in the desired size.

HINT

Note that the text size is not equivalent to point size.

A font is a complete assortment of a given size of type, including capitals, small capitals, and lowercase, together with figures, punctuation marks, and the commonly used signs and accents.

Use the Font Library on the Tools menu to specify the type of font for your text. There are four fonts to choose from: Standard, Complex, Bold, and Gothic. (See Figure 5-3.)

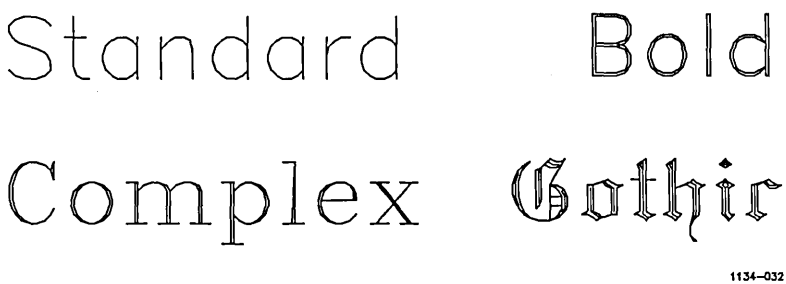


Figure 5-3. Fonts

"Standard" and "Bold" are sans serif types, similar to Helvetica. "Complex" is a serif type, similar to Times Roman. "Gothic" is a specialty type, sometimes called "Old English."

Select the font you want to use, then type in the text.

MODIFYING TEXT

You can change the size, font, justification, and color of text at any time. Pick the text, then select the new attribute(s) on the Text menu. You can change features as often as you like.

Text is modified as a block. Words entered into the text entry line as a group form a block. A block of text is regarded by the Art Designer as an object.

When you pick text, the Text Tools menu changes to reflect the picked text's justification, size, color, font, and stretch factor.

The entire block of text, not just one letter, is picked. Also, the picked block of text appears in the text entry line. If you want to change the text, delete or insert as you choose. Press Go and the new text replaces the old in the work area.

You can pick a single block of text or several blocks of texts, just as you can with any other object.

If you pick several blocks of text at once, you can change their size, font, justification and color. You cannot, however, change the text itself.

To change the words in a single block of text, you must pick that block separately for it to appear in the text entry line, where you can change the words.

STRETCHING TEXT

You can lengthen or shorten a block of text so that it fills a given area.

One way is to use Scale and Move to stretch text both horizontally and vertically. Pick the block of text you wish to stretch. When the arrangement of nine handles appears over the text, select the appropriate handle, hold down the **Mark** button and move the Mouse.

Use one of the corner handles and move the Mouse diagonally to stretch proportionally both horizontally and vertically. Use a side handle to shorten or lengthen text. Use a top or bottom handle to size text vertically. (See Figure 5-4.)

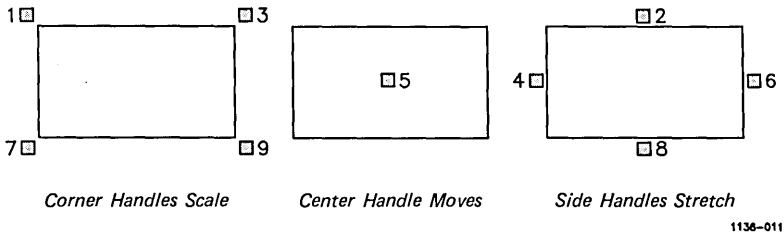


Figure 5-4. Scale and Move

As you scale the text, the number under the **Stretch** heading on the Tools menu changes accordingly. This number is the stretch factor.

The stretch factor is a decimal ratio that expresses how much the text has been stretched from its original size.

In other words, a stretch factor of 1.0 is the normal factor for text of a given size. If you stretch it, that factor changes. Thus, text with a stretch factor of 2.0 is twice as long as normal text of that size.

You can use the stretch factor to modify text uniformly; you can also stretch and shrink it, then return text to its original size. You can stretch both horizontally and vertically. When you stretch vertically, both the size indicators and stretch factors change to reflect the stretch.

The **Stretch Factor** menu displays both Up and Down Arrows and a numerical size indicator display. You can change the stretch factor using either method: Click the Up or Down Arrows to arrive at the desired stretch factor in increments, or select the numerical size indicator display and type in the desired stretch factor directly.

SUMMARY

- Text is entered into the text entry line.
- The Text Marker determines where text is placed in the work area. It also serves as the origin point for justification.
- You can choose the justification, size, font and color of your text by selecting from the menu.
- The stretch factor is a decimal ratio that expresses how much text has been altered from its original size.

6 WORKING WITH DRAWINGS

In many ways, creating drawings with the Art Designer is similar to working with a pencil and paper; however, the Art Designer requires a different way of thinking about drawings. As stated earlier, the Art Designer is an object-based system; drawings are created out of objects.

KEY IDEA

When you create drawings with a pencil and paper, you build them with lines. In the Art Designer, remember to think in terms of objects rather than lines (which are pieces of objects).

When you first used the Art Designer on your own, you probably started using the Sketch tool (described below) to form free-line drawings. For most people, this is the natural, line-based approach to drawing.

But as you used Sketch, you probably discovered its limitations. It is difficult to draw straight lines, for example, and nearly impossible to draw a perfect oval.

PLANNING YOUR DRAWING

Object-based drawing requires a different kind planning than line drawing. If you plan the pieces, you can compose a picture better with the Art Designer than you could with pencil and paper.

Think about what you want your final picture to look like: visualize it in your mind. As you visualize it, think about its parts. If you want to draw a cube, for example, it is easy to see that it is composed of rectangles. Other drawings are more complicated. For example, a company logo may be more difficult to plan. Ask yourself these questions before you draw anything in the Art Designer:

- Are there any regular geometric shapes, such as circles, rectangles, triangles, and so on?
- Are there any repeated shapes or patterns?
- Are the lines in the drawing part of larger shapes?

By asking yourself questions such as these, you begin to see your drawing as a collection of objects. Using the drawing tools, quickly draw the basic objects that compose your drawing. (You can align and reshape them later.)

As you become more experienced with the Art Designer, this way of thinking about drawings becomes natural and you begin to visualize a drawing almost instantly.

The Drawings Tools menu displays the tools that enable you to create original drawings. To display the Drawing Tools menu, select **Drawings** on the Tools pop-up menu. (See Figure 6-1.)

At the bottom of the menu are eight icons that represent the tools you use to create and edit drawings. Detailed descriptions of each tool appear in the Reference section of this manual.

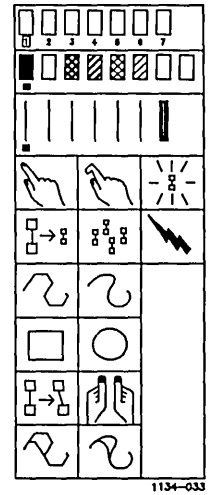


Figure 6-1. The Drawing Tools Menu

TOOLS

DRAWING TOOLS

The Art Designer has four tools used specifically for creating new drawings:

- Connected Line
- Sketch
- Square
- Circle

Of these, Connected Line is the tool of choice. Using the Connected Line tool, you can create objects with straight sides by drawing with line segments. The Connected Line tool is very flexible because it gives you control over the length of a line segment (that is, the distance between two points). You can use it to create a figure of any shape, as shown below in Figure 6-2.

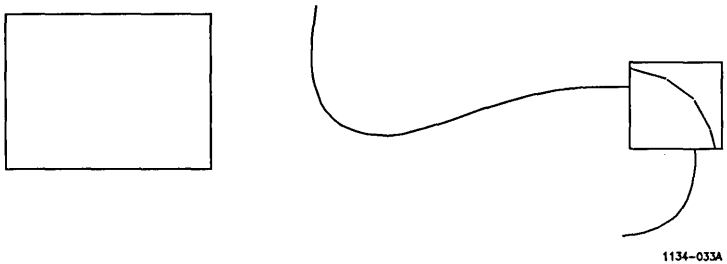


Figure 6-2. Objects Drawn with Connected Line

Use the Sketch tool only for those things that are "free-form" because the shaping tools (Sculpt and Connected Move) do not work as well on a sketched object. You can form any shape when you draw with Sketch. It is sometimes called a smooth line tool, but if you look closely, you can see that Sketch lines are composed of tiny line segments. The line segments are so small that the lines appear to be smooth.

Square and Circle, in contrast, are specialized tools, limited in the shapes they can produce. With Square, you draw rectangles; with Circle, you create ovals and ellipses.

SHAPING TOOLS

After you have drawn an object, you will probably want to refine it. The Art Designer's shaping tools give you the power to edit and modify your drawings.

The shaping tools include:

- Connected Move
- Sculpt
- Connected Line Replace
- Sketch Replace

Using the Connected Move tool, you can grab (with a Box cursor) the points of an object and move them on the screen. You grab an object at an intersection. The corners of a square, for example, are intersections. As you move the part of the object you have grabbed, the object twists without coming apart. (See Figure 6-3.)

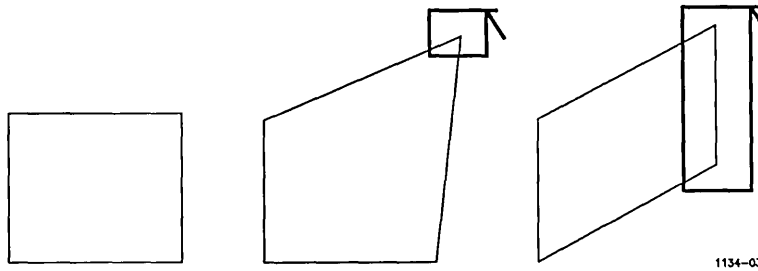


Figure 6-3. Twisting an Object with Connected Move

The Connected Move tool also works on objects drawn with Sketch, even though lines drawn with Sketch do not have clearly defined line segments. Sketch lines are composed of tiny line segments; therefore, you can grab an object created with Sketch at any point with Connected Move.

Sculpt also works on line segments, but in a different way. When you select the Sculpt tool and pick the object you want to work on, a Box cursor appears. With it, you can sculpt any portion of an object by holding down the **Mark** button and moving the Box cursor with the Mouse.

Connected Line Replace and Sketch Replace modify the shape of objects by replacing a line in the work area. For example, if you use Connected Line Replace to draw a line from one corner of a square to another, that line replaces some of the original lines and leaves you with a triangle. (See Figure 6-4.)

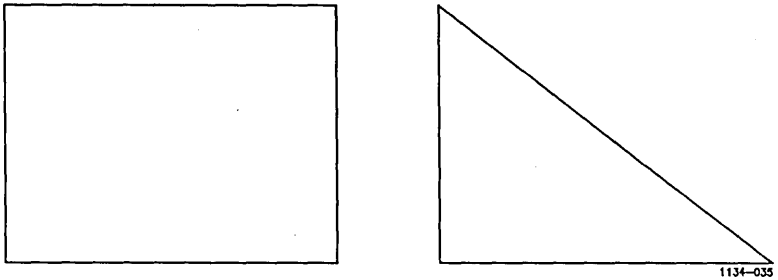


Figure 6-4. Modifying an Object by Replacing a Line

Connected Line Replace draws segmented lines and Sketch Replace draws smooth lines. Both work in the same way, however.

The Line Replace tools are best used to perform detailed modifications. If an object requires major changes, it is usually easier to delete the object and draw it again.

PLANNING FOR PRINTING

If you have a laser printer, you do not need to plan for printing as carefully as you do when using a plotter. (A plotter is an output device that uses pens to draw a picture.) Your printed output will look like the drawing in the work area. Note that a laser printer prints in black and white only.

If you are using a plotter to print your drawings, there are some special techniques to consider. Often drawings on the screen have one or more objects that overlay each other. When filled objects are stacked one on top of the other on the screen, the objects on top cover the ones on the bottom. You cannot see through the top object to the ones below. (See Figure 6-5.)

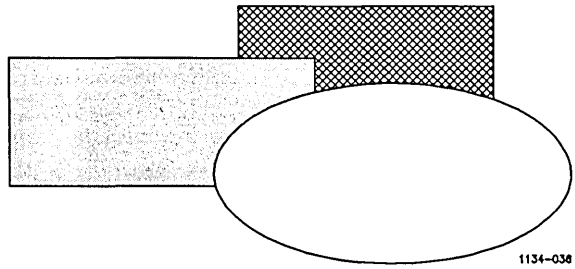


Figure 6-5. Overlaid Filled Objects in the Work Area

When you print such a picture out on a plotter with colored pens, the picture looks very different than it does on the screen, as shown in Figure 6-6.

Although on the screen it appears that the parts of the overlaid object are gone, they still exist; they are just covered up. This becomes apparent when you plot them out.

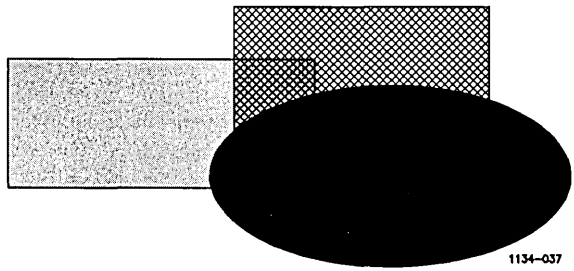


Figure 6-6. Overlaid Filled Objects Plotted Out

HINT

If you are going to print a drawing on a plotter, consider how the objects interact with each other, particularly if they overlay each other.

Here are a few tips to consider when you print on a plotter:

- Place darker colors on top.

  For example, if a yellow figure overlays a black figure, the black ink shows through the yellow ink.

- Use the more solid fills on top.

  If an unfilled object overlays a solid one, the solid one shows through.

- Background Fill will not print when plotted.

- If the intersections of objects are supposed to form lines, be certain the intersections are aligned carefully. Use one of the Move tools to straighten intersections.

  If you build a box out of rectangles, for example, the edges of the rectangles intersect to form one of the edges of the box. When the drawing is printed, the plotter draws two lines (one for each rectangle edge) on top of each other. If the lines are not perfectly aligned, the box edge will appear blurred.

If you have a laser printer, you do not need to plan as carefully. Your printed output will look like the drawing in the work area. Remember that a laser printer prints in black and white only. Printing is discussed in detail in Chapter 8.

SUMMARY

- Art Designer works with objects.
- An object-based approach to drawing considers pictures as combinations of individual objects.
- Pictures do not always print out the way they appear on the screen.

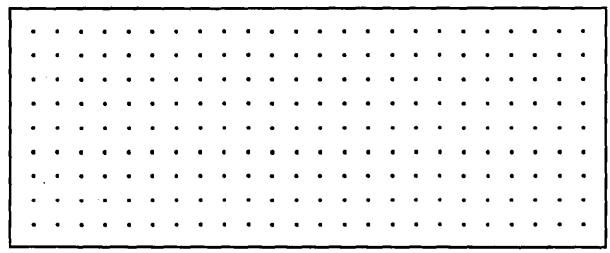
7 ADVANCED FEATURES

You now already know the basic techniques for using Art Designer tools and functions. This chapter describes two advanced features, Grid and Zoom, that help you to take full advantage of the Art Designer.

USING THE GRID

The Grid is a feature that helps you to create highly accurate and proportionally correct drawings; it is a network of evenly spaced horizontal and vertical lines that overlay the work area. Consider the Grid as a kind of electronic graph paper. You can create a drawing on top of it while it serves as a guide so you can draw straight lines and objects of uniform size.

The lines on the Grid are represented by dots at the points where they intersect. This keeps your work area uncluttered, while giving you full advantage of the power of the Grid. (See Figure 7-1.)



