MINDSET

Designer™

User's
Guide

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Section 1

Introduction

Welcome to Designer!

DESIGNER is a computer program that turns your MINDSET Personal
Computer System into an electronic graphics paintbox. You can use it to
create anything from wildly abstract paintings to precise charts and
diagrams, and anything in between. In fact, most of the illustrations in
this guide were created with DESIGNER.

Not only does DESIGNER give you a studio-full of brushes, patterns,
colors, and other useful tools; it also lets you create your own tools. You
can store any painting or custom tool that you've created on a work
diskette; and, of course, you can print your creations.

Working with the system is simple – you just use the menus to tell
DESIGNER what you want to do. Here's the big picture.

Master
Menu

Help

Tools

Paint
Screen
Window

Storage

Palette

Paint Screen
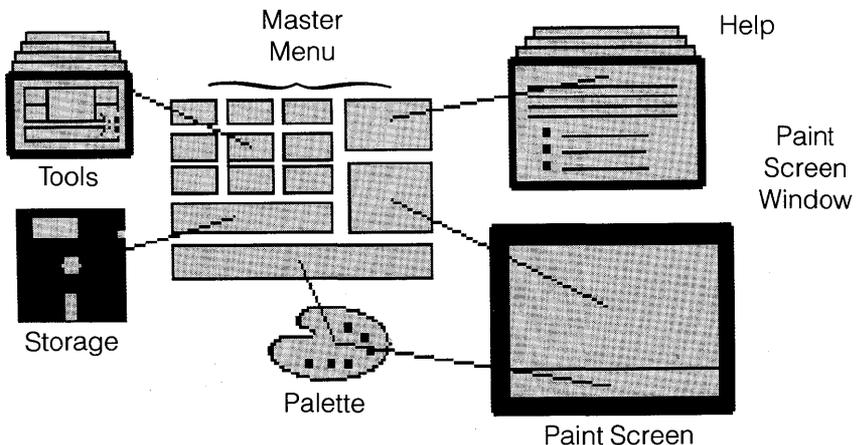
Each part of the DESIGNER picture represents an important set of capabilities. In brief, here's what each does.

TOOLS: These nine boxes contain the tools that you use to create paintings. Each box represents a sub-menu with a variety of options, so you can get very sophisticated about drawing, creating your own tools, filling areas with colors and patterns, animating pictures, and adding text to your pictures.

HELP is always available through the HELP box. The HELP screens give you information about what each function does and how to use it.

STORAGE lets you save and load your creations – to and from diskette files.

THE PALETTE gives you control of color. You choose the colors for your painting from the palette. If you're using a T.V. or a composite monitor, you can create your own palette by mixing red, green, or blue with any color. This way, you can use any of your Mindset's 512 colors.

THE PAINT SCREEN WINDOW: You go through this window to get to your paint screen – the electronic easel that you paint on.

How To Use This Guide

Before you begin work, take a moment to skim through this guide to see how it's put together.

● The final sections of this INTRODUCTION cover important technical issues – making backup copies of the DESIGNER Program Diskette and Data Diskette. It also covers creating a work diskette to store your files, and loading DESIGNER into your computer. Don't neglect these important steps.

● The next section, YOUR FIRST PICTURE, is a step-by-step guide to the basic functions of the program. In creating and saving a picture, you'll get firsthand experience of the things you can do with DESIGNER. Even if you have little experience with computers, you may want to start experimenting as you go through this section.

● In the reference sections – TOOLS, PALETTE, and STORAGE – you'll find complete details on each menu and each function. Use these

sections to explore the full range of DESIGNER's capabilities.

If you have little experience with computers or graphics programs, you should follow the instructions in "Getting Started" and YOUR FIRST PICTURE step-by-step until you're comfortable. Then start experimenting with the reference sections close at hand.

If you're used to computer graphics programs, or are the adventurous sort, you can consult "Getting Started" and then jump in – referring to YOUR FIRST PICTURE and the rest of this guide whenever you need information.

Your MINDSET System

Just one more note before you plunge in. DESIGNER will work with many Mindset system configurations. You can use one or two disk drives, and a mouse or a joystick along with the keyboard. However, the instructions in this guide are based on a system with:

● one disk drive, and

● a mouse (attached to the port on the *right* side of the keyboard).

If your system is different, refer to Appendix B for instructions on how DESIGNER works with your particular system setup.

Getting Started

To use DESIGNER you need the following items:

● A Mindset Personal Computer with at least one disk drive and 128K RAM.

● Your MS-DOS system diskette.

● The DESIGNER Program Diskette.

● The DESIGNER Data Diskette.

- Three blank, formatted diskettes (double-sided, double density) —
  two for making backup copies of your DESIGNER Program and Data
  Diskettes, and one for storing the files you create with DESIGNER.

Making a System Diskette From Your DESIGNER Program Diskette

If your Mindset Personal Computer is equipped with only 128K RAM,
you *must* make your DESIGNER Program Diskette into a system
diskette before you can load DESIGNER into your computer system.
(Even if your system has 256K RAM, you'll probably want to make your
DESIGNER Program Diskette into a system diskette so that you'll be
able to load DESIGNER without first loading MS-DOS).

This is done by copying a few DOS system files onto the DESIGNER
Program Diskette from your MS-DOS system diskette. Here's how:

- Load MS-DOS into your computer — insert your MS-DOS system
  diskette in your disk drive and turn on your Mindset System Unit and
  your monitor or T. V. Update the date and time if you like.

- When the A> prompt appears, type **SYS   B:** and press RETURN.
  Follow the prompts for swapping your MS-DOS diskette and your
  DESIGNER Program Diskette — your "destination disk," in this case —
  as DOS writes SYS files onto your DESIGNER Program Diskette.

- Replace your MS-DOS system diskette in your disk drive and type
  COPY COMMAND.COM   B:. Again, follow the prompts for swapping
  your MS-DOS diskette and your DESIGNER Program Diskette as
  DOS copies the COMMAND.COM file onto your DESIGNER diskette.

Now your DESIGNER Program Diskette contains the DOS files needed
to "boot" your system directly — without your having to load MS-DOS
first.

Backing Up the DESIGNER Program Diskette

Before you start using your DESIGNER Program Diskette, it's a good
idea to make a backup copy. To prevent unauthorized use, your original
DESIGNER Program Diskette is protected in such a way that you must
use it, rather than a copy, to load the program into your computer.
However, a backup copy will still come in handy if, for example, you
write over any files on your original.

Follow these steps:

- First, attach a write-protect tab to your original DESIGNER Program Diskette.

- Load MS-DOS into your computer, if necessary. Then format a blank diskette. Use the default options – that is, with the A> on the screen, type **FORMAT   B:** and press RETURN. Follow the prompts that appear as DOS formats your diskette.

- At this time, you might want to repeat the FORMAT procedure to prepare a couple of work diskettes on which to store your DESIGNER creations.

- When the A> prompt reappears, use the MS-DOS DISKCOPY command to copy the DESIGNER Program Diskette onto one of your newly formatted diskettes. Type **DISKCOPY A: B:**, press RETURN, and follow the prompts that appear.

- When your backup copy is complete, label it, attach a write-protect tab to it, and store it in a safe place.

See your *Introductory Guide to MS-DOS* or the *MS-DOS Reference Manual* for complete details on formatting and copying diskettes.

If you accidentally write over any files on your original DESIGNER Program Diskette, use the MS-DOS DISKCOPY command to copy DESIGNER from your backup copy onto your original.

If the original Program Diskette becomes damaged, you may still be able to load DESIGNER from the backup copy *if you have two disk drives.* To load DESIGNER from the backup copy, you must place the damaged diskette in the default drive, then make sure you specify the non-default drive when you load DESIGNER (see the next section, "Loading Designer," for loading instructions).

Loading Designer
Here's how to load DESIGNER:

- If you have 256K RAM and you did *not* make your DESIGNER Program Diskette into a system diskette, you must first load MS-DOS into your computer.

  – Insert your MS-DOS diskette in the disk drive and turn the lever down.

- Turn on your Mindset System Unit. When you see the familiar A>
  prompt, place your original DESIGNER Program Diskette in the
  disk drive.

- Type **DESIGNER**, then press RETURN – DESIGNER is loaded and
  in a few moments you'll see DESIGNER's Master Menu screen.

● If you *have* made your DESIGNER Program Diskette into a system
  diskette:

- Place your DESIGNER Program Diskette in your disk drive and turn
  on your Mindset System Unit. The A> prompt appears.

- Type **DESIGNER** and press RETURN – DESIGNER is loaded and
  in a few moments you'll see DESIGNER's Master Menu screen.

If you leave DESIGNER on for more than five minutes without using the
keyboard and mouse (or joystick), the screen will begin to change
colors randomly to protect your picture tube. As soon as you use
DESIGNER, the normal screen colors will return.

To return to DOS from DESIGNER, hold down the ALT key as you
press F1.

If you return to DOS from DESIGNER, then wish to go back to
DESIGNER from DOS, hold down the ALT key and press RETURN
before reloading DESIGNER.

Section 2

Your First Picture

Ready to paint? Good, here goes.

REMEMBER: These instructions are for a one-drive system. Refer to Appendix B if your have a two-drive system.

1. Load Designer

Refer to "Getting Started" for the loading procedure. When you see the Master Menu, you're ready to proceed.

You may also want to take a look at the Master Menu while you move the blinking arrow cursor around a little to get the feel of it.
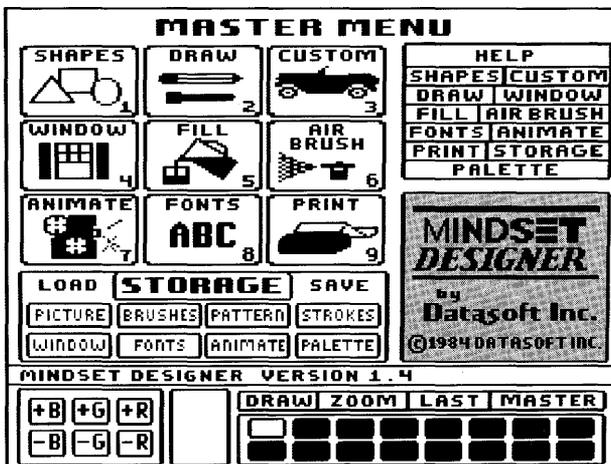
Paint
Screen
Window

2. Select the Paint Screen

The paint screen is the "canvas" on which you create your paintings. To get to the paint screen, you *select* it – that is:

● *move the cursor* to the paint screen window, and

● *press the left button* on the mouse.

The paint screen appears. Note that, throughout this guide, the word *select* means to move the cursor until it's pointing to an option and then press the left button on the mouse.

Take a look at the paint screen. Notice:

– There's a flashing X cursor to show where your brush is pointing. The X marks the spot where the electronic paint will begin to flow.

– The palette is still on your screen.

– The screen border and the color box in the palette show the color you'll paint with – the *current color*.

3. Paint!

To create your freehand painting:

● Move the cursor to the point where you want to start painting.

● Press the left mouse button and hold it down as you move the mouse.

● When you want to stop painting, just release the button.

Notice that you're painting with a thin brush – the one DESIGNER gives you to start with. Later, you'll learn how to change brushes.

4. Paint Under the Pallette

The area under the palette is part of your paint screen. You can move or remove the palettte in order to paint in this area.

- Press the spacebar once to make the palette disappear.

- Press the spacebar again to make the palette reappear.

If you try to call the palette back when the cursor is at the bottom of the screen, the palette will appear at the top of the screen. To put the palette *back at the bottom*, move the cursor to the middle of the screen. Then hold down the CTRL key as you press P. As long as the cursor is near the middle of the paint screen, you can press CTRL P to move the palette from the bottom of the screen to the top and back again.

5. Change Colors

Tired of the same old color? It's easy to change. To get another color from the palette:

- Move to the palette by pressing the *right* button on the mouse.

- *Select* a new color – that is, move the cursor to the color you want and press the left button. You'll see the border and the palette color box take on the color you have selected.

- Return to the paint screen by pressing the right button.

REMEMBER: The left button always selects; the right button always moves between the palette and the paint screen.

Add to your drawing in the new color, then try a few more colors.

6. Erase the Picture

Sometimes your first efforts with a new tool don't give you the results you want. To erase your painting and start over, just hold down the CTRL key as you press C. The paint screen clears.

If any part of the painting is under the palette, remove the palette (with the spacebar), press CTRL and C to erase the screen, and then replace the palette.

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7. Select a New Tool

Now that you're familiar with the basics of freehand drawing, try drawing some geometric shapes.

● Move into the palette area by pressing the right button.

● Go to the Master Menu by selecting MASTER – the Master Menu appears.

● Select the SHAPES tool box – the SHAPES menu appears, showing all of the tools you can use.
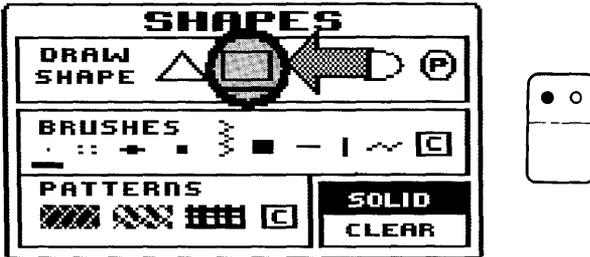

● Select the *rectangle* shape – a line appears under the shape to let you know that it's selected.

