Paintworks

Gold

ACTIVISION.

Paintworks Gold

Credits

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Paintworks *Gold*

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Contents

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Reference

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Paintworks *Gold*

Introduction

Paintworks Gold is full of possibilities. There are 12 tools for you to paint with. You can use 16 colors in a single picture, and you can choose those 16 from a palette that contains 4096 colors in all. You can make colors transparent and create colors that are a blend of two or more colors. You can create a perspective view of an image or reorient the image by rotating and flipping it. You can also create a series of pictures that show an image changing or moving, and *Paintworks Gold* will animate the series automatically.

How to Use this Guide

This guide has three sections.

"A Guided Tour of *Paintworks Gold*" takes you through all the basic features of *Paintworks Gold*. It makes many stops along the way to let you experiment with the program and become familiar with how it works.

The "Reference" section covers every aspect of *Paintworks Gold*. It's the place to find anything that isn't covered in the guided tour. The "Reference" is organized by the way things appear on the screen: the palettes are illustrated and explained, and the menu functions are listed according to the menu they appear on.

The "Glossary" lists and defines special terms used in the guide that you may not be familiar with.

What You'll Need

- A blank disk. It's always best to save the pictures you create on a disk other than the *Paintworks Gold* program disk or art disk.

- A printer, if you want to make printed copies of the pictures you create.

- Imagination. What you can create with *Paintworks Gold* is limited only by your invention.

Using the Mouse

This guide uses four terms to designate the different ways you can use the mouse. Here's what the terms mean:

1

Click means position the pointer and then press and quickly release the button on the mouse.

Double-click means position the pointer and then press and quickly release the mouse button twice.

Drag means position the pointer and hold the mouse button down while you move the mouse. You release the mouse button to choose a menu item or to place an object in a picture.

Press means position the pointer and then hold down the mouse button without moving the mouse.

The Command Key

Throughout this guide, keys are referred to by the name printed on them. This key
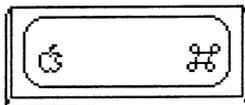
is called the **command** key.

A Note on Type Styles

In this guide, **boldface** type is used for words and messages that appear on the screen. Boldface is also used for words you're supposed to type or keys you're supposed to press. For example,

Press **delete**

means that you're to press the key that has the word *delete* printed on it.

Making a Backup

Paintworks Gold is not copy-protected. You can make a backup copy *for your personal use only*. And, if you have a hard disk, you can install *Paintworks Gold* so that it starts automatically whenever you start your computer.

To back up *Paintworks Gold* to another floppy disk, you'll need the Apple IIGS System Disk.

1. From the files on the Apple IIGS System Disk, select **SYS.UTILS** and then **SYSUTIL.SYSTEM.**

2. From the listing **Work on Entire Disks**, select **Duplicate a Disk**.

3. At the prompt **Where is your source disk?**, enter the slot and drive for your original *Paintworks Gold* program disk. The slot number is 5. If you have one drive, the drive number is 1. If you have two drives, the drive number is either 1 or 2, depending on which drive you have your *Paintworks Gold* program disk in.

4. At the prompt **Where is your destination disk?**, enter the slot and drive for the new disk that will be the backup copy.

5. At the prompt **Enter Name of New Volume**, don't make any changes; you *must* use the default name /**Paintgold**/.

6. The program formats the new disk and makes a copy of *Paintworks Gold.*

If you're copying *Paintworks Gold* onto a hard disk that has other applications already on it, keep in mind that *Paintworks Gold* may use versions of ProDOS® and the Apple system tools that are later than the version currently on your hard disk. If you don't copy the versions of ProDOS and the Apple system tools on the *Paintworks Gold* program disk to the hard disk, *Paintworks Gold* may not work. If you replace the current versions with the versions on the *Paintworks Gold* program disk and the other applications already on the disk don't work, you'll have to recopy the current versions of ProDOS and the Apple system tools onto the hard disk whenever you want to use the other applications.

To install *Paintworks Gold* on a hard disk, you'll need the Apple IIGS System Disk.

1. From the System Disk, select **SYS.UTILS** and then **SYSUTIL.SYSTEM.**

2. Under **Work on Individual Files**, select **Copy Files.**

3. At the prompt **Where is your source disk?**, select **Slot and Drive,** then enter the slot and drive for your original *Paintworks Gold* program disk. The slot number is 5. If you have one drive, the drive number is 1. If you have two drives, the drive number is either 1 or 2, depending on which drive you have your *Paintworks Gold* program disk in.

4. At the prompt **Where is your destination disk?**, select **Slot and Drive**, then enter the slot number and drive number of your hard drive. This information can be found in the installation manual for your hard drive.

5. At **Select some or all files on this disk**, select **All.**

6. The program will now copy *Paintworks Gold* onto your hard drive.

Store your original program disk in a safe place and use the backup copy for everyday use; that way, you won't risk damaging your original. And remember, you must be a registered owner to be eligible for support and program updates.

A Note to the Adventuresome

If you'd prefer to explore *Paintworks Gold* on your own instead of working through the guided tour in the first six chapters, there's no reason not to. *Paintworks Gold* is simple and straightforward and works the way you'd expect it to. Choose **Help** from the **Apple** menu for a quick overview of how *Paintworks Gold* works.

Paintworks Gold

A Guided Tour

Chapter 1

A Look Around the Studio

Starting Paintworks Gold

There are two ways to start *Paintworks Gold.* Which one you use depends on whether your computer is off, or it's on and the launcher is on the screen. (The launcher shows you a list of the files on the disk in the disk drive and lets you choose the one you want to start.)

Note: Don't use a RAMdisk with *Paintworks Gold.*

If the computer is off:

1. Turn on the monitor—but *not* the computer.

2. Put the *Paintworks Gold* program disk in the disk drive with the label side up.

3. Turn on the computer. The launcher starts loading into the computer. After a few moments, the launcher appears on the screen. It looks like this:

```
Select the file you want to open:
🖹 /Paintgold/
  ▢ PAINTTOOLS           ⇧      (  Disk  )
  ◈ PAINTWORKS.GOLD
  ◈ PRODOS
  ▢ SYSTEM                       (  Open  )

                                 ( Close )

                        ⇩        (  Quit  )
Version 2.0
```
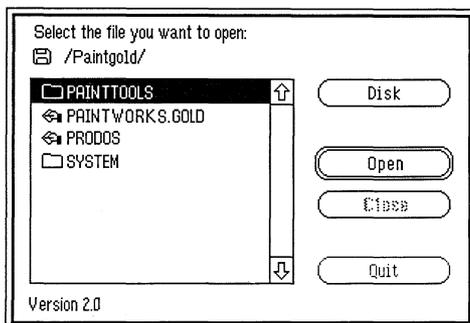
4. Find **Paintworks.Gold** on the list. If you don't see it, use the mouse to position the tip of the pointer (the black arrow) on the down arrow (at

the bottom of the list). Click the mouse button to scroll the list up until you find **Paintworks.Gold**.

5. Position the tip of the pointer on **Paintworks.Gold** and click the mouse button. The name is highlighted (it turns from black on white to white on black).

6. Position the pointer on the **Open** button and click the mouse button. *Paintworks Gold* starts loading into the computer automatically.

After a minute or two, the easel appears. It looks like the illustration on page 7.

If the launcher is on the screen:

1. The screen looks something like this:

```
Select the file you want to open:
🖹 /Paintgold/
┌─────────────────────────┬───┐   ╭──────────────╮
│ ▢ PAINTTOOLS          ⇧ │   │   │     Disk     │
│ ◈ PAINTWORKS.GOLD        │   │   ╰──────────────╯
│ ◈ PRODOS                 │   │
│ ▢ SYSTEM                 │   │   ╭──────────────╮
│                          │   │   │     Open     │
│                          │   │   ╰──────────────╯
│                          │   │   ╭──────────────╮
│                          │   │   │    Close     │
│                        ⇩ │   │   ╰──────────────╯
├──────────────────────────┴───┤   ╭──────────────╮
│ Version 2.0                   │   │     Quit     │
└──────────────────────────────┘   ╰──────────────╯
```
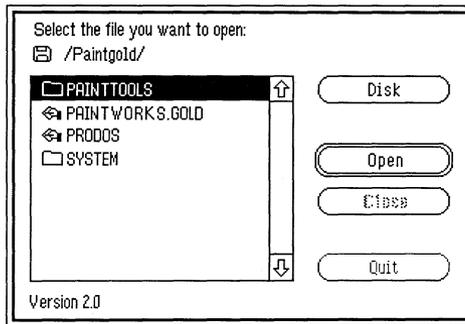
If the *Paintworks Gold* program disk isn't in the drive, eject the disk that's there and replace it with the *Paintworks Gold* program disk, label side up. Then position the pointer on the **Disk** button and click the mouse button. In a moment, a new list of names appears on the screen.

2. Find **Paintworks.Gold** on the list. If you don't see it, use the mouse to position the tip of the pointer (the black arrow) on the down arrow (at the bottom of the list). Click the mouse button to scroll the list up until you find **Paintworks.Gold**.

3. Position the tip of the pointer on **Paintworks.Gold** and click the mouse button. The name is highlighted (it turns from black on white to white on black).

4. Position the pointer on the **Open** button and click the mouse button. *Paintworks Gold* starts loading into the computer automatically.

After a minute or two, the easel appears. It looks like this:
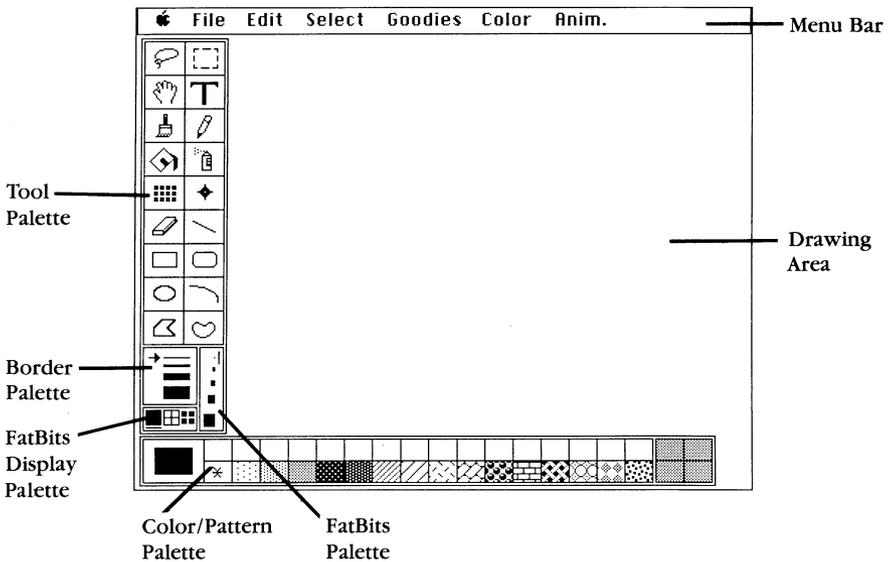
Paintworks Gold is now ready for you to use.

Quitting **Paintworks Gold**

You can quit *Paintworks Gold* whenever you want to by choosing **Quit** from the **File** menu. (See "Quit" under "File" in the "Reference" section for details.)

The Easel

The easel has displayed on it everything you'd expect to find in an artist's studio: a blank canvas; a pencil, paintbrush, and other tools; and a palette of colors and patterns. It also has a menu at the top that lets you print and save pictures, make copies of them, mix colors and create patterns, choose fonts, and animate your pictures.

The Pointer. Move the mouse around. By moving the mouse, you also move the pointer around the easel. You'll notice that when you move the pointer into the drawing area, it changes to a pencil.

The small picture that's used to represent the pencil—both in the drawing area and in the tool palette—is called an *icon*.

The Tools. Whenever the pointer is in the drawing area, it takes a shape that fits the tool you've selected. The illustration below identifies each of the tools and explains its use.

You can move the window the tools are in by pointing to the outside edge, holding down the mouse button, and moving the dotted outline that appears to somewhere else on the easel.

Lasso		Marker Box
Hand		Text
Paintbrush		Pencil
Paint Bucket		Spray Can
Cotton		Search Color Cursor
Eraser		Straight Line
Rectangle		Rounded Rectangle
Oval		Arc
Polygon		Free-form Shape
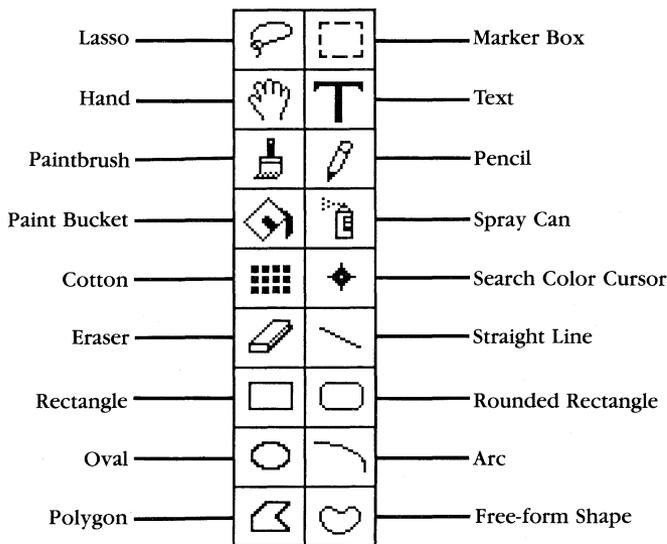
Lasso. Select an image and lift it off its background to move, copy, or cut it.

Marker Box. Select an area along with its background to move, copy, or cut it.

Hand. Move a drawing around in the drawing area.

Text. Activate the keyboard so you can add text to a picture.

Paintbrush. Paint with a color or pattern in any of 32 brush shapes.

Pencil. Draw a thin line in a color or pattern.

Paint Bucket. Fill an outlined, solid, or selected area with a color or pattern.

Spray Can. Spray a color or pattern.

Cotton. Use the paintbrush to create such effects as smearing, shading, inverting, and smoothing.

Search Color Cursor. Identify which parts of a picture match which colors in the palette.

Eraser. Erase whatever you drag it over.

Straight Line. Draw a straight line; its color (or pattern) and width match the line selected on the border palette.

Rectangle. Draw the outline of a rectangle or square, or a rectangle or square filled with a color or pattern.

Rounded Rectangle. Draw the outline of a rectangle or square with rounded corners, or a rounded rectangle or square filled with a color or pattern.

Oval. Draw the outline of an oval or circle, or an oval or circle filled with a color or pattern.

Arc. Draw a portion of the outline of an oval or part of an oval filled with a color or pattern.

Polygon. Draw the outline of a polygon or a polygon filled with a color or pattern.

Free-form Shape. Draw a closed outline of any shape, or any closed shape filled with a color or pattern.

Note: The outline of any shape you draw with the rectangle, rounded rectangle, oval, arc, polygon, or free-form shape matches the color (or pattern) of the border surrounding the selected color on the color/pattern palette; its width matches the width of the line selected on the border palette. The shape is filled with the color or pattern that's selected.

When you start *Paintworks Gold,* the pencil is always selected. The icon of the tool that's selected is highlighted—it's white on black, rather than black on white as all the other tools are.

Here's how you select a tool:

Move the pointer so the tip of the arrow is in the box with the paintbrush, then click the mouse button. The icon is highlighted. The paintbrush is now selected.

The Border Palette. The border palette has four different line widths you can choose from. The thinnest line is the same width as the line you draw with the pencil. The other lines are two, three, and four times as wide. The arrow shows which line width is selected. To select a line width, you point to the line you want and click the mouse button.

The border palette controls the width of the straight line tool and the width of the outline of all the shapes (rectangles, rounded rectangles, ovals, arcs, free-form shapes, and polygons). It doesn't affect the paintbrush or the pencil in any way.

You can change the border lines to a color or pattern. How to do so is explained under "Border Palette" in the "Reference" section.

The FatBits Palette. The FatBits palette has four levels of magnification you can use to display a small part of a picture in detail. You can then work on that part of the picture pixel by pixel. To display an enlarged view, you use the lasso or marker box to mark part of a picture, then you choose one of the four larger squares. To return to a normal view of the picture, you select the smallest square.
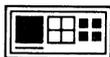
**The FatBits Display Palette.** The FatBits display palette lets you choose the way you want the enlarged pixels to appear in the magnified view of a picture.

The standard view shows pixels that are next to each other displayed as a solid line or color.
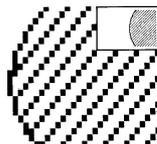
The pixels can be displayed on a grid.
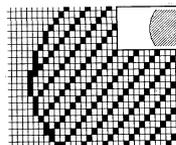
They can also be displayed as separate squares of color even when they're right next to each other.
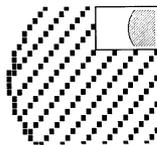
10

The Color/Pattern Window. The color/pattern window contains the colors and patterns you have to choose from in creating a picture.

Color of the Background

Selected Color or Pattern

Color or Pattern of Borders
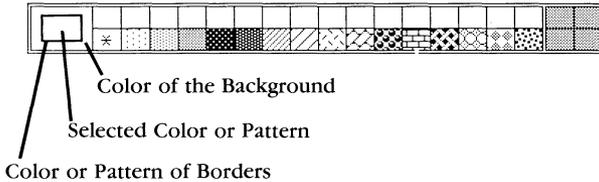
The color in the large box at the left end of the palette contains the color or pattern that's currently selected. You select a color or pattern by pointing to it and clicking the mouse button.

You can choose different colors and create new patterns for the palette. "Changing Patterns" and "Choosing Colors for the Palette" in Chapter 6, "Advanced Techniques," explain how.

You can move the color/pattern window by pointing to the outside edge, holding down the mouse button, and moving the dotted outline that appears to somewhere else on the easel.

The Drawing Area. The drawing area fills the entire easel.

You can draw only on the part of the page that's in the drawing area. But the entire page is almost twice the size of the drawing area, and you can use all of it by moving it behind the drawing area to expose the parts that are hidden. "Moving the Picture in the Drawing Area" in Chapter 5, "Handling a Picture," explains how to go about it.

Show Page (listed under "Goodies" in the "Reference" section) explains how to see the entire page all at once. You can move the tool and color/pattern windows around or remove them and the menu bar entirely to expose the parts of the drawing area that they cover.

To remove the menu bar, you choose **Hide Menu Bar** from the **Goodies** menu or press the spacebar (if you press the spacebar, the tool window and the color/pattern window also disappear). To display the menu bar again, you press the spacebar (the tool window and the color/pattern window also reappear).

To remove the tool window (which contains the tool palette, the border palette, the FatBits and FatBits display palettes) and the color/pattern window, you choose **Hide Tools** from the **Goodies** menu. Choose **Show Tools** from the **Goodies** menu to display the tool window and the color/pattern palette again.

The Paintworks Gold *Art Disk*

The *Paintworks Gold* art disk includes the sample art files used in the "Guided Tour" and the *Clip Art Gallery*™ files.

The *Clip Art Gallery* is a gallery of several hundred pictures and images, organized by theme in separate files. After loading a file from the *Clip Art Gallery,* you use the appropriate tools in your paint program to select the image you want to work with, then change, enhance, or experiment with the image in any way you want. You can combine it with other images from the *Clip Art Gallery* or of your own making. And you can paste clip art into documents produced with *Writer's Choice elite*™ or another word processor that's compatible with your paint program. It's just a few easy steps to load a file from the *Clip Art Gallery* into *Paintworks Gold*, then select any image from the file.

Don't forget to have one or two formatted *data disks handy for saving your selected clip art.* See your computer owner's guide for information on formatting (or initializing) disks.

To load a file from Clip Art Gallery:

1. Load *Paintworks Gold* (if you have more than one disk drive, place the *Paintworks Gold* program disk in drive 1).

2. If you have one disk drive, remove the *Paintworks Gold* program disk and replace it with your *Paintworks Gold* art disk. If you have more than one drive, place the *Paintworks Gold* art disk in drive 2.

3. Pull down the **File** menu and click **Open**. If you have one drive, the catalog of *Clip Art Gallery* files appears. If you have two drives, click the **Disk** button—the catalog of *Clip Art Gallery* files will appear.

4. Use the up and down arrows to the right of the catalog to scroll through the list of files. Click the name of the file you want to load, then click **Open**. The clip art you've loaded appears as a "page"—scroll down (using the hand from the *Paintworks Gold* tool palette) to view the images that aren't immediately visible on the screen.

To select an image:

1. Use the lasso or the marker box to select the clip art you want.

2. Pull down the **Edit** menu and select **Copy**. This places a copy of your selected image on the Clipboard.

3. You can now either create a new picture file for your selected image or paste the image into a picture that already exists.

   To create a new file for your selected image, pull down the **File** menu and select **New**. A dialog box appears that asks, "**Save changes before closing?**" Click **No**. A blank page appears on the screen. Go to step 4.

   To paste the selected images in a picture that already exists, pull down the **File** menu and select **Close**. A dialog box appears that asks, "**Save changes before closing?**" Click **No**. The clip art disappears from the screen. Place the disk containing the picture file in the disk drive, then pull down the **File** menu again and select **Open**. The catalog of files on the disk appears. Scroll through the list to find the name of the file you want. Select the file, then click **Open** again.

4. Pull down the **Edit** menu and select **Paste**. The image you placed on the Clipboard appears on the screen. Use the mouse to position it where you want.

You can now use any of the tools available in *Paintworks Gold* to change, enhance, or experiment with the clip art image on the screen.

When you paste a piece of clip art into a picture that already exists, you'll note that the palette used to create the picture will determine the colors of the clip art—with sometimes strange effects on the clip art image. To adjust the colors, follow the instructions for choosing and mixing the colors in chapter 6 of this guide.

To save a selected piece of clip art:

1. Be sure to place a formatted data disk in the disk drive. *You cannot save your own files on the* Paintworks Gold *art disk.*

2. Pull down the **File** menu and select **Save**. A dialog box appears.

3. Select **Paint Format**, **Apple Preferred**, or **Screen Format**, as you wish (see "Save" in the "Reference" section for more information).

4. Type in a name for the picture you're saving.

5. Click the **Save** button.

Paintworks *Gold*

Chapter 2

At the Easel

In this chapter you'll have the opportunity to experiment with the basic tools on the easel so that you can discover for yourself how simple they are to use. You'll also find out how to correct a mistake if you happen to make one.

The best way to learn how *Paintworks Gold* works is to paint a picture. The subject is a picnic by a pond.

The Picnic
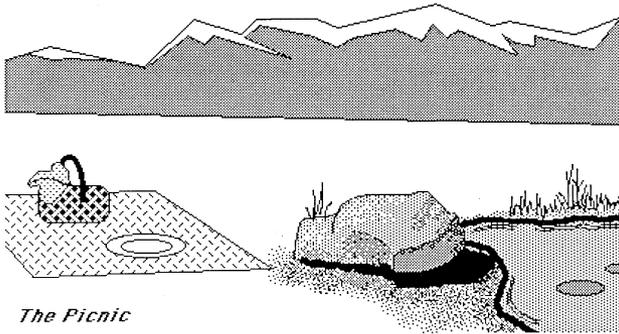
Don't feel you need to follow exactly the pictures used as examples in the next few chapters. Their purpose is only to demonstrate what *Paintworks Gold* can do. Follow them however much or little you like.

Note: If you want to stop at any point in this chapter and save the picture you've been working on, the beginning of Chapter 3, "Saving, Getting, and Printing Your Pictures," explains how to save a picture.

Freehand Drawing

The Pencil. If the pencil isn't selected, move the pointer to the pencil icon and click the mouse button to select it.

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To draw with the pencil, you move the pointer to the drawing area, then hold down the mouse button as you move the mouse. The pencil always draws the color or pattern selected.
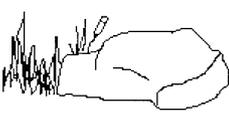
If black isn't selected, select it. Try drawing the rock and the grass along the edge of the pond, as shown here. If your first attempt doesn't satisfy you, read on—using the eraser is explained next.