1134-038

Figure 7-1. The Grid (Size 3)

To use the Grid:

1. Select **Set Up** on the Function Menu.

   The Set Up menu appears.

2. Select **Visible** under the **Grid** heading.

3. Select **Go.**

   The Grid now overlays the work area.

You can use the Grid to draw straight lines, make several objects the same size, or accurately define the size of one object. By following the lines and counting squares you can draw precisely.

One of the advantages of the Grid, is that you can make the Grid points invisible, which is useful when you want to use the Grid Snap feature but do not want a visible Grid.

To make the Grid invisible:

1. Select **Set Up** on the Function menu.

2. Select **Invisible** under the **Grid** heading.

3. Select **Go.**

   The Grid disappears, leaving your drawing intact.

You can also change the size of the Grid. To do this:

1. Under the **Grid Size** heading, select the Up or Down Arrow.

   As you do, the numerals in the numerical display to the side increase or decrease.

   You can also select the numerical display. When it highlights, type in the number you want.

2. Select **Go.**

   The Grid size changes.

The Grid sizes are proportional to each other. Experiment to see which sizes work best.

GRID SNAP

One of the most useful features of the Grid is the Grid Snap. When it is on, the lines you draw "snap" to the nearest grid point, helping you to draw perfectly aligned and accurately spaced lines.

To use the Grid Snap:

1. Select **Set Up** on the Function menu.

2. Select **On** under the **Grid Snap** heading.

3. Select **Go.**

   Grid Snap is turned on.

You can use the Grid Snap even when the Grid is turned off (invisible). As you draw, there is noticeable "snapping" as the lines align with the Grid.

Grid Snap works with the tools that normally draw straight lines, such as Connected Line and Square, as well as with the smooth line tools, such as Sketch and Circle.

When you draw a line with Sketch it snaps to the nearest grid line, which makes it difficult to draw a curved line, unless the Grid size is very small. Simply turn off the Grid Snap. To do so:

1. Select **Set Up** on the Function menu.

2. Select **Off** under the **Grid Snap** heading.

3. Select **Go.**

   Grid Snap is turned off. Your other figures remain unaffected as you draw a curved line.

Circles and ovals drawn when the Grid Snap is on snap to the nearest grid line, but their lines do not straighten; they remain circles and ovals.

The Grid Snap enables you to draw perfectly round circles. To do this:

1. Start drawing at the corner of the area you want your circle to fill.

2. Hold down the **Mark** button and move the box cursor slightly in any direction.

   The cursor snaps to the grid lines, enabling you to judge when it is a perfect square.

3. Release the **Mark** button.

   A perfect circle is in place.

USING ZOOM

The Zoom feature gives you the ability to enlarge a defined portion of your work area, thus permitting you to work on objects with a fine level of detail.

To use Zoom:

1. Select **Zoom** on the Function menu.

   A pop-up menu displays.

2. Select **Zoom In** on the pop-up menu.

   The Zoom cursor appears.

3. Place the cursor like a frame on the area you want to Zoom in on.

4. Click the **Mark** button.

   The portion of the work area you defined displays in Zoom mode.

You can determine the size of the area to be Zoomed by changing the size of the Zoom cursor box.

1. Hold down the **Bound** button.

2. Move the cursor diagonally to change the size of the box. (The smaller the box or area, the more detail becomes visible.)

3. Release the **Bound** button.

4. Click the **Mark** button.

To exit Zoom:

1. Select **Zoom** on the Function menu.

2. When the pop-up menu appears, select **Full View.**

You can use any function or tool while you are in Zoom. Remember that everything is proportionally larger, which makes it easier to perform most tasks.

Working in Zoom is similar to working with a map. A map that has a scale with one mile equal to one inch (a 1:1 scale) has finer detail than a 100:1 scale map. They both cover the same terrain, but with different levels of detail.

Similarly, you can work with finer details while in Zoom because your "scale" is proportionally larger. Objects that are barely visible in Full View can be worked on easily while in Zoom.

When you use Zoom, picking objects is a simple task, especially those objects that overlap each other. Zoom into the area where the objects overlap; you can usually find a small section of one object that you can pick, leaving the other unpicked.

When you are creating figures out of objects that require accurate alignment, Zoom in and use one of the Move tools to straighten them.

HINT

Even though you are working in a small portion of your work area, the rest of the picture still exists; it is just out of view. If you make changes while in Zoom that affect the entire work area, the changes also affect the part of the screen that is not visible.

If you use the **Clear** function while in Zoom, the entire work area is cleared, not just the Zoomed portion. Similarly, if you save a picture while in Zoom, the entire picture is saved. If an object is deleted, the entire object is deleted, not just the part that is Zoomed.

The one exception to this rule is printing. If you Zoom in on a certain area, then print the drawing, only the Zoomed portion prints. See Chapter 8 for more information on printing.

SUMMARY

- The Grid is a network of horizontal and vertical lines that overlays the work area and helps you draw straight lines and proportionally accurate objects.

- Zoom enlarges your pictures so your can work with greater detail and accuracy. Many tasks become easier when you use Zoom.

The Art Designer works with three types of output devices:

- plotter
- laser printer
- dot matrix printer

A plotter is a device with one or more pens that draws your picture in response to printing commands from the Art Designer. Plotters use interchangeable pens in multiple colors.

A laser printer produces high-resolution drawings in black and white. It looks and works like a copy machine.

A dot matrix printer prints drawings as a field (or matrix) of small dots. Dot matrix printers print in color or black and white.

PRINTING YOUR DRAWING

No matter what type of output device you use, printing your drawing is easy with the Art Designer.

To print a picture:

1. Use **Get File** or **View Files** to load the drawing you want to print into the active work area.

2. Select **Print** on the Function menu. The Print menu then displays, as shown is Figure 8-1.

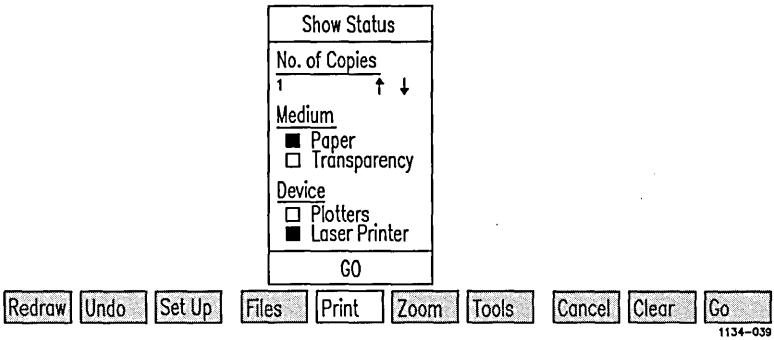


Figure 8-1. The Print Menu

3. From the Print menu, designate the number of copies of the drawing you want, the material it is to be printed on, and the type of output device you are using.

4. To start printing, select **Go**.

USING A PLOTTER

Typically, when you create a drawing, you use more colors than there are pens on your plotter. For example, you may have a seven-color picture and a four-pen plotter.

The Art Designer keeps track of this and displays a message requesting you to change pens at the appropriate time during printing.

The relationship between colors on the screen and pens on the plotter is important. On each Tools menu, there is a Color Palette that gives you the ability to select the colors of the objects you create. (See Figure 8-2.)

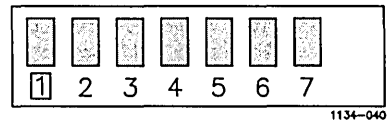


Figure 8-2. Numbered Color Palette

Notice that the color icons are numbered one through seven. These numbers correspond to the pens on your plotter.

You are responsible for setting up the plotter pens. The Art Designer cannot distinguish color. When the Art Designer encounters objects that have been drawn with the first color icon, it instructs pen number one to draw on the plotter.

KEY IDEA

When you print on a plotter, the Art Designer assigns pens, not colors. Simply think in terms of assigning pens, not colors, when you create your drawing.

Even if you are using a monochrome monitor, you are not limited to black-and-white drawings. Working with plotter pens also gives you the freedom to experiment with different colors in your drawing. You can change the pens and not the actual drawing on the screen.

USING A LASER PRINTER

A laser printer prints out drawings in black and white only. Thus, it is important to avoid using color as a distinguishing element in a drawing destined for a laser printer; use patterns instead.

A laser printer prints out objects as they appear on the screen. Overlaid objects remain covered up and do not show through.

When you use a laser printer, the line types you have selected from the Line Palette appear differently than they do on the screen. (See Figure 8-3.)

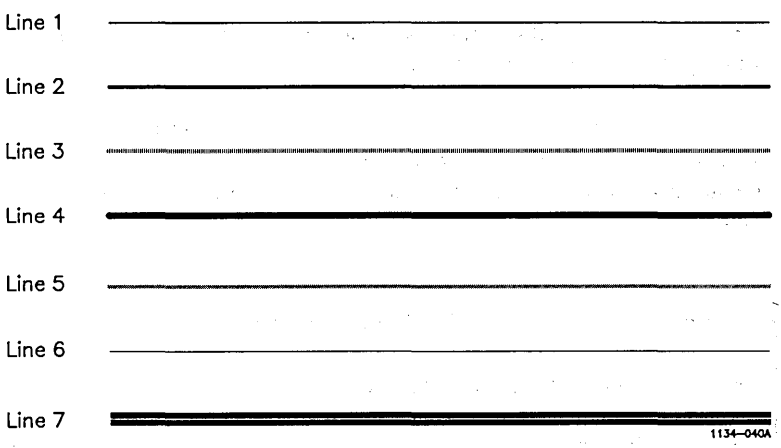


Figure 8-3. Laser Printer Line Types

USING A DOT MATRIX PRINTER

A dot matrix printer can print drawings in color or black and white. If you have a black and white dot matrix printer, do not use color as a distinguishing element in your drawing; use patterns instead.

Like a laser printer, a dot matrix printer prints objects as they appear on the screen. Overlaid objects remain covered up and do not show through.

PRINTING A PORTION OF A DRAWING

You can print a portion of your drawing by Zooming in on the part you want to print, then printing in the normal fashion.

If you use Zoom to print a portion of your drawing, remember that what you print is enlarged.

To print a portion of a drawing in its original size, copy the portion you want to print to another work area. Then follow the standard printing procedure.

PRINTING TO SPOOLED OUTPUT DEVICES

Workstations are often set up to share output devices with other workstations. A spooler controls the order in which things are printed.

The procedure for printing to a spooled device is the same as it is for printing to any other printing device. The Art Designer, however, does offer additional features for those who have spooled output devices.

If you want to know the status of an output device:

1. Select the device under the **Device** heading on the Print menu.

2. Select **Show Status.**

These status messages tell you what to do to print out your drawing. For example, one might tell you to load a piece of paper in the printer, while another might tell you to change pens on the plotter.

If there is a status message, the Print function label highlights. To display the message, select **Show Status.**

If you are using several spooled devices, the message is always from the last spooled device that was used to print.

SUMMARY

- Drawings can be printed on a plotter, laser printer, or dot matrix printer.

- Selecting a color or a pen number on the Color Palette assigns a plotter pen, not a specific color.

- Plotters print entire objects, so overlaid objects may show through.

- Laser printers and dot matrix printers do not let overlaid objects show through.

- You can print a portion of a picture either by using Zoom or copying the portion to another work area.

- Status messages tell you what to do next to print out your drawing.

9 THE UNEXPECTED

Sometimes things do not work the way you expect them to when you use Art Designer. What should you do then?

Don't panic. It is difficult to do any major damage to your picture files and impossible to damage the Art Designer software.

If you save your work frequently during a session, your pictures are safely stored on your disk, even if the power is turned off.

Most often, if the Art Designer does something you do not understand, it is because you have used a tool or function differently than it was designed to be used.

Each tool or function has a set of logical rules for its use. Refer to Chapter 11, "Reference," to determine if you are using a tool or function correctly. Then try again.

Sometimes the Art Designer displays a message at the top of the work area, in place of the picture tabs, alerting you that an error has occurred. These messages are called status messages.

For example, if you do not catch an edge of an object you want to Pick, this message appears: **No edge found (Move across edge with button down).** Try again to Pick the object.

Some status messages indicate more complex situations. A list of status messages and ways to resolve each situation follows.

STATUS MESSAGES

Below is a list of potential Art Designer status messages. Each message has a number associated with it called a status code.

Status codes without messages and status codes not listed below can be found in the Status Codes Manual.

Decimal Value	Meaning
6	Master went down The master workstation in your cluster terminated abnormally. Contact your system administrator.
202	Directory full There are too many files in your directory. Eliminate unneeded files or use another directory.
205	Bad filename specification You have incorrectly entered a filename. This occurs most frequently when you are getting a file from another directory and/or volume and you mistype. Try to enter the filename again.
216	Volume not mounted Check to see if the disk is inserted properly in the disk drive and the door is closed. Also ensure that the volume name (in brackets) is valid.

Decimal Value	Meaning
302	Write protected You are trying to save a file onto a write-protected disk. Remove the covering from the write-protect notch on the disk.
7602	Graphics system error There is a problem with the software you are using. Consult your system administrator.
7613	File is not a picture file You have tried to load in a file that is not a chart or picture. Make sure you are referring to the right file.
7644	Label would extend out of bounds The text you are entering is too large or long for the work area. Make the text smaller or break it into shorter lines.
7649	Not enough memory for last graphics operation The long-term solution to this problem is to add more memory to your system. You can also ask your system administrator to change the memory requirements in the Context Manager configuration file. In the short term, simplify the chart or drawing you are working with by eliminating multiple fonts, sketched lines, and so on.

Decimal Value	Meaning
7670	Format file and data inconsistent You have specified a chart format file that is inconsistent with the data file. For example, you may have specified a line chart format file with pie chart data. Change the format file or go back to Extended Multiplan and change the data.
7671	Maximum number of legends for bar chart exceeded A maximum of five legends are allowed in a bar chart.
7672	Maximum number of groups for bar chart exceeded A maximum of thirteen groups are allowed in a bar chart.
7673	Maximum number of segments for pie chart exceeded A maximum of eight segments are allowed in a pie chart.
7674	Maximum number of legends for line chart exceeded A maximum of five segments are allowed in a line chart.

Decimal Value	Meaning
7675	Negative number illegal with pie chart A negative number cannot be used in a pie chart. Change the data in the Extended Multiplan worksheet or specify another graph type.
7677	Need at least two data points for a line chart There are not enough values in your Extended Multiplan worksheet to create a line graph. Modify your worksheet or use another type of graph.
7679	No graphics devices found on system The output device you specified to print to is not configured on your system. Ask the system administrator to either configure the device or specify another output device.
7680	Plotter configuration file not found A configuration file is needed to interface Art Designer with a plotter. If this file is missing, contact your system administrator.
7682	No picture files in this directory This message is displayed when you use the **View Files** function and Art Designer finds no files with a .pic file name extension.

Decimal Value	Meaning
7989	No more charts can be added to the picture If you are creating a picture composed of multiple graphs and this message displays, you cannot add more graphs. The exact number of graphs that can be added is currently six.
7991	No chart picked in this work area This message is displayed when you are working with charts and attempt to perform a task that requires a picked chart, but no chart is picked. Pick a chart and try again.
7993	No text found (Can only pick text here) When you have the Text Tools menu displayed, only text can be picked. Select either the Chart or Drawing Tools menus to pick other objects.
7994	No edge found (Move across edge with button down) When you **Pick** an object, you must move the box-shaped cursor across an edge of the object or surround the object. Try to pick the object again.
12098	Parent application was terminated The Document Designer was terminated before the Art Designer transferred back the object being edited. Restart the Document Designer and try again.

ABNORMAL SYSTEM TERMINATION

Once in a great while, some systems stop completely. When this happens, you get no response when you use the Mouse or type on the keyboard.