● Return to the paint screen by moving to the paint screen window and pressing the left button.

---

8. Draw Rectangles

Using the tool you've selected, you can draw as many rectangles as you want, in as many colors as you like. Follow these steps:

● On the paint screen, point to where you want the first corner of the rectangle to be and press the left button.

● Move the mouse a bit as you watch the screen. See? You're pulling a rectangle away from the first corner. You can vary the size of this "rubber-band" rectangle until it's the size and shape you like.
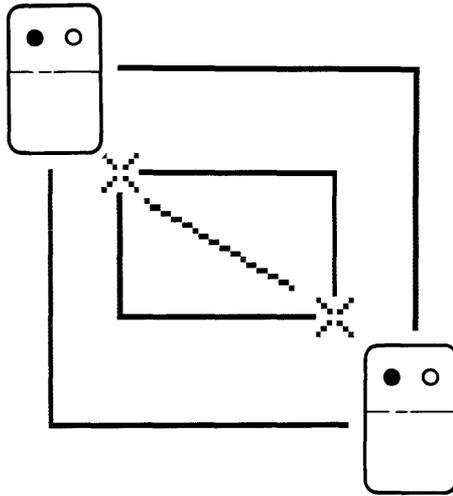
- Set the rectangle permanently in place by pressing the left button. That's all there is to it.

- Draw some more rectangles – point to a corner, press, pull the rubber-band rectangle, and press again to draw it.

Change colors and draw some more – experiment! But keep your rectangles on the screen – you'll need them for the next step.

Here's something else to try:

- Select LAST from the palette – this takes you to the *last* tool box you used before coming to the paint screen.

- Select CLEAR from the SHAPES menu.

- Select the paint screen and draw some more rectangles.

With CLEAR, you can superimpose one shape on another without erasing the first. A SOLID image covers anything it's drawn over.

9. Fill

With DESIGNER, you can fill any enclosed area with the color of your choice. And each fill will be perfect – no more going outside the lines!

- From the paint screen, press the right button to move to the palette area – then select MASTER.

- From the Master Menu, select the FILL tool box. The FILL menu appears. Notice that SOLID FILL is already selected for you.

- Go to the paint screen.

- Select a new color and you're ready to fill.

- Point to any *enclosed* area and press the left button. The whole area fills perfectly. Move to another area and try again. Change colors and keep on filling.
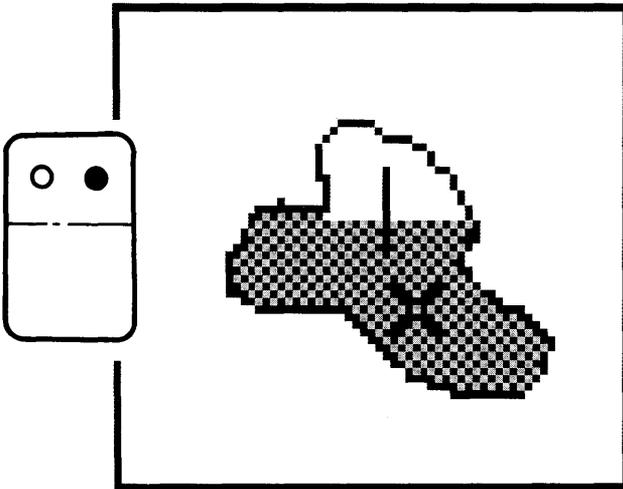
As you fill, keep these points in mind. First, if you fill an open area, the color will leak out and fill the screen from border to border. Second, you can fill and refill any area with any color as often as you like.

10. Getting Help

With DESIGNER, help is always available. Just go to any menu, move to the HELP box, and select the function you're interested in. A HELP screen appears with information on how to work with that function.

When you're finished with the HELP screen, press ESC to return to the Master Menu.

11. Save Your Picture

Whenever you've completed a painting and want to save it, or when you need to break away for a while and want to save a painting to complete it later, you should save the painting on a work diskette. Here's how:

● Display DESIGNER's STORAGE options by selecting any menu.

● Select SAVE from the STORAGE options.

● Select PICTURE to tell DESIGNER that you want to save a picture – make sure you keep the cursor in the STORAGE area.

Designer displays a file directory, a message window, and a storage HELP menu.
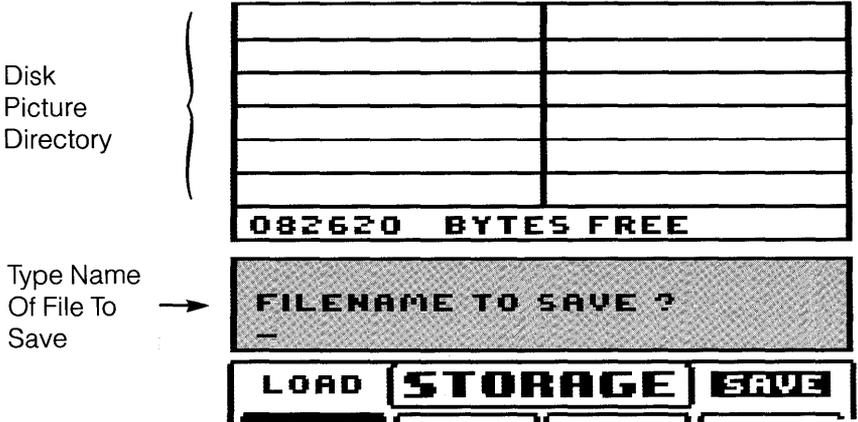
Disk
Picture
Directory

```
┌──────────────────┬──────────────────┐
│                  │                  │
├──────────────────┼──────────────────┤
│                  │                  │
├──────────────────┼──────────────────┤
│                  │                  │
├──────────────────┼──────────────────┤
│                  │                  │
├──────────────────┼──────────────────┤
│                  │                  │
└──────────────────┴──────────────────┘
  082620   BYTES FREE
```

Type Name
Of File To ──▶ **FILENAME TO SAVE ?**
Save   ─

```
LOAD  |STORAGE|  SAVE
```

● Follow the instructions in the message window:

  – remove the DESIGNER Program Diskette from the drive;

  – insert a formatted work diskette; and

  – press RETURN.

Ordinarily, DESIGNER shows you a list of the filenames of the pictures already on your work diskette – though of course it will be empty before you save your first picture.

DESIGNER also asks you to type a name for the picture you want to save.

- Type a name for your picture – it may be up to 8 characters long. If the cursor moves while you type, DESIGNER may not complete the loading process, so don't touch the mouse as you type.

- Press RETURN – DESIGNER saves the picture and puts the name of the picture into the directory.

  DESIGNER saves your picture on your work diskette without erasing it from the paint screen, so you can continue working on the painting, or you can erase it and begin a new painting. For now, though, leave your painting on the paint screen because you'll be adding to it in the next section.

- Remove your work diskette and insert the DESIGNER Program Diskette.

12. Add Text to Your Picture

You can put text characters onto the paint screen using DESIGNER's built-in font or one of the six fonts on your DESIGNER Data Diskette. To use the built-in font:

- Go to the paint screen.

- Hold down CTRL while you press T to enter text.

- Move the cursor to where you want to start the text.

- Type – use the mouse to move the cursor whenever you want to start a new line.

- If you like, you can move to the palette area and select a new color to type in.

- Use CTRL and T again to stop entering text.

If you'd like to keep your painting with the text you've added, SAVE it again with the procedure in "Save Your Picture."

If you save the new version with the same filename as the last version – the one without the text – the last version is erased. You can keep *both* the old and new versions by saving the new version with a *different* filename.

13. Load a Picture

The loading procedure is similar to the saving procedure. Follow these steps to load a picture from the DESIGNER Data Diskette:

● Display DESIGNER's STORAGE options by selecting any menu.

● Select LOAD from the STORAGE options.

● Select PICTURE to tell DESIGNER that you want to load a picture – be sure to keep the cursor in the storage area.

● DESIGNER now displays the file directory, a message window, and the storage HELP menu.

● Remove the DESIGNER Program Diskette and insert the DESIGNER Data Diskette.

● Select NEW DISKETTE in the HELP box. The file catalog displays the filenames of all the pictures on the Data Diskette.

● Select HAND. DESIGNER asks you to confirm your selection.

- Select YES from the HELP menu. Now DESIGNER lets you know that it will ERASE FILE IN MEMORY – that is, erase the picture on the paint screen – when the new picture is loaded.

- You've saved your last picture on your work diskette, so select YES – the new picture is loaded onto the paint screen. Any picture on the paint screen is erased.

- Remove the DESIGNER Data Diskette and insert the DESIGNER Program Diskette.

- Go to the paint screen to see the picture.

You are free to modify this picture in any way you like – the original is still stored safely on the Data Diskette.

Some Final Hints

In this section you've learned the basic procedures for painting with DESIGNER. Now you can let your imagination guide you as you start to experiment in depth with each DESIGNER tool.

Before you go on your way, here are some final hints and reminders:

1. You can move the cursor anywhere on the screen with the *cursor direction* keys. These keys are particularly useful when you're doing very detailed work and need precise control over the cursor.

2. Pressing the RETURN key is the same as pressing the left button on the mouse. Use the RETURN key when doing very precise work – where pressing the button might jiggle the mouse slightly and move the cursor.

3. Be careful when loading. When you load a picture, any picture on the paint screen is erased. Be sure to *save* any picture you've been working on before loading a new picture.

4. There are two ways that you can move quickly to a specific TOOL menu from the paint screen:

    - *The LAST option:* You can move to the *last* TOOL menu you used by moving into the palette and selecting LAST.

- *The function keys:* The function keys (F1 through F9) stand for the nine TOOL menus. For example, F4 whisks you directly to the WINDOW menu, and F5 takes you to the FILL menu. F10 takes you directly to the Master Menu. The function keys work like this at any time.

5. The text line (just over the palette) will always remind you which tool is selected and give you the X and Y (horizontal and vertical) coordinates for the cursor's location on the paint screen.

6. If you want to erase the effects of the *last tool you used*, hold down the CTRL key and press U. CTRL U **U**ndoes everything you've done —

   - since you last moved to the paint screen, or

   - since you last moved, removed, or replaced the palette.

   For example, if you're disappointed in the rectangle you just added to your beautiful painting, pressing CTRL U will eliminate it.

   If you want to make sure that your image will *not* be affected by CTRL U, draw the image and press the spacebar once or twice.

7. To return to MS-DOS, press ALT and F1.

Section 3

Designer Tools

Introduction

This part of your DESIGNER User's Guide, DESIGNER TOOLS, covers all nine DESIGNER tools and the procedures for using each one.
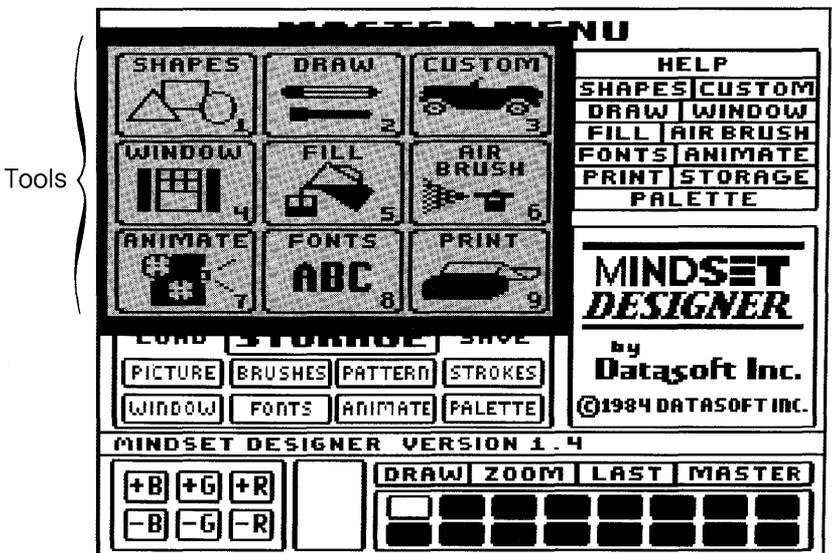
You can refer to this section when you have a specific question about a tool, or you can simply browse through it, experimenting as you go.

In either case, you'll find that this part of the guide covers the details, but *not* all the artistic possibilities of DESIGNER. Experimenting with various designer functions – and combinations of functions – is the key

to discovery, so let your imagination be your guide as you get to know the program.

Two more reminders. First, the word "select" means:

● move the cursor to the function you want, and then

● press the left button of the mouse.

Second, "go to the paint screen" means to move the cursor to the paint screen window, and then press the left mouse button.

Brushes, Patterns, and Strokes

Brushes, patterns, and strokes are the basic items that you paint with when using several DESIGNER tools – namely, SHAPES, DRAW, and FILL. Since these items may look alike, but behave differently when you use them, this section introduces each one in detail.

The color that a custom item paints may vary with the currently selected color. To ensure that your custom item paints its "true colors," select *white* before using the item.