The Eraser. Select the eraser.

To erase, you hold the mouse button down as you move the mouse. Whatever the eraser passes over disappears:

The Paintbrush. The paintbrush works much as the pencil does. To use it, you hold down the mouse button while you move the mouse. The paintbrush always paints in the color or pattern selected.

The next step in the example picture is to use the paintbrush to add a shadow by the rock, the outline of a pond, and ripples on the pond.

Select the paintbrush.

Unlike the pencil, the paintbrush comes in many different shapes. The shapes you can choose from are displayed in the Brush Shape dialog box.

To display the Brush Shape dialog box, double-click the paintbrush icon.

The brush shape with the box around it is the one selected. To select a brush shape, you point to it and click the mouse button. The Brush Shape dialog box then disappears automatically.

You can also change any of the brush shapes, and you can select a part of the picture and use it as a brush shape. See "Paintbrush" (under "The Tool Palette") and "Use as Brush" (under "Select") in the "Reference" section. Also see "Brush Mirrors" under "Goodies" in the "Reference" section.
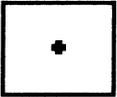
For the shadow by the rock, select the smallest round shape, then add the shadow.

Next you're going to use the brush to paint the edge of the pond, but before you do, you need to select a different color. Point to dark blue in the palette at the bottom of the screen, and click the mouse button. The large square at the left end of the palette changes to dark blue to indicate that it's the color you're working with.

Now paint the edge of the pond.
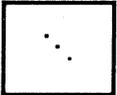
Next, change the brush shape to the three-dot diagonal shape.

Choose light blue from the palette. Paint the ripples around the edge of the pond.

Undo. Undo cancels the last change you made to a picture.

Edit	
Undo	⌘Z
Cut	⌘X
Copy	⌘C
Paste	⌘V
Paste Adj. Colors	⌘J
Copy Image...	⌘I
Clear	
Round Corners...	⌘D
Pattern...	⌘Y
Choose Font...	⌘T
Align Left	⌘F
Align Middle	⌘G
Align Right	⌘H

To use Undo, you pull down the **Edit** menu and choose **Undo.**

Choose **Undo** and watch what happens to the picture in the drawing area.

The last ripples you drew are erased. To put back what **Undo** has just erased, choose **Undo** from the menu again.

Not everything you do can be undone. In general, **Undo** affects only changes you've made to a picture—anything you do using a tool or function on the **Edit** menu.

You can't use **Undo** to reverse a change you've made to a tool (usually because it's easy enough for you to reverse the change yourself). For example, you can't undo the brush shape you've selected, although you can undo the last change you made to a picture using that brush shape.

You can't undo anything you do using a command on the **File** menu. For example, it's impossible to "unsave" a picture once you've saved it.

The Spray Can. You can use the spray can the same way you use the paintbrush and the pencil—you hold down the mouse button while you move the mouse.

The best way to understand how the spray can works is to try this experiment:

Select the spray can and draw a line across the top of the drawing area. You'll notice that even though you held the mouse button down continuously, the color appears in a "spray."
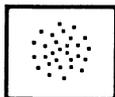
Select the paintbrush, change its shape to the spray pattern, and draw a second line.

You'll notice that this time, even though the shape of the brush looks just like the shape of the spray can, the results are quite different.

Erase both lines.
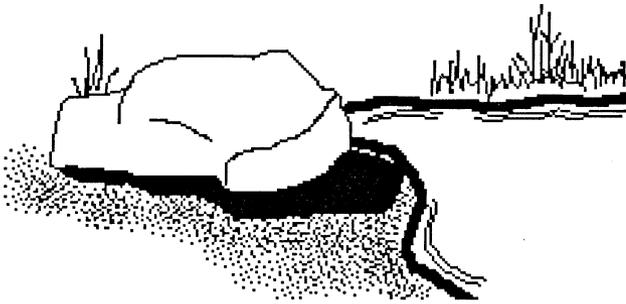
Select the spray can again to add the shading beside the rock. Use it first with dark gray, then with light gray. The longer you hold the can in one place, the more color it sprays there.


The Paint Bucket. You use the paint bucket to fill an area with a color or a pattern. The area you want to fill has to be completely enclosed by an outline or bordered by areas of other colors (or a combination of the two). If there are any gaps around the area, the color or pattern you're filling with will "leak" and could fill the entire background. (You can also use the **Fill** option on the **Select** menu to fill an area you've selected; see the "Reference" section for more information.)

If you want to fill an area with two or more colors already in it, you have to fill the area occupied by each color separately.

One color

An open pattern

Second color
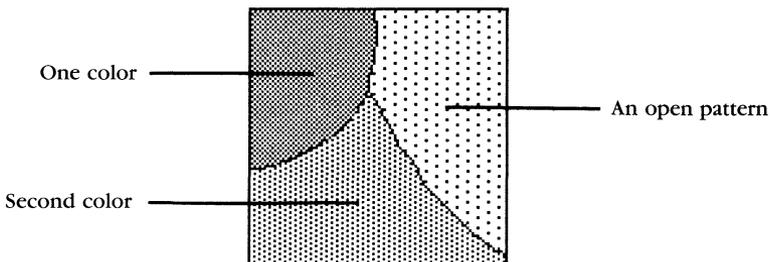
Filling a patterned area is different from filling an area that's a solid color. Every continuous line in a pattern is a border. You can fill the patterned area only if the pattern is "open"—that is, only if there are gaps in the lines that will allow the color you're filling with to leak through from one part of the pattern to another.

To fill an area, you choose the color or pattern you want and select the paint bucket. Then you move the paint bucket to the area you want to fill and click the mouse button.
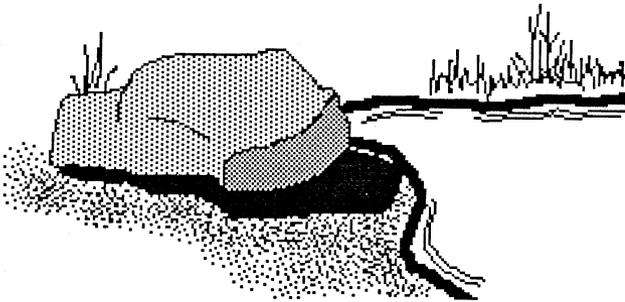
Try filling the rock with light gray. If the color fills the background, it means there's a gap in the outline of the rock. Select **Undo**, find the gap and patch it, and try filling the rock again. If only one part of the rock fills, the rock is divided into more than one area. Fill the other areas as you did the first.

Colors and Patterns. Any color or pattern you select is used by the pencil, the paintbrush, the spray can, the paint bucket, and all of the filled shapes. Only the inside of a filled shape displays the color or pattern; the outline of the shape is determined by the line selected on the border palette. The color or pattern selected has no effect on the appearance of the straight line or any hollow shape.

Note: You can change the border lines to a color or pattern (See "The Border Palette" in the "Reference" section).

The color or pattern you're using paints over all the other colors or patterns you've used on the screen before. You can't paint, draw, or spray a background behind an image. (You can, however, move an image over a background; "Using the Lasso" in Chapter 5, "Handling a Picture," explains how.)

Try adding brown around the edges of the lake. Experiment with different brush shapes.

Try spraying the rock with different patterns.

Adding Words

T
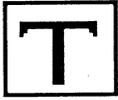
Text. You can add text anywhere in a picture.

Add a title to the picture. Start by selecting the text icon. Notice that when you move the pointer to the drawing area it looks like an **I**.

I

Move the **I** to the corner of the picture and click. Move the pointer away and you'll see a blinking vertical line. It's called a *cursor*. It shows you where the next letter or type is going to appear.

Type **The Picnic**. If you make a mistake, press the *delete* key to erase it. You can also use **Undo** to erase everything you've typed—but only if you haven't clicked the mouse button.

You can change the way text looks by changing the font (or typeface), the style of letters, and their size.

Helvetica

Venice

Venice Bold

Venice Outline

Helvetica 9 point

Helvetica 24 point

You can change text that's already in the picture if you haven't pressed the *enter* key or clicked the mouse button since you typed it. Otherwise, you have to erase the text you want to change and retype it.

To change the font, style, or size of the text, choose **Choose Font** from the **Edit** menu.

When the **Choose Font** dialog box appears, you can select the font, style, and size you want.

To change the style that **The Picnic** appears in, click the check box next to **Italic** (you'll find it in the **Style** box in the lower left of the dialog box), then click the **OK** button.

If you're planning to use a lot of text in a picture, you may want to use 640 mode since it provides better text resolution. See "Change to 640" in the "Reference" section for more information.

Your picture should look like this:
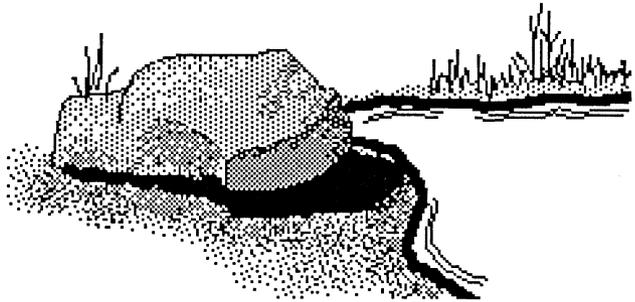
*The Picnic*

Paintworks *Gold*

Chapter 3

Saving, Getting, and Printing Your Pictures

Saving a Picture

You can save a picture anytime you want. Saving a picture is necessary because the image of the picture on the screen lasts only as long as the computer is on. If you turn the computer off without saving the picture, you'll lose it. When you save a picture, a copy of it is stored on a disk (the original remains on the screen until you open another picture or quit). The copy stays on the disk until you erase or replace it. Later on, you can have the computer get the picture from the disk and redisplay it on the screen.

To save a picture, first eject the *Paintworks Gold* program disk from the drive and replace it with another initialized disk. Or if you have a second disk drive, put another initialized disk in it. *Paintworks Gold* takes up most of the space on the program disk, so it's best to save pictures on a different disk. (If you need instructions on how to initialize a disk, see your Apple IIGS owner's guide.)

Next, choose **Save "Untitled"** from the **File** menu.

```
┌──────────────────────────┐
│ File                     │
├──────────────────────────┤
│ New              ⌂N      │
│ Open...          ⌂O      │
│ Close            ⌂E      │
├──────────────────────────┤
│ Save "Untitled"  ⌂S  ▶   │
│ Save As...       ⌂A      │
│ Auto Load...     ⌂L      │
├──────────────────────────┤
│ Choose Printer...⌂R      │
│ Page SetUp...    ⌂U      │
│ Print...         ⌂P      │
├──────────────────────────┤
│ Quit             ⌂Q      │
└──────────────────────────┘
```
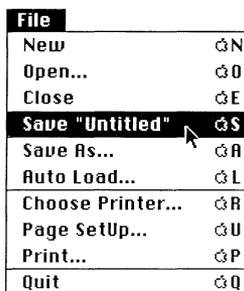
A dialog box appears.

In the space under **Save As** (where **Untitled** appears), you type a name for the picture you're saving.

Type **Picnic** there (you don't have to erase **Untitled** first, it's selected, so it will disappear as soon as you start typing).

You can't undo **Save**. If you decide not to save a picture, you click the **Cancel** button in the Save dialog box to return to the drawing area.

Click the **Save** button.

When the picture has been saved, the name you've given it appears next to **Save** on the **File** menu.

Printing a Picture

Before you print a picture, you have to set up *Paintworks Gold* to work with your printer. You do that by choosing **Choose Printer** from the **File** menu (see "Choose Printer" under "File" in the "Reference" section for more information). You can also set up the way a picture is oriented on the page (see "Page SetUp" under "File" in the "Reference" section).

To print a picture, you choose **Print** from the **File** menu. You can continue to use *Paintworks Gold* while a picture is being printed.

Opening a Picture

To get back from a disk a picture you've saved, you *open* the picture.

Choose **Open** from the **File** menu. A dialog box appears.

On the left half of the screen is a list of the names of the pictures and other files on the disk. The list is called a *catalog.* If the catalog has more names listed on it than can fit in the window, you can scroll the list up and down to see all the names.

Choose **Picnic** from the list and click **Open.** The picture reappears on the easel.

If you want a certain picture to appear whenever you start *Paintworks Gold,* use **Auto Load.** For more information, see "Auto Load" under "File" in the "Reference" section.

Paintworks *gold*

Tools for Lines and Shapes

Drawing Straight Lines

The Straight Line. Drawing a straight line with the pencil is a challenge. But you can draw straight lines easily with the straight line tool.

Click the straight line icon. When you move the pointer to the drawing area, it takes the shape of cross hairs.

Use the straight line to draw the horizon and the blanket, as shown below. Position the pointer where the horizon starts, then hold down the mouse button. The straight line works something like a rubber band. It stretches and contracts as you move the pointer away from or toward the starting point. You'll notice the line is unaffected by the color or pattern selected; the color and width of the line is determined by the border palette.
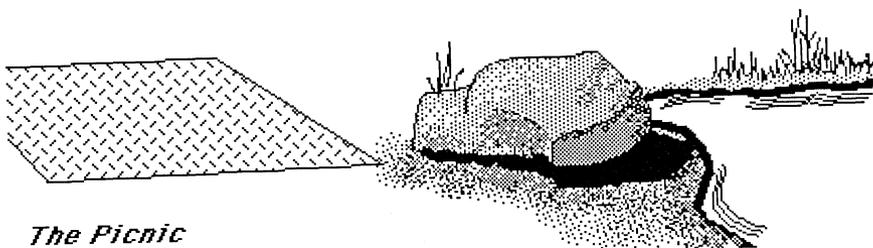

The Picnic

When you have the line positioned where you want it, release the mouse button. If you don't like the placement of the line, use **Undo** to erase it.

Use straight lines to draw the blanket, then fill it with the pattern that appears in the illustration. Fill the pattern with any color you want.

Paintworks *Gold*

Drawing Shapes

Paintworks Gold has special tools for drawing rectangles, rounded rectangles, ovals, arcs, free-form shapes, and polygons. A shape can be either hollow or filled.

A hollow shape is just an outline. Whatever is behind the shape shows through the area inside the outline. A filled shape is an outline filled with a color or pattern. The part of the picture behind the shape doesn't show through.

To draw a hollow shape, you select the color cell marked with an asterisk (*)—it's at the left end of the row of patterns in the color/pattern window. The asterisk color cell leaves the area inside the outline of a shape transparent.

Remember that the color of outlines of both filled and hollow shapes is determined by the border palette, not the color or pattern selected.

Rectangles and Rounded Rectangles. Rectangles and rounded rectangles work the same way.
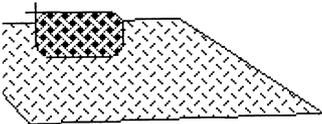
Select the wicker pattern from the palette, then the rounded rectangle. Position the center of the cross hairs where the upper left corner of the picnic basket is in the picture.

When you have the pointer positioned, hold down the mouse button and drag the mouse toward the lower right. A rounded rectangle appears that expands and contracts as you move the pointer. When it looks like it's about the right size, release the mouse button. The rounded rectangle is immediately filled with the wicker pattern.

You can use **Rounded Corners** on the **Edit** menu to adjust the corners of a rounded rectangle. See the "Reference" section for more information.
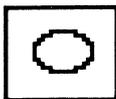
Ovals. Drawing an oval is similar to drawing a rectangle. The major difference is that it takes a bit more practice to position an oval accurately.

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Try this experiment:
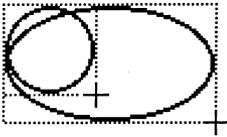
Select the color cell marked with the asterisk, then the oval. The pointer again becomes a set of cross hairs. Position the cross hairs anywhere in the drawing area. Hold down the mouse button and drag the mouse. The outline of an oval appears, stretching and contracting as you move the mouse.

You'll notice that the upper left edge of the oval doesn't stay in one place as the upper left corner of a rectangle does. That's because the position of the oval is determined by an invisible rectangle that would look like the illustration above if you could see it.

The upper left corner of the invisible rectangle does remain in the same place, but as the rectangle gets bigger, the upper left edge of the oval moves away from the upper left corner of the rectangle.
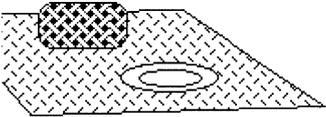
With that in mind, first undo the experimental oval, then try to draw the plate that's on the blanket in the illustration. Select the oval, and choose white from the palette. Position the cross hairs for the outside edge of the plate, then drag. If you don't like the result, undo it. When you're satisfied with the outside edge, draw the inner rim.

Arcs. The arc tool works differently from any of the other tools. You first use the arc tool to draw a straight line, then you stretch the line from the middle. As you stretch it, the end points stay anchored and the line bows out into an arc, like this:
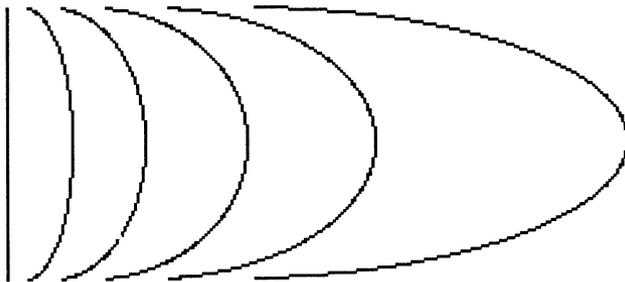
Draw a handle on the basket:

Select the transparent cell (otherwise the area inside the arc will be filled with the color that's selected), select the second border width, then the arc.
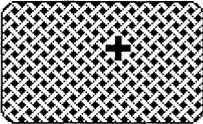
Position the cross hairs as shown in the first illustration, then hold down the mouse button.
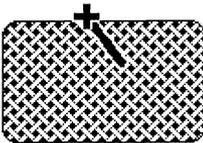
While you keep holding the mouse button down, drag the cross hairs to the position shown in the second illustration, then release the mouse button.

Without pressing the mouse button, move the cross hairs up until the arc looks like the one in the third illustration, then click the mouse button.

Free-form Shapes. With the free-form shape you can draw a figure with any imaginable outline. The only constraint that the free-form shape puts on what you draw is that it must be closed. If you don't close the figure, a straight line is drawn automatically between the two loose ends of the outline.

The free-form shape works like the pencil or paintbrush. After you've selected the free-form shape, you position the pointer where you want to begin drawing. Then you hold down the mouse button and draw the outline you want. When you've completed it, you release the mouse button.
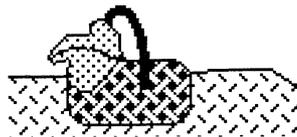
Use the free-form shape to draw the napkin that's draped over the side of the picnic basket, as shown in the drawing here. First select the single-width line from the border palette. Then choose the free-form shape and a pattern that appeals to you. Position the cross hairs and start drawing. When you release the mouse button, the shape is filled in with the pattern you've chosen. If you don't like the result, undo it and try again.
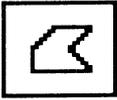
Polygons. A polygon is an irregularly shaped, closed figure made up entirely of straight lines. Like the free-form shapes, any polygon that you draw closes itself automatically if you don't connect the end point with the beginning.

Using the polygon drawing tool is like using an endless supply of straight lines. After you've selected it, you position the cross hairs where you want the figure to start. You then click the mouse button to anchor one end of the first line. The line stretches and contracts as you move the mouse. When you have the line positioned where you want it, you click the mouse button again to anchor the other end of the line; at the same time you anchor one end of the second line. You repeat the process until you've completed the figure you want. Then double-click the mouse button or click anywhere outside the drawing area. If the beginning of the first line and the end of the last one don't meet, a line is drawn automatically to connect the two.

To see how versatile the polygon is, use it to draw the snowcaps on the mountains. Select the transparent cell and the polygon and position the cross hairs where you'd like to begin. Continue drawing lines until you've arrived back where you started. Then double-click the mouse button.
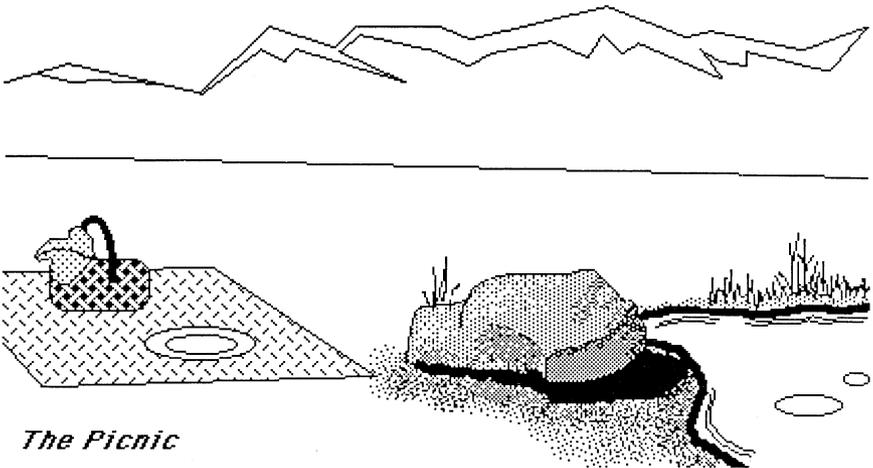
The Picnic

Finish the picture by filling in the areas that are blank with colors or patterns that appeal to you. Before you add something you're not sure about, you might want to save the picture first in case you don't like the results. You can also save different versions of the picture under different names. See "Save As" in the "Reference" section for instructions.

Paintworks *Gold*

Chapter 5

Handling a Picture

It's much easier to compose a picture if you can move parts of it around, make copies of images that you want to use more than once, change the shape or orientation of an image, and so on. You can do all those things with *Paintworks Gold,* but only if you've first selected the part of the picture you want to work with. There are two tools you can use to select images already in the drawing area—the marker box and the lasso.

Selecting an Area
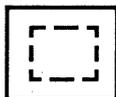
The Marker Box lets you select a rectangular area of a picture and then cut it, copy it, move it, change its orientation, save it, move it from one picture to another, or stretch or shrink it.

You position a marker box the same way you position a rectangle: you move the cross hairs to the upper left corner of the area you want to mark. You then hold down the mouse button and drag the box down and to the right until it outlines the entire area you want to select. When you release the mouse button, the dotted outline of the box appears to "race" around the selected area to let you know it's the active part of the screen. The area will remain selected until you click the mouse button somewhere outside the selected area.

In the next experiment, you'll first select an image with the marker box, then use the marker box to move the image around the picture.

Put the *Paintworks Gold* art disk in the disk drive and open the picture named **Teacup** (the **Open** command is on the **File** menu). If the name doesn't appear on the part of the catalog in the window, scroll the catalog up until **Teacup** appears.
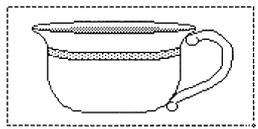
When the picture appears, select the marker box from the tool palette. Position the cross hairs a little above and a little to the left of the top teacup.

Drag the mouse until the box surrounds the teacup, as shown in the illustration. Release the mouse button. The teacup is now selected.

Moving a Selected Area

You can move the area you've selected by positioning the pointer inside the selected area, then dragging it.

Move the pointer inside the selected area. It changes from the cross hairs to the arrow. Hold down the mouse button and move the pointer slowly. The box and everything in it moves with the pointer.

Move the teacup to a new position and release the mouse button. The teacup remains selected, and you can adjust its position until you've placed it exactly where you want it. When you're satisfied, click the mouse button. The marker box disappears.

Using the Lasso

The Lasso has three features that distinguish it from the marker box.
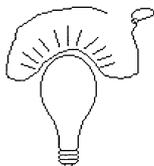
First, the lasso can take any shape you want it to— you're not limited to selecting a rectangular area with it. You can use the lasso to select a part of an image, like the one shown in the picture, that would be impossible to select with the marker box.