First, wait a few minutes to be sure the system has actually stopped. Sometimes the cursor disappears and it seems that the system has stopped, but the Art Designer is actually waiting while the system performs some operation.

Second, if the system really has stopped, inform your system administrator. Try to remember the sequence of events that led up to the system stopping. This can help your system administrator diagnose the problem.

If you save frequently during your work sessions, your picture files should be intact and you will lose little work.

10 SYSTEM ADMINISTRATION

This chapter is for the system administrator who must modify certain files to ensure that the Art Designer works with Context Manager, Extended Multiplan, and the Document Designer.

USING ART DESIGNER WITH CONTEXT MANAGER

The Context Manager enables you to switch quickly between different applications (or contexts). For example, with the Context Manager, you can use the Art Designer, switch to CT-MAIL, then switch back to the Art Designer.

To use the Art Designer with the Context Manager, you must edit the Context Manager configuration file, using the Context Manager Configuration File Editor. For more specific information on the Context Manager and the CM Configuration File Editor, see the Context Manager II Manual.

To edit the Context Manager Configuration File you need to know the Art Designer's memory requirements and other program information. This information is in the Software Release Notice.

INTERFACING WITH EXTENDED MULTIPLAN

If you are interfacing Chart Designer with a version of Multiplan that is 2.0 or earlier, you need to rename your Art Designer run file.

NOTE

To interface the Art Designer with a version of Multiplan older than 2.1, use the **Copy** command to rename the file **[Sys]<sys>ArtDesigner.run** to **[Sys]<Sys>Bgp.run**

If you have Chart Designer only, the name of the run file is **[Sys]<Sys>ChartDesigner.run**

You must rename your old **Bgp.run** before you change the name of **ArtDesigner.run.** (See the Executive Manual for information on renaming files.)

ArtDesigner.run is the file that starts up the Art Designer. Older versions of Extended Multiplan look for a file called **Bgp.run** when they try to chart data in graph form.

Because you have renamed **ArtDesigner.run,** Extended Multiplan now starts up the Art Designer, rather than the Business Graphics Package.

INTERFACING WITH DOCUMENT DESIGNER

You can find complete information on how to use graphs and pictures produced with the Art Designer in Document Designer documents in the Document Designer Reference Manual.

Document Designer requires that you specify the type of material (such as Art Designer picture files or Extended Multiplan Worksheets) that will be inserted into a document. This information should be inserted into the Context Manager Configuration File or a Chaining Configuration file.

These files are discussed in the System Administration chapter of the Document Designer Reference Manual. You should read the pertinent portions of that manual for complete information on interfacing the Art Designer and Document Designer.

To specify to Document Designer that the Art Designer is supplying a graph or picture, enter this line into the appropriate file:

:DdObjectEdited:257

Document Designer calls material produced by another application an object. A Document Designer object is an entire Art Designer picture or graph. Each Document Designer object type has a number. The object number for Art Designer pictures and graphs is 257.

USER CONFIGURATION FILE

The User Configuration File (sometimes called a User Profile file) identifies each user to the system. It defines the application environment, the default volume and directory, and the messages that display when you sign on to the system.

For more information on the User Configuration File, see the CTOS II System Administrator's Guide.

You do not need to modify the User Configuration file to run Art Designer. You can, however, modify the User Configuration File to configure the Mouse.

If you are left handed, you can specify that the Mouse be configured for left-handed use (as described in Chapter 2, "Starting Out").

To do this, modify (or insert) the following line in your User Configuration File:

:ArtChartLeftHanded:Y (or **N**)

The standard (or default) value is "N" (or right-handed).

You can also specify how quickly the cursor moves in response to moving the Mouse.

To do this, change (or insert) the following line:

:ArtChartMouseSpeed:4 (through **10**)

The default value is 4. The cursor moves faster as you specify a higher number, with 10 being the highest. Note that raising the Mouse speed makes the Mouse more responsive to your hand movements and, consequently, somewhat more difficult to control.

Art Designer 1.1 gives preference to these two fields over those that do not have the "ArtChart" prefix. If the User file includes the LeftHanded and MouseSpeed fields without the prefix, it will use those values.

You can insert the Mouse configuration information at any point in the User Configuration File. Capitalization is not important, but you should spell out the phrases completely.

The files that the Art Designer requires to operate are located in the [Sys]<Sys> directory. You can run the Art Designer from any directory by starting it through the Context Manager or the Executive, as described in Chapter 2. When you save your pictures, they are saved in the current directory.

You can specify a default directory in the User Configuration File. When you sign on to the system, you are placed into this specified directory.

If you define a default directory, you can keep your picture files separate from the system files or other files. To do this, modify the following lines in the User Configuration File:

:SignOnVolume: YourVolume
:SignOnDirectory: YourDirectory

(More information about specifying a default volume and directory can be found in the Executive II Manual.)

A typical User Configuration File (with Mouse and directory information specified in boldface) might look like this:

:SignOn.TextFile:[sys]<sys>System.Txt
:SignOnChainFile:[sys]<sys>Exec.run
:SignOnExitFile:[sys]<sys>SignOn.run
:SignOnVolume:d0
:SignOnDirectory:fred
:SignOnFilePrefix:
:SignOnPassword:
:ArtChartLeftHanded:Y
:ArtChartMouseSpeed:5

PRINTER CONFIGURATION

Refer to the Release Notice that accompanies the software for information on configuring output devices to work with the Art Designer.

FILE NAME EXTENSIONS

Art Designer files have file name extensions that identify the type of file they are. A file name extension is a period followed by up to three letters at the end of a file name. Filename.**ext** is the standard format.

The Art Designer recognizes two file extensions:

- .Pic - picture files
- .Fm - chart format files

You do not need to put an extension on a filename. The Art Designer does this automatically.

When you use View Files to display the files in your directory, files that do not have a .pic extension are not listed.

11 REFERENCE

This chapter lists the Art and Chart Designer tools and functions in alphabetical order.

Each entry describes the tool or function, explains how to use it, and refers you to related entries.

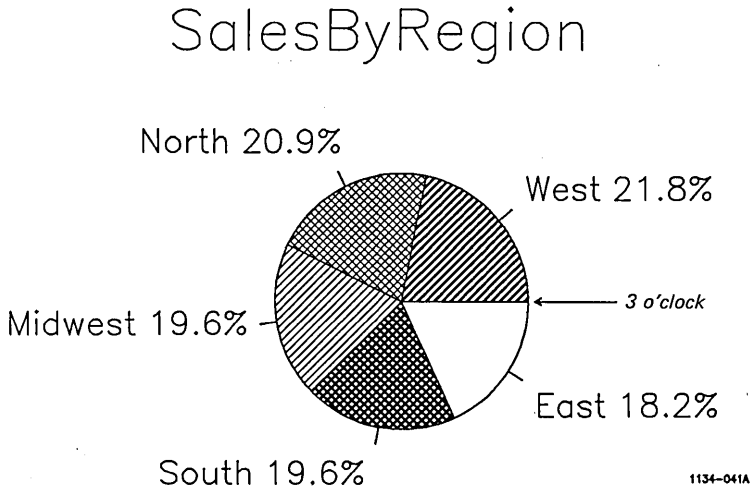
The explanation of how to use a tool or function assumes that the appropriate icon has been selected.

(See "Select" if you do not know this technique.)

AUTOSORT

Autosort
■ Yes
□ No

Autosort arranges the pieces of a pie graph in numerical order by percentage, starting at the 3 o'clock position:



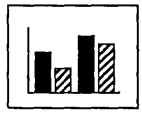
To use Autosort, select **Yes** under the **Autosort** heading on the Chart Tools menu.

Selecting **No** turns Autosort off and arranges the pieces in the order defined in the Extended Multiplan worksheet.

SEE ALSO

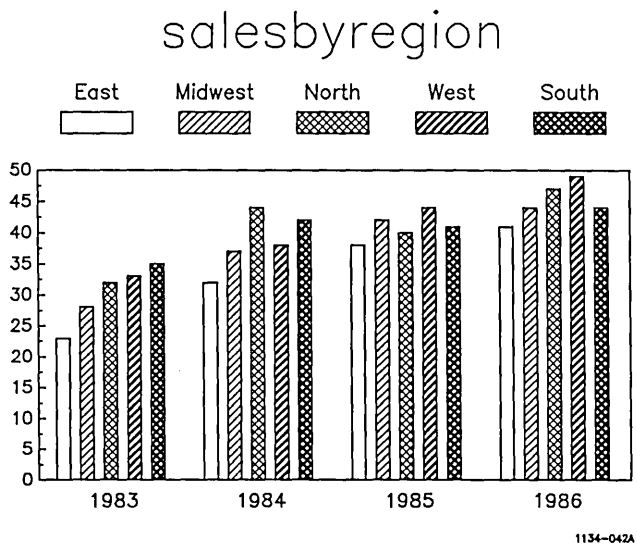
EXPLODED PIE SEGMENT, PIE GRAPH

BAR GRAPH



There are two bar graph types available in Chart Designer (from the Chart Tools menu): a comparative bar graph and a stacked bar graph. The **Bar Graph** command creates a comparative bar graph.

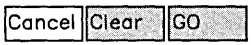
To use this feature, select the Bar Graph icon from the Chart Tools menu.



SEE ALSO

STACKED BAR GRAPH

CANCEL



Cancel interrupts an operation in progress. It removes pop-up menus from display, cancels file operations in pro rgss and printing, erases text in the text entry line, and when using Connected Line, deletes the trailing line.

To invoke Cancel, press the **Cancel** function key.

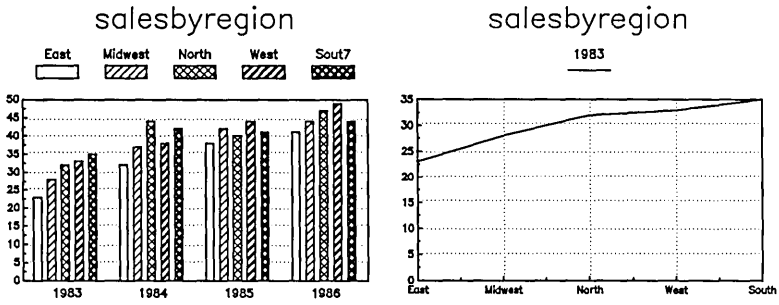
SEE ALSO

CONNECTED LINE, ZOOM

CHART GRID

Chart Grid
■ Yes
□ No

The Chart Grid function overlays your bar or line graph with a grid.

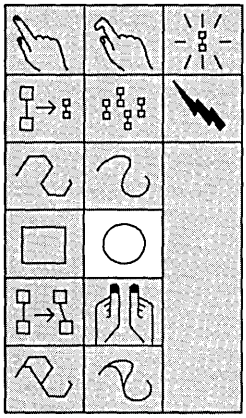


To use it, select **Yes** under the **Chart Grid** heading on the Charts Tool menu.

Thin horizontal lines that correspond to the data scale are drawn at regular intervals along the vertical axis.

Selecting **No** removes a previously drawn grid.

CIRCLE

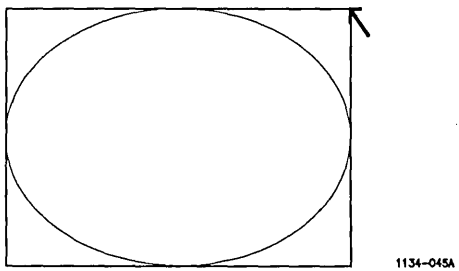


Circle draws ellipses. To use it, follow these steps:

1. Define the anchor point by moving the cursor to the desired place in the work area and holding down the **Mark** button.

   The anchor point is the corner point at which you start the rectangle that defines the area your ellipse fills.

2. Continue to hold down the **Mark** button and move the rectangular cursor until it is the size and proportion you want your circle to be.



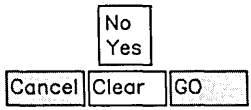
3. Release the **Mark** button.

   A perfect circle can be drawn using the Grid.

SEE ALSO

GRID, SQUARE

CLEAR



Clear removes all drawings and text from the active work area.

To use Clear:

1. Select **Clear** on the Function Menu.

   A pop-up menu displays. To clear the work area:

2. Select **Yes.**

   Selecting **No** cancels the function.

NOTE

Clear cannot be reversed using **Undo.** Once the work area is cleared, any work you have completed since the last time you saved is lost. Be certain to save any work you want to keep before clearing.

Although **Clear** removes your drawing from the screen, it does not remove the picture name from the picture tab.

If you **Clear** the work area and immediately create a new picture, give the new picture a new name when you save it. Otherwise, your old picture will be overwritten on the disk.

SEE ALSO

UNDO

COLOR PALETTE

The Color Palette provides color for your object. You can use it when creating or modifying an object.

To create a new object in a particular color:

1. Select the desired color icon on the Color Palette.
2. Draw the object.

To change the color of an existing object:

1. Pick the object to be changed.
2. Select the new color icon.

   The color of the object changes. You can change the color as often as you want.
3. If you have no further changes, unpick the object.

If you have a color monitor, the colors are displayed on the screen.

If you have a monochrome monitor, you can use the Color Palette to assign colors (pen numbers) that print out when you use a plotter or color printer.

Each color icon on the Color Palette corresponds to a pen on the plotter you use to print a hard copy of your drawing. Moving from left to right, each color icon corresponds to pens 1 through 7 on your plotter.

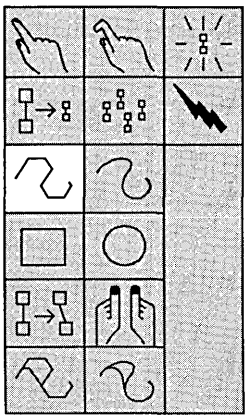
As you draw, you may change colors, even though they do not appear on the screen. When you plot the drawing, you will be able to assign colors to objects in your picture just as you did on the screen.

Obviously, if your pens are different colors than those on the screen, your drawing comes out with different colors. If, for example, you select the white color icon on the screen, but the first pen on your plotter is black, your picture is plotted out black even though it appears white on the screen.

SEE ALSO

FILL PALETTE, LINE PALETTE, PICK, UNPICK

CONNECTED LINE

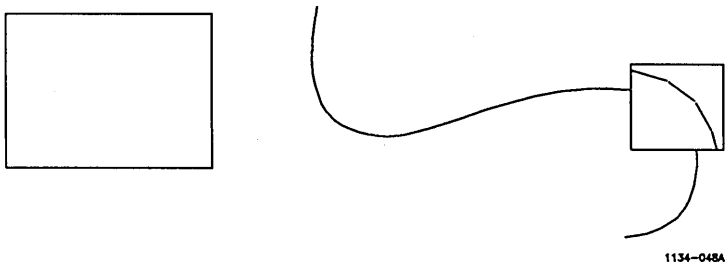


Connected Line draws objects composed of line segments. To use it, follow these steps:

1. Define the starting point by moving the cursor to the desired place in the work area and clicking the **Mark** button.

2. Move the cursor to the second point.

A straight line that originates from the starting point moves with the cursor. The length of the line segments (or distance between points) allows you to use the tool for both straight and curved lines.



3. Click **Mark.**

   A line segment forms connecting the starting point and the second point.

4. Repeat step 3 as needed until your object is complete.

   Notice that after you have defined your final point, a line trails as you move the cursor.

5. To make the line disappear, press the **Bound** button or select **Cancel** from the Function menu.

If you have selected a fill from the Fill Palette, the object is filled after you click the **Bound** button.

If the object is not completely closed (that is, if the first and last points are not the same), a line between the first and last points is created and the object is filled.