Brushes

When you use a brush, you paint a solid point or line wherever you move the cursor. The brush you select determines the shape, size, and texture of the point or line. You select brushes from the SHAPES and DRAW menus.
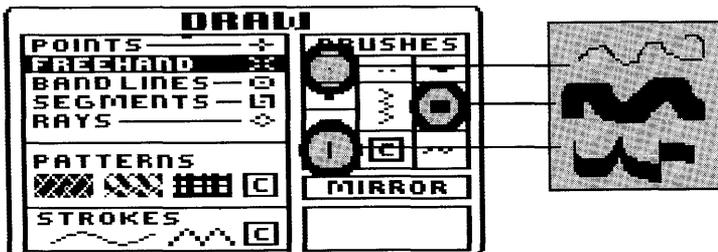
You can select any brush shown on the menu, or you can select C to use a **C**ustom brush that you've either created or loaded from a diskette. To load a brush from a diskette, refer to the STORAGE section. To create your own custom brush, refer to the CUSTOM section.

Patterns

A pattern is an arrangement of colored pixels – the points of light that make up a screen image – that *repeat* as you move the cursor. You select patterns from the SHAPES, DRAW, or FILL menus.
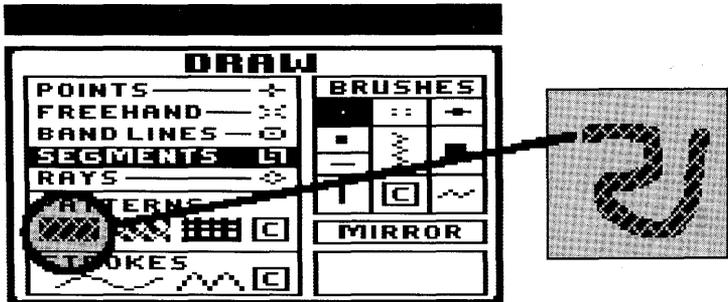
You can select any pattern shown on the menu, or you can select C to use a **C**ustom pattern that you've created or loaded from a diskette. To create your own custom pattern, refer to the CUSTOM section. To load a pattern from a diskette, refer to the STORAGE section.

The DESIGNER Data Diskette includes 26 patterns that you can load and use. You can see these 26 patterns by referring to Appendix A, or by loading the picture named PATTERNS on the DESIGNER Data Diskette. Note that if you are using an RGB monitor, you may have to turn up the brightness a bit to see some of the more subtle patterns.

Rotating Patterns: To **R**otate a pattern counterclockwise, go to the paint screen and hold down the CTRL key while you press R. To return to the original pattern orientation, just press CTRL and R again.

Locking Pattern Coordinates: You can make sure that your pattern stays on one line by *locking* the appropriate coordinate. Press X to lock the X (horizontal) coordinate, or Y to lock the Y (vertical) coordinate. When a coordinate is locked, the area around the corresponding cursor coordinate indicator on the text line turns white. Press X or Y again to unlock a locked coordinate. An alternate method for unlocking (or **F**reeing) *either* coordinate is to press F.

Brush-Pattern Combinations

If you select a brush *and* a pattern, the resulting·effect will have the characteristics of each – that is, your line or point will have the shape and size of the brush along with the texture of the pattern.

Strokes

A stroke is like a pattern drawn on either a horizontal or vertical line. You can use strokes with POINTS or FREEHAND on the DRAW menu to create points and lines with interesting textures.
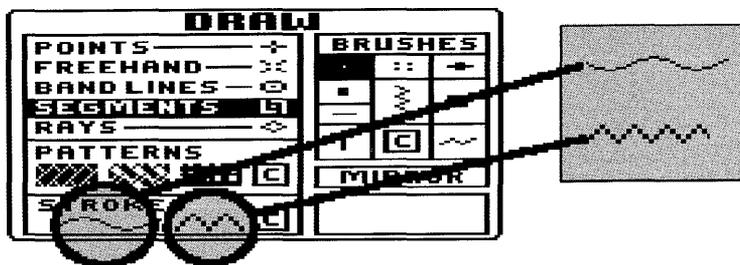
You can select either of the two strokes shown on the menu, or you can select C to use a **C**ustom stroke that you have either created or loaded from a diskette. To create your own custom stroke, refer to the CUSTOM section. To load a stroke from a diskette, refer to the STORAGE section. (Note that the DESIGNER Data Diskette includes 26 strokes that you can load and use. You can see these 26 strokes by referring to Appendix A, or by loading the picture named STROKES on the DESIGNER Data Diskette.)

The selected stroke appears in the box at the lower right of the DRAW menu.

To deselect a stroke, just point to it and press the left button. Note that the stroke image remains in the box, even though it is no longer in use. It will disappear when you go to the paint screen.

You can select STROKES *only* with POINTS and FREEHAND. If you try to select BANDLINES, SEGMENTS, or RAYS after selecting STROKES, DESIGNER beeps to let you know that the selection is not allowed. If you try to select STROKES after selecting POINTS, BANDLINES, SEGMENTS, or RAYS, DESIGNER will select FREEHAND automatically.

**Rotating Strokes:** To **R**otate a stroke counterclockwise, go to the paint screen and hold down the CTRL key while you press R. To return to the original stroke orientation, press CTRL and R again.

Locking Stroke Coordinates: You can make sure that your strokes stay on one line by *locking* the appropriate coordinate. Press X to lock the X (horizontal) coordinate, or Y to lock the Y (vertical) coordinate.

When a coordinate is locked, the area around the relevant cursor
coordinate indicator in the text line turns white. Press X or Y again to
unlock a locked coordinate. An alternate method for unlocking (or
Freeing) *either* coordinate is to press F.

You can create interesting effects by leaving the strokes coordinates
unlocked and "smearing" the strokes freehand.

Shapes
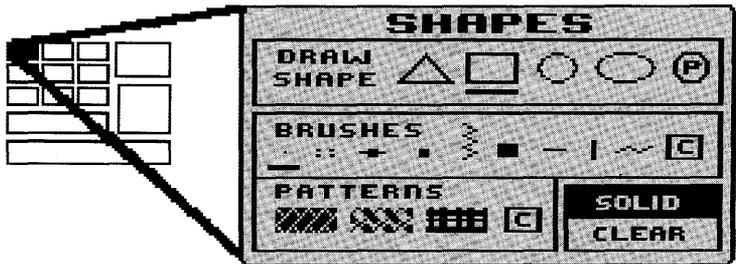
DESIGNER's SHAPES tool lets you create perfect geometric shapes –
triangles, rectangles, circles, ovals, and polygons. You can use a
variety of brushes and patterns to draw any shape, and the shapes you
draw can be solid or clear.

What are solid and clear shapes? DESIGNER is normally set to draw a
SOLID shape – that is, an outline with a black interior. A solid shape
covers anything underneath it. You can select CLEAR to draw only the
shape's outline – anything previously on the screen inside the figure
remains visible.
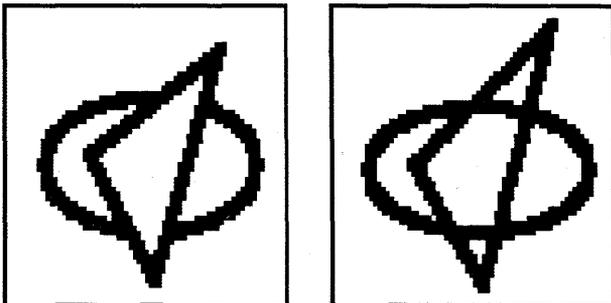
Here's how to draw each of the geometric figures on the SHAPES menu.

Triangle
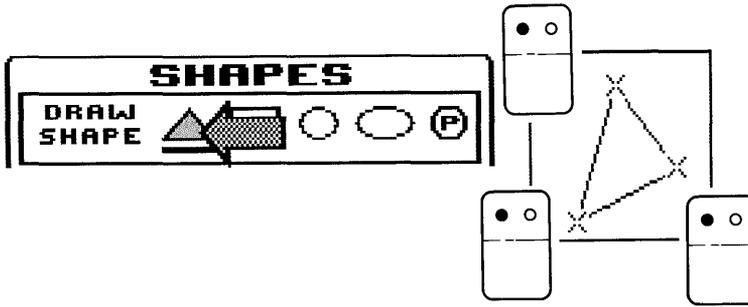
1. Select TRIANGLE and a brush or brush-pattern combination, then go to the paint screen.

2. Move to where you want the first corner of the triangle to be. Press the left button to anchor that point.

3. Move to where you want the second corner to be – you'll pull a rubber-band line as you go – and press the left button to anchor that point.

4. Move to where you want the third corner to be – you'll pull a rubber-band triangle as you go.

5. Press the left button to anchor the third corner and draw the triangle.

If you change your mind about the shape or location of the figure *before you finish drawing it on the screen,* press R to erase what you've done and **R**estart the figure.

Rectangle
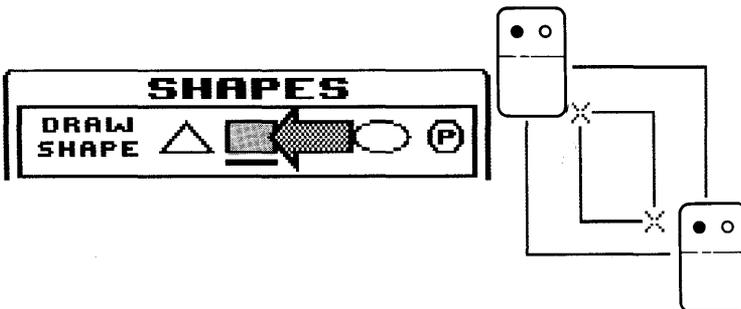
1. Select RECTANGLE and a brush or brush-pattern combination, then go to the paint screen.

2. Move to where you want the first corner of the rectangle to be. Press the left button to anchor that corner.

3. Move to the opposite corner of the rectangle – you'll pull a rubber-band rectangle as you go.

4. Press the left button to draw the rectangle.

If you change your mind about the shape or location of the figure *before you finish drawing it on the screen,* press R to erase what you've done and **R**estart the figure.

Circle
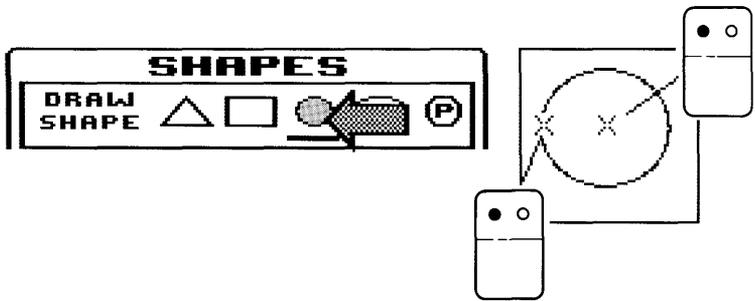
1. Select CIRCLE and a brush or brush-pattern combination, then go to the paint screen.

2. Move to where you want the center of the circle to be. Press the left button to anchor the center.

3. Move the cursor away from the center – to the right or left. You'll pull a rubber-band circle as you go.

4. When the circle is the size you want, press the left button to draw the circle.

If you change your mind about the shape or location of the figure *before you finish drawing it on the screen,* press R to erase what you've done and **R**estart the figure.

Oval
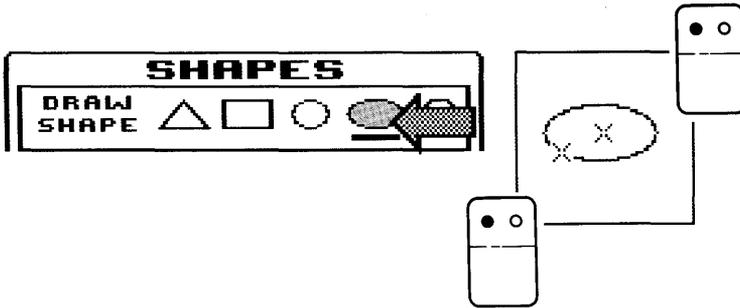
1. Select OVAL and a brush or brush-pattern combination, then go to the paint screen.

2. Move to where you want the center of the oval to be. Press the left button to anchor the center.

3. Move away from the center. You'll pull a rubber-band oval as you go. If you pull toward the right or left, you'll stretch the oval's horizontal axis. If you pull toward the top or bottom of the screen, you'll stretch the oval's vertical axis.

4. Press the left button to draw the oval.

If you change your mind about the shape or location of the figure *before you finish drawing it on the screen,* press R to erase what you've done and **R**estart the figure.

Polygon
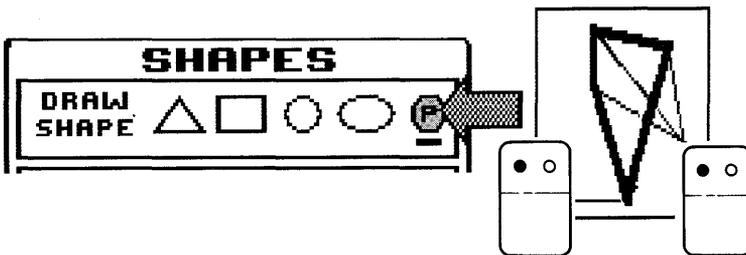
1. Select POLYGON and a brush or brush-pattern combination and go to the paint screen.

2. Move the cursor to where you want the first corner of the polygon to be.

3. Press the left button to anchor that point. Then move to where you want the the next corner of the polygon to be.

4. Press the left button to anchor that point. Continue moving the cursor and pressing until you've moved the cursor to the last point. You can anchor up to 19 points.

5. Press Q to **Q**uit and draw the polygon with the brush or pattern you selected.

If you change your mind about the shape or location of the figure *before you finish drawing it on the screen,* press R to erase what you've done and **R**estart the figure.