Second, you can use the lasso to lift an image off the background. Third, you can use the lasso to select an image surrounded by a *slippy* color (a slippy color lets the lasso "slip" over it as if it were the background color).

The lasso works in much the same way as the free-form shapes do: you draw a line with it by holding down the mouse button while you move the pointer, and when you release the mouse button, the beginning and end of the line are automatically connected.

This experiment will help you understand how the lasso is different from the marker box:

First use the marker box to select the handle of the cup in the lower half of **Teacup**. When you've selected it, move it with the pointer and try to attach it to the teacup. You'll notice it doesn't work. The marker box moves

not only the handle, but the background around it, too. Choose **Undo** to return the handle to where it was.
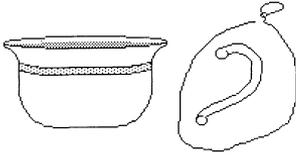
Select the lasso and use it to draw a line around the handle as shown in the illustration. When you release the mouse button, the dotted outline that appears follows not the outline that you drew, but the outline of the handle.

Move the tip of the lasso inside the outline. When the lasso changes to the arrow, hold down the mouse button and drag the handle to the teacup. Because the lasso has selected only the handle itself, you can position the handle so it touches the teacup without erasing any part of it. Release the button. The handle remains selected if you need to adjust its position. When you have the handle positioned as you want it, click anywhere outside the outline, and the handle is permanently attached to the teacup.

The second difference between the lasso and the marker box is that you can use the lasso to lift an image off the background.
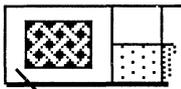
True Background Color

"Background" has a special meaning. It means only the true background color—not just any color that happens to be in the background behind an image. The true background color is the color surrounding the box on the palette where the selected color or pattern appears.

This experiment will help you understand.

Open the picture named **Shapes** on the *Paintworks Gold* art disk.

When it appears, use the marker box to select the circle. Then move the circle to the left half of the screen. You'll notice that the selected area contains the background color as well as the circle.

Use **Undo,** then use the lasso to select the circle. Move the circle to the left half of the screen again. This time you can move the circle without the background. Use **Undo** again to move the circle back to its original position.

Use the lasso to draw an outline around the triangle. This time the outline that appears marks the exact area the lasso traced—not just the triangle itself.

Now move the triangle. The color behind the triangle moves along with it, revealing the true background color. Use **Undo** again.

For the next part of the experiment, you need to change the background color. To do so, point to dark green on the color palette, hold down the *option* key, and click. The background behind the selected color square changes to dark green to indicate that it's now the true background color.

Use the lasso to select the triangle. Because dark green is now the true background color, this time the dotted outline matches the outline of the triangle exactly. Move the triangle to the right half of the screen. You can do so without moving the background color along with it. Use **Undo** to return the triangle to its original position.

Next, use the lasso to select the circle. White is no longer the true background color, so the outline that appears marks the exact area the lasso traced—not just the circle.

Now move the circle. The color behind the circle moves along with it, revealing the true background color.

Try the same experiment using a free-form shape and other background colors. See what happens when an image straddles the boundary between the background color and a large area filled with color.

When you're finished, change the true background color back to white.

Using Slippy Colors

The third difference between the lasso and the marker box is that you can use the lasso to select an image that's surrounded by a slippy color. A slippy color is a color that lets the lasso slip over it as if it were the background color. Even though the lasso acts the same on the background color and a slippy color, there's an important difference between the background color and a slippy color. The background color is truly behind an object—if you move the object, you can see the background color behind it. A slippy color, on the other hand, just surrounds an object—if you move the object, you'll see behind it not the slippy color, but the background color.

Once again, you can get a better understanding of how the lasso works with slippy colors by trying an experiment.

First, open the picture named **Teacup 2** on the *Paintworks Gold* art disk. The picture of the cup and its detached handle is surrounded by red. Outside the red rectangle you can see the true background color, white.

Red hasn't been made into a slippy color. Watch what happens when you try to move the handle:

Use the lasso to select the handle. When you do, the outline that appears marks the exact area the lasso traced—not just the handle itself. Move the handle. The colored area around it moves too, and you can see the true background color behind the chunk of the picture that you've moved. Use **Undo** to move the handle back to its original position.

Next, make red a slippy color, then try to move the handle again. To change the color into a slippy color, you use the **Slippy Colors** option on the **Color** menu.

Choose **Slippy Colors** from the **Color** menu. A dialog box appears that has the color palette in it. You mark the colors you want to make slippy by selecting them from the palette in the box.

Point to the red that matches the red in the picture, and click the mouse button. The cell is marked with a rectangle. Click **OK** to return to the picture.

Once again, select the handle with the lasso. This time, the outline marks only the handle, not the color around it. Move the handle. A hole shaped just like the handle lets the true background color, white, show through the red area. Attach the handle to the cup, and when you've finished, fix the hole like this: select red from the palette, then select the paint bucket and fill the hole with red.

Copying an Image

You can make a copy of anything you select with either the lasso or the marker box.

Open the picture named **Pumpkin** on the *Paintworks Gold* art disk. When the picture appears, use either the lasso or the marker box to select the pumpkin.

To make a copy of the pumpkin, choose **Copy** from the **Edit** menu. **Copy** flickers and then the **Edit** menu closes. A copy of the pumpkin has been made on the *Clipboard.* The Clipboard is a separate page that's always

available to hold images you cut out or copy. The copy of the pumpkin stays there until you copy or cut out something else.

To add a copy of the pumpkin to your picture, choose **Paste** from the **Edit** menu. **Paste** flickers, and then a copy of the pumpkin appears in the center of the screen. The copy is automatically selected; you can move it by positioning the pointer inside the selected area, holding down the mouse button, and dragging the pumpkin to wherever you want to place it. When you have it positioned, click the mouse button anywhere outside the selected area to paste the copy in its new location.

For another copy, repeat the same process.

You can also make a copy of a selected object by holding down the *option* key while you move the object. Paste the copy in a new location by positioning it, then clicking the mouse button anywhere outside the selected area.

Inverting a Selected Area

You can select an area of a picture with the marker box and then invert it, which changes every color to its palette complement. A color's palette complement is different from its true complementary color because it's determined entirely by the color's position in the palette and the other colors in the palette. The complement of, say, the fourth color from the left end of the palette is the fourth color from the right end of the palette:
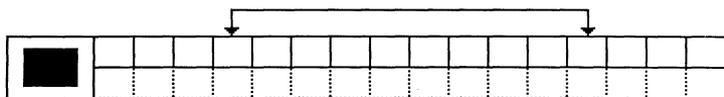
The complement of the third color from the left end is the third color from the right end, and so on.

To invert an image, first select it with either the marker box or the lasso. Choose **Invert** from the **Select** menu. Try this with the pumpkin and watch what happens.

Flipping a Selected Area Horizontally

You can change part of a picture to its mirror image by selecting it, then flipping it horizontally.

Open the picture named **Hand** on the *Paintworks Gold* art disk.

When the picture appears, select the hand with the lasso (if you use the marker box, try to make the marker box fit the object as closely as possible). Choose **Flip Horiz.** from the **Select** menu. After a moment, the hand's mirror image appears.

You can also flip a selected area from top to bottom. See "Flip Vert." in the "Reference" section for instructions.

Rotating a Selected Area

In addition to flipping images horizontally and vertically, you can select an area and rotate it.

Select the hand with the marker box. Since the entire area inside the marker box will be rotated, if the hand is off-center in the marker box, it will be off-center after it's rotated. Choose **Rotate** from the **Select** menu.

A handle appears at each corner of the marker box. Point to one of the handles, hold down the mouse button, and drag the marker box to the orientation you want.

If you rotate an image so that it's on its side, it will appear to be distorted. That's because the *pixels*—the tiny dots of color that make up an image on the screen—aren't square, but rectangular; they're taller than they are wide.

# *Resizing, Bending, and Distorting a Selected Area*

It's possible to change the shape of an object by stretching or shrinking it, by changing the position of one of its sides, or by changing the position of its corners. The **Resize, Bend,** and **Distort** commands on the **Select** menu work much like **Rotate.** See "Resize, "Bend," and "Distort" in the "Reference" section for more information.

Changing Perspective

You can use **Perspective** and **Centered Perspective** to change the angle you've viewing an image from.

Perspective. You usually draw an image as if you were looking at it straight on, like this:
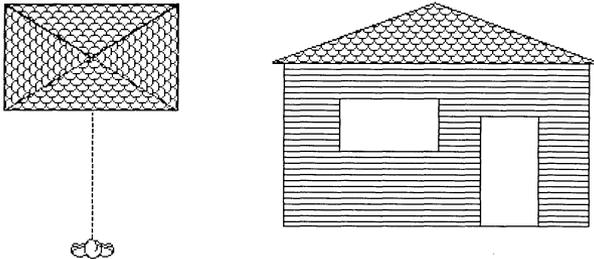
Perspective lets you automatically change the image to make it look as if you were viewing it from an angle, like this:
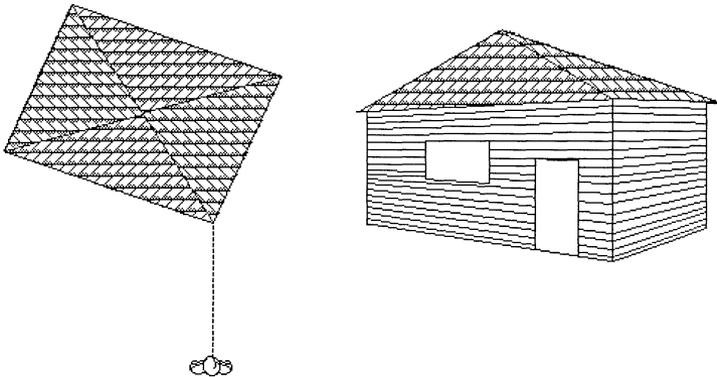
Open the picture named **Wall** on the *Paintworks Gold* art disk, and follow the steps below to change your view of it.

Wall is a picture of a wall with a door and window in it. To change it, first use either the marker box or lasso to select the wall. Next, select **Perspective** from the **Select** menu. Four handles appear on the marker box, one on each side.

Change the picture so that the right edge of the wall looks like it's closer than the left edge: point to the handle on the right side of the marker box, hold down the mouse button, and drag the handle down and to the right. As you do so, an outline appears to let you see how you're changing your view of the wall. After a few moments, *Paintworks Gold* redraws the wall in perspective.

**Centered Perspective.** What makes **Centered Perspective** different from **Perspective** is that it uses the *vanishing point* differently. The vanishing point is the point in a picture where parallel lines in an image meet, as shown here:
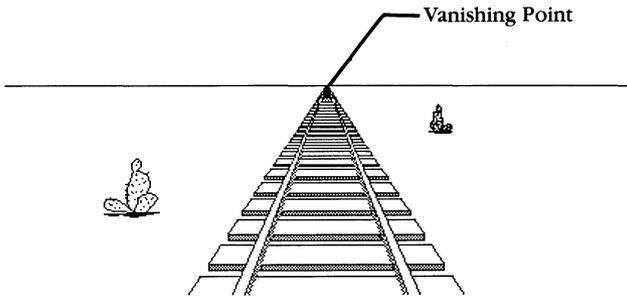
When you use **Perspective,** the vanishing point can be anywhere, and it can be different for each image you change. When you use **Centered Perspective,** the vanishing point is fixed at some spot in the picture, and it's the same for every image. For example, in this illustration, the vanishing point for all of the squares is the center of the drawing area.
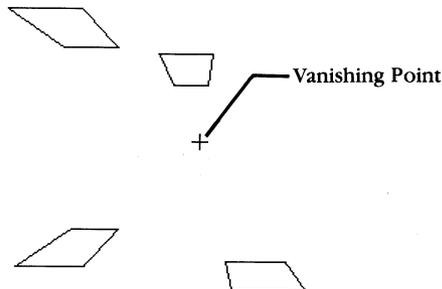
To see the difference between **Perspective** and **Centered Perspective,** first open **Arrows** on the *Paintworks Gold* art disk.

Centered Perspective uses the center of the drawing area as the vanishing point unless you use **Define Center** to position it somewhere else. Use **Define Center** to place the vanishing point at the left edge of the drawing area. To do that, choose **Define Center** from the **Select** menu. The pointer changes to cross hairs inside a circle. Move the pointer to the right edge of the tool palette, at about the line that separates the straight line icon from the rounded rectangle icon, then click the mouse button. The pointer changes back to normal.

Next, select one of the arrows in the picture, then choose **Centered Perspective** from the **Select** menu. Point to the arrow you've selected, press the right arrow key (to keep the left and right edges of the image parallel), hold down the mouse button, and move the outline that appears. Notice that as you move the outline around the drawing area, it keeps changing shape so that its top and bottom lines always focus on the vanishing point (if you move the outline all the way to the point you marked as the center, you'll see the top and bottom lines actually cross). Pick a spot anywhere to the right of the vanishing point, and release the mouse button. In a moment, the arrow is redrawn in perspective—pointing to the vanishing point.

Repeat the same steps with the other arrows (if you want to use more than five arrows, make copies of the last one before you move it). Put all of the arrows at different places in the drawing area. When you're finished, no matter where you've put them, they'll all be pointing to the vanishing point.

Moving the Picture in the Drawing Area

The drawing area shows less than a half of the space that's available on the page. You can move the page up and down in the drawing area with the hand icon.

Select the hand icon. When you move the pointer to the drawing area, it takes the shape of a hand. Position the hand near the bottom of the easel. Hold down the mouse button and move the pointer up, and the page moves with it.

Keep moving the page up until a picture of another hand appears at the bottom of the drawing area. Notice that this is a different hand (the sleeve is blue, not gray)—you haven't looped back to the top of the page. Rather, you've exposed a part of the page that wasn't visible before. You can also use **Show Page** on the **Goodies** menu to move to another part of the page. See "Show Page" in the "Reference" section for more information.

Cutting and Pasting a Selected Area

You can also move an image from one part of the page to another by cutting and pasting it.

Use either the marker box or the lasso to select an image in the drawing area. Then choose **Cut** from the **Edit** menu. **Cut** flickers and then the selected image disappears. A copy of it has been placed on the Clipboard.

Move to another part of the page using the hand. Then choose **Paste** from the **Edit** menu. The image you cut before reappears. It's automatically selected, so you can position it before you paste it to the page. A copy of the image remains on the Clipboard until you cut or copy something else. You can paste as many copies of the image in the picture as you want.

You can also move an image to another part of the page using the **Show Page** command. See "Show Page" under "Goodies" in the "Reference" section for information.

Once again, choose **Show Page** from the **Goodies** menu. The reduced representation of the entire page appears. When you place the pointer outside the dotted rectangle, it works like the hand. Hold down the mouse button and push the page around until the image is where you want it. But be careful—if you push any part of the picture off the page, it will be erased. When the image is positioned where you want it, click **OK** and the drawing area reappears with the page repositioned on it.

Moving an Image to Another Picture

You can move an image not only from one part of a picture to another but also from one picture to an entirely different picture.

You start by cutting or copying the image you want to move: you select it with either the marker box or the lasso, and then choose either **Cut** or **Copy** from the **Edit** menu. Then you open the picture you want to move it to. Finally, you move to the part of the new picture where you want to paste the image and choose **Paste** from the **Edit** menu. The image appears in the new picture.

Try it yourself:

First, use the marker box to select the image of the hand. Select **Copy** from the **Edit** menu. **Copy** flickers and then the **Edit** menu closes. A copy of the hand has been made on the Clipboard.

Next, choose **New** from the **File** menu. When the dialog box appears, asking if you want to save the changes you've made, click **No.** A clean page appears.

Choose **Paste** from the **Edit** menu. The image of the hand appears. It's automatically selected, so you can place it wherever you want on the page. When you have it positioned, move the pointer outside the selected area and click the mouse button. The hand is pasted to the page.

If you're moving an image from one picture to a picture with a different palette, you can use **Paste Adj. Colors** to match the colors in the image to the colors in the new palette. See "Paste Adj. Colors" under "Edit" in the "Reference" section for more information. If you want to copy an image from a picture that's been created with a program other than *Paintworks Gold,* use **Copy Image.** For instructions, see "Copy Image" under "Edit" in the "Reference" section.

Using Page 1 and Page 2

Paintworks Gold gives you two separate full-size drawing areas that you can use in several different ways. You can use them as two completely separate pictures with different palettes and different resolutions. You can also use Page 2 as a scratch pad where you try out new ideas. If you like the results, you can copy the image to Page 1; if you don't, you can erase Page 2 and start over without losing anything you've already drawn on Page 1.

You can also use Page 2 as a background for Page 1 and superimpose the picture you've drawn on Page 1 over whatever is on Page 2. Try this to see how it works:

Open the picture named **Window.** You'll notice that you can see the background color through the parts of the window that aren't colored. Choose **Show Page 2** from the **Goodies** menu (the item on the menu changes to **Show Page 1**). The window disappears, and a blank page appears. Select any color from the palette and use the paint bucket to fill the entire page with it. When you've done that, choose **Show Page 1** from the **Goodies** menu. The window reappears. Next choose **Show Page 2 Behind** from the **Goodies** menu (you can't undo this step after Page 1 and Page 2 have been merged). In a moment, the color you select appears everywhere on Page 1 where the background color was visible. Try the experiment with Page 2 filled with a pattern or with a drawing on it (open **Window** again each time you try the experiment).

(Superimposing Page 1 on Page 2 is especially handy when you're doing animation. For more information, see "Animation," near the end of the next chapter.)

Paintworks *Gold*

Chapter 6

Advanced Techniques

Drawing in Detail

A *pixel* is the smallest amount of color you can put on the page—and ultimately, everything you draw or paint can be broken down into pixels. Any line you draw with the pencil is made up of pixels lined up end to end. When you use the paint bucket to fill an area, you're filling the area full of pixels. As small as pixels are, you'll sometimes want to draw or erase them one at a time.

You can use the FatBits palette to enlarge the pixels (or "bits" of color) in the picture you're working on so they're easier to work with. There are four levels of magnification you can choose from.
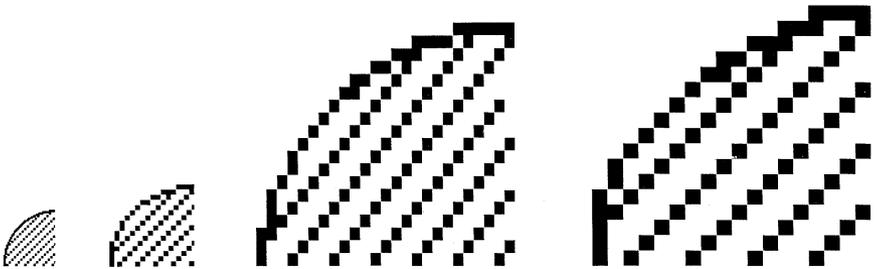
Say, for example, you were modeling a sphere, and your picture looked like this:
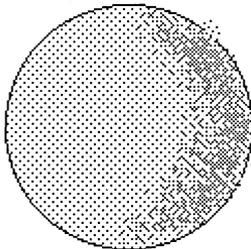
If you selected the upper right part of the image, then chose the highest level of magnification, the upper right edge of the drawing would look like this:
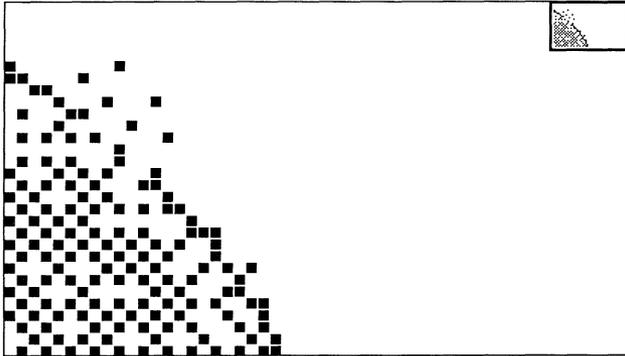
You can use either the eraser or the pencil to remove pixels. The pencil is a little more precise than the eraser. If you decide to use the pencil, make sure you select the color you want to replace the other pixels with. You select the pencil, move the pencil to a pixel, click, and the pixel disappears.
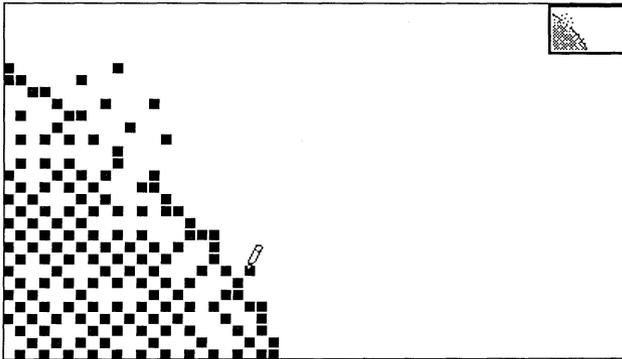
You can use any of the tools in the palette when you're working in fat bits. Experiment with them to see how they work. To return to the normal view of your picture, choose the smallest square in the FatBits palette.

You can use **Hide Fat Window** on the **Goodies** menu to remove the window in the upper right corner of the drawing area that shows you the normal view of the part of the picture you're working on. See "Hide/Show Fat Window" in the "Reference" section for more information.

Changing Patterns

You can change any of the patterns in the palette, and you can also add color to any of them.

Start by selecting the pattern you want to change. Then choose **Pattern** from the **Edit** menu. A dialog box appears.

The window on the left is the working window—where you make changes to the pattern; the window to the right of it shows you what the pattern will look like in the picture. Below the windows is a color palette. You choose a color from it just like you do from the main palette.

Use the pointer just as you use the pencil when you're working in fat bits: if you position the pointer on a pixel and click, the pixel disappears; if you move the pointer to an empty spot or to a place where there's a pixel of a different color and click, a pixel of the selected color appears. You can also draw with the pointer by dragging it.

When you finish making changes, click the **OK** button. If you decide you don't want to keep the changes you've made, click **Cancel** instead.

Using Transparent Colors

You can make certain colors transparent. When you draw over an image with a transparent color, the image shows through. To see how transparent colors work, open the picture named **Pattern** on the *Paintworks Gold* art disk (it's another version of the teacup).

When the picture appears, select the pattern from the palette that has a blue background. Blue is the color that you're going to make transparent.

Select **Transparent Colors** from the **Color** menu. A dialog box appears. Select the blue that matches the blue in the pattern, then click **OK.** The dialog box disappears.

Select the rectangle, move the pointer to the upper left corner of the red box surrounding the teacup, hold down the ***command*** key, then draw a

rectangle the same size as the red rectangle. Holding down ***command*** is what makes the transparent color appear transparent.

When you release the mouse button, the rectangle appears filled with the pattern. But where the pattern should be blue, you can see instead the teacup and the red area surrounding it—the blue has become transparent.

Masking Colors

You can select certain colors and areas in a picture and *mask* them—set them so that you can't paint or draw over them, or change them in any way.

To see how masking works, open the picture named **Gallery** on the *Paintworks Gold* art disk. Pick out a color you want to mask, then choose **Mask Colors** from the **Color** menu. A dialog box appears. Point to the color in the palette in the dialog box and click. A box appears around the color to show that it's selected. Click **OK.** The dialog box disappears.

Any areas where the color you've chosen appears are masked—you can't paint or draw over them, or change them in any way.

Choose the paintbrush or the pencil and a different color, try painting over an area where the masked color appears, and watch what happens.

When you mask a color, you mask only those areas where the color appears at the time you use the **Mask Colors** option. Anywhere that you add the color after you've chosen the **Mask Colors** option isn't masked.

Try adding the color you've chosen somewhere in the picture, then choose another color and draw over it.

If you want to mask a new color in addition to the one already masked, you first choose **Mask Colors.** When the dialog box appears, you select the new color, click the button next to **Add,** then click **OK.** Both the old and new colors are then masked. Try it.