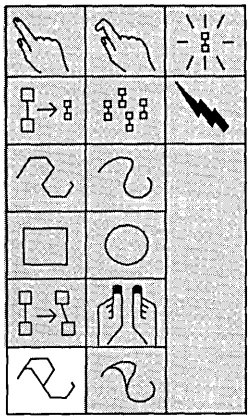
In general, the shaping tools (Connected Line and Sculpt) are most effective when used on lines drawn with Connected Line (as opposed to those drawn with Sketch).

If you select **No Fill** from the Fill Palette, the object appears exactly as you draw it.

SEE ALSO

CANCEL, CONNECTED LINE REPLACE, FILL PALETTE, SKETCH

CONNECTED LINE REPLACE



Connected Line Replace modifies objects by replacing lines.

To use it:

1. Pick the object you want to modify.

2. Define the starting point of the new line by moving the cursor to the desired location and clicking **Mark.**

3. Move the cursor to the second point.

   A straight line that originates from the starting point moves with the cursor.

4. Click **Mark** and a line segment forms connecting the starting point and the second point.

5. Repeat this procedure as needed until the new line is complete.

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6. After you define the final point, a line segment trails as you move the cursor.

   To remove the trailing line, click the **Bound** button or select **Cancel** on the Function menu.

   The object is redrawn incorporating the new line.

7. If you have no further changes, Unpick the newly modified object.

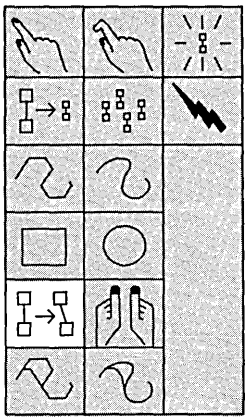
NOTE

Use Connected Line Replace to perform minor modifications. If you need to make substantial changes to an object, delete the object and draw it again.

SEE ALSO

CONNECTED LINE, CANCEL, DELETE, SKETCH REPLACE

CONNECTED MOVE



Connected Move pulls an object and twists it without separating the original points. To use Connected Move:

1. Pick the object you want to modify.

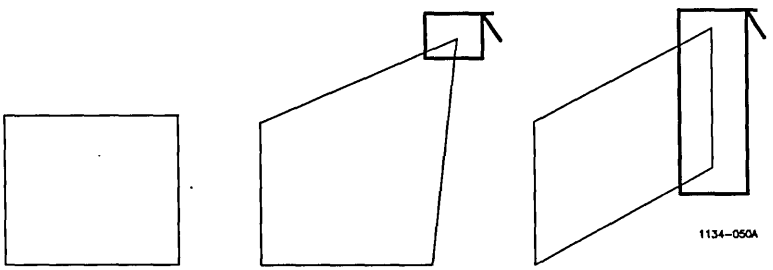
   A box cursor appears.

2. Hold down the **Bound** button and move the Mouse to enlarge or shrink the box cursor, if you desire.

3. When the cursor is the right size, release the **Bound** button.

4. Place the Box cursor on the area of the object you want to modify.

   Place the cursor over the intersection of at least two points (such as the corner of a square). Points can be moved singly or as a group:



5. Hold down the **Mark** button.

   The object is then highlighted, with no fill or color.

6. Move the Mouse (while holding down the **Mark** button) until your modification is finished.

7. Release the **Mark** button.

8. To modify another portion of the object, repeat steps 2 through 7.

9. When your modifications are complete, Unpick the object.

   The fill and color return to the object.

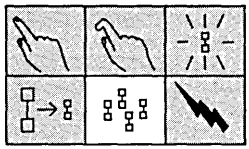
NOTE

Because Connected Move locks the points onto pixels, you may lose detail when you use this command to move objects.

SEE ALSO

PICK, UNPICK, SCALE AND MOVE

COPY



Duplicating an Object

Copy duplicates an object. To use it:

1. Pick the object you want to Copy.

   A rectangular cursor the size of the original object appears.

2. Move the cursor to where you want the copy to appear.

3. If you want to change the size of the copy, hold down the **Bound** button and move the Mouse until the box cursor is the size you want. Release the **Bound** button.

4. To copy the object, click the **Mark** button.

5. To make more copies of the object, repeat steps 2 through 4.

6. To stop copying, unpick the original object or select another tool.

You can also copy from work area to work area. Pick the object you want to Copy in one work area, then select the picture tab of the destination work area. Then follow the normal procedure.

Use this procedure to Copy in either the dual or single work areas.

Placing an Object on Top

You can also use Copy to place an object on top permanently. To do so:

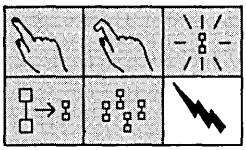
1. Pick the object you want to move to the top.
2. Copy the object to the side of your drawing in any clear space.
3. Select the Delete tool and delete the original object. Or use the Scale and Move tool to move it out of the way.
4. Pick the copied object and use Scale and Move to move it to the appropriate place.
5. Unpick the object.

   The new object is now permanently on top; Redraw will not place it back on the bottom.

SEE ALSO

PICK, UNPICK

DELETE



Delete removes an object or group of objects from the work area. To use it:

1. Move the Lightning Bolt cursor to the object you want to delete.

2. Hold down the **Mark** button and move the Mouse.

   A box-shaped cursor appears.

3. Drag the box-shaped cursor across an edge of the object.

4. Release the **Mark** button.

   The object disappears.

When an object is deleted, any object or portion of an object that it overlays also disappears. A Redraw is automatically executed after a delete to restore the picture (without the deleted object).

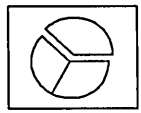
Be sure to cross only the edge of the object or objects you want deleted. When working with tightly grouped or small objects, it may help to first Zoom in on the area before you delete.

You can Undo the last deletion you performed, but you must execute Undo immediately after you have deleted an object.

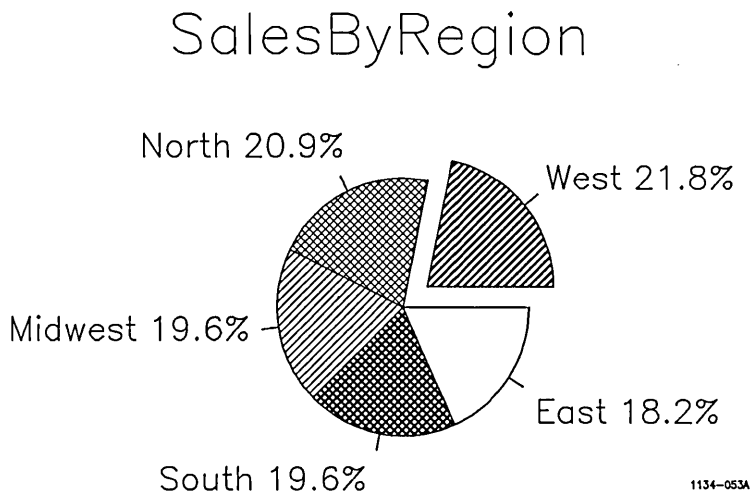
SEE ALSO

PICK, REDRAW, HIGHLIGHT, ZOOM, UNDO

EXPLODED PIE SEGMENT



A pie graph with an exploded segment has one or more segments pulled out of the pie:



To explode a pie segment:

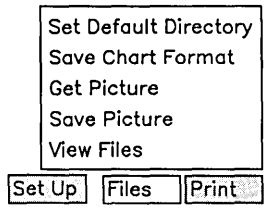
1. Pick the pie.
2. Select the handle in a section of the pie.
3. Select the **Exploded Pie** option on the Tools menu to redraw the object as an exploded pie.
4. If you want to explode more segments of the pie, repeat the procedure.

Even though the separated segment of the pie may look like an individual object, it is still part of the graph as a whole. You cannot Pick it as a separate object.

SEE ALSO

PIE GRAPH

FILES



Selecting Files on the Function menu displays a menu that allows you to select the Save Chart Format, View Files, Get Picture, Save Picture or Set Default Directory functions.

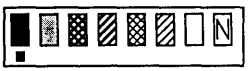
Select the desired function on the pop-up menu.

Each function is discussed under its own heading in this chapter.

SEE ALSO

GET PICTURE, SAVE CHART FORMAT, SAVE PICTURE, SET DEFAULT DIRECTORY, VIEW DIRECTORY

FILL PALETTE



The Fill Palette provides eight different fills for the interior of your object. It can be used when you create or modify an object.

To create a new filled object:

1. Select the appropriate fill icon from the Fill Palette.

2. Draw the object.

To change the fill of an existing object:

1. Pick the object to be changed (if it is not already picked).

2. Select the new fill on the Fill Palette.

   The object now has a new fill. You can change the fill as often as you want.

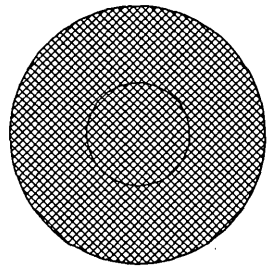
3. If you have no further modifications, unpick the object.

If the object you fill is not closed (that is, if the first and last points do not coincide), the Art Designer draws an imaginary line from the first to last point and fills in the area bounded by your object and the imaginary line.

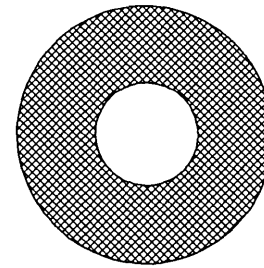
The edges of the work area cannot be used as boundaries for objects.

The No-fill icon has an N in it. Selecting it leaves an object empty. Do not confuse it with the Background icon.

The Background fill allows you to, in effect, use the background of your picture as a fill. You can "see through" your object. Drawing a doughnut would be difficult without the Background fill since a doughnut is one filled circle on top of another. By using the Background fill for the inside circle, you can make it appear to be clear, as if there is a hole in the doughnut.



No Fill



Background Fill

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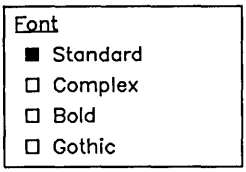
SEE ALSO

COLOR PALETTE, LINE PALETTE, PICK, UNPICK

FONT LIBRARY



The Font Library provides the typefaces (or fonts) for text.

To create new text in a specific font:

1. Select the font from the Font Library.
2. Type the text into the entry line.

To change the font of existing text:

1. Pick the block of text to be changed.
2. Select the new font and the text is modified. You can change the font as often as you want.
3. If you have no further changes, Unpick the block of text.

SEE ALSO

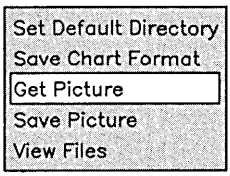
JUSTIFICATION, PICK, SIZE, STRETCH FACTOR, TEXT MARKER, UNPICK

GO

Go executes a function. It is equivalent to the **Go** key on the keyboard.

To use it, select **Go** on the function menu or in the temporary viewing area, as appropriate.

GET PICTURE



Get Picture loads a file that is stored on a disk into your work area. To use Get Picture:

1. Type the name of the picture you want to work on into the entry line.

   The name of the picture in the active picture tab is already displayed in the entry line. If it is not the name you want, **Backspace** over it (or press **Code-Delete**) and type in the name.

2. Press **Go.**

   The file appears in the active work area.

NOTE

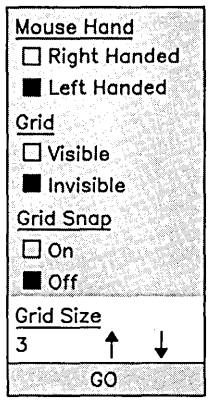
The Get Picture function removes any picture in the active work area before loading in the new picture. Save all your work before getting another picture from the disk.

You may find it easier to load a picture without typing its name. See "View Files."

SEE ALSO

SAVE PICTURE, VIEW FILES

GRID SIZE



Grid Size defines the gap between the Grid points.

To define the Grid Size:

1. Select the Up or Down Arrow under the **Grid Size** heading on the Set Up menu.
2. Position the cursor on the Up or Down Arrow.
3. To change the numerical display, click the **Mark** button.
4. Select **Go.**

   The new Grid appears on the screen.

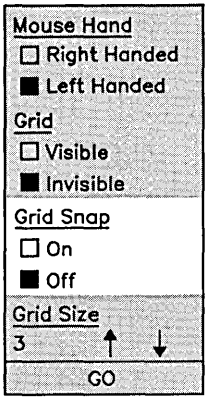
To set the Grid size directly:

1. Select the numerical display.
2. Type in the desired Grid size.
3. Select **Go.**

SEE ALSO

GRID SNAP, SET UP, GRID VISIBILITY

GRID SNAP



Grid Snap causes lines you are drawing to jump to the nearest Grid point. This assists you in drawing straight lines and proportionally accurate objects. Grid Snap can be used with the Grid either visible or invisible.

To use it:

1. Select **On** under the **Grid Snap** heading on the Set Up menu.

   Select **Off** if you do not want Grid Snap.

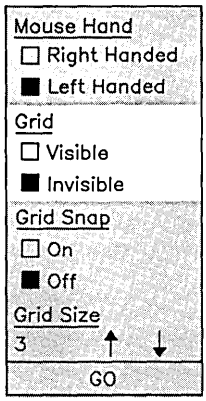
2. Select **Go.**

   The Grid Snap is turned on (or off).

SEE ALSO

GRID SIZE, GRID VISIBILITY, SET UP

GRID VISIBILITY



The Grid is a series of fine horizontal and vertical lines that overlay the work area to aid you in drawing.

If you want to use the grid:

1. Select **Visible** on the Set Up menu.

   If you do not want a grid, select **Invisible.**

2. Select **Go.**

   The Grid displays (or disappears).

SEE ALSO

GRID SIZE, GRID SNAP, SET UP

HELP

Help gives you a brief description of how a selected tool or function works. To use it:

1. Select the Question Mark (?) icon.

   The Question Mark cursor appears.

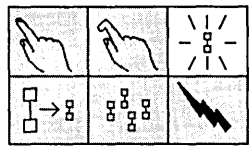
2. Move the cursor over the desired tool icon on the Tools menu or the Function label on the Function menu.

3. Click the **Mark** button.

   A brief description of the function appears in the bottom left corner of the screen.

4. To exit Help, select the ? icon again.

HIGHLIGHT



Highlight shows what object is currently picked. Highlight displays an object simply as an outlined figure, without any fill or color.

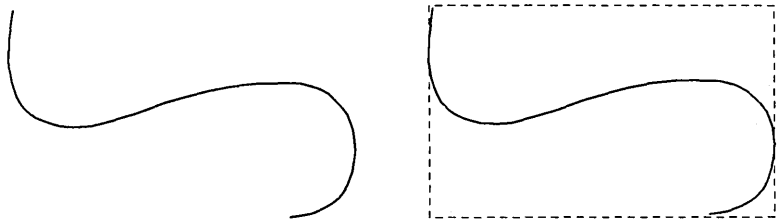
To use it:

1. Select the Highlight icon.

2. Pick the object you want to work with (if it is not already picked).

3. Select the Highlight icon again to turn off the Highlight. You can toggle back and forth as often as you like.

You can use any of the other tools or functions when you are in the Highlight mode. Working in Highlight allows you to work with object edges that might not be visible otherwise (due to colors and fill patterns).



Highlight On *Highlight Off*

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INTERPOLATE

Interpolate
■ Yes
□ No

Interpolate prevents blank cells in an Extended Multiplan worksheet from being represented in a line graph.