Draw
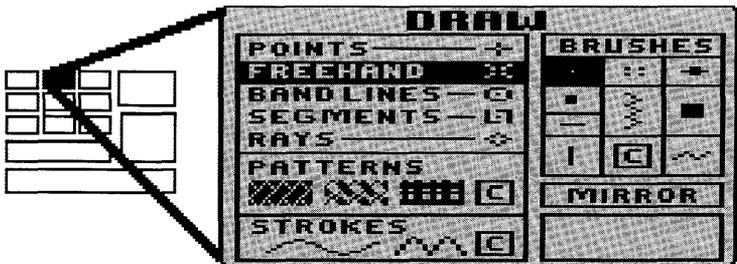
With DESIGNER's DRAW tool, you can draw points and lines to create freehand drawings and special figures. You can draw your points and lines with a variety of brushes, patterns, and strokes.

Points

A point is just that – a single point, the size and shape of the brush, pattern, or stroke you're working with.
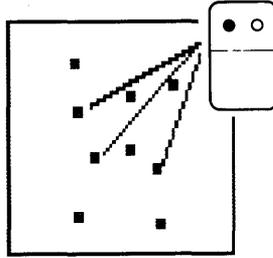
1. Select POINTS and a brush, brush-pattern combination, or stroke, then go to the paint screen.

2. Place the cursor where you want the point to be.

3. Press and release the left button. There's your point.

To draw more points, just move, press, and release.

Freehand

Freehand drawing is DESIGNER's most fluid tool. It lets you sketch a line that follows the mouse wherever you move it.
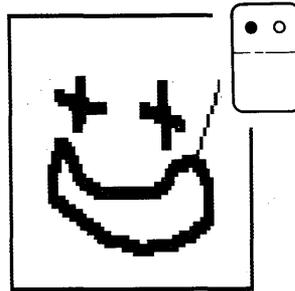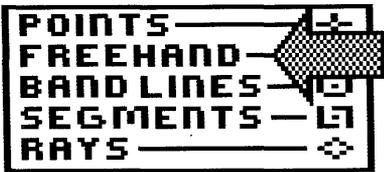
1. Select FREEHAND and a brush, brush-pattern combination, or stroke, then go to the paint screen.

2. Move to where you want your line to start.

3. Press the left button and hold it down as you move the mouse across the paint screen.

4. To stop drawing, release the left button.

You can create very precise freehand drawings if you draw with the cursor direction keys and the RETURN key. Note that a freehand *stroke* will "smear" unless you lock the X or Y coordinate as described in *Locking Stroke Coordinates* in the section entitled "Brushes, Patterns and Strokes."

Bandlines

Use bandlines when you want to draw a series of straight lines connected end to end.
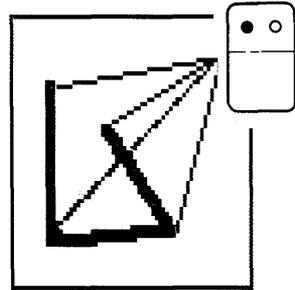
1. Select BANDLINES and a brush or brush-pattern combination, then go to the paint screen.

2. Move to where you want the first bandline to begin and press the left button to anchor that point.

3. Move to where you want the bandline to end – you'll pull a rubber-band line as you go.

4. Press the left button – DESIGNER draws the bandline *and* anchors the start point of the next bandline.

5. Move to the end of the next bandline and press the left button to draw the line and anchor the end point of the next line.

To add more bandlines, continue moving the cursor and pressing the left button.

If you change your mind about the location of a start point, or if you want a gap between one series of bandlines and another, press R to **R**estart a new series of bandlines.

Segments

Use segments when you want to draw straight lines between two points.
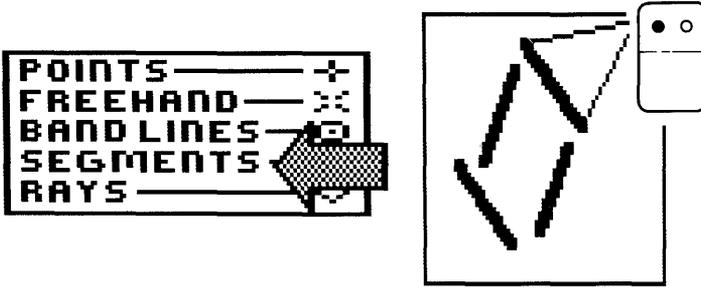
1. Select SEGMENTS and a brush or brush-pattern combination, then go to the paint screen.

2. Move to where you want the line segment to begin and press the left button to anchor the start point.

3. Move to where you want the line segment to end, pulling a rubber-band line as you go – press the left button to draw the segment.

To draw additional segments, just repeat the same steps.

If you change your mind about the location of a start point, press R to **R**estart a new segment.

Rays

Use rays to draw several lines radiating from one point.
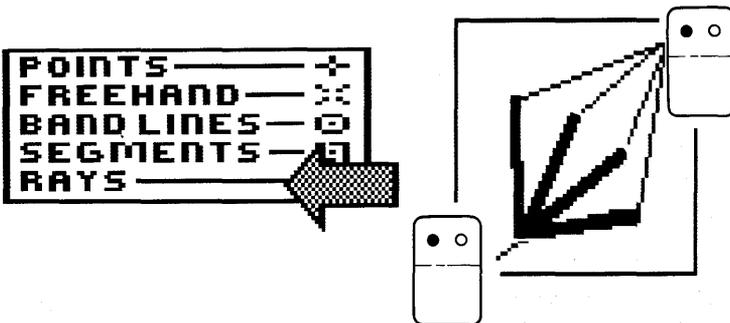
1. Select RAYS and a brush or brush-pattern combination, then go to the paint screen.

2. Move to the start point – the point from which you want the rays to radiate – and press the left button to anchor the point.

3. Move to where you want the first ray to end and press the left button to draw the ray – DESIGNER returns the cursor to the start point.

4. Move to where you want the next ray to end and press the left button to draw the ray. Continue moving to the end points you want and pressing the left button to draw as many rays as you like.

If you want to establish a new start point, press R to **R**estart a new set of rays.

Mirror Drawing

DESIGNER lets you create a left-right mirror image of what you draw.
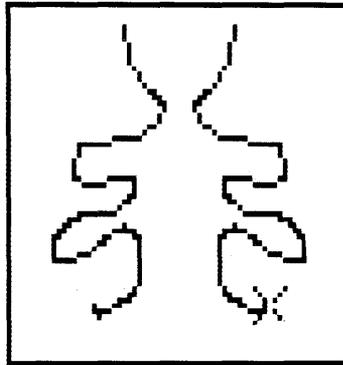
1. Select MIRROR with any other function on the DRAW menu, then go to the paint screen.

2. Move to where you want to begin your drawing. The center line of the mirror image is established at this point.

3. Press the left button and draw your image. The reflected image appears as you draw.

To turn the mirror function off, go to the DRAW menu and select MIRROR again.

If you change your mind about where you want the center line to be, or if you want to start a new mirror image at another point on the screen, press R to **R**estart.

Custom
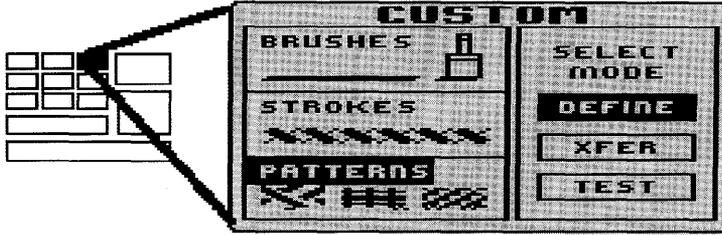
DESIGNER lets you define and use your own custom brushes, patterns, and strokes. If you think you might want to reuse a custom item, you can save it on your work diskette and retrieve it when you need it.

Defined as
Brush

Image

Defined as
Stroke

Defined as
Pattern
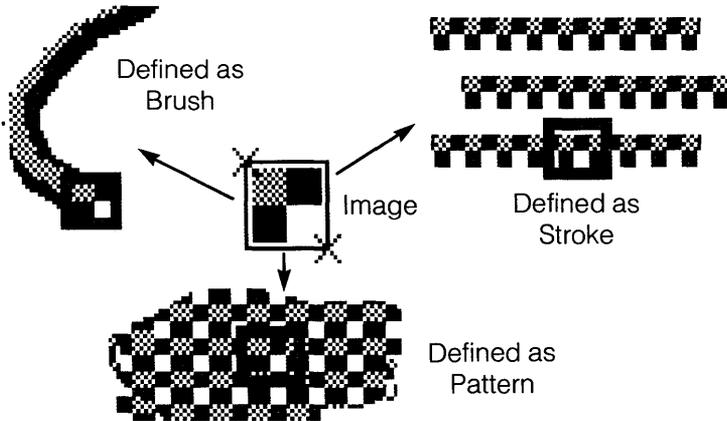
Defining a Custom Item

The general steps for defining any custom item – brush, pattern, or stroke – are similar: you paint an image and then define it by surrounding it with a rubber-band rectangle.

The item you define is kept in a "buffer" – an area of your computer's memory – until you're ready to bring the item to the paint screen or store it on your work diskette. There's a separate buffer for custom brushes, custom patterns, and custom strokes. Each buffer can hold one custom item at a time.

1. A custom item begins as a drawing on the paint screen. Paint an image with any DESIGNER tool. Use these guidelines:

- Custom items are limited in size:

    - Brushes may be no larger than 10 pixels by 10 pixels.

    - Patterns and strokes may be no larger than 32 pixels wide by 16 pixels high.

    You can either create an image within these limits or create a larger image and define *part* of it as the custom item.

- To draw a small, precise image, you may want to make use of the ZOOM function in conjunction with the cursor direction keys to create the item. Refer to PALETTE for details.

2. When you're satisfied with the image you want to use for your custom brush, pattern, or stroke, select the CUSTOM menu.

3. Select the item you want to define – BRUSH, STROKE, or PATTERN.

4. Select DEFINE and go to the paint screen.

5. Define the item by pulling a rectangle around it:

    - Move to one corner of the item you want to define and press the left button to anchor the corner.

    - Move to the diagonally opposite corner and press the left button again.

    Instantly, the area enclosed by the rectangle is placed in the custom buffer – the custom item is defined and available for you to test, edit, use, or save.

Testing a Custom Item

Once you've defined a custom item, you can test it to see how it looks when you paint with it. Here's how:

1. From the CUSTOM menu, select a custom item that you've defined or loaded – BRUSH, PATTERN, or STROKE – then select TEST.

2. Go to the paint screen.

3. Use the item as usual to see its effects.

When you leave the paint screen, the test painting you made with the custom item disappears from the paint screen. But DESIGNER retains the item in the buffer.

Editing a Custom Item

If you want to edit a custom brush, pattern, or stroke, follow these steps:

1. From the CUSTOM menu, select a custom item that you've defined or loaded – BRUSH, PATTERN, or STROKE – then select XFER (transfer).

2. Go to the paint screen. You'll see an image of the custom item following the cursor movement on the screen.

3. Move to where you want to set the image down and press the left button.

Now you can edit the item using any of DESIGNER's tools. When you've finished editing it, you can define the new custom item with the procedure described in "Defining a Custom Item."

Using a Custom Item

When you've defined a custom item – that is, while it's in the custom buffer – you can use it at any time by selecting C (for **C**ustom) from the appropriate menu. For example,

- To paint with a custom brush, select C from the brush area of the SHAPES or DRAW menu.

- To fill an enclosed area with a custom pattern, select C from the FILL menu.

For more details on using brushes, patterns, and strokes, refer to "Brushes, Patterns, and Strokes" or the relevant tool section (SHAPES, DRAW, or FILL).

Saving and Loading Custom Items

You'll probably want to define custom brushes, patterns, and strokes to use over and over. For details on saving a custom item on your work diskette, or loading an item from a diskette, refer to STORAGE.

Window
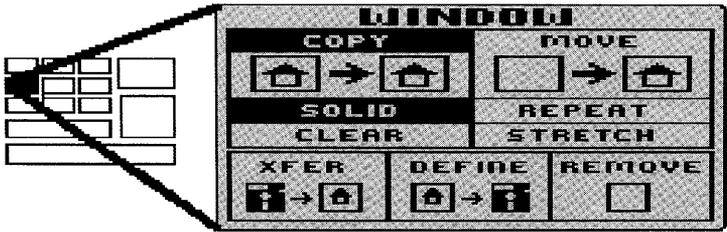
DESIGNER's WINDOW tool lets you put a rectangular window around any image on the paint screen (as long as the image occupies no more than about one-quarter the area of the screen). Once an image is "windowed," you can move, copy, stretch, or remove it. You can also define an image as a *custom window* and then save it on a work diskette, print it, or use it in other DESIGNER paintings.

While the following procedures refer mainly to the mouse, remember that you can do very precise work with the cursor direction keys and the RETURN key.

Copying Windows.

Use the COPY function when you want to duplicate an onscreen image on another part of the paint screen. Here's how to copy a window. (If you have to copy from or to the area under the palette, move it – by pressing the spacebar or CTRL P – before you start this procedure.)

1. From the WINDOW menu, select COPY.

2. Select SOLID or CLEAR – SOLID copies everything in the window, including the background; CLEAR copies only the painted images in the window, not the background. Go to the paint screen.