If you want to mask a new color and at the same time remove the mask from an old color, you again start by choosing **Mask Colors.** When the dialog box appears, you select the new color, make sure the old color is no longer selected, click the button next to **New**, then click **OK.** The new color is masked, but the old color isn't. Try it.

If you have more than one color masked and you want to remove the mask from some but not all of the colors, you select only the ones you want to remove the mask from. Then you click the button next to **Subtract** and click **OK.** The mask is removed from only the colors you selected. Try it.

You can use **Mask Selection** to mask an area you've selected instead of certain colors. If you forget which colors or areas you've masked, you can use **Flash Mask** to display them. You can use **Invert Mask** to mask all the colors or areas that aren't masked and to remove the mask from all the colors or areas that are masked. For more information, see "Mask Selection," "Flash Mask," and "Invert Mask" under "Color" in the "Reference" section.

Using Color Sets

A color set is group of 2 to 16 colors. You can use a color set to create a *gradient* color—a color that is a blend of all the colors in the set. You can also cycle through the colors in a color set to create a type of animation called *color cycling* (color cycling is covered at the end of the chapter).

Creating a color set has three steps: selecting the colors, selecting the type of blending you want, and selecting the amount of blending among the colors.

Start by opening the picture named **Orb** on the *Paintworks Gold* art disk, then choose **Color Sets** from the **Color** menu (make sure you don't have the paintbrush selected, or **Color Sets** will be dimmed). This dialog box appears:

Horizontal Circle Blending   Vertical Circle Blending   Horizontal Rectangle Blending   Vertical Rectangle Blending   Blending Bar
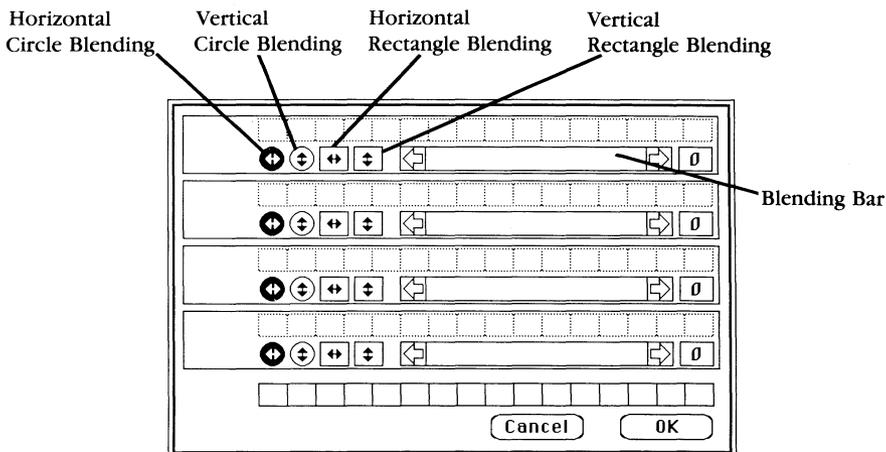
Select dark blue from the palette at the bottom of the box and drag it to the color set palette at the top of the box (the color will appear at the left end of the palette no matter where you try to put it). As soon as you put the color in the color set palette, it also appears to the left of the palette and in the blending bar, just below the palette.

Move medium blue and light blue to the color set palette too. As you do, those colors appear both to the left of the color set palette and in the blending bar.

Click the blending icons that are just below the color palette to see which one you like best. Click the arrow at the right end of the blending bar to blend the colors. If you blend them more than you like, click the arrow at the left end of the bar to reduce the blending. When you're satisfied with the results, click **OK.** The gradient color you've created appears at the right end of the color palette.

Select the gradient color, then select the paint bucket, and fill the circle with the gradient color. If you don't like the results, choose **Undo,** then go back to the Color Sets dialog box and adjust the color and blending the way you want it.

When you like the way the orb looks, name it **Planet2,** and save it so you can use it later to see how color cycling works.

Choosing Colors for the Palette

The color palette contains 16 colors for you to use. (if you're working in 640 mode, the 16 colors in the palette are mixed from only 6 *true* colors.) If you want to use colors different from the ones currently in the palette, you can choose others from the 4096 colors that *Paintworks Gold* can produce.

```
                  Color
          Mask Colors...
          Mask Selection
          Invert Mask
          Flash Mask
          Slippy Colors...
          Transparent Colors...
          Edit Color...
          Color Table...
          Color Sets...
          Gradient Palette...
          Preferred Colors...
          Sort Palette...
          Dispose Color
          Exchange Color
          Get Palette...
```

To choose a new color, choose **Edit Color** from the **Color** menu.

The Edit Color Dialog Box

The dialog box shown below appears.
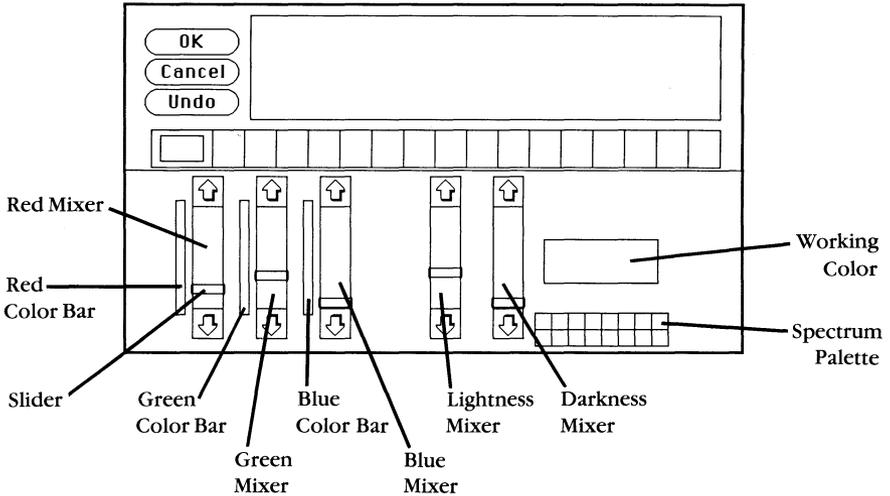
The five vertical bars of color in the lower half of the screen are the color mixers.

In the group of three on the left, each controls one of the primary colors. The one on the left is for red, the one in the middle for green, and the one on the right for blue. Notice that next to each of them is a color bar that shows the range of the intensities available, from brightest to black.

The two mixers on the right side of the dialog box control the shade—the lightness or darkness—of a color. The mixer on the left makes the color lighter, the one on the right makes it darker.

The working color reflects the positions of the sliders on the mixers. Every change in the position of the sliders produces a different color.

You can move the sliders up and down to change the amount of red, green, and blue in the working color or to lighten or darken it.

The spectrum palette in the lower right corner displays the basic spectrum of colors: the primary, secondary, and neutral colors (brown, gray, white, and black).

The palette that divides the screen in half is a copy of the one on the easel. (If you're working in 640 mode, only the 6 true colors appear there; the 16 mixed colors appear in the upper right of the dialog box.)

Finding a Color

The easiest way to scan the colors available to find the one you want is to do this:

First, position the pointer on the color in the spectrum palette that's closest to the color you want (for example, if you want khaki, position the pointer on brown). Hold down the mouse button. A dotted outline appears around the color. Drag the dotted outline to the working-color box and release the mouse button. The color in the box changes to the color you've selected from the spectrum palette, and the sliders on the mixers move automatically to their positions for that color.

Each of the mixers shows 16 different variations on the color you've selected. For example, the green mixer shows 16 variations with more or less green mixed in. The lightness and darkness mixers show variations with more or less white mixed in.

If you don't see the color you want, position the pointer on the variation closest to it and drag the variation to the working-color box. When you release the mouse button, a different set of variations appears.

Adding a New Color to the Palette

When you've found the color you want, position the pointer on it and hold down the mouse button. Drag the dotted outline to the palette in the middle of the screen and replace one of the colors there with the new color. Everywhere you used the old color in the picture, it will be replaced by the new color. If you don't want any of the colors you used in the picture to be replaced, replace a color you haven't used in the picture.

If you want to see what a color looks like on your picture, move the pointer to the window in the upper half of the screen. The pointer turns into a paintbrush, and you can draw on the picture there with perfect safety—whatever you draw will be automatically undone when you return to the drawing area.

There are two changes to be wary of: changing the colors at the two ends of the palette—the colors preset to black and white. If you replace white with another color, that color instantly replaces white as the background color of the easel. Don't replace white with black or the screen will become unreadable. Something similar will happen if you replace black with another color: that color instantly replaces black as the text and outline color of the easel. Don't replace black with white. If you happen to replace either color with a color that makes the screen unreadable, press the *esc* key to undo the change.

When you've made all the changes to the palette you want to make, click **OK** to go back to the drawing area. If you want to return to the drawing area without keeping any of the changes you've made, click **Cancel.**

The new palette is saved when you save the picture you're working on. You can also save the palette separately in the Color Table. In addition, you can save individual colors in the preferred palette. Another way to find and add colors to a palette is to use the gradient palette. See "Color Table," "Preferred Palette," and "Gradient Palette" under "Color" in the "Reference" section.

Mixing a Color

If you'd like to mix a new color yourself, you can do that, too. Mixing colors is mostly a matter of experimenting until you get the mix you want, but it may help you to understand how the process works.

When you mix colors using *Paintworks Gold,* you're actually mixing light of different colors. Mixing light is different from mixing paint. The major difference is that if you mix all the colors of paint together, the result is black; when you mix all the colors of light together, the result is white.

As the color chart below shows, the three primary colors of light are red, green, and blue. Mixing red and blue produces magenta, mixing blue and green produces cyan, and mixing green and red produces yellow. Mixing all three together produces white.

To mix a color, move the sliders on the three color mixers up and down. You can move a slider either by clicking the arrows or by dragging the slider with the pointer.

The mixers work like dimmers: if you move the slider to the bottom, you turn the color up as far as it can go; if you move the slider to the top, you turn the color off.

Experiments

Try these experiments:

Turn up all the color mixers to their highest levels. The result is white. White light is made up of all the colors of the spectrum—all of which can be derived from the three primary colors, red, green, and blue.

Turn up the red and green mixers all the way, and turn the blue mixer off. The result is yellow.

Turn the red, green, and blue mixers off. The result is black. Black is the absence of any light.

Don't confuse the brightness of a color with lightness. The brightest red is the reddest, most intense red. The lightest red is a little red mixed with a lot of white—in other words, a pale pink.

Turn the red mixer up all the way, and turn both the green and the blue mixers off. The result is the most intense red. The slider on the lightness mixer is at the very top, and the slider on the darkness mixer at the very bottom. That's always the position they have when a color is most intense. Now move the sliders on the green and blue mixers up one notch each. The result is still red, but it's a slightly lighter red. You'll also notice that the slider on the lightness mixer moved down a notch. Keep moving the green and blue mixers up a notch at a time to see what happens.

You can, of course, make a color lighter by moving the slider on the lightness mixer or darker by moving the one on the darkness mixer. And when you do, the sliders on the color mixers move in response. Of all the aspects of *Paintworks Gold,* the color palette offers the most possibilities for experimentation. Remember, too, that you can mix color with black and white patterns and create new patterns using any (or all) of the 16 colors in the palette.

Animation

There are two types of animation: moving an object around the screen and cycling through a set of colors. Color cycling can create the appearance of, say, a ball or planet spinning in place.

Color Cycling. The first step in color cycling is to create a color set (see "Using Color Sets" earlier in the chapter if you haven't created a color set). The second step is to set the timing, and the third is to start the cycling.

Open either **Planet** or **Planet 2**, the picture you created earlier with the color set you made.

To set the timing for the color cycling, choose **Cycle Timing** from the **Anim.** menu. A dialog box appears. The timing can be set on any value from zero to 32—zero is no cycling, 1 is the fastest cycling, and 32 is the slowest. The current setting is zero.

To set the cycle timing, click the arrow at the right end of the timing bar. Keep clicking the right arrow to slow the cycling down (you can also move the box in the timing bar to the right). If you slow the cycling down too much, click the left arrow or move the box to the left. When you have the timing the way you want it, click **OK.**

To start the cycling, choose **Color Cycling** from the **Anim.** menu. To stop the cycling, click the mouse button.

The first step in developing an animation sequence is to draw the individual pictures that make up the sequence. Each of the pictures is saved separately. Your *Paintworks Gold* art disk contains a series of pictures that shows stages in the bouncing of a ball.

Open **Ball010** to see the first picture in the series. The other pictures are numbered **Ball020, Ball030,** and so on. Whenever you create a series of pictures you intend to animate, give each of the pictures the same name followed by a number that shows the picture's place in the animation sequence. It's best to use a series of numbers like 010, 020, 030, and so on, so if you decide you want to add more pictures in the middle of the series, you don't have to renumber all of them.

When you've finished drawing and saving each of the pictures in a series, choose **Compress** from the **Anim.** menu. A dialog box appears.

You choose from the Compress dialog box any of the pictures in the series you want to animate. To compress the bouncing ball sequence, choose **Ball010** and click the **Open** button.

Paintworks Gold animates the series.

To speed up the animation, hold down *command* and press the down arrow key. To slow down the animation, hold down *command* and press the up arrow key. When you have the timing set, click the mouse button to stop the animation.

Another dialog box, like the one that accompanies the **Save** command, appears. *Paintworks Gold* has named the animated sequence **Ball.show**. To save the sequence, click **Save**. *Paintworks Gold* saves the compressed sequence of pictures along with the speed setting.

To run the sequence, choose **Show** from the **Anim.** menu. Choose **Ball.show** from the dialog box that appears, and click **Open.** The animated sequence runs; when it reaches the end, it starts over again. The sequence continues to repeat until you click the mouse button.

If you want to change the timing of the animation, choose **Compress** and repeat the process.

If you want to animate an object in front of a static background, you don't have to redraw the background each time. All you need to do is draw the object you want to animate in each of its positions, then use **Show Page 2 Behind** to superimpose each frame over the same background. Here's how to do it:

First, draw the background and save it. Draw the object you want to animate in each of its positions, and save each one as a separate picture. Next, open the object in its first position. Choose **Use Page 2 for Doc.** from the **Goodies** menu, then choose **Show Page 2** from the same menu. When Page 2 appears, it's blank. Open the background picture. After a moment, it replaces the blank page and becomes Page 2. Choose **Show Page 1** from the **Goodies** menu to display the object you're animating. Choose **Show Page 2 Behind** from the **Goodies** menu to superimpose the object you're animating on the background. Finally, save the object again.

To superimpose each of the other pictures of the object on the background, all you have to do is open a picture and choose **Show Page 2 Behind.** The background picture on Page 2 isn't changed when you add it to Page 1 because you're treating it as a separate picture. Be sure to save each picture of the object again after you've superimposed it on the background picture.

More Goodies

Paintworks Gold has many more features that haven't been covered in this tutorial. You can experiment with them on your own.

When you're working on a picture that requires a lot of precision, *Paintworks Gold* has several features to help you. You can turn on the *grid*—an invisible network of lines that helps you draw and align certain objects. You can use the **Use As** option to set the size of each square on the grid. You can also display the coordinates of the pointer so that you always know exactly where you are in the drawing area. For more information, see "Turn Grid On/Off," "Use As," "Show Coordinates," and "Set Origin" under "Goodies" in the "Reference" section.

Paintworks Gold also has more options you can use when you're working with colors. **Dispose Color** lets you remove a color you've selected either in a selected area or wherever it appears in a picture. **Exchange Color** lets you replace one color with another either in an area you've selected or wherever the one color appears in a picture. You can use **Get Palette,** after you make a change from one mode to another, to make the current mode's palette match the previous mode's palette as closely as possible. You can even arrange the colors in the color/pattern palette from darkest to brightest. For more information, see "Dispose Color," "Exchange Color," "Get Palette," and "Sort Palette" under "Color" in the "Reference" section.

Paintworks Gold

Reference

This section covers in a concise and detailed form every aspect of *Paintworks Gold.* It's the place to find anything that isn't covered in the guided tour. The "Reference" is organized by the way things appear on the screen: the palettes are illustrated and explained, and the menu functions are listed according to the menu they appear on.

Contents

Paintworks *Gold*

The Easel

The Tool Palette

The tool palette contains drawing and painting tools. It also contains tools you can use to mark parts of a picture and to move a picture around in the drawing area.

The illustration below identifies each of the tools. The text on the following pages explains how to use each of the tools.
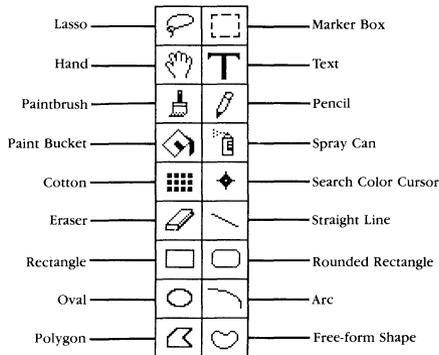
To use a tool:

• Point to it and click the mouse button.

• Move the cursor to the drawing area. When you do, the cursor changes shape.

• Hold down the mouse button and move the mouse.

The tool starts to work as soon as you press the mouse button.

• To move the tool window (which contains the tool palette, the border palette, the FatBits and FatBits display palettes), point to the outside edge (or point anywhere inside and press *control*), hold down the mouse button, and drag the outline that appears to a different part of the easel. Then release the mouse button. The window is redrawn in the new location.
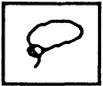
Lasso

Use the lasso to select an image and lift it off its background so you can move, copy, or cut the image.

• To move an image, select it with the lasso, point to the selected area, hold down the mouse button, and drag the mouse.

• To keep a selected image on a straight horizontal or vertical line while you move it, hold down *shift*.

• To turn the lasso into a rectangle, hold down *shift* when you use the lasso to make a selection.

• To draw a lasso the size of the entire screen, double-click the lasso icon.

• To duplicate an object you've selected with the lasso, hold down *option* as you drag the selected image to another part of the drawing area.

• Another way to select the lasso is to hold down *option* and press *1* on the row of keys at the top of the keyboard (don't use the numerical keypad).
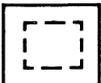
Marker Box

Use the marker box to select an area along with its background so you can move, copy, or cut it.

- To move an image, select it with the marker box, point to the selected area, hold down the mouse button, and drag the mouse.

- To select the entire drawing area, double-click the marker box.

- To keep a selected image on a straight horizontal or vertical line while you move it, hold down *shift*.

- Another way to select the marker box is to hold down ***command*** and press *1* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Hand

Use the hand to move a drawing around in the drawing area.

- To change any tool except the lasso and the marker box to the hand, press ***tab***. Press ***tab*** again to change the hand back into the tool you started with.

- When you're using fat bits, you can move a drawing up or down one pixel by pressing the **up** or **down arrow**. To move a drawing up or down ten pixels, hold down ***command*** and press the **up** or **down arrow**.

- Another way to select the hand is to hold down ***option*** and press *2* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Text

Use the text tool to activate the keyboard so you can add text to a picture. Text appears in the current border color.

- To add text, position the I-shaped cursor where you want to begin typing text, then click the mouse button to display the cursor.

- When you're finished adding text, press ***esc*** or select another tool.

- Another way to select text is to hold down ***command*** and press *2* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Paintbrush

Use the paintbrush to paint with a color or pattern in any of 32 brush shapes (also see "Use as Brush" under "Select").

• To display the Brush Shape dialog box, double-click the paintbrush icon.

The Brush Shape dialog box appears. A box marks the current shape of the box.

• Click the shape you want to use. The Brush Shape dialog box closes automatically.

Note: If you want to leave the Brush Shape dialog box without changing the shape of the brush, click the current shape.

• To edit a brush shape, hold down *command* and click the shape you want to change.

• Another dialog box appears in front of the Brush Shape dialog box.
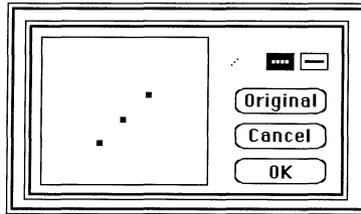
• To add a pixel, point to a white space and click the mouse button. To remove a pixel, point to a black square and click the mouse button. To draw or erase continuously, hold down the mouse button and drag the mouse.

Broken Lines. Lets you paint broken lines when you move the paintbrush fast.

Continuous Line. Keeps the lines you're painting continuous even when you move the paintbrush fast. Has the same effect as holding down *option* when you paint.

The buttons in the box give you these choices:

Original. Click **Original** to restore the original brush shape.

Cancel. Click **Cancel** to go back to the Brush Shape dialog box without keeping any changes you've made to the brush shape.

OK. Click **OK** to accept the changes you've made and to return to the Brush Shape dialog box. *Paintworks Gold* also saves the new shape on the program disk.

- To paint a straight horizontal or vertical line with the paintbrush, hold down *shift* while you paint.

- To paint continuous lines with the paintbrush, hold down *option* while you paint.

- Another way to select the paintbrush is to hold down *option* and press *3* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Pencil

Use the pencil to draw a thin line in a color or a pattern.

- To switch to fat bits, hold down *command* and click the mouse button. The pencil is positioned at the same point in the fat-bits view as it was in the normal view.

- To draw a straight horizontal or vertical line, hold down *shift* while you draw.

- To erase what you've just drawn with the pencil, draw over it again in the same color. (This is easiest if you use a fat-bits view.)

- Another way to select the pencil is to hold down *command* and press *3* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Paint Bucket

Use the paint bucket to fill an outlined, solid, or selected area or a color set with a color or pattern.

- To fill slippy colors, hold down the *option* key when you click the mouse button to fill an area.

- To fill all non-slippy colors, hold down both *option* and *shift* when you click the mouse button to fill an area.

- Another way to select the paint bucket is to hold down *option* and press *4* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Spray Can

Use the spray can to spray a color or pattern.

- To change the size of the area covered by the spray, use the **Use As** option on the **Goodies** menu.

- Another way to select the spray can is to hold down *command* and press *4* on the row of keys at the top of the keyboard (don't use the numerical keypad).
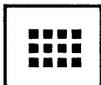
Cotton

Select the cotton icon to use the paintbrush to create such effects as smearing, shading, inverting, and smoothing.

- Choose the paintbrush shape you want to use, then select the cotton icon.

- Another way to select the cotton is to hold down *option* and press *5* on the row of keys at the top of the keyboard (don't use the numerical keypad).

- Double-click the cotton icon to display the cotton dialog box.

These are the effects you can choose from:

Smear. Smears a color over the color that's next to it.

Shade Up. Shades a color with the color to the right of it in a color set or in a palette.

Shade Down. Shades a color with the color to the left of it in a color set or in a palette.

**Invert.** Changes a color to its complement.

Smooth by edge. Smooths the edges of a shape by removing some of the pixels of its border.

Smooth by color. Makes the boundary between the two colors less sharp by adding at the boundary a color that's in between the other two colors.

The buttons in the box give you these choices:

OK. Click **OK** to accept the cotton option you've chosen and return to the drawing area.

Cancel. Click **Cancel** to return to the drawing area without changing the option that's selected.

Search Color Cursor

Use the search color cursor to identify which parts of a picture match which colors in the palette.

• If you want to identify the color in the palette that a specific part of the picture matches, move the cursor to that part of the picture and hold down the mouse button.

A rectangle appears over the color in the palette that matches the color in the picture.

• If you want to identify all the parts of the picture that match a specific color in the palette, move the cursor to the color in the palette, and hold down the mouse button.

All the parts of the picture that match the color flash off and on.

• Another way to select the search color cursor is to hold down *command* and press *5* on the row of keys at the top of the keyboard (don't use the numerical keypad).
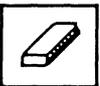
Eraser

Use the eraser to erase whatever you drag it over.

• To erase the part of the picture in the drawing area, double-click the eraser icon.

• Another way to select the eraser is to hold down *option* and press *6* on the row of keys at the top of the keyboard (don't use the numerical keypad).