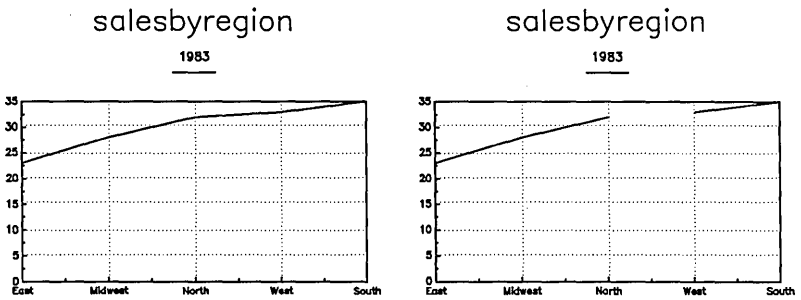
To use it, select **Yes** or **No** under the **Interpolate** heading on the Line Chart Tools Menu.

If you select **No:**

When the Chart Designer encounters a blank cell while creating a line graph from an Extended Multiplan worksheet, it represents it as a "broken" portion of the graph line.

If you select **Yes:**

The Chart Designer ignores the blank cell and interpolates the data by going to the next filled cell. The graph line is drawn unbroken, as shown below:



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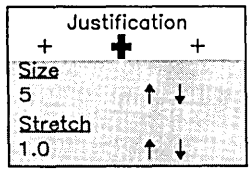
JUSTIFICATION



Justification defines text alignment. There are three options: left, center, and right-justified.

To use it:

1. Select the appropriate cross on the menu.
2. Enter the text in the entry line.
3. Select **Go.**

   The text appears on the screen in the justification mode you have selected.

The Text Marker is the reference point for justification. If, for example, you select center-justified text, the text appears on the screen centered over the Text Marker.

You can change the justification of any text by picking the block of text and selecting the new justification from the menu.

SEE ALSO

PICK, TEXT MARKER, UNPICK

LINE PALETTE

The Line Palette provides seven different lines to use when creating or modifying objects.

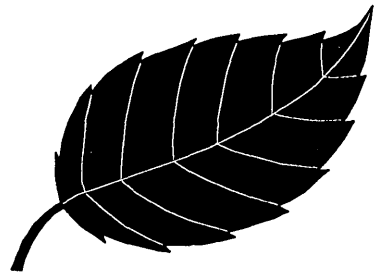
To create a new object with a specified line:

1. Select the appropriate line icon from the Line Palette.
2. Draw the object.

To change the line of an existing object:

1. Pick the object to be changed (if it is not already picked).
2. Select the new line you desire and the object is modified. You may change the line as many times as you like.
3. If you have no further modifications, Unpick the object.

The Background Line resembles the Background Fill in that it draws in the color of the background. It is invisible on the screen unless it is used on top of a filled object, where it becomes very useful. When a drawing is printed on a laser or dot matrix printer, the paper will show through where the background line has been used.



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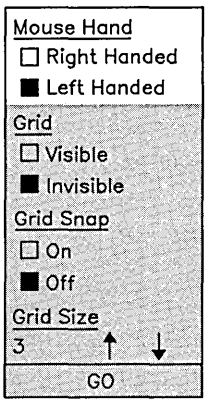
Another way to use the Background Line is as an invisible border around a filled object. As with Background Fill, you will find that the Background Line is not very effective when a drawing is plotted.

When using the Connected Line Replace or Sketch Replace, if you specify a different type of line than the one in the existing object, the line changes to match the original line. Only one type of line may exist in one object.

SEE ALSO

COLOR PALETTE, CONNECTED LINE REPLACE, FILL PALETTE, PICK, SKETCH REPLACE, UNPICK

MOUSE HAND



You can set up the Mouse for right or left-handed use by invoking the Mouse Hand function.

To use Mouse Hand:

1. Select **Set Up** on the Function menu.

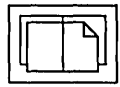
   The Set Up menu displays.

2. Select **Left-Handed** or **Right-Handed** under the **Mouse Hand** heading on the Set Up menu.

3. Select **Go.**

If you select the Left Handed option, the buttons on the Mouse will be reversed from the standard right-hand mode. In other words, the **Mark** button becomes the **Bound** and vice-versa. Right Handed is the default.

NEXT PAGE



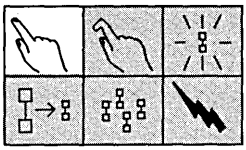
When you are using View Files, use **Next Page** to display the screen of picture file names that follow.

To use this feature, either select the Next Page icon or press the **Next Page** key on the keyboard.

SEE ALSO

PREVIOUS PAGE, VIEW FILES

PICK



Pick identifies the object a task will be performed on. A hand cursor appears when Pick is operational. To pick an object:

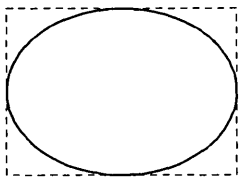
1. Place the hand cursor over the object to be picked.
2. Hold down the **Mark** button and move the Mouse.

   A box-shaped cursor appears.
3. Drag the Mouse while holding down the **Mark** button.

   The box-shaped cursor stretches as you move the Mouse.
4. Drag it over an edge of the object.
5. Release the **Mark** button.

   A box consisting of broken lines surrounds the object, which is now picked.

Picked Square



Picked Circle

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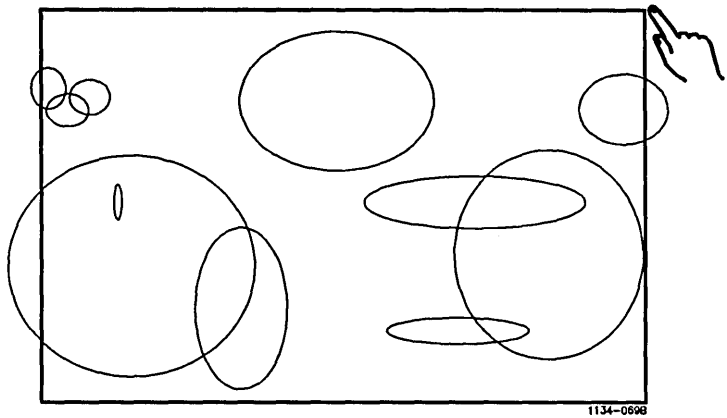
You can perform as many operations as needed on the picked object.

An object will remain picked when you use Redraw, Zoom, View Files, or Print. You can save a picture while an object in that file is picked, though the object will not be picked when you get that file from disk.

You can pick several objects at once by moving the box cursor over the edge of the individual objects in one movement. If you pick several objects like this, the group of objects are treated as one object.



When the group is unpicked, each object reverts to being an individual object.

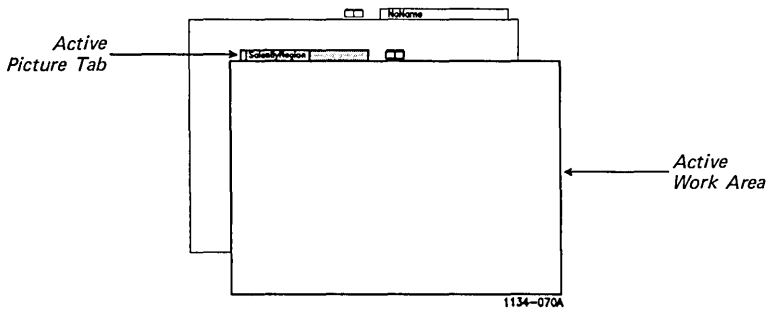
A tool or function that requires a picked object before it operates, automatically displays the hand cursor.

SEE ALSO

UNPICK

PICTURE TABS

The Picture Tabs appear at the top of the work area. They are like the tabs on a file folder and contain the name of the picture they "hold":



When a Picture Tab is active it is highlighted. An active Picture Tab is associated with the drawing in the work area.

To activate a Picture Tab, select it.

If you are using the single work area, selecting a Picture Tab displays the picture associated with the active Picture Tab.

If you are using the dual work area, selecting a Picture Tab identifies it as the active work area.

PICTURE TABS

To change the picture name in the Picture Tab:

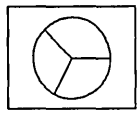
1. Select the Picture Tab.
2. Select **Files** on the Function menu.
3. Select **Get Picture** on the menu that appears.
4. Delete the file name in the entry line.
5. Type the name in the text entry line.
6. Press **Go.**

You can also change the name in the Picture Tab by selecting from the picture files listing generated by View Files. When you select a file name from that listing, the file name is loaded into the active Picture Tab.

SEE ALSO

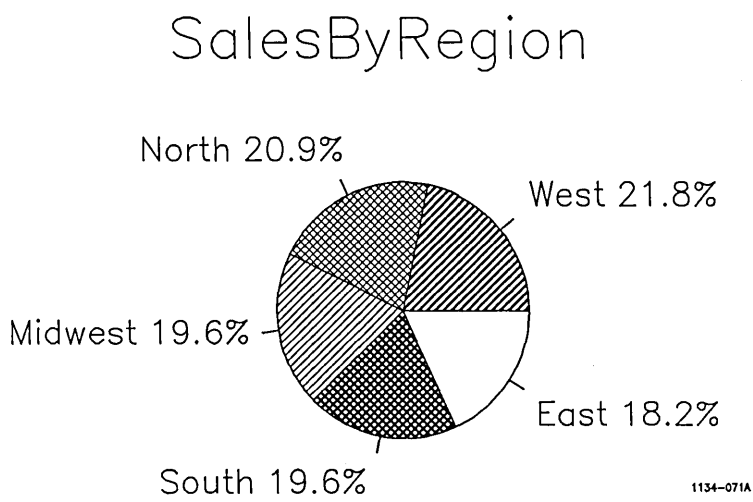
VIEW FILES, WORK AREA

PIE GRAPH



Pie Graph displays a pie graph with all its pieces connected at the center point.

This is the standard type of pie graph. If you explode a pie graph and want to return to the standard display, select the Pie Graph icon to redraw the graph.



SEE ALSO

EXPLODED PIE SEGMENT

PREVIEW

Preview displays picture files quickly, so that you can browse through your directory until you find the picture you want to work on.

To use Preview:

1. Select **Files** on the Function menu.

   The Files menu displays.

2. Select **View Files** on the Files menu.

   A list of the picture files in your directory displays in the temporary viewing area.

3. Select the **Preview** icon.

4. Select the file you want to Preview by selecting its name in the directory listing.

5. Select **Go.**

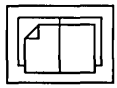
   The picture loads into the active work area.

You cannot use tools or functions while in the temporary viewing area.

SEE ALSO

VIEW FILES

PREVIOUS PAGE



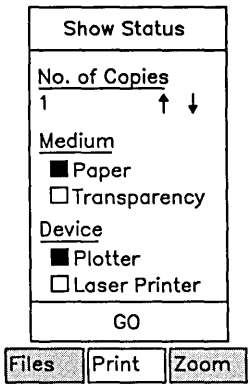
When you are using **View Files**, use **Previous Page** to display the screen of picture file names that are listed prior to the current screen.

To use this feature, select the Previous Page icon or press the **Prev Page** key on the keyboard.

SEE ALSO

NEXT PAGE, VIEW FILES

PRINT



Select Print when you want to print a drawing or chart to an output device. To use it:

1. Select **Print** on the Function menu.

   The Print menu appears.

2. Specify the number of copies you need by using the Up or Down Arrow to change the displayed number.

3. Specify whether you will be printing on a transparency or paper.

4. Specify the type of plotter or printer.

5. Select **Go.**

If you are using a spooled device, the Print label highlights when there is a message from the device. To display the message, display the Print menu and select **Show Status.**

SEE ALSO

COLOR PALETTE

REDRAW

Redraw clears the screen briefly and redraws your picture.

To use it:

Select **Redraw** from the Function menu.

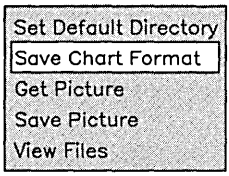
A picked object will overlay any other object on the screen when you execute a Redraw. Using Redraw this way, you can take a picked object from the bottom of a stack and place it temporarily on top. (To place an object permanently on top, you must you the Copy command. See "COPY" for a description of how to do this.)

Scale and Move often seems to take away an overlaid portion of an object. Use Redraw to redisplay any apparently missing parts.

SEE ALSO

COPY, DELETE, SCALE AND MOVE

SAVE CHART FORMAT



With the **Save Chart Format** function, you can save the format of a graph without saving its numerical data. The format includes the size, text, patterns, colors, and dimensions of a graph.

To use this feature:

1. Pick the chart.
2. Select **Files** on the Function Menu.
3. Select **Save Chart Format** on the Files menu.
4. Type the name of the format file into the text entry line.
5. Select **Go.**

Saving a chart format allows you to create similar graphs that require the same format, but have different data.

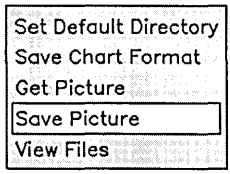
To recreate the graph format, specify your saved format file as the graph format file when you create the chart in Extended Multiplan.

When you save a format file, a **.fm** file name extension is automatically appended to the name.

SEE ALSO

SAVE PICTURE

SAVE PICTURE



Save Picture saves the picture you designate to a disk. To use this feature:

1. Select **Files** on the Function menu.

   The Files menu displays.

2. Select the **Save Picture** option.

   The picture displays in the lower-left corner of the screen. A text entry line appears with the name of the active picture in it.

3. If the picture you want to save has the same name as the name already in the entry line, select **Go** and it is written to disk.

   If the name of the picture file is not in the entry line, **Backspace** over it (or press **Code-Delete**) and type in the correct name. Then press **Go.**

   The picture is saved and the program now returns to the work area. The selected picture is displayed.

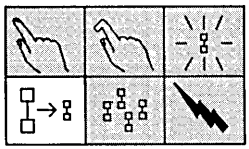
NOTE

When a picture is saved, it overwrites any file of that name that already exists in your directory on the disk. If you use an existing drawing as part of a new drawing, or if you want to keep your original drawing, save your new drawing under a different name.

SEE ALSO

GET PICTURE, SAVE CHART FORMAT, VIEW DIRECTORY

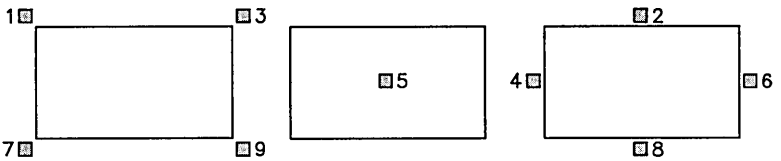
SCALE AND MOVE



Scale and Move moves an object from one part of the screen to another and changes its proportions.

To move an object:

1. Pick the object you want to scale or move. A rectangular arrangement of nine squares (called Scale and Move Handles) appears over the object.



Corner Handles Scale *Center Handle Moves* *Side Handles Stretch*

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2. Place the arrow cursor on the center handle (5) and hold down the **Mark** button. The handles disappear and the object is highlighted, with no fill or color.

   (When scaling or moving text or some complex objects, a box representing the area of the object appears.)

3. Continue to hold down the **Mark** button and move the Mouse to drag the object across the screen.

   When the object is in the desired location, release the **Mark** button. The highlight turns off and the handles reappear.

4. If you are finished working with the object, Unpick it.

If you want to scale (or change the size) of the object, follow the same procedure, but place the arrow cursor on one of the corner handles. Scaling enlarges or shrinks an object proportionally.

To stretch an object, select a side handle. The sides of a box, for example, shorten and lengthen as you move the Mouse.

As you drag the object, it "pulls out" in the direction you are dragging it. The handle opposite the one you selected serves as an anchor point; you can pull the object out from that point.