3. Move to one corner of the area to be copied and press the left button to anchor the corner of the window.

4. Pull a rubber-band window around the image to be copied and press the left button again. Notice that the image follows the movement of the cursor.

5. Move the cursor (with the image) to where you want to place the copy.

6. Press the left button to set down the image.

Repeating Copies

If you want to copy an image in several places on the paint screen, select REPEAT after you've selected COPY. Then, once you've windowed the image on the paint screen, DESIGNER sets down a copy each time you press the left button.

Moving Windows

Use MOVE when you want to "lift" an image out of the paint screen and move it to another place. Here's how to do it. (If you have to move an image from or to the area under the palette, move the palette – by pressing the spacebar or CTRL P – before you start this procedure.)

1. From the WINDOW menu, select MOVE.

2. Select SOLID or CLEAR – SOLID moves everything in the window, including the background; CLEAR does not move the background. Go to the paint screen.

3. Move to one corner of the area you want to move and press the left button to anchor that corner of your window.

4. Pull a rubber-band window around the image and press the left button again. Notice that the image is "lifted" from the background and follows the movement of the cursor.

5. Move the image to where you want to place it.

6. Press the left button to set down the image.

Repeating Moves

If you want to move an image to several places on the paint screen, select REPEAT after you've selected MOVE. Then, once you've windowed the image, DESIGNER sets down a copy each time you press the left button.

Removing Windows

If you want to erase a portion of a painting, REMOVE is the function to use. Here's how. (If you have to remove an image from the area under the palette, move the palette – by pressing the spacebar or CTRL P – before you start this procedure.)

1. From the WINDOW menu, select REMOVE, then go to the paint

screen (selecting SOLID or CLEAR has no effect on the REMOVE function).

2. Move to one corner of the area to be removed and press the left button to anchor that corner of your window.

3. The area is removed, leaving a background-colored rectangle.

Stretching Windows

Use the STRETCH function with MOVE or COPY to force a windowed image to conform to the shape of a parallelogram.
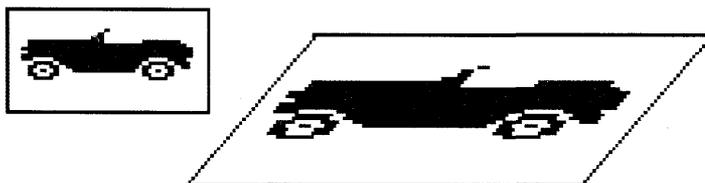
To stretch an image, first make sure the palette is out of the way, if necessary – then follow these steps:

1. From the WINDOW menu, select STRETCH.

2. Select COPY or MOVE – COPY will create a stretched version of a windowed image, leaving the original unchanged. MOVE will "cut out" the original image and create a stretched version at another location. You can also use REPEAT with MOVE or COPY.

3. Select SOLID or CLEAR – SOLID copies or moves everything in the window, including the background; CLEAR does not move or copy the background.

4. Move to one corner of the area you want to stretch and press the left button to anchor that corner of your window.

5. Pull a rubber-band window around the image you want to stretch and press the left button again. The image is temporarily stored as the text line changes to STRETCH RECTANGLE.

6. Move to a corner of the area where you want to place the stretched image and press the left button to anchor the corner.

7. Establish the height of the stretched image by moving *up* or *down*. You'll pull a rubber-band line as you go. Note that if you establish a height of zero (by not moving up or down), unexpected results may occur.

8. Establish the "slant" of the stretched image by moving left or right, then press the left button again.

9. Establish the width of the stretched image by moving *across* the screen, left or right – you'll pull a rubber-band parallelogram as you go.

10. Press the left button. The image you enclosed in the original rectangle will appear, stretched to conform to the shape of the parallelogram.

Custom Windows

DESIGNER's DEFINE WINDOW function lets you save images and use them again in other paintings. Custom windows are also useful when you want to eliminate all but one portion of a painting.

You define a custom window by enclosing an image in a rubber-band rectangle. The defined image is kept in a custom window buffer – an area of your computer's memory from which it can be transferred to the paint screen or stored on a work diskette.

Once an image is defined as a custom window, you can make any change on the paint screen (including erasing it) without affecting the image in the custom window buffer.

To create a custom window, follow these steps:

1. From the WINDOW menu, select DEFINE, then go to the paint screen.

2. Move to a corner of the image to be defined as a custom window. Press the left button to anchor that corner.

3. Pull a rubber-band window around the image you want to define as a custom window and press the left button again.

Instantly, the image enclosed by the window is placed in the custom window buffer – the custom window is defined and ready to be transferred or saved.

Transferring Custom Windows

Use the XFER function to retrieve a custom window from the custom
window buffer and transfer it to the paint screen.

To transfer a custom window:

1. From the WINDOW menu, select XFER.

2. Go to the paint screen. You'll see the custom window image following
   the movement of the cursor.

3. Move to where you want to set the image down and press the
   left button.

Saving and Loading Custom Windows

Once a custom window is defined, you can save it on a work diskette.
You can also load a custom window from a work diskette *into the
custom window buffer,* then transfer it to the screen at any time with the
XFER function. For details on saving and loading a custom window,
refer to STORAGE.

Some Additional Window Tricks

When you capture an image in a window, and are moving it around the
screen (as in copying, moving, and transferring), you can manipulate
the image *before* you place it on the screen. Here's what you can do:

- Invert the image by pressing I.

- Create a mirror reflection of the image by pressing M.

- Change the colors of the image to their complements by pressing
  CTRL and I.

Fill
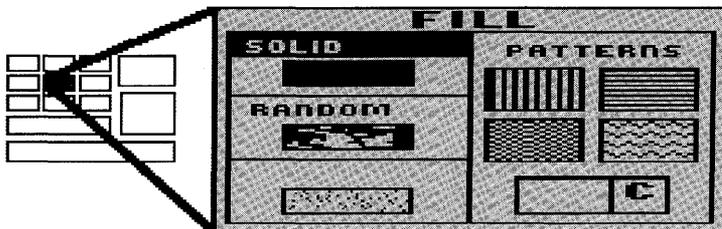
DESIGNER's FILL tool lets you fill enclosed areas with solid colors, random color patches, airbrush effects, or patterns.

To use FILL:

1. Select a style for filling (SOLID, RANDOM, AIRBRUSH, or PATTERN). Select a pattern by moving to the pattern you want and pressing the left button. Go to the paint screen.

2. Move to the enclosed area that you want to fill.

3. Press the left button – the area fills.

To interrupt a fill in progress, press the spacebar.

Tips on Filling

● The patterns supplied on the FILL menu will be painted in the current color. Colors of custom patterns – those loaded from a diskette – are fixed.

● If you select a **C**ustom pattern to fill with, make sure that you've placed a pattern in the custom pattern buffer (either by defining one with the CUSTOM tool or by loading one from a diskette). For details on loading custom patterns, see STORAGE.

● You can change the color of the supplied patterns, but not the color of a custom pattern.

● If you fill an _un_enclosed area – an area with a gap in the border – the fill color will leak out and cover the paint screen. You can use this to your advantage when you want to change the background color of your painting.

● If you fill the screen by mistake, press CTRL and U to **U**ndo the fill; or refill the background with the original color.

● You can fill and refill. Solid colors and patterns will cover a previous fill color or pattern. You can create very subtle effects by filling and refilling with different airbrush colors.

Airbrush

No graphics studio would be complete without an airbrush to create
some very special effects. By spraying pixel-size points in various
patterns, densities, and colors, the DESIGNER airbrush can texture
surfaces, provide shading, and add depth and feeling.
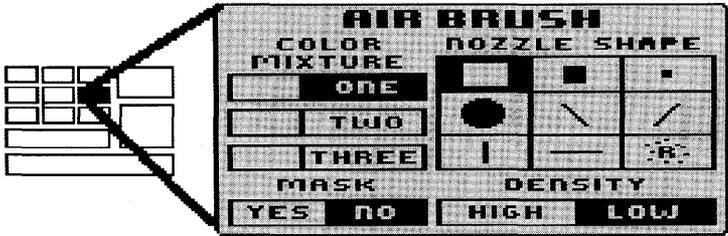
To use an airbrush, you must define the following elements:

Nozzle

The nozzle of the airbrush, like the nozzle of a water hose, determines
the shape and size of the spray.

R is **R**andom spray without a definite shape.

Color Mixture

You can spray one, two, or three colors at a time. To mix colors:

1. Select the number of colors you want to mix.

2. Select the colors to mix from the palette – as you select each color,
   the bars in the COLOR MIXTURE area of the AIRBRUSH menu show
   your choices.

Density

You can select a high-density spray or a low-density spray of pixel points.
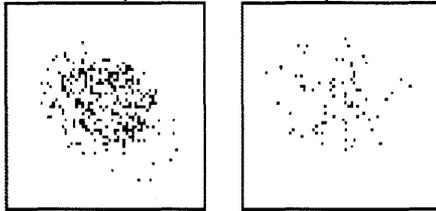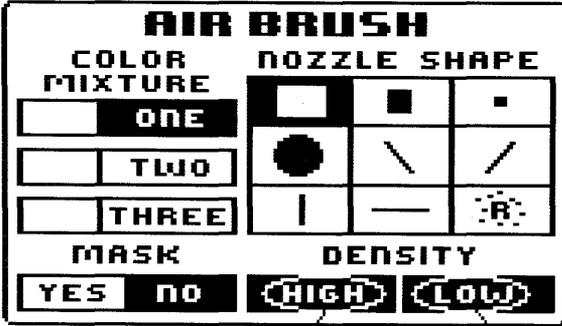
To set the density, select either HIGH or LOW.

Mask

When you want to restrict airbrushing to a specific area, you can use a rectangular mask to "cover up" everything except the area you want to airbrush – much like using a stencil.

1. Define Mask

2. Spray

3. Mask Disappears When You Leave Paint Screen
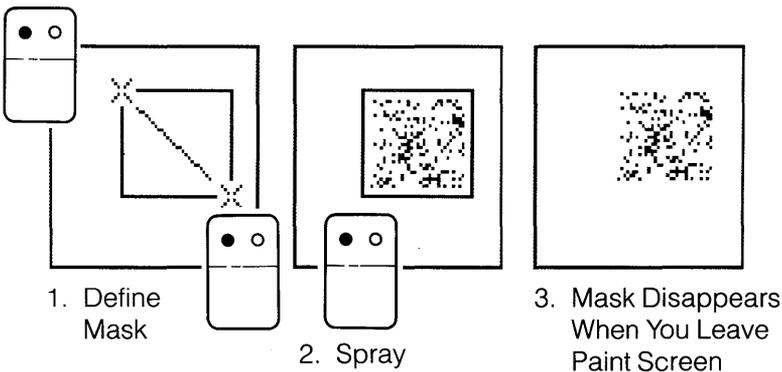
To use a mask, select YES from the AIRBRUSH menu.

Airbrushing Without a Mask

Once you've selected a COLOR MIXTURE, a NOZZLE, a DENSITY, and
NO for MASK, you're ready to use the airbrush. Here's how:

1. Go to the paint screen.

2. Move to where you want the airbrush pattern to begin.

3. Press the left button to start the airbrush spray. Move the cursor to
   create the spray pattern you want. To stop the spray, release the
   left button.

Airbrushing With a Mask

Once you've selected a COLOR MIXTURE, a NOZZLE, a DENSITY, and
YES for MASK, you're ready to airbrush with a mask. Here's how:

1. Go to the paint screen.

2. Move to where you want the corner of the mask to be and press the
   left button to anchor the corner.

3. Pull a rubber-band mask to define the area that you want to airbrush
   and press the left button – the rectangular mask is temporarily drawn
   on the screen.

4. Move (within the rectangular area) to where you want the airbrush
   pattern to begin.

5. Press the left button to start the airbrush spray. Move the cursor
   to create the spray pattern you want. To stop the spray, release the
   left button. Notice that the airbrush will not spray outside the
   rectangular area.

When you leave the paint screen to go to a menu, the mask disappears.
If you want to Undo a masked airbrush painting, press R to Restart –
then press CTRL U.

Animation
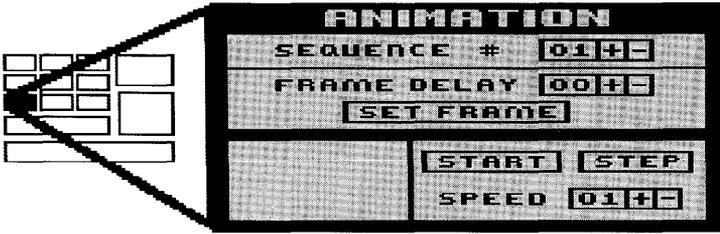
With DESIGNER ANIMATION, you can define up to 30 areas of the paint screen as 30 animation frames. Then you can show the frames in any sequence to present a short animated movie.

DESIGNER shows your movie in the *animation screen* – a rectangular area on the ANIMATION menu. The DESIGNER Data Diskette includes two animated sequences called ENGINE and BIRD which you can load and run using the procedures in this section.

The main steps for creating an animated sequence are:

● Prepare the paint screen with the images to be animated.

● Set (that is, define) up to 30 frames.

● Run the animation.

● Edit the animation.

● Save the animation.

Each of these steps is covered in detail in the following sections.