• To erase the entire picture, select **New** from the **File** menu.
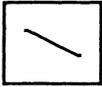
Straight Line

Use the straight line to draw a straight line. Its color (or pattern) matches the color (or pattern) currently selected. Its width matches the line selected on the border palette.

- To draw a horizontal, vertical, or 45-degree line, hold down *shift*.

- Another way to select the straight line is to hold down *command* and press *6* on the row of keys at the top of the keyboard (don't use the numerical keypad).
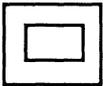
Rectangle

Use the rectangle to draw the outline of a rectangle or square, or to draw a rectangle or square filled with a color or pattern.

- To draw a square rather than a rectangle, hold down *shift*.

- To draw a rectangle centered around the starting point, hold down *option*.

- To make the inside of a rectangle transparent, select the cell in the palette marked with an asterisk (*). To make the border transparent, hold down *command* and select the cell in the palette marked with an asterisk (*).

- Another way to select the rectangle is to hold down *option* and press 7 on the row of keys at the top of the keyboard (don't use the numerical keypad).
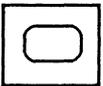
Rounded Rectangle

Use the rounded rectangle to draw the outline of a rectangle or square with rounded corners, or to draw a rounded rectangle or square filled with a color or pattern.

- To draw a rounded square rather than a rounded rectangle, hold down *shift*.

- To draw a rounded rectangle centered around the starting point, hold down *option*.

- To make the inside of a rounded rectangle transparent, select the cell in the palette marked with an asterisk (*). To make the border transparent, hold down **command** and select the cell in the palette marked with an asterisk (*).

- Another way to select the rounded rectangle is to hold down **command** and press 7 on the row of keys at the top of the keyboard (don't use the numerical keypad).
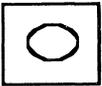
Oval

Use the oval to draw the outline of an oval or circle, or to draw an oval or circle filled with a color or pattern.

- To draw a circle rather than an oval, hold down **shift**.

- To draw an oval centered around the starting point, hold down **option**.

- To make the inside of an oval transparent, select the cell in the palette marked with an asterisk (*). To make the border transparent, hold down **command** and select the cell in the palette marked with an asterisk (*).

- Another way to select the oval is to hold down **option** and press **8** on the row of keys at the top of the keyboard (don't use the numerical keypad).
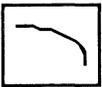
Arc

Use the arc to draw a portion of the outline of an oval or part of an oval filled with a color or pattern.

- To draw an arc, first use the arc to draw a straight line, then release the mouse button, stretch the line from the middle until it's shaped like an arc, and click the mouse button.

- To make the inside of an arc transparent, select the cell in the palette marked with an asterisk (*). To make the border transparent, hold down **command** and select the cell in the palette marked with an asterisk (*).

- Another way to select the arc is to hold down **command** and press **8** on the row of keys at the top of the keyboard (don't use the numerical keypad).

Polygon

Use the polygon to draw either the outline of a polygon or a polygon filled with a color or pattern.

- To draw a polygon, position the cross hairs where you want the figure to start. Click the mouse button to anchor one end of the first line. Move the mouse to draw the first line, then click the mouse button again to anchor the other end of the line (at the same time, you anchor one end of the second line). Repeat the process until you've completed the figure, then double-click the mouse button.

- To draw a polygon with lines that are horizontal, vertical, or 45-degree diagonal only, hold down *shift*.

- To make the inside of a polygon transparent, select the cell in the palette marked with an asterisk (*). To make the border transparent, hold down *command* and select the cell in the palette marked with an asterisk (*).

- Another way to select the polygon is to hold down *option* and press *9* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Free-form Shape

Use the free-form shape to draw either a closed outline of any shape or any closed shape filled with a color or pattern.

- To draw a free-form shape, position the pointer where you want to begin drawing, hold down the mouse button, and draw the outline you want. Release the mouse button. If you don't close the figure, a straight line is drawn automatically between the two ends of the outline.

- To make the inside of a free-form shape transparent, select the cell in the palette marked with an asterisk (*). To make the border transparent, hold down *command* and select the cell in the palette marked with an asterisk (*).

- Another way to select a free-form shape is to hold down *command* and press *9* on the row of keys at the top of the keyboard (don't use the numerical keypad).

Note: The outline of any shape you draw with the rectangle, rounded rectangle, oval, arc, polygon, or free-form shape matches the color (or pattern) of the box surrounding the selected color on the color/pattern palette; its width matches the width of the line selected on the border palette. The shape is filled with the color or pattern that's selected.

The Border Palette

Use the border palette to choose the width of the straight line and the width of the outlines of a rectangle, rounded rectangle, oval, arc, polygon, and free-form shape.

- To select a border width, point to the width you want to use and click the mouse button. The arrow shows which line width is selected.

- To change the border to a color or pattern, hold down *command* while you select the color or pattern you want.

- Another way to select a border width is to hold down *command* and *option* and press *1, 2, 3,* or *4* in the row of keys at the top of the keyboard (don't use the numerical keypad)—1 is the narrowest line, 4 the widest.
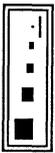
The FatBits Palette

Use the FatBits palette to display a small part of a picture in detail so you can work on it pixel by pixel. There are four levels of magnification (You can draw in either the drawing area or the FatBits window.).

- Use the marker box or lasso to mark the part of the picture you want to see in detail.

- To display a magnified view of the image, select one of the four larger squares on the FatBits palette. Or position the pencil on the part of the picture you want to enlarge, hold down *command,* and click. The vertical line shows which square is selected.

- Press the right angle bracket key (>) without holding down *shift* to magnify the image further.

- Press the left angle bracket key (<) without holding down *shift* to reduce the magnified image.

- Use the pencil to draw a single pixel at a time.

Click the pencil, and it draws a dot in the color that's selected. If the pencil is on a pixel in the selected color, a click removes the color.

You can use any of the other tools when you're working on a picture in detail.

• To return the image to the normal view, select the smallest square in the
FatBits palette.

▦ *The FatBits Display Palette*

Use the FatBits display palette to choose the way you want the
enlarged pixels to be displayed.

• To select a FatBits display mode, point to one of the display icons and
click the mouse button.

Standard. Pixels that are next to each
other are displayed as a solid line or
color.
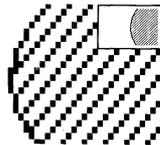
Grid. The pixels are displayed as a
grid. The grid doesn't appear in the
two lowest levels of magnification.
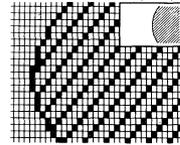
Separate Pixels. Pixels are displayed
as separate squares of color even when
they're right next to each other.
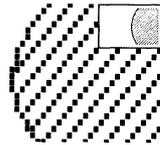
The Color/Pattern Window

The color/pattern window contains the colors and patterns you have to
choose from in creating a picture.

Transparent (no Color or Pattern)   Gradient Colors

Color of the Background

Selected Color, Pattern, or Gradient Color

Color or Pattern of the Borders
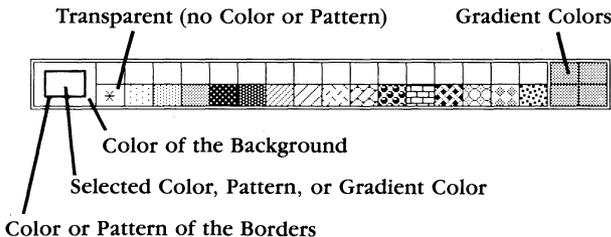
- To select a color, pattern, or gradient color, point to it and click the mouse button. (You create gradient colors yourself using the Color Sets dialog box; see "Color Sets" in the "Color" menu section.) Select the cell marked with an asterisk (*) to draw the outline of a shape without filling it with a color or pattern.

- To change the border color, hold down *command* and select the color you want.

- To change the background color, hold down *option* and select the color you want.

- Another way to select a color, pattern, or gradient color is to type a two-digit number on the numeric keypad (don't use the numbers at the top of the keyboard). Each number stands for the position of a color, pattern, or gradient color in the palette: 01 is the color farthest left, 16 the color farthest right; 17 is the pattern farthest left, 32 the pattern farthest right; 33 is the upper right gradient color, 36 the lower left one. Hold down *option* for a background color or gradient color; hold down *command* for a border color, pattern, or gradient.

- To move the color/pattern window, point to the box containing the selected color (or anywhere around the outside edge), hold down the mouse button, and drag the outline that appears to the place on the easel where you want it. Then release the mouse button. The color/pattern window is redrawn in the new location.

- Another way to move the window is to point anywhere inside the window, hold down *command*, and drag the outline that appears to the place where you want to move the window.

- To display the Color Palette dialog box, double-click any color in the palette.

- To transfer any color in the Color Palette dialog box (any color in the mixers, any color in the color bars, or any color in the spectrum palette in the lower right corner of the screen) to the palette, click and drag it there.

- To display the Edit Pattern dialog box, double-click the pattern you want to change.

- To display the Color Sets dialog box, double-click a gradient color.

Paintworks *Gold*

Dialog Boxes

- An alternative to clicking a button to carry out the function you've selected is to press **return** or **enter**.

- An alternative to clicking the **Cancel** button is to press **esc**.

Apple

```
 ┌──┐
 │ ✎│▶
 ├──┴──────────┐
 │ About...    │
 │ Help...     │
 │ Status...   │
 │ Change to 640│
 ├─────────────┤
 │ Clock       │
 └─────────────┘
```

About

About gives you the version number of your copy of *Paintworks Gold* and other similar information.

To use **About:**

- Choose **About** from the **Apple** menu.

A dialog box appears.

- To go back to the easel, click **OK**.

Help

Use **Help** for a brief summary of what tools the tool icons stand for and an explanation of the border and color/pattern palettes.

To use **Help**:

- Choose **Help** from the **Apple** menu.

The help information appears.

- To see the next page, click the mouse button.

- To go back to the easel, press **esc**.

Status

Use **Status** to display *Paintworks Gold*'s current settings.

To use **Status**:

• Choose **Status** from the **Apple** menu.

A box appears that displays the current settings.

• Click **OK** to remove the Status box from tne desktop.

Change to 640/320

Use **Change to 640/320** to switch between high and low resolution. In 640 mode you can work in twice as much detail as in 320 mode, but you're limited to blended instead of true colors. 640 mode is best if you're using lots of text in a picture.

If you're working on a picture when you switch between modes, the picture stays the same, but the colors in it change to match the current palette for the mode you've chosen.

To use **Change to 640/320:**

• Choose **Change to 640/320** from the **Apple** menu.

The drawing area and the menu bar change immediately to the new resolution. If you've chosen **Change to 640**, the item on the menu changes to **Change to 320**; if you've chosen **Change to 320**, the item on the menu changes to **Change to 640**.

Clock

Use **Clock** to display the current date and current time. Click the close box in the clock display to return to using *Paintworks Gold.*

File
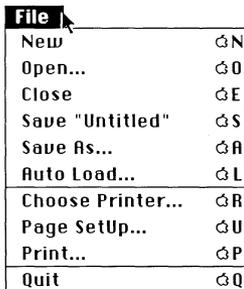
File	
New	⌘N
Open...	⌘O
Close	⌘E
Save "Untitled"	⌘S
Save As...	⌘A
Auto Load...	⌘L
Choose Printer...	⌘R
Page SetUp...	⌘U
Print...	⌘P
Quit	⌘Q

Occasionally, when you make a selection from the **File** menu, this dialog box may appear:

⚠ Save Current Document ?

[Yes] [No] [Cancel]
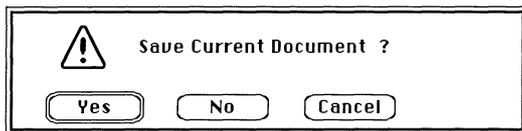
It means that you've made changes to the picture on the screen since you last saved it. The dialog box gives you a chance to save those changes.

The three buttons in the box give you these choices:

Yes. Click **Yes**, and a dialog box appears that lets you save the picture. Type a name for the picture if you need to, then click **Save.** Once you've saved the picture, the command you've selected is carried out.

No. Click **No**, and the command you've selected is carried out immediately. The picture on the screen isn't saved, and you won't be able to get it back.

Cancel. Click **Cancel** if you decide you don't want the command you've selected to be carried out.

New

Use **New** to start a new picture on a new page. The color (or pattern), the border, and the currently selected tool are left unchanged. The Clipboard is also left as it is. You can't undo **New** once it has been carried out.

To use **New:**

• If there's a picture on the screen you want to keep, save it.

• Choose **New** from the **File** menu, or hold down *command* and type *N*.

A clean page appears so you can start a new picture. (If a dialog box appears that asks **Save Current Document?**, see the instructions at the beginning of the "File" section.)

Open

Use **Open** to redisplay a picture you've saved on a disk. You can't undo **Open** once it has been carried out.

To use **Open**:

- If there's a picture on the screen you want to keep, save it.

- Choose **Open** from the **File** menu, or hold down *command* and type *O.*

A dialog box appears. (If a dialog box appears that asks **Save Current Document?**, see the instructions at the beginning of the "File" section.)

- Click the name of the picture you want to open.

The buttons in the box give you these choices:

> **Open.** Click **Open** to have the picture you've selected displayed in the the drawing area.

> The picture appears in the drawing area.

> **Close.** You can't use **Close.**

> **Disk.** If the picture you want to open is on a disk other than the one in the drive, put the new disk in the drive and then use **Disk** to display the names of the pictures on the new disk.

Cancel. Click **Cancel** if you decide not to open a picture.

Close

Close is dimmed and can't be used.

Save

Use **Save** to make a copy of a picture on a disk. The patterns and colors in the palette are saved with the picture. If there's already a picture (or any other file) on the disk that has the same name as the picture, the picture erases it and replaces it. If you don't want to replace the old picture, use **Save As** to give the new picture a different name. (**Save As** is explained below.)

You can also use **Save** to create a *folder* to save pictures in. Saving pictures in a folder is a convenient way to keep together pictures that are related (like those that make up an animated sequence).

You can't undo **Save** once it has been carried out.

To use **Save**:

• Choose **Save** from the **File** menu, or hold down ***command*** and type **S**. (To save screen images in the current folder and automatically name them Screen 00 through Screen 99, hold down ***control*** and type **S**; no dialog box appears.)

```
┌──────────────────────────────────────────┐
│  🖾 / Data Disk /                          │
│  Free : 40/800Kb                           │
│  ┌─────────────────┐┌─┐  ╭─────────────╮   │
│  │ 🗀 Animation     ││⇧│  │    Disk     │   │
│  │ 🗋 Orb           ││ │  ╰─────────────╯   │
│  │ 🗋 Mask          ││ │  ╭─────────────╮   │
│  │ 🗋 Mask1         ││ │  │ New Folder  │   │
│  │ 🗋 Teacup2       ││⇩│  ╰─────────────╮   │
│  └─────────────────┘└─┘  │    Open     │   │
│                          ╰─────────────╯   │
│  Save As :               ╭─────────────╮   │
│  ┌───────────────────┐   │    Close    │   │
│  │ Untitled          │   ╰─────────────╯   │
│  └───────────────────┘   ╭─────────────╮   │
│        ● Paint Format    │   Save  ▶   │   │
│  ○ Apple Preferred  ○ Screen Format        │
│                          ╭─────────────╮   │
│                          │   Cancel    │   │
│                          ╰─────────────╯   │
└──────────────────────────────────────────┘
```
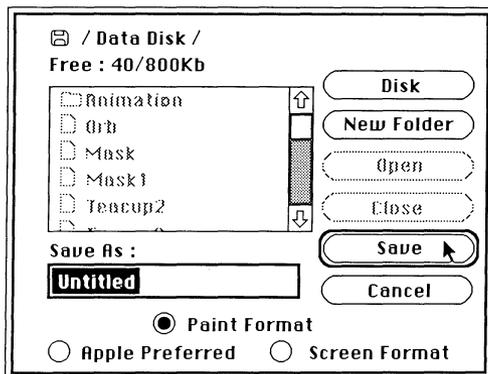
• Type a name for the picture in the space under **Save As**.

The buttons in the box give you these choices:

> **Disk.** If you want to save the picture on a disk other than the one in the drive, replace the disk in the drive with the new disk. Use **Disk** to display the names of the pictures on the new disk.

> **New Folder.** To create a new folder, type a name for it in the space under **Save As**, then click **New Folder**. Use **Open** to open the new folder whenever you want to save a picture in it.

> **Open.** If you want to save a picture in a folder, select the folder from the catalog and click **Open**.

> **Close.** You can use **Close** on a folder that is open. Use **Close** to close the folder.

> **Save.** Click **Save** when you're ready to save the picture.

> If a dialog box appears that says **Volume full**, there isn't enough room on the disk to save the picture. Click **OK**, then eject the disk from the drive and replace it with a disk that has space on it.

> **Cancel.** Click **Cancel** if you decide not to save the picture.

You can save a picture in any of these formats:

Paint Format. If you create a full-page picture you intend to print a copy of, use **Paint Format**. The entire page is then saved. (An entire page is 320 pixels wide by 396 pixels high.)

Apple Preferred. If you create a picture you may want to use with a program other than *Paintworks Gold,* select the **Apple Preferred Format.** It takes up more space on the disk than **Paint Format**, but it's compatible with more Apple IIGS software.

Screen Format. If you create a picture you intend to display only on the screen, use **Screen Format.** Only part of the picture is saved: the part that's visible when you choose **Show Page** from the **Goodies** menu. (The screen is 320 pixels wide by 200 pixels high.)

Save As

Use **Save As** to save different versions of the same picture. It allows you to give a new name to a picture you've already saved and then save the picture under the new name. As long as you give the new version a different name, **Save As**, unlike the **Save** command, doesn't replace the old picture with the new one. You can't undo **Save As** once it has been carried out.

To use **Save As**:

• Choose **Save As** from the **File** menu, or hold down *command* and press *A*.

A dialog box appears that's just like the one that accompanies the **Save** command. The functions of the buttons and the formats that are available are explained above.

Auto Load

Use **Auto Load** to load a picture automatically when you start *Paintworks Gold.* **Auto Load** is useful if you know you're going to be working on a single picture for an extended time.

To use **Auto Load:**

• Choose **Auto Load** from the **File** menu, or hold down *command* and type *L*.

The Open dialog box appears.

- Choose the picture you want to load automatically the same way you choose a picture you want to open. (See "Open," above, for more information.)

The next time you start *Paintworks Gold,* the picture you've chosen will appear on the screen automatically.

Choose Printer

Use **Choose Printer** to let *Paintworks Gold* know the type of printer you have connected to your computer and the port the printer is connected to.

To use **Choose Printer:**

- Make sure that the *Paintworks Gold* program disk is in the disk drive that's active and that it's not write-protected.

The printer you select is saved on the program disk.

Paintworks Gold reminds you to put the disk in the drive when it's ready to save your selection if you haven't already done so.

- Select **Choose Printer** from the **File** menu, or hold down *command* and type *R.*

A dialog box appears.

```
┌─────────────────────────────────────────┐
│ Choose Printer                     v1.0  │
│                                          │
│ Printer type:        Printer port:       │
│ ┌──────────────┬──┐  ┌──────────────┬──┐ │
│ │IMAGEWRITER ▲ │⇧ │  │APPLETALK     │⇧ │ │
│ │LASERWRITER   │  │  │PRINTER       │  │ │
│ │EPSON         │  │  │MODEM         │  │ │
│ │              │⇩ │  │GRAPHICARD    │⇩ │ │
│ └──────────────┴──┘  └──────────────┴──┘ │
│          ( Cancel )    ( OK )            │
└─────────────────────────────────────────┘
```
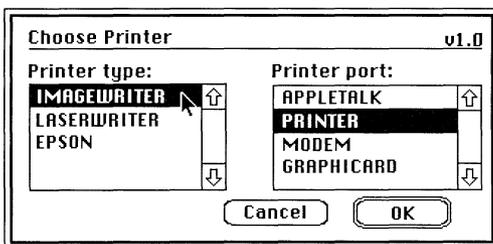
- Select one of the printers from the **Printer type** catalog. Use the arrows to scroll the list up or down if you need to.

- Select one of the ports from the **Printer port** catalog (if you're using AppleTalk® see "Using AppleTalk," on the following page). If you selected **Epson** from the **Printer type** catalog, select the card from the **Printer port** catalog that you have installed.

The buttons in the box give you these choices:

OK. Click **OK** when you've selected your printer and the port it's connected to.

Cancel. Click **Cancel** to return any settings you've changed to the way they were originally and to return to the drawing area.

Using AppleTalk. If you want to use **AppleTalk** as the printer port:

• Go to the Control Panel—to do so, hold down *control* and *command*, then press *esc*.

The drawing area disappears and the **Desk Accessories** menu appears.

• Use the arrow keys to highlight **Control Panel**, then press *return*.

The **Control Panel** menu appears.

• Use the arrow keys to highlight **Slots**, then press *return*.

A listing appears with the settings of your computer's slots.

• Use the up and down arrow keys to highlight **Slot 1**, then use the right arrow key to display **Your Card** next to it.

Note: Make sure **Slot 1** is not set to **Printer Port**, or your computer will stop working when you try to use AppleTalk.

• Use the arrow keys to highlight **Slot 7** and set it to **Built-in AppleTalk.**

• Press *return* to save the slot settings and to return to the **Control Panel** menu.

• Select **Quit** to return to the **Desk Accessories** menu.

• Select **Quit** on the **Desk Accessories** menu to go back to *Paintworks Gold.*

• Choose **AppleTalk** from the **Chooser** menu and click **OK**.

• If you've made changes in any of the drawing areas that are open, save them.

• Quit *Paintworks Gold* and turn the computer off.

The changes you made to the settings of the slots on the Control Panel won't take effect until you start the computer again.

• Turn on the computer again and restart *Paintworks Gold.*

When you're finished using AppleTalk, go to the Control Panel and change the settings of the slots back to the way they were. Then turn the computer off, turn it back on again, and restart *Paintworks Gold*.

Page SetUp

Use **Page SetUp** to indicate how your printer is to print a picture on the page.

Page SetUp determines how a printed picture will appear on a page: you can, for example, print a picture on its side (with the top and bottom of the picture parallel to the long edge of the paper rather than the short edge).

The settings you choose are saved when you save the picture.

To use **Page SetUp:**

• Choose **Page SetUp** from the **File** menu, or hold down *command* and type *U*.

A dialog box appears. The settings you can choose differ depending on the type of printer you selected in the **Choose Printer** box.

ImageWriter. If you choose **ImageWriter** in the **Choose Printer** dialog box, the Page SetUp dialog box looks like this:
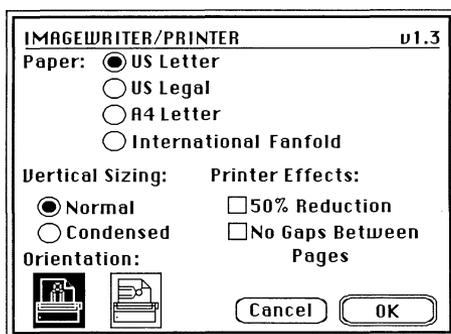
```
IMAGEWRITER/PRINTER                    v1.3
Paper:  ● US Letter
        ○ US Legal
        ○ A4 Letter
        ○ International Fanfold

Vertical Sizing:      Printer Effects:
  ● Normal              □ 50% Reduction
  ○ Condensed           □ No Gaps Between
Orientation:                Pages

  [📠] [🖨]          ( Cancel )  (  OK  )
```

These are the settings you can choose from:

Paper:

US Letter. For paper 8½ inches wide and 11 inches tall. (This option is automatically selected.)

US Legal. For paper 8½ inches wide and 14 inches tall.

**A4 Letter**. For European standard paper, 8¼ inches wide and 11⅔ inches tall.

International Fanfold. For international standard paper, 8¼ inches wide and 12 inches tall.

Printer Effects:

50% Reduction. The picture is reduced to half its normal height and width.