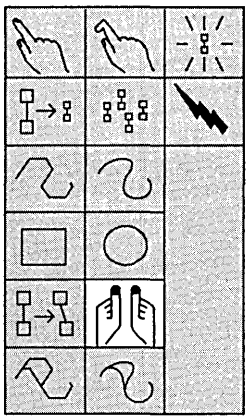
You can change the proportions of an object with Scale and Move, but you cannot alter its basic form. A rectangle can be scaled or stretched in many different ways and the line segments that compose it can be shortened or lengthened, but the rectangle still remains a rectangle.

Use Connected Move to change the shape of an object.

SEE ALSO

CONNECTED MOVE, PICK, UNPICK

SCULPT



Sculpt allows you to change the shape of an object in much the same way a potter shapes clay, by molding and smoothing portions of its shape.

To use Sculpt:

1. Pick the object you want to sculpt.

   The object is highlighted, with no fill or color. A box cursor appears.

2. Move the box cursor to the area you want to shape.

   To change the size and proportions of the box cursor, hold down the **Bound** button and move the Mouse.

3. Hold down the **Mark** button and use the cursor to smooth the object.

4. Release the **Mark** button.

   If you want to sculpt another part of the object, you can move around and through the object as long as the **Mark** button is not held down.

5. If you are finished Sculpting, unpick the object.

NOTE

Sculpt works best when used with an object created with Connected Line.

SEE ALSO

PICK, UNPICK, ZOOM

SELECT

To use any tool or function, you must select it.

To select a tool or function:

1. Move any cursor over the icon or function label you want to select.

2. Click the **Mark** button on the Mouse.

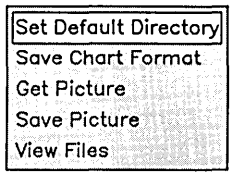
   This activates the tool or function.

To click the **Mark** button on the Mouse, press the button, then quickly release it.

SEE ALSO

PICK

SET DEFAULT DIRECTORY



You can change the directory you are working in with **Set Default Directory.**

To use this feature:

1. Select **Files** on the Function Menu.
2. Select **Default Directory** on the menu.

   The name of the current directory displays in the text entry line. If you want to enter the name of a new directory, **Backspace** over it or press **Code-Delete.**
3. Type the name of the directory into the text entry line.
4. Press **Go.**

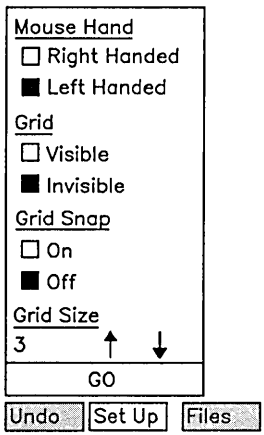
Use **Save Default Directory** when you want to save or get a picture. You can save or get a picture from another directory by specifying that directory when you type the filename. Use the following file name specification:

[volume]<directory>filename

SEE ALSO

GET PICTURE, SAVE PICTURE

SET UP



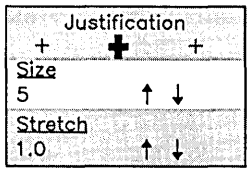
The **Set Up** functions allow you to customize your Mouse and Grid.

When you select **Set Up** on the Function menu, a menu appears that lists various options. Each option is discussed under its own heading in this chapter.

SEE ALSO

GRID SIZE, GRID SNAP,
GRID VISIBILITY, MOUSE HAND

SIZE



Size defines the size of text.

To determine the size of your text:

1. Change the number that displays on the Text Tools Menu under the **Size** heading by selecting the Up or Down Arrows.
2. Enter your text into the text entry line.
3. Press **Go.**

You can change the size of existing text by selecting the block of text and then selecting the Up or Down Arrows.

The box formed by the text handles enlarges or shrinks as you change the size.

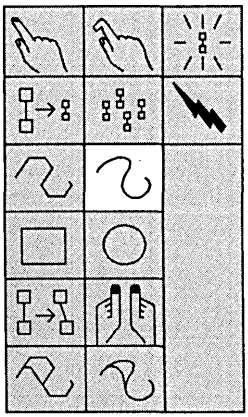
Note that the size of text in Art Designer is not equivalent to typographic point size.

The practical size limit is 76. Larger sizes overflow the work area.

SEE ALSO

FONT, JUSTIFICATION

SKETCH



Sketch draws objects consisting of unsegmented or "smooth" lines.

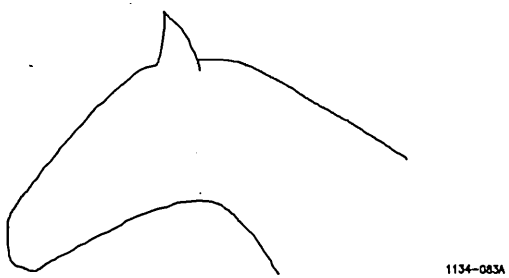
To use Sketch:

1. Hold down the **Mark** button and move the Mouse to draw your object.

2. To stop drawing, release the **Mark** button.

   If you selected a fill, the object is now filled.

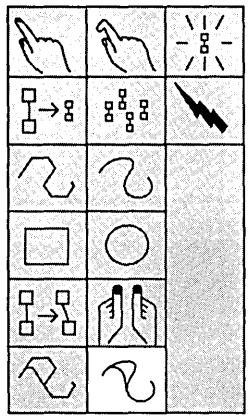
If the object is not completely closed (that is, if the first and last points are not the same), an imaginary line between the first and last points is created and the object is filled.



SEE ALSO

CONNECTED LINE, SKETCH REPLACE

SKETCH REPLACE



Sketch Replace modifies objects by replacing one line. The new line replaces a previously drawn line and reshapes an object.

To use Sketch Replace:

1. Pick the object you want to modify.

2. Hold down the **Mark** button and draw the new line.

3. Release the **Mark** button.

   The object is reshaped incorporating the new line.

4. If you have no further changes, unpick the newly modified object.

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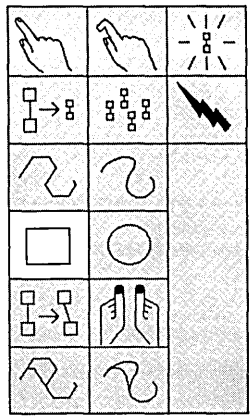
NOTE

Use Sketch Replace to make minor modifications to objects. If you need to make substantial changes to an object, delete it and draw it again.

SEE ALSO

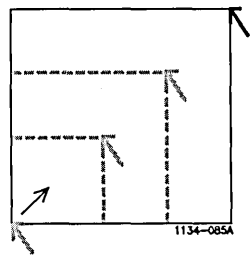
CONNECTED LINE REPLACE, SKETCH

SQUARE



The square draws rectangles. To use this feature:

1. Define the corner of your rectangle by moving the cursor to the desired place in the work area.
2. Hold down the **Mark** button.
3. While holding down the **Mark** button, move the rectangular cursor until it is the size and proportion you want.
4. Release the **Mark** button.



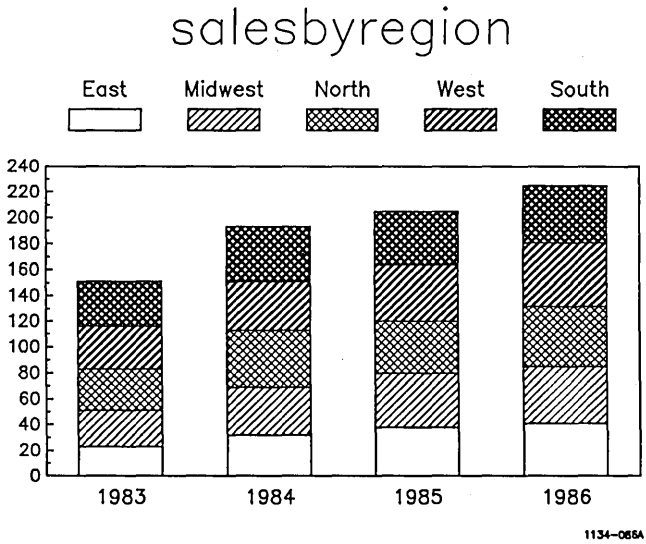
SEE ALSO

CIRCLE

STACKED BAR GRAPH

The **Stacked Bar Graph** command displays graph data as a stacked bar graph.

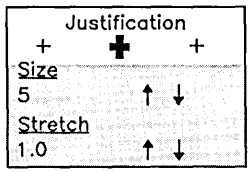
To use this feature, select the **Stacked Bar** icon from the Chart Tools menu.



SEE ALSO

BAR GRAPH

STRETCH



Stretch measures and changes the length of a block of text. To use Stretch:

1. Pick the block of text you want to stretch.

2. To change the numerical "stretch factor," select the Up or Down Arrow under the **Stretch** heading on the Text Tools menu.

   As you do this, the text and the box around it change size.

3. If you have no further modifications, unpick the text.

The Stretch Factor is expressed as a decimal proportion. In other words, the normal stretch factor for a given font size is 1.0. When text is stretched, it becomes greater or smaller than the standard of 1.0.

For example, a block of text with a stretch factor of 2.0 is twice as wide as a normal block of text in that font size.

Stretch Stretched

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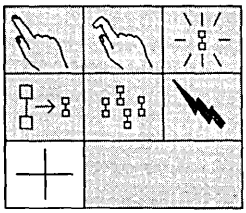
Text can also be stretched with the Scale and Move command. As you stretch the text, the numbers on the Stretch Factor numerical display increase or decrease.

SEE ALSO

PICK, SCALE AND MOVE, UNPICK

TEXT MARKER



The Text Marker is a cross-shaped cursor used to place text. To use Text Marker:

1. Move the arrow cursor to the desired location.

2. To place the Text Marker, click the **Mark** button.

3. If you want to change the location of the Text Marker, move the arrow cursor to the new location and click the **Mark** button before typing any new text.

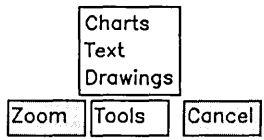
   The Text Marker "jumps" to the new location.

When text is entered, it is justified according to the location of the Text Marker. The Text Marker is the midpoint of center-justified text, the left-most point for left-justified text, and the right-most point for right-justified text.

SEE ALSO

JUSTIFICATION

TOOLS

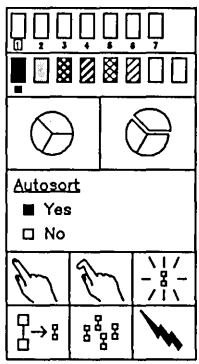


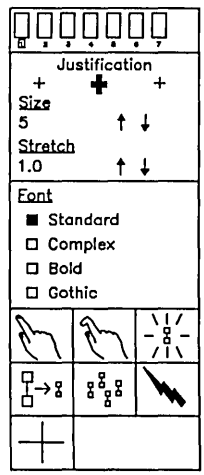
The Tools function displays a menu that gives you access to the Chart, Drawings, and Text Tools menus.

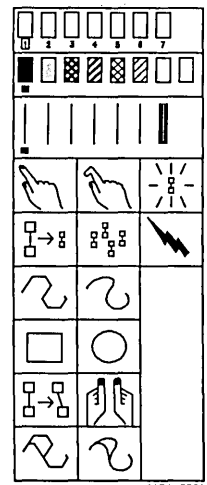
To use Tools:

1. Select the **Tool** label on the Function menu.

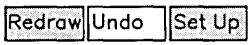
2. Select the Tools menu you want on the menu that displays.







UNDO



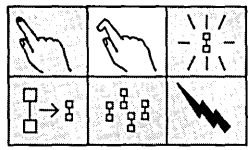
Undo restores the last object deleted to the screen. To use this feature, select **Undo** on the Function Menu.

The **Undo** command restores only the last deletion. You must select **Undo** immediately after deleting an object.

When the Art Designer redraws the screen, it places the object in the same position it was prior to the deletion. An object that was overlaid by another will remain so.

Undo does not restore objects deleted with the Clear or Line Replace commands.

UNPICK



When you are through working on a picked object, you unpick it.

To unpick an object, select the Unpick icon on the Tools menu.

You can also unpick by:

- Using the **Bound** button (when the Pick icon is active)
- Selecting another object
- Selecting a tool that does not require a Picked object

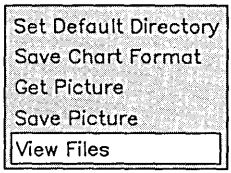
If you unpick with the **Bound** button, a box cursor appears. Drag it across an edge of the object you want to unpick.

Unpicking with the **Bound** button is especially useful for unpicking individual objects out of a picked group. Unpicking with the **Bound** button works only when the Pick icon is active.

SEE ALSO

PICK

VIEW FILES



View Files shows a list of the picture files in your current directory. To use this feature:

1. Select the picture tab of the work area you want the picture to display in.

2. Select **Files** on the Function menu.

3. Select **View Files** on the menu that displays.

   An alphabetical listing of all the picture files in your current directory displays.

   If there are too many files to list on one screen, up to 200 can be listed on multiple screens.

   To move from screen to screen, select the **Next Page** or **Previous Page** icons.

4. Select the **Preview** icon to view the picture file.

5. To view a particular picture file, select the file name by moving the cursor over it and clicking the **Mark** button.

   This highlights the file name and enters it into the active picture tab.

6. To load the file into the active work area, select the **Go** icon.

7. To view other pictures, repeat steps 2 through 4.

   To view two files side-by-side, activate the other work area and repeat steps 2 through 5.

SEE ALSO

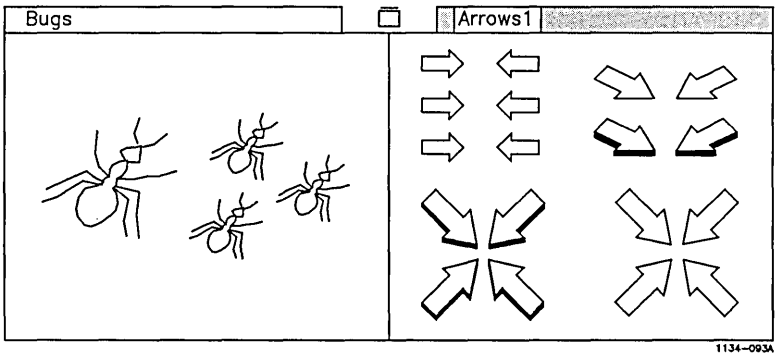
GET PICTURE, NEXT PAGE, PREVIOUS PAGE

WORK AREA

You can change from single to dual work areas by selecting the Work Area icons, which lie between the Picture Tabs.

The single work area displays pictures over the full screen, with one on top and the other on the bottom.

The dual work area displays pictures side-by-side.



You can use any tool or function in either type of work area. You can Copy between the two screens in both single and dual work areas.

NOTE

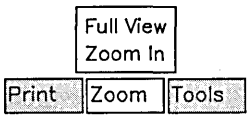
When you View or Save Files, the Art Designer appears to go into the dual work area. Although the screens appear "side-by-side," you cannot use any tools or functions.

The Tools menu is always displayed when you are in the dual work area. It does not display when you are performing file functions.

SEE ALSO

PICTURE TABS, SAVE FILES, VIEW FILES

ZOOM



Zoom enlarges a portion of your work area.

To use Zoom:

1. Select **Zoom** on the Function menu.

2. Select **Zoom In** on the menu that displays.

   The Zoom cursor appears.