Prepare the Paint Screen

You can prepare the paint screen for either of two animation techniques – *panoramic animation* or *discrete frame animation.*

To prepare the paint screen for *panoramic* animation, paint a single image that you want to animate by "panning" over it while you set frames as described in the next section.

To prepare the paint screen for a *discrete* frame animation, use any DESIGNER tool to paint up to 30 separate frames, taking the following guidelines into consideration:

- Each frame must occupy an area 64 pixels wide by 32 pixels high.

- The frames should not overlap.

- The image must change slightly from frame to frame in order for it to appear to move when the frames are shown in sequence.

Note that the frame display sequence is set in the next step, so you do not have to paint your frames in any particular sequence.

Set the Frames

In setting the animation frames, you tell DESIGNER which images on the paint screen to display and in what sequence. To set the frames, you capture them, one at a time, in a 64- by 32-pixel rectangle. Here's the procedure:

1. Prepare the screen as described in the previous section. Then select SET FRAME from the ANIMATE menu.

2. Go to the paint screen – there you'll see the cursor surrounded by a 64- by 32- pixel "framing rectangle." Note also that the text line says, "SET FRAME 01," indicating that you're about to define frame 01 in the animation sequence.

3. Move to the image that you want displayed as frame 01 and enclose it with the framing rectangle. For a discrete frame animation, you need to be very precise, so you'll probably want to use the cursor direction keys to move the cursor.

4. Press the left button – the first frame is defined, and the text line changes to "SET FRAME 02."

5. Continue enclosing images in sequence until you've defined all of the frames.

6. If you make a mistake while enclosing an image, press the R key – the SET FRAME counter resets to the previous number, and you can redefine the frame.

Now you're ready to run the animation.

Run the Animation

Running the animation is simple:

1. Make sure that all the images you used to define the frames are on the paint screen and that you've set the frames according to the procedure described in the previous section.

2. From the ANIMATION screen, select START – the frames are displayed in sequence. When the last frame is shown, the sequence returns to frame 01 and repeats.

3. To stop the animation, press the left button.

Now, if you like, you can review and edit the animation sequence.

Edit the Sequence

DESIGNER gives you several tools for reviewing and editing your animation sequence:

Frame Step: To step through the sequence, one frame at a time, move to STEP and use the left button to advance the sequence one frame per press.

Alter a Frame Image: To alter a frame image without changing the frame's sequence number, simply go to the paint screen and use any DESIGNER tool to revise or repaint the image.

Change Sequence Speed: The SPEED indicator on the ANIMATION menu shows the speed of the sequence from 01 (slowest) to 30 (fastest). The sequence speed affects the display time of all frames equally.

To speed up or slow down the sequence:

● Move to the SPEED indicator on the ANIMATION menu.

● Adjust the speed by pointing to the + or – box and pressing the left button.

Replace a Frame: To replace one frame with another:

● Make sure that the new frame image is on the paint screen.

● Move to the FRAME NUMBER indicator on the ANIMATION menu.

- Select the number of the frame you want to replace by pointing to the + or − box of the FRAME NUMBER indicator and pressing the left button.

- Select SET FRAME and move to the paint screen. The framing rectangle appears and the text line says, "SET FRAME nn," where nn is the number of the frame to be replaced.

- Enclose the new frame image with the framing rectangle and press the left button.

The new frame image is now defined in the animation sequence.

Adjust Frame Delay: You can adjust the amount of time that each frame is shown in the sequence. The range of adjustment is from 00 (least delay) to 30 (most delay). Initially, each frame is given a delay value of 15. A frame delay of 00 tells DESIGNER to skip that frame when running the animation. To reset the delay value:

- Move to the FRAME NUMBER indicator on the ANIMATION menu.

- Select the number of the frame for which you want to reset the delay by pointing to the + or − box of the FRAME NUMBER indicator and pressing the left button.

- Move to the FRAME DELAY indicator on the ANIMATION menu.

- Adjust the delay value by pointing to the + or − box of the FRAME DELAY indicator and pressing the left button.

Saving and Loading Animations

Once you're satisfied with an animation sequence, you can save it on your work diskette. For procedures on saving and loading animations, refer to STORAGE.

Fonts
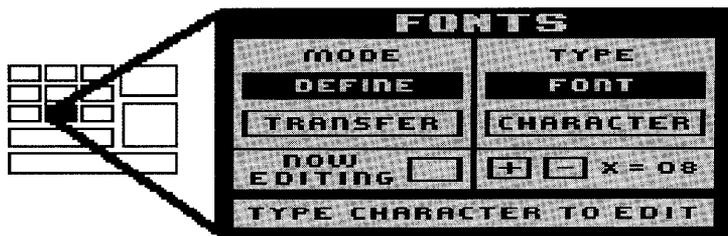
DESIGNER gives you six different fonts to choose from when you want to enter text characters on the paint screen. To see what these fonts look like, refer to Appendix A or load the pictures FONTPIC1 or FONTPIC2 from the DESIGNER Data Diskette.

You can use these six fonts as they are, or you can edit them to suit your taste. But that's not all – you can create your own fonts, too.

This section covers the following procedures:

● Entering Text on the Paint Screen

● Reviewing a Font

● Editing a Font

● Creating a Font

Entering Text on the Paint Screen

To use one of DESIGNER's fonts to type text on the paint screen, follow these steps:

1. Load a font. Refer to STORAGE for the procedure to use.

2. Go to the paint screen.

3. Hold down CTRL while you press T (for entering **T**ext). The text line lets you know that you'll be "ENTERING TEXT."

4. Place the cursor where you want the text to start, and begin typing. Note that the keyboard responds like a normal typewriter keyboard except that the RETURN and BACK SPACE keys do not operate. Use the cursor direction keys to adjust the vertical position of the text

characters. Use the mouse or cursor direction keys to move the cursor to the beginning of a new line of text.

5. To adjust the space *between* text characters:

   ● Select the FONTS menu. Find the character spacing indicator toward the lower right of the FONTS menu.

   ● Point to the + or – box and press the left button to increase or decrease the spacing value. You can set the spacing value in a range from 00 (no space between characters – characters overprint on the paint screen) to 30 (30 pixels between characters).

6. You can stop entering text either by leaving the paint screen or by typing CTRL T a second time. Typing CTRL T will leave you with the tool you were using before you started entering text.

Reviewing a Font

You may want to review a font to see whether you want to use it or edit it. Here's how:

1. Load the font you want to review. Refer to STORAGE for the procedure to use. DESIGNER loads the font into a special area of your computer's memory called the "font buffer."

2. From the FONTS menu, select TRANSFER FONT to transfer the font from the font buffer to the paint screen.

3. Go to the paint screen, where you'll see an image of the font following the movement of the cursor. Note that the font is arranged in an array of 96 characters – 16 characters wide by 6 characters high.

4. Position the font where you want to place it and press the left button.

Now you can review the font to see whether you want to use it or edit it.

Editing a Font

If the style of the fonts supplied with DESIGNER is not exactly what you want, you can edit a font, one character at a time. Follow these steps to edit a font:

1. Load the font you want to edit. Refer to STORAGE for the procedure to use.

2. Select the FONTS menu.

3. Determine which character you want to edit and type the character. Notice that the character you type appears in the NOW EDITING box at the lower left of the FONTS menu.

4. Select TRANSFER CHARACTER and go to the paint screen, where you'll see an image of the character following the cursor movement.

5. Move the character to a location convenient for editing and press the left button to set it down.

6. Use any DESIGNER tool to revise or repaint the character. Since character editing must be pretty precise, you'll probably want to use the cursor direction keys and the RETURN key in conjunction with the ZOOM function (ZOOM is described in the PALETTE section). Make sure that your edited version of the character is no larger than 16 pixels wide by 8 pixels high.

7. When you're satisfied with your edited character, select the FONTS menu.

8. Select DEFINE CHARACTER and go to the paint screen. You define the character by pulling a rectangle around the edited version of the character:

   ● Move to one corner of the character and press the left button to anchor the corner.

   ● Move to the diagonally opposite corner and press the left button. Instantly, the area enclosed by the rectangle is defined as a character in the font you loaded.

9. To check the new character, press CTRL and T and type the new character. Press CTRL T again to continue editing.

10. Continue selecting characters to edit, transferring them to the paint screen, revising them, and defining them until the font meets your requirements. If your characters are all on the paint screen, DESIGNER lets you define them one right after another like this:

- Define a character as described above.

- Press CTRL and N. This tells DESIGNER that you are ready to define the character in the font grid to the *right* of the one you just defined. For example, if you define "a," then press CTRL N, DESIGNER lets you define "b" right away – without returning to the FONTS menu.

11. Save the edited font under a new name (refer to STORAGE for procedures on loading and saving fonts).

Creating a Font

If you want a very specialized text style, and none of the fonts supplied with DESIGNER seems close to what you need, you can create an entire font from scratch. In creating a font, you use a special tool called CHARGRID (listed on your DESIGNER FONTS directory) to position the characters precisely on the paint screen.

Here's the procedure:

1. Load the font with the filename CHARGRID from your DESIGNER Data Diskette. Refer to STORAGE for details on loading a font.

2. From the FONTS menu, select TRANSFER FONT, then go to the paint screen. You'll see the image of a grid of 96 rectangles – one for each character in the font that you'll create – following the movement of the cursor.

3. Press the left button to set the grid down on the paint screen.

4. Select any DESIGNER tool to paint a new font according to these guidelines:

   - Each character must fit within one rectangle on the grid.

   - Refer to the following diagram to see how the grid positions correspond to the keys on the keyboard.

	!	"	#	$	%	&	'	(	)	*	+	,	–	.	/
0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
p	q	r	s	t	u	v	w	x	y	z	{	:	}	~	

It's important to understand that the grid is *not* a picture of the keyboard. For example, the empty rectangle at the upper corner of the grid is the "space" character – displayed when you press the spacebar. The character you want displayed when you press the 0 (zero) key should be drawn in the first rectangle in the second row of the grid.

• Use ZOOM and the cursor direction keys for precise drawing.

• Note that the *border* of each rectangle is *inside* the rectangle, so make sure you erase the border before defining the font. The easiest way to erase the border is to cover it with SEGMENTS or BANDLINES of the background color.

When you're satisfied with the font, you're ready to *define* it.

5. From the FONTS menu, select DEFINE FONT and go to the paint screen.

6. Define the font by pulling a rectangle around the entire grid:

• Move to the upper left corner of the grid and press the left button to anchor the corner.

• Move to the lower right corner of the grid and press the left button again.

Instantly, the font is defined and placed in the font buffer, available for you to use, edit, or save. See STORAGE for details on saving fonts.

Here are two final tips on creating your own font:

• Because font design requires a lot of patience and precision, mistakes can cost you a lot of time. So it's a good idea to define and save a font frequently while you're creating it. Then, if you make a mistake, just load the last version you saved, transfer it to the screen, and continue working.

• Until you're an experienced font-builder, it's a good idea to transfer a font from the DESIGNER Data Diskette to the screen. Place it where you can refer to it or use its characters as a starting point.

Print
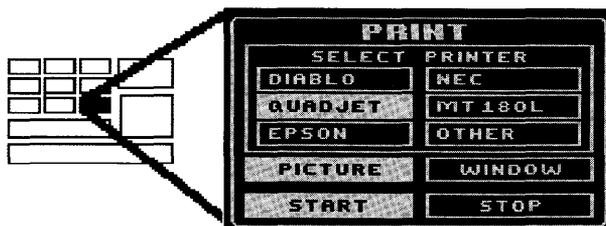
DESIGNER's PRINT tool lets you print any screen painting on a variety of printers. You can also print any custom window you've defined. Depending on your printer, you can print in black and white or color.

Before you can use DESIGNER to print, you must attach your printer to your Mindset Personal Computer according to the procedures in your printer manual and in your Mindset *Operation Guide*. In addition, if your printer is *not* named on DESIGNER's PRINT menu, you should follow the instructions in the next section, "Setting Up OTHER Printers."

Setting Up OTHER Printers

If you use a printer not listed on DESIGNER's PRINT menu, you'll need to transfer a set of OTHER printer instructions from your DESIGNER Program Diskette to a work diskette. This is a one-time procedure — once you've done it, DESIGNER will always know how to print your paintings on your printer. Appendix B lists the printers that DESIGNER supports. If your printer is listed on DESIGNER's PRINT menu, skip this section.

Here's the procedure for setting up an OTHER printer:

1. Make sure that the image you want to print is saved on a diskette.

2. With your DESIGNER Program Diskette in your disk drive, press ALT F1. The MS-DOS A> prompt appears.

3. Type **DIR** and press RETURN. A directory of the DESIGNER Program Diskette appears.

4. Find the name of your printer in the directory listing. Carefully note the entire name of the *file* that includes the name of your printer.

5. Use the MS-DOS COPY command to copy the file that includes your printer's name, making sure that the file on the work diskette is named OTHERPRT.EXE. (Refer to your *Introductory Guide to MS-DOS* and *MS-DOS Reference Manual* for complete details on copying files.)

   For example, follow these steps if you have an IDS 480 printer:

   ● Insert the DESIGNER Program Diskette in the disk drive.

   ● Type **COPY A:IDS480.EXE B:OTHERPRT.EXE** and press RETURN. Follow the prompts for swapping your DESIGNER Program Diskette and the work diskette – your "destination disk" in this case – as DOS copies the file. (*Do not* change the name of the file on the original DESIGNER Program Diskette.)