No Gaps Between Pages. The picture is printed continuously, without page breaks.

Orientation:
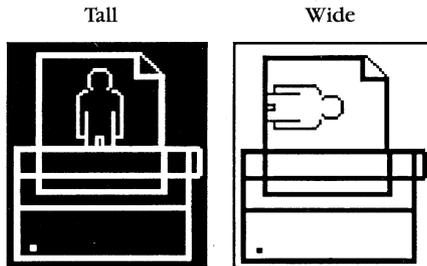
Tall   Wide

Tall. The picture is printed upright on the page, with the top edge at the top of the page. (This option is automatically selected.)

Wide. The picture is printed sideways on the page, with the top edge running along the right side of the page.

Vertical Sizing:

Normal. The printed picture looks just like it does on the screen (it's printed with the same number of rows of dots as the image on the screen is displayed in).

Condensed. The printed picture is the same height as the image appears on the screen, but it's printed with twice as many rows of dots as

the image on the screen is displayed in. The result is a high-resolution printed copy that resembles what a Macintosh would produce. If you choose **Condensed**, you must select the **Tall** orientation.

LaserWriter. If you choose **LaserWriter** in the **Choose Printer** dialog box, the Page SetUp dialog box looks like this:
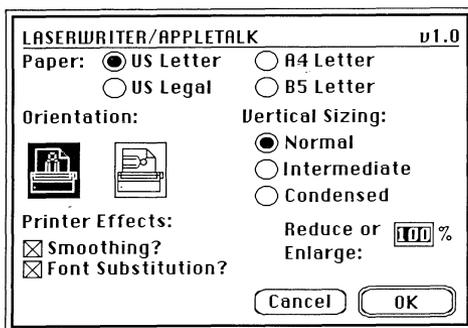
```
┌──────────────────────────────────────────┐
│ LASERWRITER/APPLETALK              v1.0   │
│ Paper: ● US Letter    ○ A4 Letter         │
│        ○ US Legal     ○ B5 Letter         │
│ Orientation:          Vertical Sizing:    │
│                       ● Normal            │
│   ┌──┐    ┌──┐        ○ Intermediate      │
│   │  │    │  │        ○ Condensed         │
│   └──┘    └──┘                            │
│ Printer Effects:      Reduce or  [100] %  │
│ ⊠ Smoothing?          Enlarge:            │
│ ⊠ Font Substitution?                      │
│                      ( Cancel ) ( OK )    │
└──────────────────────────────────────────┘
```

These are the settings you can choose from:

Paper:

US Letter. For paper 8½ inches wide and 11 inches tall. (This option is automatically selected.)

US Legal. For paper 8½ inches wide and 14 inches tall.

A4 Letter. For European standard paper, 8¼ inches wide and 11⅔ inches tall.

B5 Letter. For paper 15 inches wide and 11 inches tall.

Orientation:

Tall   Wide
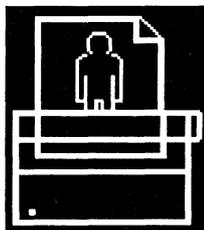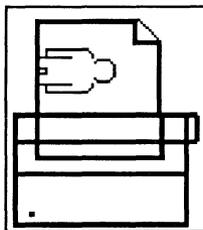
Tall. The picture is printed upright on the page, with the top edge at the top of the page. (This option is automatically selected.)

Wide. The picture is printed sideways on the page, with the top edge running along the right side of the page.

Vertical Sizing:

Normal. The printed picture looks just like it does on the screen (it's printed with the same number of rows of dots as the image on the screen is displayed in).

Intermediate. The printed picture looks two thirds as high as the image on the screen (the page is printed with one and a half times the number of rows of dots as the image on the screen is displayed in). Select this option to fit a full-page picture on paper that's being printed in the **Wide** rather than the **Tall** orientation.

Condensed. The printed picture is the same height as the image appears on the screen, but it's printed with twice as many rows of dots as the image on the screen is displayed in. The result is a high-resolution printed copy that resembles what a Macintosh would produce.

Printer Effects:

Smoothing. The printer adds extra dots in between points that form a line to produce a higher-resolution copy.

Font Substitution. Ignored.

Reduce or Enlarge. To reduce or enlarge the picture, type the percentage you want the picture reduced or enlarged by in the space next to **Reduce or Enlarge**. You can type a number from 25 to 400 (for example, 50% reduces the picture to half its normal size; 200% enlarges the picture to twice its normal size).

The buttons in the box give you these choices:

OK. Click **OK** to record the settings you've chosen.

Cancel. Click **Cancel** to return any settings you've changed to the way they were originally and to return to the drawing area.

Epson. If you choose **Epson** in the **Choose Printer** dialog box, the Page SetUp dialog box looks like this:

```
┌─────────────────────────────────────────┐
│ EPSON/GRAPHICARD          (c) StyleWare  │
│ Paper: ● US Letter                       │
│        ○ US Legal                        │
│        ○ A4 Letter                       │
│        ○ International Fanfold            │
│ Vertical Sizing:      Printer Effects:   │
│   ● Normal              □ 50% Reduction  │
│   ○ Condensed           □ No Gaps Between│
│ Orientation:                 Pages       │
│   [image] [image]     ( Cancel ) ( OK )  │
└─────────────────────────────────────────┘
```
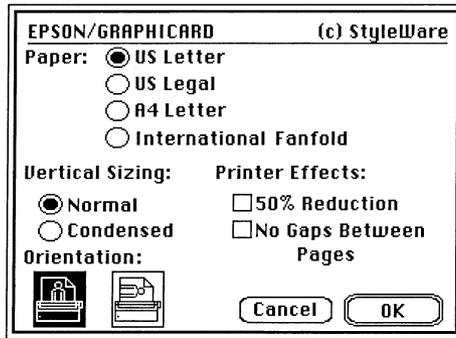
The settings you can choose from are the same as the settings for the **ImageWriter**.

Print

Use **Print** to print a copy of a picture using the settings in the **Page SetUp** dialog box.

To use **Print**:

• Choose **Print** from the **File** menu, or hold down the *command* key and type *P*.

A dialog box appears. The settings you can choose from differ depending on the type of printer you selected in the **Choose Printer** dialog box.

ImageWriter. If you chose **ImageWriter** in the **Choose Printer** dialog box, a dialog box appears that asks **Do you have a color ribbon?**

These are the settings you can choose from:

Yes. Click **Yes** if you have a color ribbon and you want to print your picture in color.

No. Click **No** if you don't have a color ribbon or if you have a color ribbon but want to print your picture in black.

Cancel. Click **Cancel** to return to the drawing area without printing the picture.

If you choose **Yes** or **No**, the message **Printing in draft mode** appears on your screen.

LaserWriter. If you chose **LaserWriter** in the **Choose Printer** dialog box, the Print dialog box looks like this:

```
┌─────────────────────────────────────────┐
│ LASERWRITER/APPLETALK            v1.0    │
│ Pages:    ● All                          │
│           ○ From: ┌────┐  To: ┌────┐     │
│                   └────┘      └────┘     │
│ Copies: │1│                              │
│ Paper Source:                            │
│           ● Paper Cassette               │
│           ○ Manual Feed                  │
│                    ( Cancel ) (  OK  )   │
└─────────────────────────────────────────┘
```
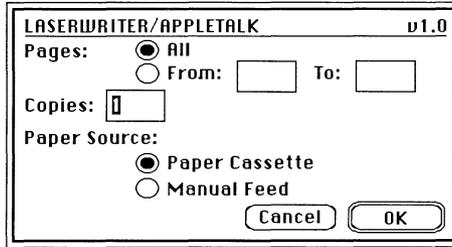
These are the settings you can choose from:

Pages:

Paintworks Gold always prints a single page at a time.

All. Ignored.

From: _____ **To:** _____. Ignored.

Copies:

Ignored. If you want more than one copy, use **Print** once for each copy you want.

Paper Source:

Paper Cassette. For paper that's in a cassette. (This option is automatically selected.)

Manual Feed. For single sheets of paper that you feed into the printer by hand, one at a time.

The buttons in the box give you these choices:

OK. When you've selected the settings you want, click **OK** to start printing.

Cancel. Click **Cancel** to return to the drawing area without printing the picture. Any settings you've changed are returned to the way they were originally.

Epson. If you chose **Epson** in the **Choose Printer** dialog box, a dialog box appears that asks **Do you have a color ribbon?**

These are the settings you can choose from:

Yes. Click **Yes** if you have a color ribbon and you want to print your picture in color.

No. Click **No** if you don't have a color ribbon or if you have a color ribbon but want to print your picture in black.

Cancel. Click **Cancel** to return to the drawing area without printing the picture.

If you choose **Yes** or **No**, the message **Printing in draft mode** appears on your screen.

Quit

Use **Quit** to leave *Paintworks Gold*. You can't undo **Quit** once it has been carried out.

To use **Quit**:

• If you want to keep the picture that's currently on the screen, save it.

• Choose **Quit** from the **File** menu, or hold down *command* and type *Q*. (If a dialog box appears that asks **Save Current Document?**, see the instructions at the beginning of the "File" section.)

The entire screen is erased, and you can start using another software program if you like.

Deleting a Picture from a Disk

You can erase a picture from a disk if you don't want to keep the picture any longer. See your system disk guide for instructions.

Edit

Edit	
Undo	⌘Z
Cut	⌘H
Copy	⌘C
Paste	⌘U
Paste Adj. Colors	⌘J
Copy Image...	⌘I
Clear	
Round Corners...	⌘D
Pattern...	⌘Y
Choose Font...	⌘T
Align Left	⌘F
Align Middle	⌘G
Align Right	⌘H

Undo

Use **Undo** to cancel the last change you made to a picture.

Note: You can't use **Undo** to cancel any of the commands on the **File** menu.

To use **Undo**:

• Pull down the **Edit** menu and click **Undo**, or hold down *command* and type **Z**.

Examples:

If you've been using the pencil, **Undo** removes everything you drew between last pressing and releasing the mouse button.

If you've been using the eraser, **Undo** puts back on the screen everything you erased between last pressing and releasing the mouse button.

If you've just used **Undo**, using it again returns the picture to the way it was before you used **Undo** the first time.

Cut

Use **Cut** together with **Paste** to move a picture (or part of one) from one place on a page to another place, from one picture file to another, or from a picture file to a document created with some other application.

To use **Cut**:

- Use either the marker box or the lasso to select the image you want to cut.

- Choose **Cut** from the **Edit** menu, or hold down *command* and type *X*.

The picture you've selected disappears from the screen and is placed on the Clipboard. You can now go to the other location or file and use the **Paste** command to place the picture there.

Note: The largest piece you can cut at one time is the drawing area. If you want to move an image larger than that, you have to move it in pieces.

Copy

Use **Copy** to make as many copies of an image as you want.

To use **Copy**:

- Use either the marker box or lasso to select the image you want to copy.

If you want to copy an image but not the background it's on, use the lasso to lift it off the background before you copy it. "Background" has a special meaning. It means only the true background color—not any color that happens to be in the background behind an image. The true background color is the color surrounding the box on the palette where the selected color or pattern appears.

True Background Color

- Choose **Copy** from the **Edit** menu; you can also hold down *command* and type *C*, or hold down *option* and drag the selected area.

A copy of the picture you've selected is placed on the Clipboard.

- To insert a copy of the picture, use the **Paste** command.

Paste

Use **Cut** together with **Paste** to move an image from one place on a page to another place, from one picture file to another, or from a picture file to a document created with some other application. If you want to move a *copy* of an image instead of the original image itself, use **Copy** instead of **Cut.**

If you paste an image you've cut or copied from one picture to another, the colors in the pasted image will change to the colors in the palette of the new picture if they're different from the colors in the palette of the original picture.

• First select the image you want to move, and then use **Cut** or **Copy**.

• Go to the place you want to move the picture to. You can go to another part of the same picture, another picture, or to a *Writer's Choice elite* document.

• Choose **Paste** from the **Edit** menu, or hold down *command* and type *V.*

Repeat the last two steps if you want to insert the image in more than one place. The image stays on the Clipboard until you cut or copy another image.

Paste Adj. Colors

Use **Paste Adj. Colors** instead of **Paste** when you copy an image from one picture to a picture with a different palette.

Normally when you copy an image from one picture to another, each color in the image is replaced with the color that occupies the same position in the new picture's palette that the original color occupied in the original picture's palette. Even if the two palettes contain the same colors, the colors in the image will change if the colors aren't in exactly the same positions in both palettes.

But if you use **Paste Adj. Colors**, *Paintworks Gold* replaces each color in the image with the color in the new picture's palette that matches the brightness (not the hue) of the original color most closely, regardless of its position in the palette.

To use **Paste Adj. Colors**:

• Use **Copy Image** to copy the image you want to add to the picture you're working on.

- When you're ready to transfer the image from the Clipboard to the picture, choose **Paste Adj. Colors** (instead of **Paste**) from the **Edit** menu, or hold down *command* and type *J*.

The image appears in the drawing area with its colors matched to the palette you're currently using.

Copy Image

Use **Copy Image** to make a copy of an image in a picture you've saved and paste the image in the picture you're currently working on.

To use **Copy Image:**

- Choose **Copy Image** from the **Edit** menu, or hold down *command* and type *I*.

The Open dialog box appears.

- Select the picture you want to copy an image from.

The picture you've saved appears in a window that covers the drawing area.

- Select the image you want to copy to the Clipboard.

- Click the **Copy** button.

- When the drawing area reappears, use **Paste** (or **Paste Adj. Colors**) to add the image to the picture you're working on.

The buttons in the box give you these choices:

  Cancel. Click **Cancel** to return to the drawing area without copying an image from the picture in the window.

  Open. Click **Open** to display the Open dialog box so you can choose a different picture.

  Copy. Click **Copy** to copy the image you've selected to the Clipboard.

Clear

Use **Clear** to erase from the drawing area an area or image you've selected.

To use **Clear**:

• Use the marker box or lasso to mark the area you want to erase.

• Choose **Clear** from the **Edit** menu, or press *delete.*

The area you've selected is erased.

Round Corners

Use **Round Corners** to adjust the corners of a rounded rectangle.

To use **Round Corners**:

• Select the rectangle you want to give rounded corners.

• Choose **Round Corners** from the **Edit** menu, or hold down *command* and type *D*.

A dialog box appears.

• Select both a vertical and a horizontal setting.

The settings under **Vertical** let you choose how far below the top edge of the rectangle and how far above the bottom edge you want roundness to start. The settings under **Horizontal** let you choose how far in from the left or right edge you want roundness to start. In both cases, the farther from the edge, the rounder the corners are.

The buttons in the box give you these choices:

> **OK.** When you've selected the setting you want, click **OK** to have *Paintworks Gold* change the corners of the rectangle you selected.

> **Cancel.** Click **Cancel** to return to the drawing area without changing the rectangle you selected. Any settings you've changed are returned to the way they were originally.

Pattern

Use **Pattern** to change the patterns in the palette at the bottom of the screen. In most cases, the only way to create a pattern with color in it is by using the **Pattern** function.

To use **Pattern**:

• Select the pattern you want to edit from the palette.

• Choose **Pattern** from the **Edit** menu; or hold down *command* and press *Y*; or double-click the pattern you want to edit (if you double-click the pattern, you don't have to select it first).

The Edit Pattern dialog box appears.

The pointer works like this:

If you want to erase a pixel, select white from the palette in the Edit Pattern dialog box, then position the pointer on the pixel and click.

If you want to add color to a pattern, select the color from the palette in the Edit Pattern dialog box, then position the pointer and click. You can remove a pixel you've just added by clicking a second time.

You can also use the pointer to draw a line just as you do with the pencil in the drawing area.

• Click **Cancel** to keep the original pattern.

• Click **Fill** to fill the pattern window with the color that's selected.

• Click **OK** to replace the old pattern with the new one.

Any pattern you create will be saved with any picture you use it on.

Choose Font

Use **Choose Font** to change the font (or typeface), the font style, and the font size you're using. The preset font is **Shaston**, the font style is **Plain**, and the font size is **8**.

To change the font, font style, or font size:

• Select **Choose Font** from the **Edit** menu; or hold down *command* and type *T*; or double-click the text icon.

- To change the font, select the one you want from the list. The font that's currently selected is highlighted.

- To change the font style, select the name of the style you want. An **X** appears next to the style that's selected.

- To choose a font size, either select a size from the list or type a number in the space below **Other size.** Not all the fonts look good in all sizes. The sizes that are recommended appear in the size list. If you enter a font size below **Other size,** it has to be between 8 and 39.

- Click **OK** to return to the drawing area to add text in the new font, font style, or font size you've chosen.

- Click **Cancel** if you decide not to change the font, font style, or font size.

To add text to a picture:

- Select the text icon from the tool palette.

- Move the **I** to the place where you want the text to appear. Click the mouse button to place the cursor there. Start typing.

- If you've come to the end of a line and you want to continue typing on the next line, press *return*.

- If you want to change the font, style, or size but continue typing on the same line, press *enter*.

The text appears in the new font, style, and size.

To change text that's already on the screen:

- If you *haven't* pressed the mouse button or *enter* since you typed the text you want to change, select the font, style, or size you want to change to. The text you've typed will immediately change.

- If you *have* pressed the mouse button or *enter* since you typed the text you want to change, erase the text, select the font, style, or size you want to change to, and retype the text.

Note: If you're using an Apple II that has been upgraded to an Apple IIGS, there's no *enter* key on the keyboard.

Align Left

Use **Align Left** to put text on the screen in the standard way: when you type a character, it appears at the cursor's position, and the cursor moves one space to the right. If you change the alignment to middle or right, the text is re-aligned with the cursor's first position.

To use **Align Left:**

• Choose **Align Left** from the **Edit** menu, or hold down *command* and type *F*.

• Select the text icon.

• Move the **I** to the place on the picture where you want to add text. Click the mouse button to place the cursor there.

• Type the text you're adding.

Align Middle

Use **Align Middle** to center text as you type it. If you change the alignment to left or right, the text is re-aligned with the cursor's first position.

To use **Align Middle:**

• Choose **Align Middle** from the **Edit** menu, or hold down *command* and type *G*.

• Select the text icon.

• Move the **I** to the place on the picture where you want to add text. Make sure the cursor is in the *middle* of the space where you want text to appear. Click the mouse button to place the cursor there.

• Type the text you want to add.

Align Right

Use **Align Right** to add text to a picture, starting at the point where you want the text to end. If you change the alignment to middle or left, the text is re-aligned with the cursor's first position.

To use **Align Right**:

- Choose **Align Right** from the **Edit** menu, or hold down *command* and type *H*.

- Select-the text icon.

- Move the **I** to the place on the screen where you want to add text. Make sure the cursor is at the spot where you want the *last* letter of the text to appear. Click the mouse button to place the cursor there.

- Type the text you're adding.

Select

Select
Invert
Fill
Use as Brush
Flip Horiz.
Flip Vert.
Rotate
Perspective
Centered Perspective
Define Center
Resize
Bend
Distort
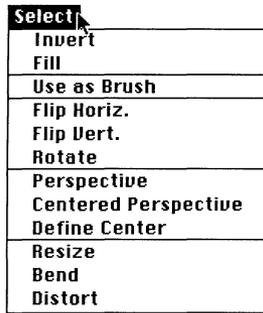
Invert

Use **Invert** to change the colors in an area you've selected to their palette complements. A color's palette complement is different from its true complementary color because it's determined entirely by a color's position in the palette. The complement of, say, the fourth color from the left end of the palette is the fourth color from the right end.
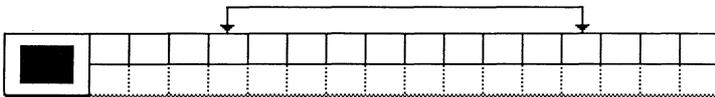
Note: A color has an inverse, but a pattern doesn't. If you use the **Invert** command on a pattern, the colors in the pattern change, not the pattern itself. The pattern will look different only because the colors are different. For example, the inverse of a black and white pattern looks like the original pattern's negative.

To use **Invert:**

• Use the marker box or the lasso to select an area.

• Choose **Invert** from the **Select** menu, or hold down *option* and type *I*.

Fill

Use **Fill** to fill an area you've selected with a color or pattern.

To use **Fill:**

• Select the area you want to fill.

• Select the color or pattern you want to fill the area with.

• Choose **Fill** from the **Select** menu, or hold down *option* and type *F*.

The area is immediately filled with the color you selected.

Use as Brush

Use as Brush lets you select an area of the picture and use the pattern it contains as a paintbrush.

To use **Use as Brush:**

• Select the area of the picture you want to use as a brush pattern.

• Choose **Use as Brush** from the **Select** menu, or hold down *option* and type *B*.

The area you've selected becomes the cursor.

• Paint as you would with any paintbrush shape.

Flip Horiz.

Use **Flip Horiz.** to change a selected area to its mirror image. After the area has been flipped, it's reoriented, but not repositioned, in relation to the rest of the picture.
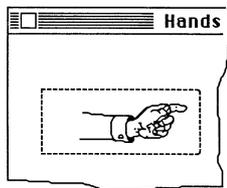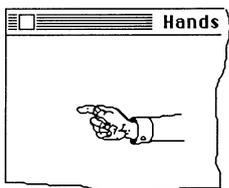
To use **Flip Horiz.:**

• Use the marker box or the lasso to mark the area you want to flip.

• Choose **Flip Horiz.** from the **Select** menu, or hold down *option* and type *H*.

Flip Vert.

Use **Flip Vert.** to flip an image over from top to bottom.
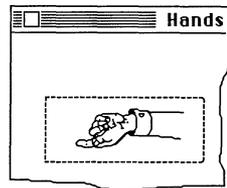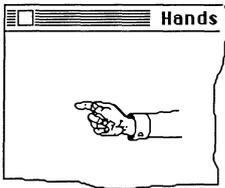
Everything that's on the right stays on the right; everything that's on the left stays on the left. The image is reoriented, but not repositioned, in relation to the rest of the picture.

To use **Flip Vert.:**

• Use the marker box or the lasso to mark the area you want to flip.

• Choose **Flip Vert.** from the **Select** menu, or hold down *option* and type *V.*

Note: Flipping an image vertically isn't the same as rotating it twice. See "Rotate," following.

Rotate

Use **Rotate** to rotate a selected image around its center point.

To use **Rotate:**

• Select the image you want to rotate.

• Choose **Rotate** from the **Select** menu, or hold down *option* and type *R*.

A handle appears at each of the four corners of the marker box.

- Point to any of the handles, hold down the mouse button, and drag the marker box until it's oriented the way you want the image to appear. The farther you move the pointer from the marker box, the finer your control over the rotation becomes.

- Release the mouse button.

The image is redrawn in the new orientation.

Perspective

Use **Perspective** to change the angle you're viewing an image from.

To use **Perspective**:

- Select the image you want to change.

- Choose **Perspective** from the **Select** menu, or hold down *option* and type *P*.

Four handles appear on the marker box that surrounds the image.

- If you want to make the right edge look nearer to you or farther away from you than the left edge, point to the right handle, hold down the mouse button, and drag the handle up or down, left or right until you have the image at the correct angle. If you want to move the left edge, the top, or the bottom, use the left, top or bottom handle (you can move only one at a time).

- When you have the image at the correct angle, release the mouse button.

The wristwatch appears, and after a few moments, the image is redrawn in perspective. Once you've changed an image, you can continue to change it, but only by adjusting the edge you've already moved or the edge parallel to it. For example, if you've moved the right edge, you can move only the right or left edges; if you've moved the top edge, you can move only the top or bottom edges.

- When you've finished changing the image, click anywhere outside the marker box.

Centered Perspective

Use **Centered Perspective** to change the angle you're viewing an image from. **Centered Perspective** and **Perspective** use the vanishing point differently. When you use **Perspective**, the vanishing point can be anywhere. When you use **Centered Perspective**, the vanishing point is fixed at some spot in the picture.