3. Move the Zoom cursor to the general area you want to Zoom in on, then hold down the **Bound** button.

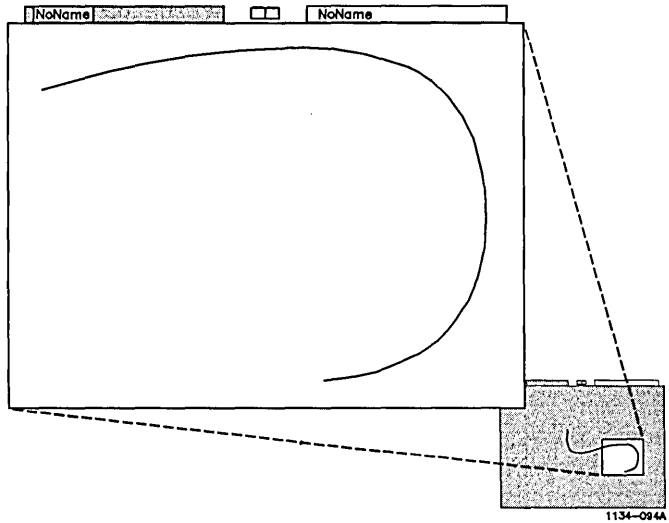
4. Move the Mouse to enlarge the rectangular portion of the Zoom cursor until it defines the boundaries of the area you want to Zoom in on.

   (You do not need to do this if the standard box size is acceptable.)

5. Release the **Bound** button.

6. Click the **Mark** button.

   The portion of the work area you defined is enlarged.



7. To exit Zoom mode, select **Zoom** on the Function menu again. When the menu appears, select **Full View.**

You can perform any function or use any tool when Zooming (including **Zoom**).

APPENDIX A: THE PICTURE LIBRARY

The Art Designer Picture Library is a collection of pictures included with the Art Designer software. This library of pictures can be used alone, or incorporated into your own drawings.

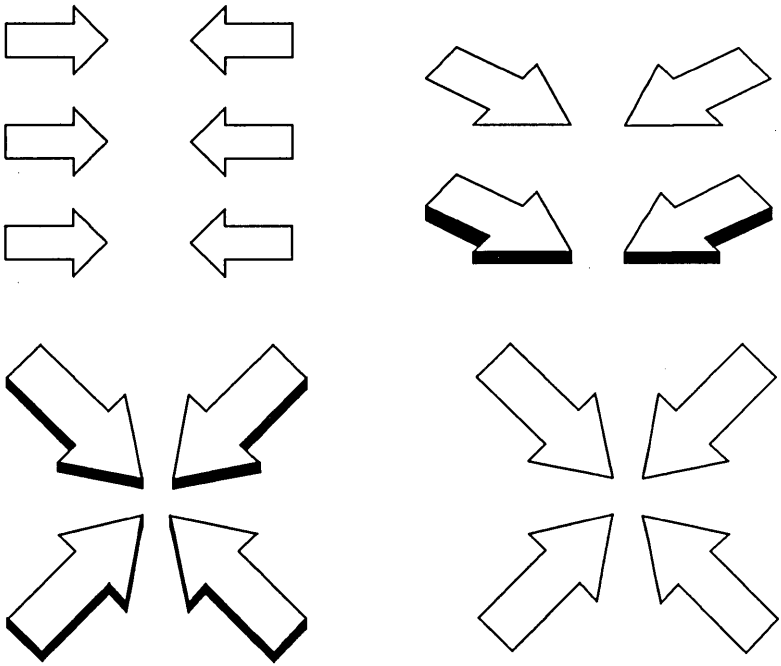
The picture files are located in [Sys]<Sys>. For specific instructions on changing directories, see SET DEFAULT DIRECTORY in Chapter 11, "Reference." If the Picture Library files are not in [Sys]<Sys>, ask your system administrator for assistance.

Make a backup copy of the picture files before using them in case they are accidentally modified or deleted.

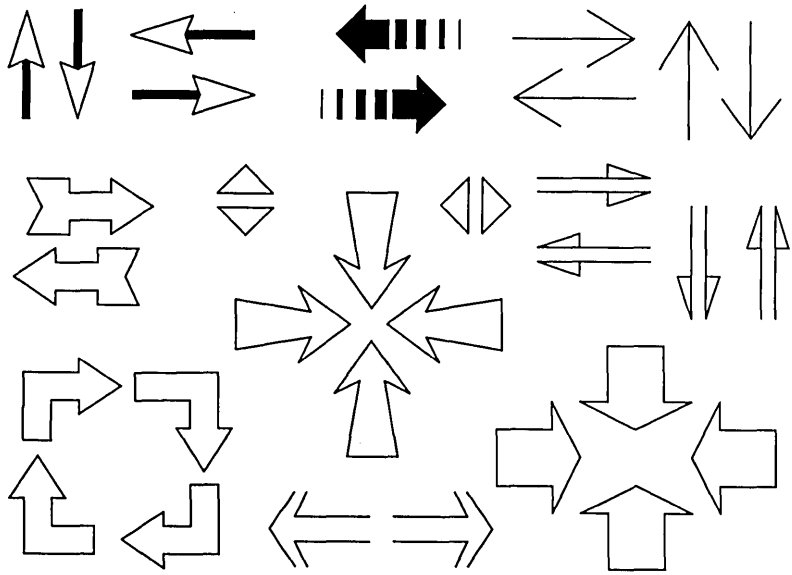
All of the Picture Library pictures are shown in this chapter; some are marked with this symbol: 

Pictures with this symbol are composed of overlaid objects and can only be printed on a laser or dot matrix printer. When plotted, the hidden areas of objects will show through any objects drawn on top of them. Unmarked pictures work well with any printer.