   Now your work diskette contains the instructions that DESIGNER will issue to your printer when you select it from the PRINT menu. Note that the OTHER printer name will not actually appear on the PRINT menu unless you go to the Master Menu first.

   It's a good idea to copy the file onto *all* the work diskettes you plan to use with DESIGNER so that DESIGNER can communicate to your printer no matter which work diskette you're using.

Printing with DESIGNER

To print a paint screen or custom window, follow these steps:

1. If necessary, load the picture or window you want to print. For details on loading pictures and windows, see STORAGE.

2. If you have set up an OTHER printer, then insert a work diskette that includes the file named OTHERPRT.EXE.

   If you have not set up an OTHER printer, then make sure the DESIGNER Program Diskette is inserted.

3. Select your printer from those listed on the PRINT menu.

4. Select PICTURE or WINDOW.

5. Select START – DESIGNER prints the image.

6. To interrupt printing, press the left button or the RETURN key.

Printing in Black and White or Color

DESIGNER uses various *textures* to represent the colors of the palette when printing in black and white. You can adjust these textures for greater contrast by altering the colors of the screen before printing. Refer to DESIGNER PALETTE for color-mixing procedures.

Colors printed may vary with the color printer you're using.

Remove the Cursor Before Printing

When you select PRINT PICTURE, DESIGNER prints the entire paint screen, including the cursor. To remove the cursor temporarily, press CTRL and O (the *letter* O).

Section 4

Designer Palette

Introduction
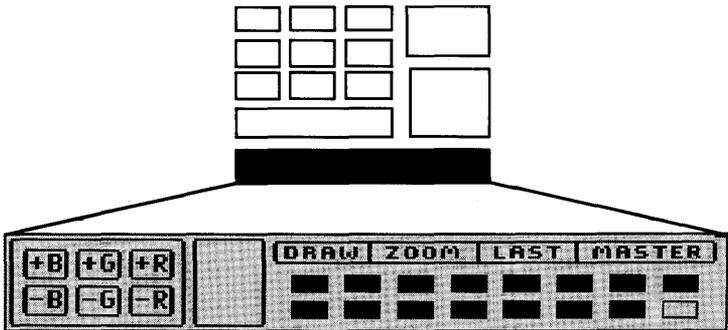
The DESIGNER palette occupies the lower part of the Master Menu, the tool menus, and the paint screen. The palette area –

- lets you select and mix colors with which to paint;

- gives you an "express route" to the Master Menu, to the last tool menu you used, or to the last DRAW tool you selected; and

- lets you "zoom in" on any area of the paint screen for precise drawing and painting.

Moving To and From the Palette

To use the palette, you simply move the cursor to the palette area and make your selection. You can move directly into the palette area from the Master Menu or from any tool menu.

From the paint screen, press the *right* button to move the cursor to the palette area. To move the cursor back to the paint screen from the palette, press the right button again. You can also move the cursor between the paint screen and the palette by pressing the P key.

Moving and Removing the Palette

You can move or remove the palette in order to paint in the space it normally occupies on the paint screen. After you paint, you can move the palette back over your painting – the palette will not erase any part of the paint screen.

To *remove* the palette from the screen, press the spacebar. To recall the palette, press the spacebar again or press the right mouse button. Remember, the palette will not erase any part of your painting.

To *move* the palette from the bottom of the paint screen to the top or from the top to the bottom, hold down CTRL while you press P.
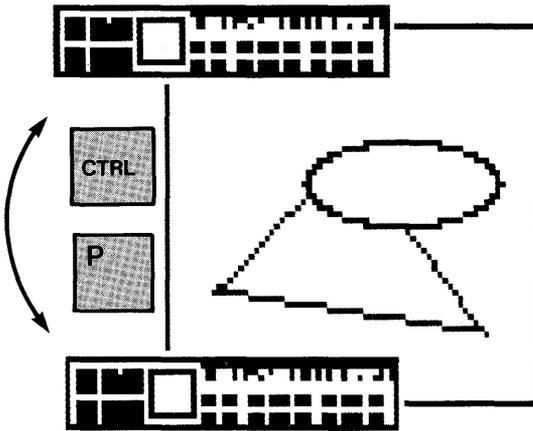
- *You cannot place the palette over the cursor.* For example, the palette won't move to the top of the screen if the cursor is at the top of the painting. To move the palette in such circumstances, first move the cursor to the middle of the screen, then move the palette with CTRL P.

- *You cannot move, remove, or recall the palette with a rubber-band line or shape or an image that you're transferring on the screen.* You must complete the operation or interrupt it by pressing R before you can move the palette.

Selecting Colors

The current color — the color DESIGNER will paint in — is always shown in two places:

● as the screen border around the menu or paint screen, and

● in the color block in the middle of the palette area.
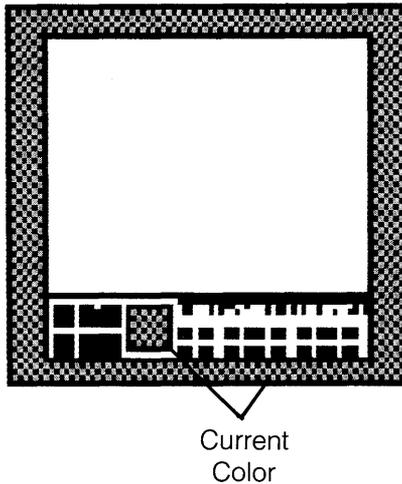
Current
Color

To change the current color:

1. Move the cursor to the color you want to use in the palette area.

2. Press the left button.

The palette color block and the border change to the newly selected color.

Mixing New Colors

If you're using a composite monitor or a T.V., you can create one or more custom colors — even a whole new palette — by adding or subtracting red, blue, and green to or from any color in the palette. You can also save your customized palette and use it whenever you like.
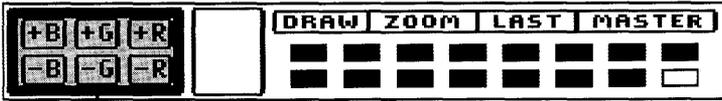
Color Mixture Blocks
(T.V. or Composite)

To mix a new palette color:

1. Select the color you want to mix. It will appear in the screen border and the color block as the current color.

2. Point to a color mixture block at the left side of the palette area. For example, to add more red to the current color, point to +R. To subtract green, point to −G.

3. Press the left button − the color changes slightly. Keep pressing the left button to add or subtract color until the current color is the hue you want.

Note that when you mix a new color, the change is *global* − that is, the color you mixed changes throughout the menus and on the paint screen. Press ALT P whenever you want to return to DESIGNER's original palette.

The colors you create remain in the palette until you change them again or until you turn off DESIGNER.

If you want to save your new palette for future use, refer to STORAGE.

Other Palette Options

Other Palette
Options

These palette area options are very handy. To use one, just move into the palette area and select it.

Draw

DRAW is a time-saver. When you're on the paint screen, this option lets you resume drawing with the last function you previously selected from the DRAW menu.

Here's an example of how you can use this feature:

> Suppose you paint a picture using FREEHAND with a particular brush from the DRAW menu; then you use the WINDOW menu to move part of the painting. Now you want to resume painting with the same brush.

> Select DRAW from the palette area and DESIGNER automatically selects FREEHAND and the brush you used last. FREEHAND is shown in the text line.

Zoom

ZOOM magnifies a selected part of your paint screen. It's especially helpful when you want to create very precise drawings or very small images. You can use ZOOM to paint on the screen or to edit a part of a painting. Here's the ZOOM procedure:

1. Move the cursor to the part of the painting that you want to zoom in on.

2. Move into the palette area and select ZOOM (you can also select ZOOM by pressing the Z key).

   The part of the painting you've zoomed in on is duplicated in the block at the left of the palette and magnified 2X.

3. Paint on the screen as usual, watching the zoom block for the exact position of the cursor and for the pixel-by-pixel results of your painting.

4. To increase the magnification to 4X, select ZOOM (or press Z) again.

5. To turn ZOOM off, select ZOOM (or press Z) a third time.

Here are two important points to remember about ZOOM:

- You can use any DESIGNER tool while zoomed in on the paint screen. ZOOM is particularly useful when you're pulling rectangles around

very small images, as when defining characters for a custom font.

● To draw very precise or small images while zoomed in, you may want to use the cursor direction keys and the RETURN key.

Last

When you're on the paint screen and want to return to the menu from which you last made a selection, move to the palette area and select LAST.

Here's an example:

You've selected a line and a brush from the DRAW menu and have started a painting. Now you want to use a different brush.

Select LAST to return directly to the DRAW Menu for a new brush.

Master

Select MASTER to return to the Master Menu from the paint screen or from any tool menu. Pressing ESC or F10 also returns you to the Master Menu.

Section 5

Designer Storage

Introduction
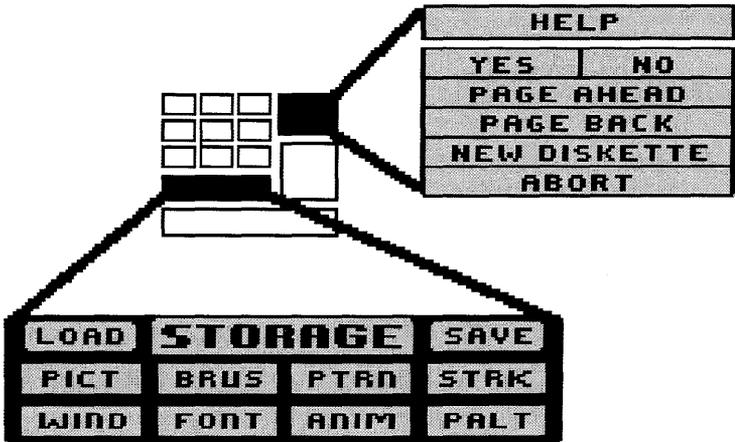
You can save any DESIGNER creation – a picture, a palette, any custom tool, or an animation sequence – in a file on a work diskette. Then, when you want to look at your creation, edit it, or use it in another painting, you can retrieve it from the diskette by loading it into your computer's memory. (You cannot use DESIGNER to delete files. Instead, use MS-DOS.)

You save and load by making selections from the STORAGE menu.

This section describes all of the procedures for saving and loading DESIGNER files.

Saving

Saving is important when you've completed a picture or created a tool
that you'll want to look at, edit, or use in the future. If you're working on a
detailed painting, it's always a good idea to save your work periodically
so that you won't lose too much time or work if you make a mistake. If
you do make a mistake that's too much trouble to correct, just load your
latest version and continue working. Whenever you're interrupted in
your work, be sure to save what you've done before leaving or turning
off the system.

Here's the saving procedure:

1. Select any menu.

2. Select SAVE on the STORAGE menu.

3. Select the item you want to save: a PICTURE, BRUSH, PATTERN,
   STROKE, WINDOW, FONT, ANIMATION, or PALETTE. Be sure to
   keep the cursor within the STORAGE area.

   DESIGNER displays the directory window, the storage message
   window, and the storage HELP menu.

4. Follow the instructions in the message window. Remove the
   DESIGNER Program Diskette from the disk drive, insert a work
   diskette or the DESIGNER Data Diskette, and press RETURN.

   Now DESIGNER lists all the files (of the type you selected to save) on
   the diskette and asks for the name of the file to be saved.

5. Enter the name you want to use for the file and confirm your entry:

   • If you're saving a file for the first time, type the name and confirm it
     by pressing RETURN. Follow these guidelines:

     – Do *not* specify a disk drive.

     – Use a name that is unique – a name you haven't used for any
       other file of that type.

     – Use a name that will help you remember what's in that file – a
       name representative of the contents.

- Use from one to eight characters (TIGER, MYFONT2, and FLOORPLA are examples of valid filenames).

● If you're saving a file that you've previously named and saved, select the filename from the directory window and then select YES in the storage HELP box.

As soon as you confirm the name, DESIGNER saves your file.

If there's not enough room on the diskette to save your file, DESIGNER will write "ERROR – DISK FULL" in the text line. When this happens, just insert a work diskette with enough room on it and repeat the save procedure.

Saving an image or tool does not erase it, so you can return to the paint screen to continue working. Just remember to save the last version when you're done.

Here are some important points on saving with DESIGNER.

Filename Extensions: Do *not* add extensions to filenames – DESIGNER adds its own extensions. For example, if you've selected SAVE PICTURE and then enter TIGER as the file name, DESIGNER will name the file **TIGER.PIC**. Extensions don't appear in the STORAGE directory.

Unique Filename: Always use unique filenames unless you're updating a previously saved file. If you save a file with a name already listed in the directory, the file previously stored under that name will be erased.

File Directory: When you have a lot of files on a work diskette or when you have more than one work diskette, you can use three other functions in the storage HELP box.

● To look at the second and succeeding pages of a file directory, select PAGE AHEAD. (You can select PAGE AHEAD only if there are more than 12 filenames in a directory.)

● To look at previous pages of the file directory, select PAGE BACK.

● To change work diskettes:

  - Remove the first work diskette from the drive.

  - Insert another work diskette.

— Select NEW DISKETTE — DESIGNER displays the files on the new diskette.

Aborting a Save

If you change your mind at any time during the saving process, select ABORT from the storage HELP menu. The saving process is interrupted and the last menu you used appears.