Centered Perspective uses the center of the drawing area as the center point unless you use **Define Center** to set a different one.

To use **Centered Perspective:**

- Select the image you want to view from a different angle.

- Use **Define Center** from the **Select** menu to mark the vanishing point if you don't want to use the center of the drawing area.

- Choose **Centered Perspective** from the **Select** menu, or hold down *option* and type *C*.

- Point to the image you've selected, hold down the mouse button, and drag the outline that appears until it's at the angle you want; then release the mouse button.

The image is redrawn in the new position.

Define Center

Use **Define Center** to set the center for the **Centered Perspective** option.

To use **Define Center:**

- Select **Define Center** from the **Select** menu, or hold down *option* and type *O*.

- Move the cross hairs to the place in the drawing area that you want to use as the center point, and click the mouse button.

Resize

Use **Resize** to change the size of an image.

To use **Resize:**

- Select the image you want to resize.

- Select **Resize** from the **Select** menu, or hold down *option* and type *S*.

Handles appear at the four corners of the marker box.

- Point to a handle, hold down the mouse button, and drag the handle.

A second box appears that lets you see how you're changing the size of the image.

- Drag the handle until the box is the size you want the image to be, then release the mouse button.

The image is immediately redrawn. You can continue to resize the image.

• When you've finished resizing the image, click anywhere outside the marker box.

Bend

Use **Bend** to change the shape of an image by changing the position of one of its sides. For example, you can change the shape of a square like this:
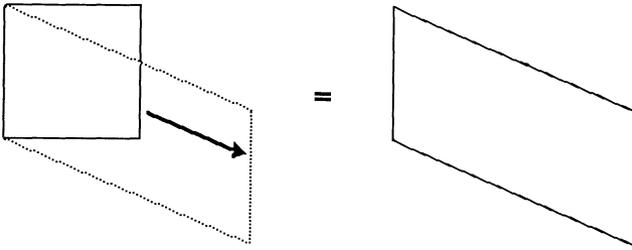
To use **Bend:**

• Select the image you want to change.

• Select **Bend** from the **Select** menu, or hold down *option* and type *W.*

Handles appear on the four sides of the marker box.

• Point to a handle, hold down the mouse button, and drag the side attached to the handle to a different position.

A second box appears that lets you see how you're changing the shape of the image.

• When you've repositioned the side of the image, release the mouse button.

The image is redrawn. Once you've changed an image, you can continue to change it, but only by adjusting the side you've already moved or the side parallel to it. For example, if you've moved the right side, you can move only the right or left side; if you've moved the top side, you can move only the top or bottom side.

• When you've finished reshaping the image, click anywhere outside the marker box.

Distort

Use **Distort** to change the shape of an image by changing the position of its corners. For example, you can change the shape of a square like this:
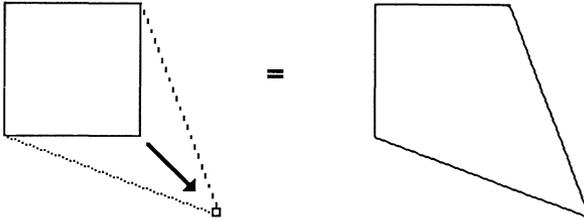
To use **Distort:**

• Select the image you want to change.

• Choose **Distort** from the **Select** menu, or hold down *option* and type *D*.

Handles appear at the four corners of the marker box.

• Point to a handle, hold down the mouse button, and drag the corner attached to the handle to a new position.

A second box appears to let you see how you're changing the shape of the image.

• When you have the corner repositioned, release the mouse button.

The image is redrawn. You can continue changing the image.

• When you've finished reshaping the image, click anywhere outside the marker box.

Goodies

Goodies	
Hide Menu Bar	⌘M
Hide Fat Window	⌘W
Hide Tools	
Show Coordinates	
Set Origin	
Use As...	
Turn Grid On	
Show Page...	
Brush Mirrors...	
Show Page 2	⌘B
Copy 1 -> 2	
Use Page 2 for Doc.	
Show Page 2 Behind	

Hide/Show Menu Bar

Use **Hide Menu Bar** to remove the menu bar from the easel so that you can work on the part of the picture it covers.

To use **Hide Menu Bar:**

• Choose **Hide Menu** from the **Goodies** menu; or hold down *command* and press *M;* or press the spacebar.

The menu bar disappears (if you've pressed the spacebar, the tool window and the color/pattern window disappear too).

• To display the menu bar again, hold down *command* and press *M,* or press the spacebar again.

Hide/Show Fat Window

Use **Hide Fat Window** to remove the FatBits window from the easel so that you can work on the part of the picture it covers. Use **Show Fat Window** to display the FatBits window again.

To use **Hide Fat Window:**

• Choose **Hide Fat Window** from the **Goodies** menu, or hold down *command* and press *W.*

The FatBits window disappears. The menu item changes to **Show Fat Window.**

• To display the FatBits window again, choose **Show Fat Window** from the **Goodies** menu, or hold down *command* and press *W.*

Hide/Show Tools

Use **Hide Tools** to remove the tool and color/pattern palettes from the easel so that you can work on the part of the picture they cover. Use **Show Tools** to return the palettes to the easel.

To use **Hide Tools:**

• Choose **Hide Tools** from the **Goodies** menu, or press the spacebar.

The tool and color/pattern palettes disappear (if you've pressed the spacebar, the menu bar also disappears).

• To display the tool and color/pattern palettes again, choose **Show Tools** from the **Goodies** menu, or press the spacebar.

Show/Hide Coordinates

Use **Show Coordinates** to show the coordinates of the pointer in pixels, measured from the origin. The origin (whose coordinates are 0,0) is in the upper-left corner of the drawing area unless you set the origin elsewhere using the **Set Origin** command.

Number of Pixels Below Origin   Number of Pixels Right of Origin

$$\boxed{\begin{array}{c} \downarrow + \ 75 \quad \rightarrow +175 \\ \updownarrow \qquad \leftrightarrow \end{array}}$$

Length of Object   Width of Object
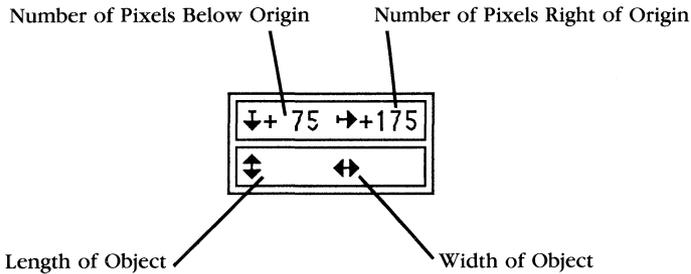
If you draw or select an image, the lower half of the Coordinates window shows its dimensions in pixels (a dimension is also known as a *delta*).

You can move the Coordinates window anywhere you want on the drawing area.

To use **Show Coordinates:**

• Select **Show Coordinates** from the **Goodies** menu, or hold down *option* and type *[*.

The Coordinates window appears. The selection on the **Goodies** menu changes to **Hide Coordinates**.

The coordinates in the window change as you move the pointer. A plus sign in front of a coordinate in the Coordinates window means that it's below or to the right of the origin; a minus sign means the coordinate is above or to the left of the origin. In the lower half of the Coordinates window, a plus sign means a dimension is below or to the right of the point where you started drawing the image or the marker box from; a minus sign means the dimension is above or to the left of the point where you started.

To move the Coordinates window:

• Point to it, and hold down the mouse button.

A dotted outline of the window appears.

- Drag the dotted outline to the place where you want the window to be, and release the mouse button.

The window is redrawn in the new location.

To remove the Coordinates window from the drawing area:

- Choose **Hide Coordinates** from the **Goodies** menu.

Set Origin

Use **Set Origin** to mark the point on the picture that you want to have the coordinates 0,0.

To use **Set Origin:**

- Select **Show Coordinates** from the **Goodies** menu if you haven't already done so.

- Select **Set Origin** from the **Goodies** menu, or hold down *option* and type *T.*

A pair of cross hairs appear.

- Move the cross hairs to the point you want to mark as the origin, and click the mouse button.

The coordinates in the Coordinates window immediately changes to 0,0. The origin is part of the picture, not the drawing area. If you move the picture around in the window, the origin moves with the picture.

Use As

Use **Use As** to use the dimensions of an image or the marker box as the dimensions of the grid or of the area the spray tool covers, or as the square ratio.

To use **Use As:**

- Choose **Show Coordinates** from the **Goodies** menu if you haven't already done so.

- If the dimensions in the lower half of the Coordinates window aren't the ones you want to use, select an area or image that has the correct dimensions.

- Choose **Use As** from the **Goodies** menu, or hold down *option* and type *U.* A dialog box appears.

Delta V and **Delta H** are the same dimensions that appear in the Coordinates window. You can use the dimensions for any or all of the following:

Grid. Use the dimensions for the distance between the lines that make up the grid. For example, if Delta V is 15 and Delta H is 20, the horizontal lines of the grid (the lines that go from side to side) will be 15 pixels apart, and the vertical lines (the lines that go from top to bottom) will be 20 pixels apart.

Square Ratio. Use the dimensions for the square ratio. You may find that when you hold down *shift* to draw a square with the rectangle tool that the object you've drawn doesn't look like a square on your screen or when you've printed it. **Use As** lets you adjust the ratio of the horizontal and vertical dimensions of any square you draw with the rectangle tool so that each one appears to be square either on the screen or when you print it. Adjusting the square ratio so that squares look like squares also makes circles look like circles instead of ovals.

• To adjust the square ratio so that a square looks like a square on the screen, first draw what looks to you like a square, then follow the steps above.

• To adjust the square ratio so that a square looks like a square when you print it, experiment drawing rectangles until you find one that looks like a square when you print it, then follow the steps above.

Spray Size. Use the dimensions for the size of the area the spray can covers from a single point. For **Spray Size,** both dimensions are limited to 32 pixels.

The buttons in the box give you these choices:

Temp. Click **Temp.** if you want to use the current dimensions only until you change the dimensions or quit *Paintworks Gold*

Cancel. Click **Cancel** to return to the drawing area without using the dimensions.

Save. Click **Save** to save the dimensions as the settings *Paintworks Gold* uses for the grid, square ratio, or spray size from now on.

Turn Grid On/Off

Use **Turn Grid On/Off** to activate an invisible grid over the page. You can use the **Use As** option to adjust the space between the lines that make up the grid.

The grid helps you draw and align certain objects. When you draw with the grid on, you'll notice that lines and figures snap into position along the grid. The grid acts as a guide that lets you position points only where the lines of the grid intersect, and it lets you align the marker box and the shapes only with the lines of the grid. The grid affects the positioning and movement of the marker box, text, the line, rectangles, ovals, and polygons. It doesn't affect the lasso, the paint bucket, the spray can, the paintbrush, the pencil, or free-form shapes.

Examples:
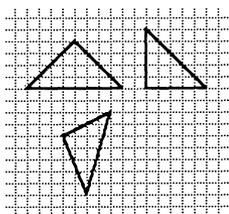
The sides of a triangle don't have to follow the lines of the grid, but the triangle's points can only be at points where the lines of the grid intersect.
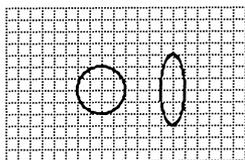
Neither the circumference of a circle nor the perimeter of an oval will follow the grid, but the sides of a rectangle touching the top, bottom, left, and right edges of a circle or oval can lie only along the lines of the grid.
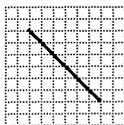
A line drawn with the line tool does not have to lie along the lines of the grid, but its beginning and end points can be only at intersections of the lines of the grid.

To use **Turn Grid On:**

• Choose **Turn Grid On** from the **Goodies** menu, or hold down *option* and type *G*.

The appearance of the drawing area doesn't change, but the grid is now active. The menu item changes to **Turn Grid Off.**

• To remove the grid, choose **Turn Grid Off** from the menu again, or hold down *option* and type *G*.

Show Page

Use **Show Page** to see the entire page your picture is on instead of just the part in the drawing area.

To use **Show Page:**

- Choose **Show Page** from the **Goodies** menu, or double-click the hand icon, or hold down *option* and type *A*.

The rectangle on the page shows the part of the picture that's in the drawing area.

- To display a different part of the picture in the drawing area, move the rectangle: point to it, hold down the mouse button, and drag it so that it frames the part of the picture you want to appear in the drawing area.

- To move an image to a different part of the page, point outside the rectangle, hold down the mouse button, and move the image until it's positioned where you want it to be.

The buttons give you these choices:

- Click **OK** when you've moved the rectangle and the image where you want them to be. The drawing area reappears.

- Click **Cancel** instead of **OK** if you change your mind about repositioning the drawing area.

Brush Mirrors

Use **Brush Mirrors** to paint two, four, or eight symmetrical brush strokes with a single movement of the paintbrush. Each of the brush strokes is a mirror image of the one you make with the paintbrush. You can set up a brush mirror in any or all of four places:

Down the middle of the drawing area (from top to bottom). Whatever you draw on the left side of the drawing area is mirrored on the right side, and vice versa.

Across the middle of the drawing area (from left to right). Whatever you draw in the lower half of the drawing area is mirrored in the upper half; whatever you draw in the upper half is mirrored in the lower half.
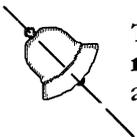
Through the drawing area from upper left to lower right. Whatever you draw in the lower left half of the drawing area is mirrored in the upper right half, and vice versa.

Paintworks *gold*
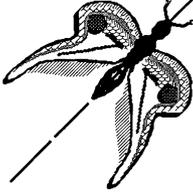
Through the drawing area from lower left to upper right. Whatever you draw in the upper left half of the drawing area is mirrored in the lower right half, and vice versa.

When you use diagonal mirrors, sometimes the mirror image of what you're drawing will fall outside the drawing area. If that happens, the mirror image won't be drawn.

A mirror is part of the drawing area, not part of the picture. If you move the picture in the drawing area, the mirror doesn't move with it.

To use **Brush Mirrors:**

• Choose **Brush Mirrors** from the **Goodies** menu, or hold down *option* and type *M*. The Brush Mirrors dialog box appears.

• Click the lines that match the places where you want mirrors set. If you want to set all the mirrors, click the center, where all the lines cross.

• Click **OK.**

• Select the paintbrush and start drawing.

• To remove a mirror, choose **Brush Mirrors** from the menu again and click the line that matches it. To remove all the mirrors, click **None.**

Note: You'll find that the more mirrors you've selected, the slower you have to draw to get good results.

Show Page 1/2

Use **Show Page 1/2** to switch between two separate, full-size drawing areas.

To use **Show Page 1/2:**

• Choose **Show Page 1/2** from the **Goodies** menu, or hold down *command* and press *B.*

The other drawing area appears. If you've chosen **Show Page 2**, the menu item changes to **Show Page 1;** if you've chosen **Show Page 1**, the menu item changes to **Show Page 2.**

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Copy 1 ⟶ 2/Copy 2 ⟶ 1

• Choose **Copy 1⟶2/Copy 2 ⟶1** to copy the picture in the drawing area that's visible to the other drawing area.

To use **Copy 1⟶2/Copy 2⟶1:**

• Choose **Copy 1 ⟶2/Copy 2⟶1** from the **Goodies** menu, or hold down *option* and type *J*.

The picture is copied to the other drawing area. If you've chosen **Copy 1⟶2**, the menu item changes to **Copy 2 ⟶1**; if you've chosen **Copy 2 ⟶1**, the menu item changes to **Copy 1⟶ 2.**

Use Page 2 for Doc./Draft

Use **Use Page 2 for Doc.** if you want pages 1 and 2 to be separate pictures with separate palettes. Use **Use Page 2 for Draft** if you want pages 1 and 2 to share the same palette. In either case, the two pages are separate documents, and you have to save them separately.

To use **Use Page 2 for Doc.:**

• Choose **Show Page 1** from the **Goodies** menu if page 1 isn't visible.

• Choose **Use Page 2 for Doc.**, or hold down *option* and type *K*.

Pages 1 and 2 are uncoupled. You can make changes to the palette on either page without affecting the palette on the other.

To use **Use Page 2 for Draft:**

• Choose **Show Page 1** from the **Goodies** menu if page 1 isn't visible.

• Choose **Use Page 2 for Draft**, or hold down *option* and type *K*.

Pages 1 and 2 are coupled. Any changes you make to the palette on one page affects the palette on the other.

Show Page 2 Behind

Use **Show Page 2 Behind** to superimpose the picture on page 1 on top of the picture on page 2. Once you select **Show Page 2 Behind,** you can't make any changes to page 2.

To use **Show Page 2 Behind:**

• Select **Show Page 2 Behind** from the **Goodies** menu, or hold down *option* and type **L**.

The picture on page 1 appears superimposed on the picture on page 2. A check mark appears next to **Show Page 2 Behind** on the menu.

Color

Color
Mask Colors...
Mask Selection
Invert Mask
Flash Mask
Slippy Colors...
Transparent Colors...
Edit Color...
Color Table...
Color Sets...
Gradient Palette...
Preferred Colors...
Sort Palette...
Dispose Color
Exchange Color
Get Palette...

Mask Colors

Use **Mask Colors** to select colors you've used in a picture so you can't paint or draw over them, or change the areas where they already appear. For example, if you draw a gray square, choose gray as a masked color, then try to paint or draw over it, the result looks like this:
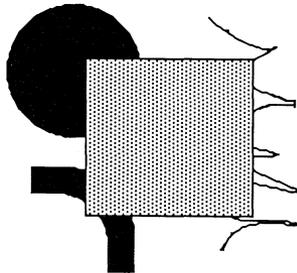
The gray square appears to be in front of the other images. If you draw another gray square, however, it *isn't* masked until you use **Mask Colors** again.

To use **Mask Colors:**

- Choose **Mask Colors** from the **Color** menu, or hold down *option* and type *M*. (Remember, only areas of color that are already part of a picture can be masked.)

A dialog box appears.

- Point to the colors you want to mask, and click the mouse button.

A rectangle appears around each color you select to show that it's selected.

These are the settings you can choose:

New. Masks areas painted with the colors you've selected. If you've masked areas with colors you haven't selected this time, the mask is removed from them.

Add. Masks areas painted in the colors you've selected. If you've already masked areas with colors you haven't selected this time, they remain masked.

Subtract. Removes the mask from areas painted in the colors you've selected. If you've already masked areas with colors you haven't selected this time, they remain masked.

None. Deactivates the masked colors, but keeps them selected so you can reactivate them with **As Is.**

As Is. Reactivates the masked colors.

The buttons in the box give you these choices:

Empty Set. Click **Empty Set** to remove the mask from all of the colors currently masked.

Full Set. Click **Full Set** to mask all the colors.

Cancel. Click **Cancel** to return to the easel without making any changes to the masked colors.

**OK.** Click **OK** to accept the changes you've made and return to the easel.

1131
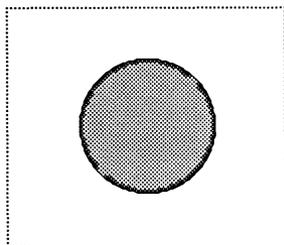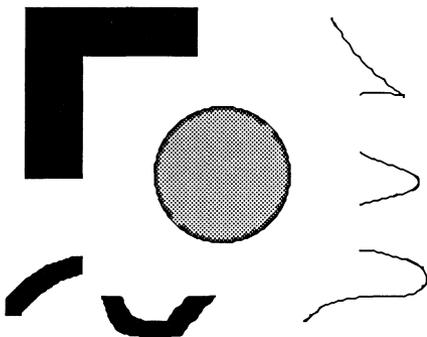
To use **Invert Mask:**

• Choose **Invert Mask** from the **Color** menu, or hold down *control* and type *I*.

The masked and unmasked parts of the picture are immediately reversed.

Flash Mask

Use **Flash Mask** to see which parts of a picture are masked. When you choose **Flash Mask**, the color in a masked area alternates between the actual color you've used and its complement.

To use **Flash Mask:**

• Choose **Flash Mask** from the **Color** menu, or hold down *control* and type *F*.

All the masked parts of the picture begin to flash.

• To stop the flashing, click the mouse button.

Slippy Colors

Use **Slippy Colors** to select colors you want the lasso to slip over when you use it to select an image. For example, suppose you've drawn a black circle on a gray square, like the one below, then selected gray as a slippy color.
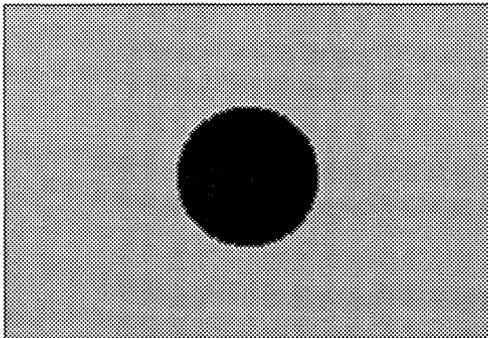
Then you draw a lasso around the circle, like this:
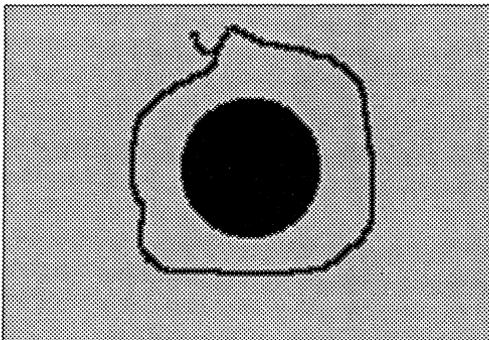
The lasso slips over the gray square and selects only the circle.

To use **Slippy Colors:**

• Choose **Slippy Colors** from the **Color** menu, or hold down *control* and type *Y*. A dialog box appears.

• Point to each color you want the lasso to slip over and click the mouse button.

The buttons in the box give you these choices:

Empty Set. Click **Empty Set** to turn the colors you've made slippy back to normal.

Full Set. Click **Full Set** to make all the colors slippy.

Cancel. Click **Cancel** to return to the easel without making any changes to the colors.

OK. Click **OK** to accept the changes you've made and return to the easel.

Transparent Colors

Use **Transparent Colors** to select certain colors in a pattern as transparent. When you place a pattern containing a transparent color over another image, the image shows through the transparent color.

For example, suppose you make gray a transparent color, then create a black and gray pattern. The pattern looks black and gray when you use it

normally. But if you press ***command*** to activate gray when you're draw-
ing with the pattern, whatever is behind the pattern shows through
wherever the pattern is gray.

To use **Transparent Colors:**

- Choose **Transparent Colors** from the **Color** menu, or hold down
  control and type *T.* A dialog box appears.

- Point to each color you want to be transparent and click the mouse
  button.

- To activate a color that you've selected as transparent, hold down
  command whenever you use a pattern containing the color.

The buttons in the box give you these choices:

Empty Set. Click **Empty Set** to turn the colors you've made trans-
parent back to normal.

Slippy. Click **Slippy** to make all the slippy colors transparent.

Cancel. Click **Cancel** to return to the easel without making any
changes to the colors.

OK. Click **OK** to accept the changes you've made and return to the
easel.

Edit Color

Use **Edit Color** to change the colors in the palette. The color palette con-
tains 16 colors. If you want to use colors different from the ones currently
in the palette, you can choose others from the 4096 colors that *Paint-
works Gold* can produce.

To use **Edit Color:**

- Select the color you want to change from the palette.

- Choose **Edit Color** from the **Color** menu, or hold down ***control*** and
  type *E*, or double-click the color you want to change (you don't have to
  select the color first if you double-click it).