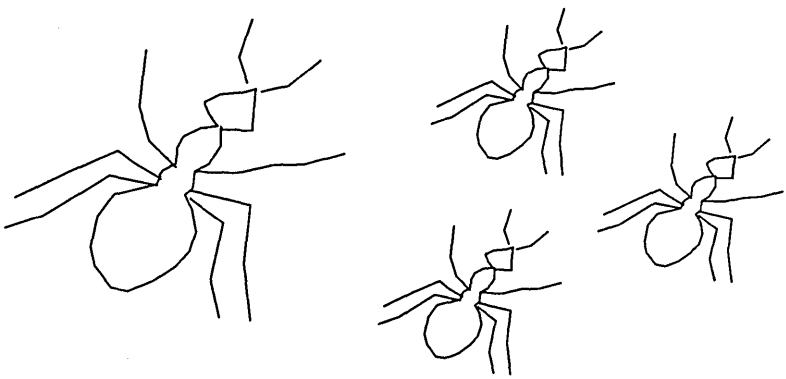
Arrows1



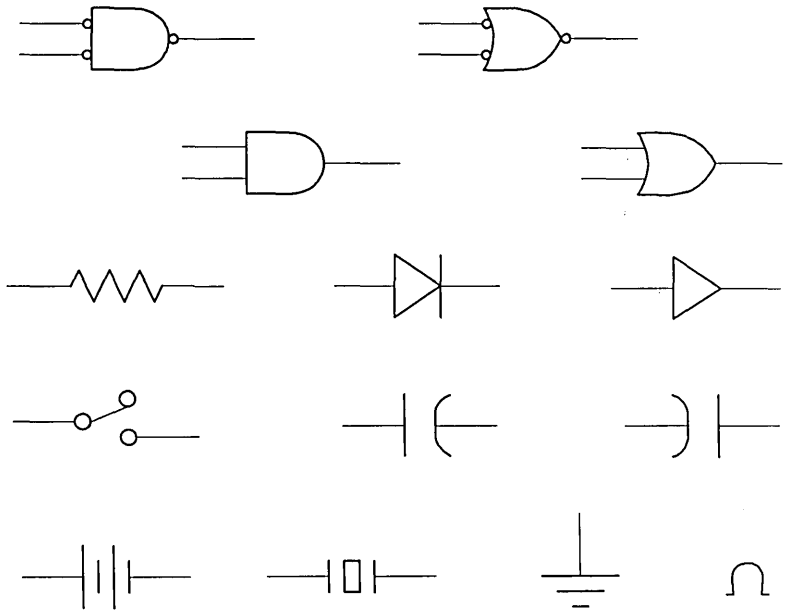
Arrows2



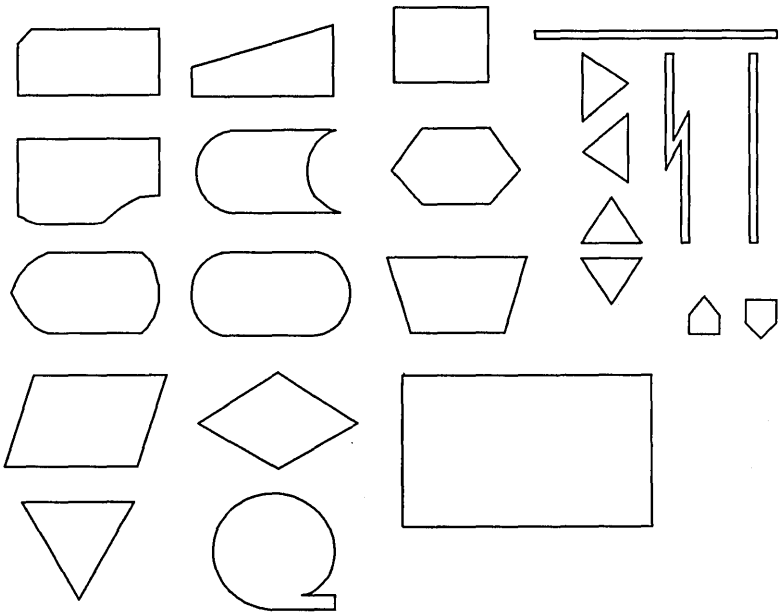
Bugs



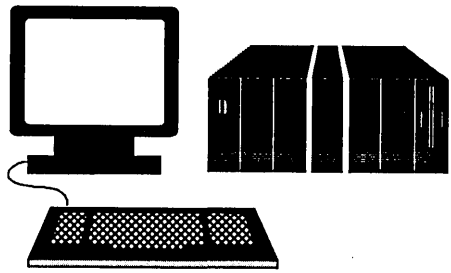
ElectronicSymbols1

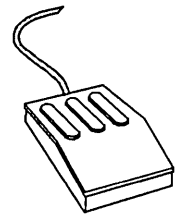


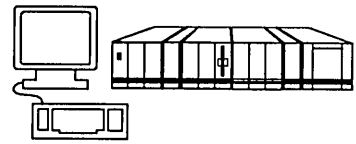
FlowChartSymbols

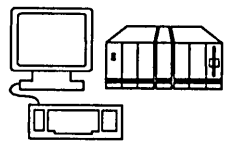


Hardware1

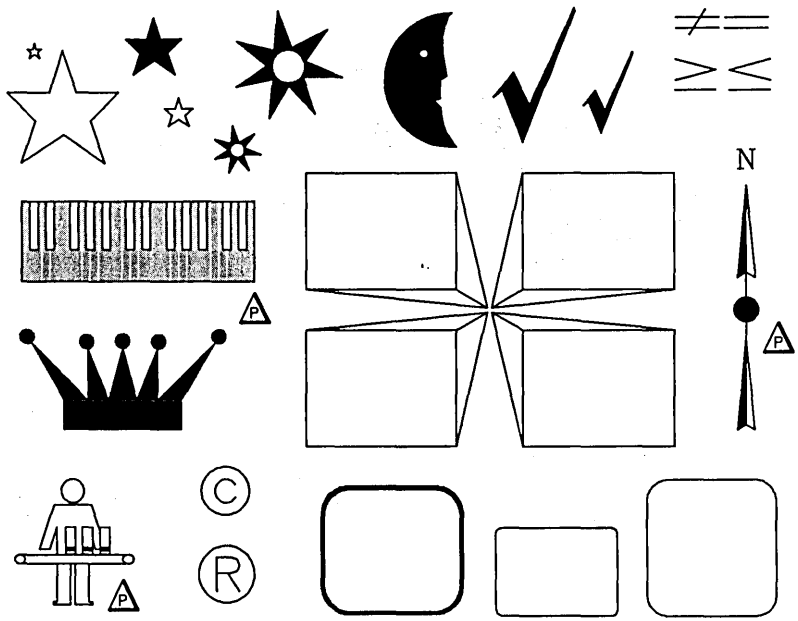




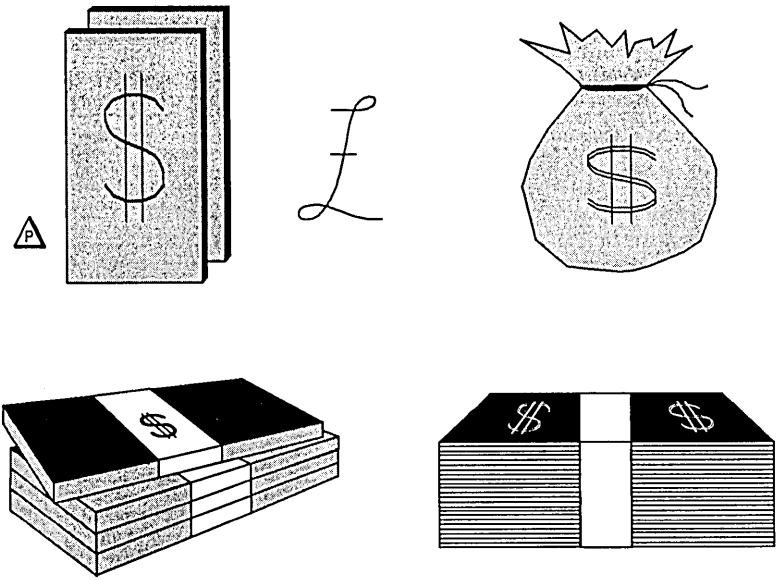




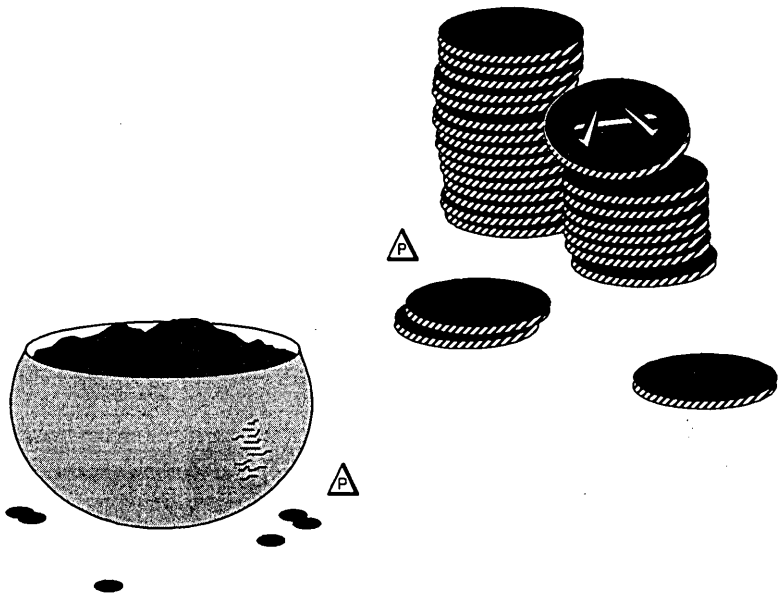
MiscSymbols1



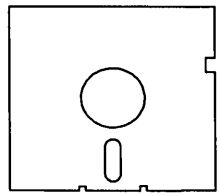
Money1

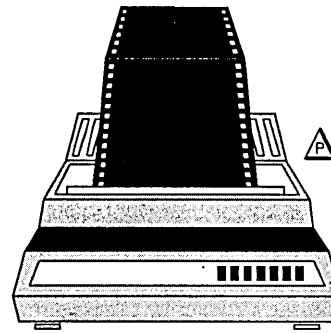


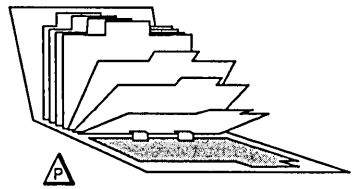
Money2

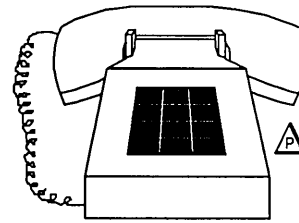


OfficeObjects1

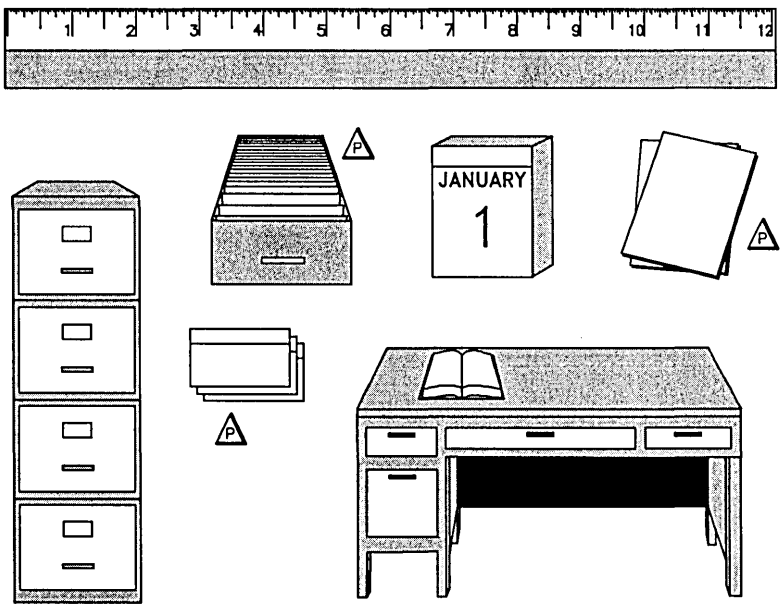




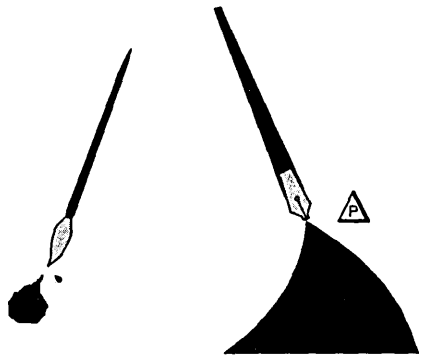


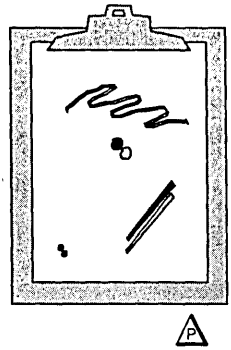


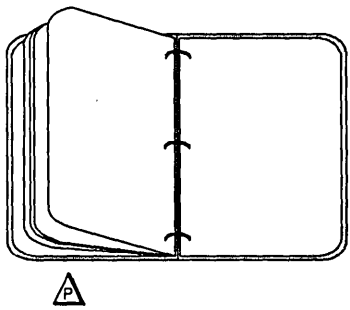
OfficeObjects2

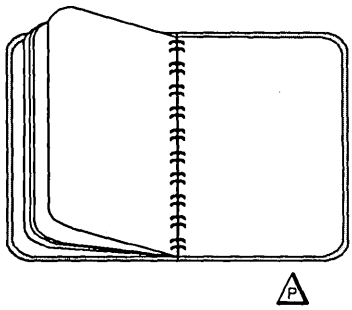


OfficeObjects3

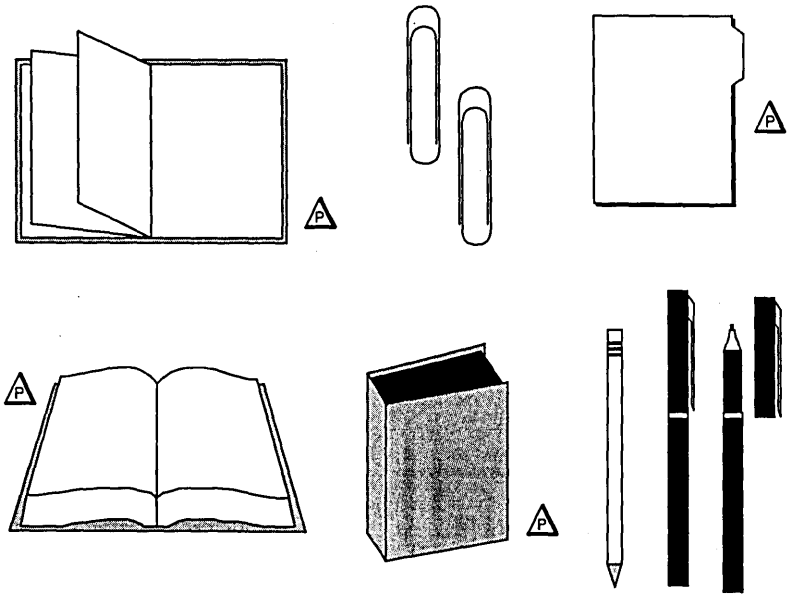




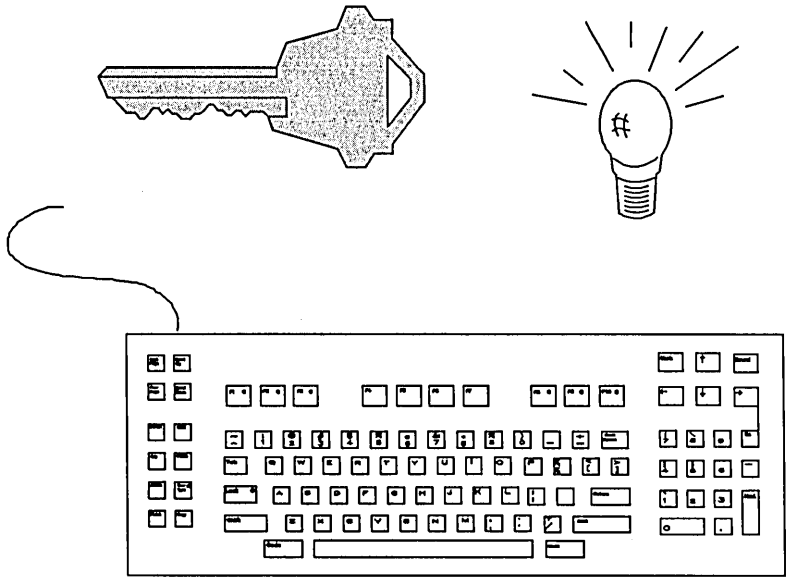




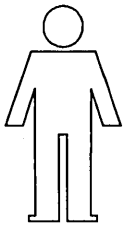
OfficeObjects4

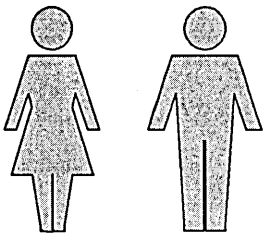


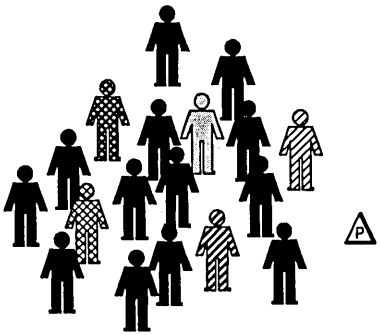
OfficeObjects5



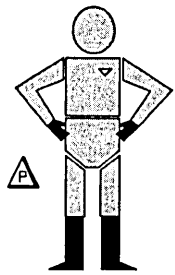
People1

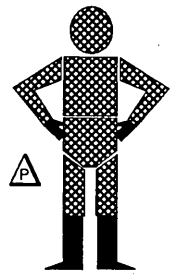


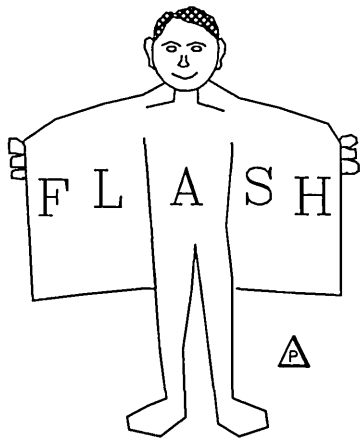




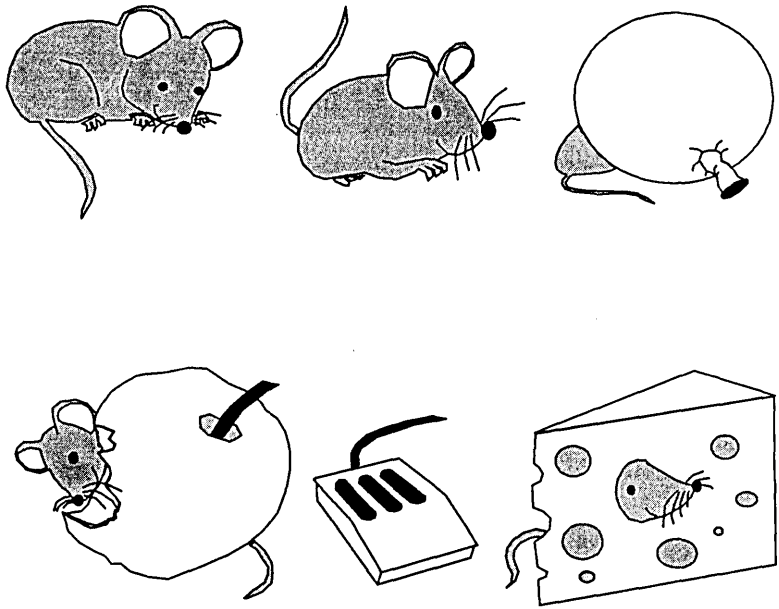
People2



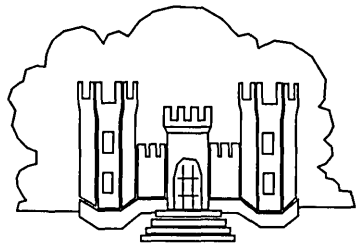


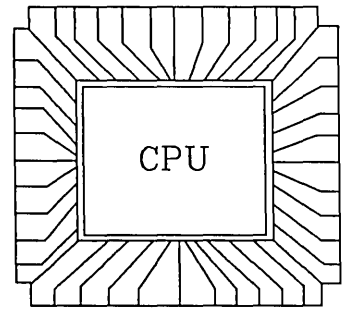


Rodents

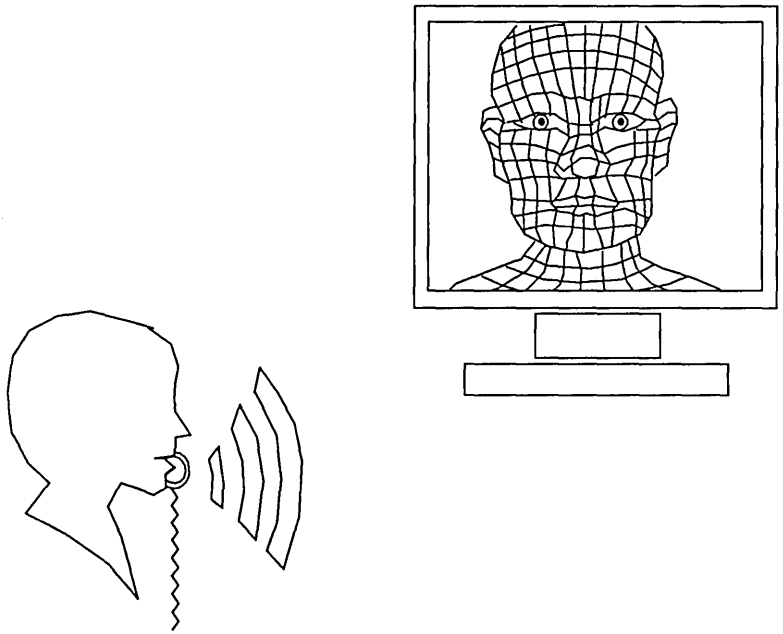


Technology1





Technology2



active picture. The active picture is the picture that you are currently able to work on. The active picture is identified by its active picture tab.

active picture tab. The picture tab associated with the active picture. To activate a picture tab, select it. It highlights and identifies the picture associated with it as the one you want to work on.

arrow keys. These keys are in the upper-right corner of the keyboard; they are used to move the cursor around the screen. To move the cursor, hold down the **Shift** key and press the appropriate **Arrow** key. (A more efficient way to move the cursor is to use a Mouse.)

Art Designer. Art Designer is a flexible graphics package that enables you to create charts and drawings. Art Designer includes a subset called Chart Designer that works only with charts.

block. A block is a group of words regarded by Art Designer as an object. Words that are entered into the text entry line as a group form a block.

chart. A chart contains graphic representation of numerical data and any text or pictures that accompany it. The term "chart" is used interchangeably with graph, although a graph is just one portion of a chart.

Chart Designer. The portion of Art Designer that uses data from Extended Multiplan to create charts.

chart format. The chart format is everything except the actual numerical data contained in a chart. This includes the graph type, color, fill patterns, line types, and so on. The chart format can be saved and used to create other charts that are similar in appearance.

click. The act of pressing and then releasing the **Mark** button on the Mouse. Clicking is primarily used to **select** an icon or function.

default. A standard or normal state or value. For example, you can specify a default directory, that is a directory that you automatically are given access to when you start up the Art Designer.

directory. The place where your files are kept. A directory is like a file cabinet for your picture files. You can work with the files in a default directory or specify another directory.

disk. A magnetic medium that stores electronic data. Your picture files are stored on a disk; you can retrieve them when you want to work on them. Most workstations have a hard disk attached to them. You can also use floppy disks to store files.

dot matrix printer. A type of output device that prints images by composing them as a series (or matrix) of little dots.

file. A set of related data contained in a directory. Art Designer produces picture files. When you create a drawing and save it to the disk, that drawing becomes a file.

font. A complete assortment of type of one size and face.

function. An Art Designer feature that is selected from the Function menu. (See **tool.**)

function keys. The keys along the top of the keyboard labelled **F1** through **F10.** These keys can be pressed to execute functions, instead of selecting from the Function menu.

function label. A small box that appears at the bottom of the screen and contains the name of a function. These labels correspond to the function keys along the top of the keyboard. Pressing a function key executes the corresponding function.

Function menu. The set of function labels that appears along the bottom of the screen.

highlight. Distinguishing or emphasizing data on a screen by changing the light intensity. In the Art Designer, highlighting shows what object is currently picked.

icon. A symbol that represents an Art Designer tool. Selecting an icon activates a tool.

laser printer. An output device that produces high-resolution printed images.

menu. A portion of the screen that contains icons or function labels. You select Art Designer functions from a menu. There are three types of menus: pop-up menus, tools menus, and the Function menu.

Mouse. A mechanical device attached to a workstation that moves the cursor around the screen as you move the Mouse across a desktop.

object. The basic unit of an Art Designer picture. An object is the smallest entity you can work with.

palette. A portion of a menu that enables you to choose the color, fill, and line type of the objects you create.

picture. A picture is created out of objects and saved as a file.

plotter. An output device that uses mechanical arms with pens to draw out pictures.

pop-up menu. A small menu that appears when you select certain function labels and disappears when the selected function has executed.

spooler. A system that controls the order in which files are printed. A spooler enables several workstations to share one output device.

tool. An Art Designer feature that is selected from a Tools menu.

Tools menu. A menu that contains icons representing features you can use to create and modify pictures. There are three Tools menus in the Art Designer: Drawing, Text, and Charts.

USER'S COMMENT SHEET

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09-01134-01 DGA-240

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