For Saving Diskette Space

The last line of the diskette directory shows the number of bytes (characters) available for storing diskette files. Normally, a full screen painting requires 32,000 bytes. Here are two ways to reduce the amount of space needed:

- If you need to save a small painting that doesn't cover more than about one-quarter of the screen, use the DEFINE option on the WINDOW menu and save the file as a window.

- Compress the picture before you save it. If you press ALT and R before selecting SAVE, DESIGNER uses a special compression technique to save the picture on less diskette space.

Loading

You can load — that is, retrieve — any file that's been saved on a work diskette.

- Loading a *picture or animation sequence* automatically puts the file on the paint screen, erasing whatever was there.

- Loading a *brush, pattern, stroke, window,* or *font* puts the item into a *buffer*, erasing whatever was previously in the buffer.

- Loading a *palette* automatically replaces the current palette — the new colors are reflected on the paint screen and on all menus.

Here's the loading procedure:

1. Select any menu.

2. Select LOAD on the STORAGE menu.

3. Select the item you want to load: a PICTURE, BRUSH, PATTERN, STROKE, WINDOW, FONT, ANIMATION, or PALETTE. Be sure to keep the cursor within the STORAGE area.

   DESIGNER displays the directory window, the storage message window, and the storage HELP menu.

4. Follow the instructions in the message window: remove the DESIGNER Program Diskette from the drive, insert the work diskette or the DESIGNER Data Diskette containing the file you want to load, and press RETURN.

   Now DESIGNER lists all the files (of the type you selected) on the work diskette and asks for the name of the file you want loaded.

5. Enter the name of the file you want to load – use either of these two methods:

   • Move to the name in the directory listing and press the left mouse button.

   • Or type the name just as it appears in the directory listing, then press RETURN. (*Do not* move the cursor from the STORAGE menu item before pressing RETURN.)

   DESIGNER displays the filename and asks you to confirm that this is the file you want loaded.

6. Confirm the name by selecting YES in the storage HELP box. If you change your mind about loading the file, select NO and select a new filename.

   If there's a file already in memory or in the buffer, DESIGNER reminds you that loading the new file will ERASE FILE IN MEMORY.

7. If you're sure there's nothing valuable in memory or in the buffer, select YES from the storage HELP box. DESIGNER loads the file.

Here are some tips on loading.

File Directory: When you have a lot of files on a diskette or when you've got more than one work diskette, you can use three other functions in the storage HELP box:

- To look at the second and succeeding pages of a file directory, select PAGE AHEAD. (You can select PAGE AHEAD only if there are more than 12 filenames in a directory.)

- To look at previous pages of the file directory, select PAGE BACK.

- To change work diskettes:

  - Remove the first work diskette from the drive.

  - Insert another work diskette.

  - Select NEW DISKETTE – DESIGNER displays the files on the new diskette.

Aborting a Load

If you change your mind at any time during the loading process, select ABORT from the storage HELP menu. The loading process is interrupted and the last menu you used appears.

Appendix A

Patterns, Strokes
and Fonts

Here are black and white representations of the patterns, strokes, and fonts supplied on the DESIGNER Data Diskette. If you'd like to look at these items in color, insert the DESIGNER Data Diskette, then load and review the following pictures:

- For patterns – PATTERNS

- For strokes – STROKES

- For fonts – FONTPIC1 or FONTPIC2

SAMPLE PATTERNS

USE LETTER TO LOAD CUSTOM PATTERNS
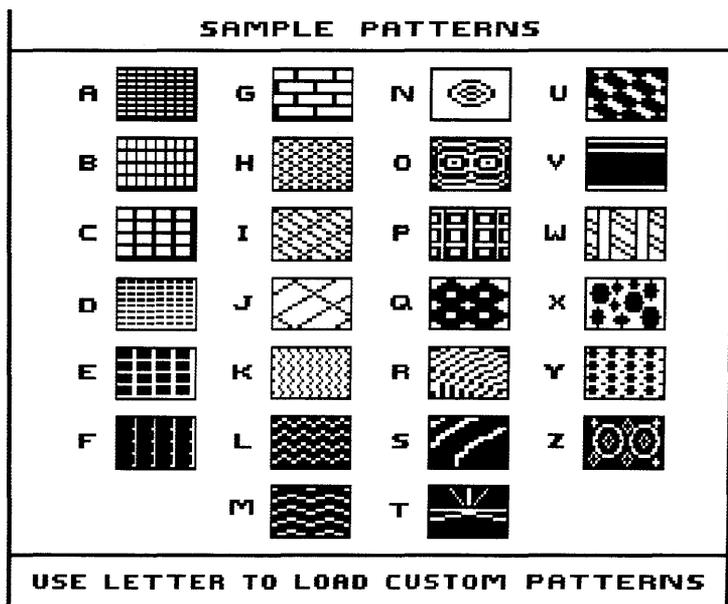
```
┌─────────────────────────────────────────────┐
│            SAMPLE  STROKES                   │
├──────────────────────┬──────────────────────┤
│  A   ∿∿∿∿∿∿           │  N   ŬŬŬŬŬŬŬŬ         │
│  B   ▨▨▨▨▨            │  O   ████████         │
│  C   ▨▨▨▨▨▨           │  P   ,ᵗᵗ'ᵗₜₜₜₜₜ'      │
│  D   ▭◁▷▭◁▷▭◁▷        │  Q   ⚜ ⚜ ⚜ ⚜         │
│  E   ⎰⎱⎰⎱⎰⎱⎰⎱         │  R   ◇◇◇◇◇◇           │
│  F   ⦂⊙⦂⊙⦂⊙⦂⊙⦂⊙⦂      │  S   ▨▨▨▨▨▨▨          │
│  G   ⌐⌐⌐⌐⌐            │  T   ৡ ৡ ৡ ৡ         │
│  H   ⫴⫴⫴⫴⫴            │  U   ▨▨▨▨▨▨▨          │
│  I   ▨▨▨▨▨            │  V   ∿∿∿∿∿∿           │
│  J   ∿∿∿∿∿∿           │  W   ≈≈≈≈≈            │
│  K   ▨▨▨▨▨▨▨          │  X   ⚜ ⚜ ⚜ ⚜         │
│  L   ⊗—⊗—⊗—⊗—         │  Y   ∽∽∽∽∽            │
│  M   ⌢⌣⌢⌣⌢⌣           │  Z   ⋘⋘⋘⋘⋘            │
├──────────────────────┴──────────────────────┤
│  USE LETTER TO LOAD CUSTOM STROKE            │
└─────────────────────────────────────────────┘
```

FONT A

```
    !  "  #  $  %  &  '  [  ]  *  +  ,  -  .  /
 0  1  2  3  4  5  6  7  8  9  :  ;  <  =  >  ?
 @  A  B  C  D  E  F  G  H  I  J  K  L  M  N  O
 P  Q  R  S  T  U  V  W  X  Y  Z  [  \  ]  ^  _
 `  a  b  c  d  e  f  g  h  i  j  k  l  m  n  o
 p  q  r  s  t  u  v  w  x  y  z  {  :  }  ~
```

FONT B

```
    !  "  #  $  %  &  '  [  ]  *  +  ,  -  .  /
 0  1  2  3  4  5  6  7  8  9  :  ;  <  =  >  ?
 @  A  B  C  D  E  F  G  H  I  J  K  L  M  N  O
 P  Q  R  S  T  U  V  W  X  Y  Z  [  \  ]  ^  _
 `  a  b  c  d  e  f  g  h  i  j  k  l  m  n  o
 p  q  r  s  t  u  v  w  x  y  z  {  :  }  ~
```

FONT C

```
    !  "  #  $  %  &  '  [  ]  *  +  ,  -  .  /
 0  1  2  3  4  5  6  7  8  9  :  ;  (  =  )  ?
 @  A  B  C  D  E  F  G  H  I  J  K  L  M  N  O
 P  Q  R  S  T  U  V  W  X  Y  Z  [  \  ]  ^  _
 `  a  b  c  d  e  f  g  h  i  j  k  l  m  n  o
 p  q  r  s  t  u  v  w  x  y  z  {  :  }  ~
```

FONT D

```
  !  "  #  #  %  &  '  (  )  *  +  ,  -  .  /
0  1  2  3  4  5  6  7  8  9  :  ;  <  =  >  ?
@  A  B  C  D  E  F  G  H  I  J  K  L  M  N  O
P  Q  R  S  T  U  V  W  X  Y  Z  [  \  ]  ^  _
`  a  b  c  d  e  f  g  h  i  j  k  l  m  n  o
p  q  r  s  t  u  v  w  x  y  z  {  |  }  ~
```

FONT E

```
  !  "  #  $  %  &  '  (  )  *  +  ,  -  .  /
0  1  2  3  4  5  6  7  8  9  :  ;  <  =  >  ?
@  A  B  C  D  E  F  G  H  I  J  K  L  M  N  O
P  Q  R  S  T  U  V  W  X  Y  Z  [  \  ]  ^  _
`  a  b  c  d  e  f  g  h  i  j  k  l  m  n  o
p  q  r  s  t  u  v  w  x  y  z  {  |  }  ~
```

FONT F

```
  !  "  #  $  %  &  '  (  )  *  +  ,  -  .  /
0  1  2  3  4  5  6  7  8  9  :  ;  <  =  >  ?
@  A  B  C  D  E  F  G  H  I  J  K  L  M  N  O
P  Q  R  S  T  U  V  W  X  Y  Z  [  \  ]  ^  _
`  a  b  c  d  e  f  g  h  i  j  k  l  m  n  o
p  q  r  s  t  u  v  w  x  y  z  {  |  }  ~
```

Appendix B

Keyboard Commands

Display Master Menu	ESC or F10
Display tool menu	F1-F9
Remove or recall palette	SPACEBAR
Move palette between top and bottom of paint screen	CTRL P
Lock/unlock the X coordinate	X or F
Lock/unlock the Y coordinate	Y or F
Invert the brush used with DRAW	I
Display mirror image of a window (after anchoring the second corner)	M
Quit (terminate) polygon draw	Q
Restart an operation	R
Enter, increase, or exit ZOOM	Z
Clear (erase) the screen	CTRL C
Define next character in font	CTRL N
Remove or replace cursor	CTRL O
Text-entering on/off	CTRL T
Rotate pattern or stroke 90 degrees counterclockwise	CTRL R
Undo all graphics since last menu or since last palette move	CTRL U
Reset and redisplay default palette	ALT P
Change display mode between RGB monitor and composite monitor/T.V.	D

Appendix C

Other Setup Options

This guide assumes that your Mindset system is equipped with one disk drive and a mouse. This appendix includes information that may be useful if your system has a different setup.

Using Designer With Two Disk Drives

To Load DESIGNER
With a two-drive system, you insert the DESIGNER Data Diskette or your work diskette in *drive B* when starting the program. Here's the procedure:

1. Insert the DESIGNER Program Disk in drive A.

2. Insert the DESIGNER Data Diskette or your work diskette in drive B.

3. Turn on your Mindset System Unit and monitor or T.V.

Saving
The procedure for two drives differs in that you do not need to insert the Data Diskette in place of the Program Diskette.

1. Select MASTER or any tool menu.

2. Select SAVE.

3. Select item to be saved.

4. Type filename.

5. Confirm filename and press RETURN.

Loading

With a two-drive system, you do not need to insert the DESIGNER Data
Diskette in place of the DESIGNER Program Diskette.

1. Select MASTER or any tool menu.

2. Select LOAD.

3. Select the item to be loaded.

4. Select and confirm the filename to be loaded.

5. Confirm that you want to ERASE FILE IN MEMORY by selecting YES
   to load the new file.

Printing

With a two-drive system, you do not need to swap diskettes.

1. Insert the DESIGNER Program Diskette in drive A.

2. If you have set up an OTHER printer, insert the diskette with
   OTHERPRT.EXE in drive B.

3. Select the PRINT menu.

4. Select your printer from the list on the menu.

5. Select PICTURE or WINDOW as appropriate.

6. Select START to begin printing.

To interrupt printing, press the left button or the RETURN key.

Using Designer With an RGB Monitor

If you're using an RGB monitor with DESIGNER, press D when
DESIGNER's Master Menu first appears. This enables the Mindset to
respond properly to the RGB signal.

If you have an RGB and a composite monitor or T.V. connected to your

computer, press D to see the proper RGB display. Press D again to see the proper composite or T.V. display.

Controlling Designer With a Joystick or Keyboard

This table shows how joystick and keyboard controls correspond to mouse controls:

If you're using a joystick, make sure it's plugged into the port on the *left* side of the keyboard.

Mouse Control	Joystick Control	Keyboard Control
Mouse Movement	Joystick Movement	Cursor Direction
Left Button	Left Button	RETURN
Right Button	Right Button	P

Refer to Appendix B for a complete listing of keyboard controls.

Appendix D

Printers Supported By Designer

Here are the printers that DESIGNER supports:

DIABLO – COLOR
QUADJET – COLOR
EPSON
NEC – 8023A
MANNESMAN TALLEY – 160/180L

OKIDATA (92)
GEMINI 10/10X
MANNESMANN TALLEY SPIRIT – 80
IDS 480
C. ITOH

If your printer is not listed, ask a competent programmer or your printer dealer to review the printer filenames supplied on the your DESIGNER Program Diskette and identify one that may be usable with your printer. Then copy the appropriate file according to the procedure in the PRINT section of this guide.

MINDSET