The Color Palette dialog box appears.
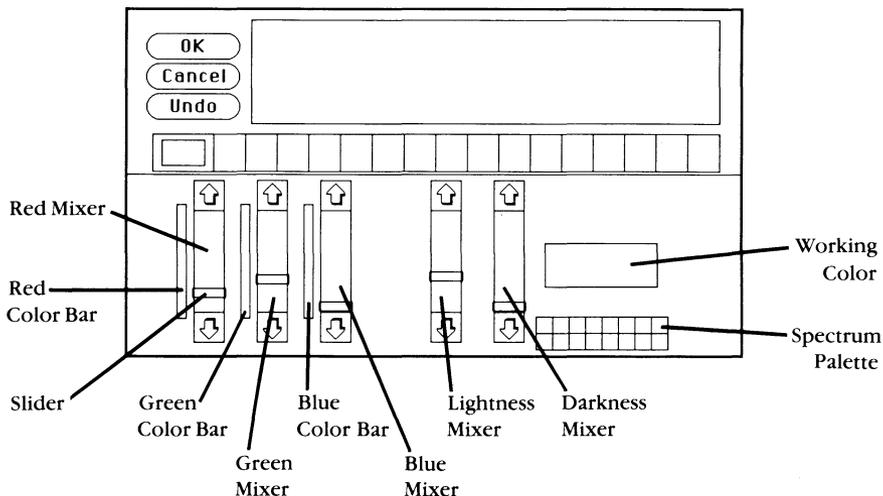
The five vertical bars of color in the lower half of the screen are the color mixers.

The three on the left each control one of the primary colors. The one on the left is for red, the one in the middle is for green, and the one on the right for blue. Next to each of them is a color bar that shows the range of the intensities available, from the brightest to black. Don't confuse the brightness of a color with lightness. The brightest red is the reddest, most intense red. The lightest red is a little red mixed with a lot of white—in other words, a pale pink.

The two mixers on the right side of the dialog box control the shade—the lightness or darkness—of a color. The mixer on the left makes the color lighter, the one on the right makes it darker.

The working color reflects the positions of the sliders on the mixers. Every change in the position of the sliders produces a different working color.

You can move the sliders up and down to change the amount of red, green, and blue in the working color to lighten or darken it.

The spectrum palette in the lower right corner displays the basic spectrum of colors: the primary, secondary, and neutral colors (brown, gray, white, and black).

The palette that divides the screen in half is a copy of the one on the easel.

Choosing a Color

To scan the colors available, first position the pointer on the color in the spectrum palette that's closest to the color you want (for example, if you want khaki, position the pointer on brown). Hold down the mouse button. A dotted outline appears around the color. Drag the dotted outline to the working color box and release the mouse button. The color in the box changes to the color you've selected from the spectrum palette, and the sliders on the mixers take their positions for that color.

Each of the mixers shows 16 variations on the color you've selected. For example, the green mixer shows 16 variations with more or less green mixed in. The lightness and darkness mixers show variations with more or less white mixed in.

If you don't see the color you want, position the pointer on the variation closest to it, and drag the variation to the working-color box. When you release the mouse button, a different set of variations appears.

When you've found the color you want, position the pointer on it and hold down the mouse button. Drag the dotted outline to the palette across the middle of the screen and replace one of the colors there with the new color. Everywhere you used the old color in the picture, it will be replaced by the new color. If you don't want any of the colors you used in the picture to be replaced, replace a color you haven't used in the picture.

To see what a color looks like on your picture, move the pointer to the window in the upper half of the screen. The pointer turns into a paintbrush, and you can draw on the picture there with perfect safety—whatever you draw will be automatically undone when you return to the drawing area.

If you don't like the color, click **Undo** to change it back to the color you started with.

There are two changes to be wary of: changing the colors at the two ends of the palette—the colors preset to black and white. If you replace white with another color, that color instantly replaces white as the background

color of the easel. Don't replace white with black or the screen will become unreadable. Something similar will happen if you replace black with another color: that color will instantly replace black as the text and outline color of the easel. Don't replace black with white. If you happen to replace either color with a color that makes the screen unreadable, press the *esc* key to undo the change.

When you've made all the changes to the palette you want to make, click **OK** to go back to the drawing area.

The new palette will be saved when you save the picture you're working on. You can also save the palette separately in the **Color Table** (see "Color Table," below, for instructions).

To return to the drawing area without keeping any of the changes you've made, click **Cancel.**

Mixing a Color

To mix a color, move the sliders on the red, green, and blue mixers up and down.

Mixing colors is mostly a matter of experimenting until you get the mix you want, but it may help you to understand how the process works.

When you mix colors using *Paintworks Gold,* you're actually mixing light of different colors. Mixing light is different from mixing paint. The major difference is that if you mix all the colors of paint together, the result is black; when you mix all the colors of light together, the result is white.

As the color chart below shows, the three primary colors of light are red, green, and blue. Mixing red and blue produces magenta, mixing blue and green produces cyan, and mixing green and red produces yellow. Mixing all three together produces white.

To mix a color, move the sliders on the three color mixers up or down. You can move the sliders either by clicking the arrows or by dragging the slider with the pointer.

The mixers work like dimmers: If you move the slider to the bottom, you turn the color up as far as it can go; if you move the slider to the top, you turn the color off.

Examples:

To get white, turn up all of the hue mixers to their highest level. "White" light is made up of all the colors of the spectrum—all of which can be derived from the three primary colors, red, green, and blue.

To get yellow, turn up the red and green mixers all the way, and turn the blue mixer off.

To get green, turn the green mixer all the way up, and turn the red and blue mixers off.

To get black, turn all the mixers off. Black means there's no light.

You can also mix color with black and white patterns and create new patterns using any (or all) of the 16 colors in the palette.

Color Table

Use **Color Table** to save up to 128 palettes.

To save a palette:

• Make any changes to the screen using the **Edit Color** command.

• Choose **Color Table** from the **Color** menu, or hold down *control* and type *B*.
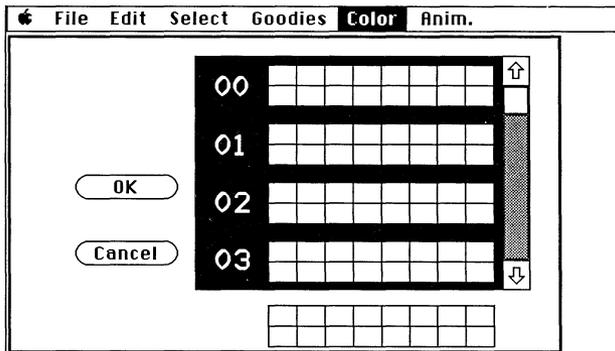
When the Color Table dialog box appears, the palette you've been using is displayed at the bottom of the screen.

- Scroll through the palette bank to find either a blank space or a palette you don't want anymore. Use palette number **00** if you want the palette you're saving to be the one that appears on the easel whenever you start *Paintworks Gold*.

- Drag the palette at the bottom of the screen to the space where you want to store it.

- Click **OK** to save the palette and return to the drawing area.

- Click **Cancel** if you decide not to save the palette.

To get a palette from the Color Table:

- Choose **Color Table** from the **Color** menu, or hold down *control* and type *B*.

- Scroll through the palette table until you find the palette you want.

- Drag it to the palette at the bottom of the screen.

- Click **OK** to return to the drawing area with the new palette.

- Click **Cancel** if you decide not to get a palette.

Color Sets

Use **Color Sets** to create up to four sets of colors you can use for color cycling and as gradient fill colors.

To use **Color Sets:**

- Choose **Color Sets** from the **Color** menu, or hold down *control* and type *C*.

This dialog box appears:

Horizontal   Vertical   Horizontal   Vertical
Circle Blending   Circle Blending   Rectangle Blending Rectangle Blending

Color Set
Palette.
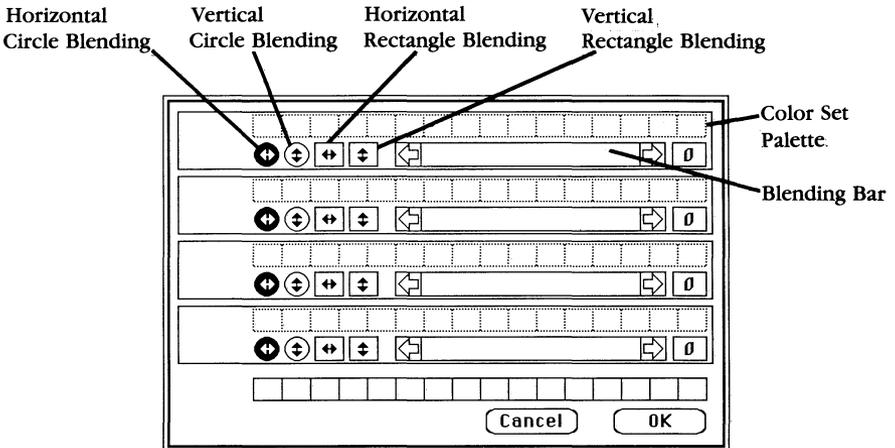
Blending Bar

To create a color set:

• Drag a color from the palette at the bottom to one of the color set palettes.

The color appears in the leftmost cell of the palette; it also appears both in the space at the left end of the color set box and in the blending bar. You can have as many as 16 colors in a single color set.

The colors you drag to the palette fill the cells from left to right. The order the colors appear in is important in both color cycling and gradient fill colors. The colors in the palette cycle in the order they appear in, and they're blended in the order they appear in.

• To change the order the colors appear in, drag a color to the cell you want it to appear to the left of, then release the mouse button.

Paintworks Gold automatically rearranges the colors.

• To drag several colors to the color set palette at the same time, hold down *shift,* select the colors, drag any one of them to the color set palette, then release the mouse button.

All the colors you selected appear in the color set palette.

• To remove a color from a color set palette, drag it anywhere outside the palette.

The color disappears from the palette.

To create a gradient fill color:

• Select the colors you want in the gradient fill and drag them to a color set palette.

• Click the icon that represents the kind of blending you want:

Horizontal Circle Blending
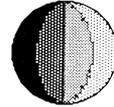
Vertical Circle Blending
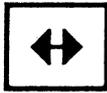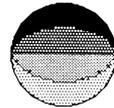
Horizontal Rectangle Blending
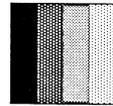
Vertical Rectangle Blending

• Select the amount of blending you want by clicking the arrows at either end of the blending bar. The right arrow increases blending, the left arrow decreases it.

The amount of blending is displayed in both the image at the left end of the color set box and in the blending bar. The number to the right of the blending bar shows the amount of blending you've selected: zero stands for no blending, 15 for the most blending possible.

The buttons in the box give you these choices:

Cancel. Click **Cancel** to return to the easel without keeping any of the changes you've made in the Color Sets dialog box.

OK. Click **OK** to record the changes you've made and return to the easel.

Gradient Palette

Use **Gradient Palette** to create a palette of 196 gradations of color from any four colors you select. You can then transfer any of those gradations to the palette you're working with.

To use **Gradient Palette:**

- Select **Gradient Palette** from the **Color** menu, or hold down *control* and type *G*.

This dialog box appears:

Standard Palette

Brightness Bar
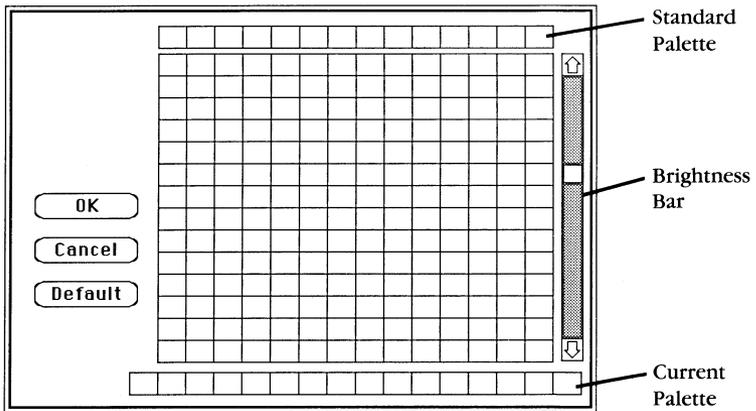
Current Palette

- Drag colors from either the standard palette or the palette you're currently working with to any of the four corner cells in the gradient palette.

The palette is immediately adjusted to provide gradations between the colors in the four corner cells.

- To make the gradations lighter or darker without changing the color value, drag the box in the brightness bar up or down.

- To add any color in the gradient palette to the palette you're working with, point to it, drag it to the palette at the bottom of the box, and replace one of the colors there with it.

The old color will be changed to the new color everywhere it appeared in the current picture. If you don't want any of the colors you've used in the picture to be changed, replace a color you haven't used in the picture.

The buttons in the box give you these choices:

OK. Click **OK** to accept the changes you've made to both the gradient palette and the palette you're working with and return to the easel. The changes are saved on the program disk.

Cancel. Click **Cancel** to return to the easel without keeping any of the changes you made to either the gradient palette or the palette you're working with.

Default. Click **Default** to change the gradient palette to its standard setting (green is in the upper left corner, blue in the upper right corner, red in the lower left corner, and white in the lower right corner).

Preferred Colors

Use **Preferred Colors** to save up to 196 colors that you use often. Using **Preferred Colors** is more efficient for saving individual colors than **Color Table** is because you don't have to scroll through entire palettes looking for the color you want; **Preferred Colors** displays all 196 colors at once.

To use **Preferred Colors:**

• Choose **Preferred Colors** from the **Color** menu, or hold down *control* and type *P*.

This dialog box appears:
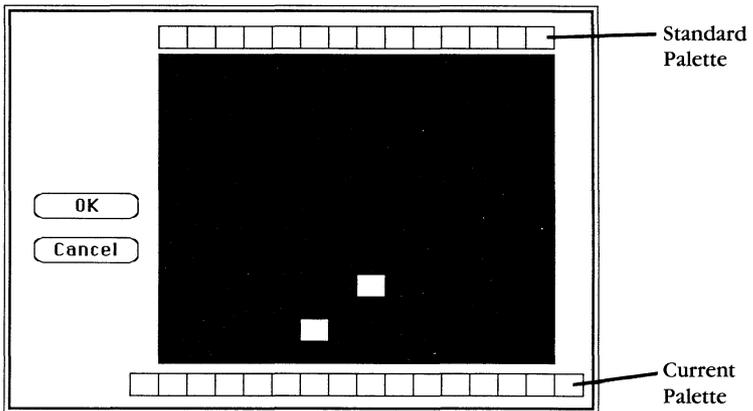
- To add a color to the preferred colors palette, drag it from either the standard palette or the palette you're currently using, and place it anywhere on the preferred colors palette.

- To transfer a color from the preferred colors palette to the palette you're working with, drag it to the palette at the bottom of the box, and replace one of the colors there with it.

The old color will be changed to the new color everywhere it appeared in the current picture. If you don't want any of the colors you've used in the picture to be changed, replace a color you haven't used in the picture.

The buttons in the box give you these choices:

OK. Click **OK** to accept the changes you've made to both the preferred colors palette and the palette you're working with and return to the easel. The changes are saved on the program disk.

Cancel. Click **Cancel** to return to the easel without keeping any of the changes you made to either the preferred colors palette or the palette you're working with.

Sort Palette

Use **Sort Palette** to automatically arrange the colors in the palette from darkest to lightest. You can also make changes to the order of the colors by hand.

To use **Sort Palette:**

- Choose **Sort Palette** from the **Color** menu, or hold down *control* and type *A*. A dialog box appears.

- To change the position of any of the colors in the palette, point to it, drag it to the cell where you want it to appear, and release the mouse button.

The colors are automatically rearranged.

The buttons in the box give you these choices:

Sort. Click **Sort** to arrange the colors in the palette from the darkest to the lightest.

Cancel. Click **Cancel** to return to the easel without making any changes to the palette.

OK. Click **OK** to accept the changes you've made to the palette and return to the easel.

Dispose Color

Use **Dispose Color** to erase the color that's currently selected either in a selected area or anywhere it appears in the picture. The color is erased by replacing it with the background color.

To use **Dispose Color:**

• Select the color you want to erase.

• If you don't want the color to be erased in the entire picture, select the area where you want it to be erased.

• Choose **Dispose Color** from the **Color** menu, or hold down *control* and type *D*.

A dialog box appears to warn you that *Paintworks Gold* can't restore the color once it has been erased.

The buttons in the box give you these choices:

OK. Click **OK** to erase the color.

Cancel. Click **Cancel** to return to the easel without erasing the color.

Exchange Color

Use **Exchange Color** to switch the color that's selected with the background color either in a selected area or anywhere it appears in the picture.

To use **Exchange Color:**

• Select the color you want to switch with the background color.

• If you don't want the two colors to be switched in the entire picture, select the area where you want them to be switched.

• Choose **Exchange Color** from the **Color** menu, or hold down *control* and type *X*.

A dialog box appears to warn you that *Paintworks Gold* can't restore the color once it has been switched with the background color.

The buttons in the box give you these choices:

OK. Click **OK** to switch the colors.

Cancel. Click **Cancel** to return to the easel without switching the colors.

Get Palette

Use **Get Palette** after you make a change from one mode to another to make the current mode's palette match the previous mode's palette as closely as possible. The 320 and 640 versions of the same palette never have the same colors because the two versions are produced in different ways.

Suppose, for example, that both pages 1 and 2 started with the standard palette and you changed page 1 to 640 mode and started working there. After you'd drawn for a while, you decided to change back to 320 mode, and doing so changed all the colors in the picture. You could remain in 320 mode but change back to the 640 mode's palette by choosing **Get 640 palette from page** 2 from the Get Palette dialog box.

To use **Get Palette:**

• Choose **Get Palette** from the **Color** menu, or hold down *control* and type *R*.

A dialog box appears.

These are the options you can choose from:

Get 320 palette from page 1. Use the 320 version of the palette that's on page 1 on page 2.

Get 320 palette from page 2. Use the 320 version of the palette that's on page 2 on page 1.

Get 640 palette from page 1. Use the 640 version of the palette that's on page 1 on page 2.

Get 640 palette from page 2. Use the 640 version of the palette that's on page 2 on page 1.

The buttons give you these choices:

Cancel. Click **Cancel** to return to the easel without getting a different palette.

OK. Click **OK** to get the palette you've selected.

Anim.

```
         Anim.
  Compress...
  Show...
  Cycle Timing
  Color Cycling
```

Compress

Use **Compress** to compress a series of pictures into a single file so they can be animated.

To use **Compress:**

• Create a series of pictures for your animated sequence; when you save them, give each of them the same name followed by a number that shows the picture's place in the series (for example, BALL10, BALL20, and so on).

• Save the pictures.

• Choose **Compress** from the **Anim.** menu, or hold down *control* and type *K*.

A dialog box appears, similar to the one that accompanies the **Open** command, asking you to select an image.

• Choose the picture that is first in the series.

• Click **Open.**

Paintworks Gold animates the series.

A dialog box appears, like the one that accompanies the **Save** command, letting you save the animated sequence.

• Click **Save.**

Show

Use **Show** to show the animation sequence you've created using the **Compress** command.

To use **Show:**

• Create an animation sequence using **Compress.**

- Choose **Show** from the **Anim.** menu, or hold down *control* and type *W*.

- From the dialog box that appears, choose the sequence you want.

- Click **Open.**

The animated sequence runs. When it gets to the end, it automatically repeats.

- To stop the animation, click the mouse button.

- To speed up the animation, hold down *command* and press the down arrow key.

- To slow down the animation, hold down *command* and press the up arrow key.

Cycle Timing

Use **Cycle Timing** to set the speed at which color cycling takes place.

To use **Cycle Timing:**

- Create at least one color set with the **Color Sets** option on the **Color** menu if you haven't already done so.

- Choose **Cycle Timing** from the **Anim.** menu, or hold down *control* and type *U*.

This dialog box appears:

Speed Bar   Direction icons
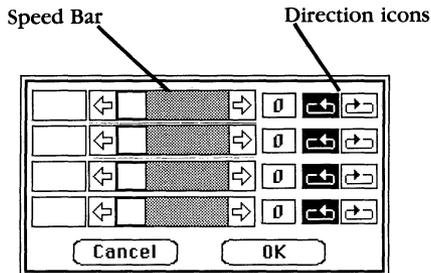
- To set the cycling speed, either move the box in the speed bar or click the arrows at either end of the bar.

The number to the right of the speed bar shows the speed. Zero stops the cycling; 1 is the fastest speed, 32 the slowest.

- To set the direction of the cycling, click a direction icon:

Counterclockwise   Clockwise

The buttons in the box give you these choices:

Cancel. Click **Cancel** to return to the easel without setting or changing a cycling speed.

OK. Click **OK** to accept the cycling speed you've set and return to the easel.

Color Cycling

Use **Color Cycling** to cycle through the colors in the color sets you've created.

To use **Color Cycling:**

- Create at least one color set with the **Color Sets** option on the **Color** menu if you haven't already done so.

- Set the timing of the color cycle with the **Cycle Timing** option on the **Anim.** menu if you haven't already done so.

- Choose **Color Cycling** from the **Anim.** menu, or hold down *control* and type *V.*

The colors cycle.

- To stop the cycling, click the mouse button.

Paintworks *Gold*

Glossary

Apple menu

The menu at the far left of the menu bar, which appears when you select the Apple. From it you can choose **Help.**

border

The lines that form the hollow shapes, the outlines of the solid shapes, and the lines drawn with the straight line tool are borders. The line with the arrow beside it in the border palette (in the lower left corner of the easel) determines the width and color or pattern of borders.

button

A symbol in a dialog box that you click to make something happen. To find out what a specific button does, see the name of the button.

Cancel button

The button in a dialog box that lets you leave the dialog box without carrying out a command.

caps lock

After you press the *caps lock* key, any letter that you type appears in uppercase without you having to hold down the *shift* key. Press the *caps lock* key again, and the keyboard returns to normal. The *caps lock* key doesn't affect numbers or symbols.

catalog

The list of pictures that are on a disk. Catalogs appear in the **Open** and **Save As** dialog boxes and in the launcher window.

check box

The small box or circle next to an option in a dialog box that you click to select or cancel an option: for example, the circle next to **Paint Format** in the **Save** dialog box.

choose

To pick a command from a menu.

click

To position the pointer on something and then press and quickly release the button on the mouse.

Clipboard

The place where an image you've cut or copied is placed. The image stays on the Clipboard even after you've pasted it elsewhere in the picture until you cut or copy another image.

close

To remove a window from the screen.

color cycling

To change a color to each of the colors in the set it belongs to in rapid succession. Color cycling can be used, for example, to create the illusion that a ball is spinning in place.

color set

A group of two or more colors that are blended to make a gradient color and are used for color cycling.

command

A command is a choice you make from a menu (or a combination of the *command*, *control* or *option* key and a letter or number on the keyboard) that causes some action to take place.

***command* key**

The key you hold down to make a tool work in a special way or that, when you hold it down while pressing another key, causes a command to take effect.

cut

To remove something from a picture by selecting it and then choosing **Cut** from the **Edit** menu. The image you cut is placed on the Clipboard. See also **Clipboard.**

delete

The key that moves the cursor backwards, erasing the character that's to the left of it. You can also use *delete* to erase an area you've selected.

delta

The horizontal or vertical side of a selected area or image.

dialog box

A box with a message that asks you for a decision or for more information. Sometimes the message informs you that you can't do what you're trying to do or warns you that what you're about to do will destroy some part of a picture.

dimmed

A dimmed command, menu selection, or option is one that appears gray rather than black. It means you can't use the item.

disk drive

The piece of equipment you put a disk in so that you can save pictures there and get them back.

double-click

To position the pointer on something and then to twice press and quickly release the button on the mouse.

drag

To position the pointer on something and hold the mouse button down while you move the mouse. You release the mouse button to choose a menu item, when you're drawing a figure or line, or when you've reached the location where you want to move an object.

easel

The working environment—the menu bar, the tool, border, FatBits, Fat-Bits display and color/pattern palettes, and the drawing area—that appear on the screen.

enter

A key that confirms or terminates an entry or sometimes a command. **Note:** If you're using an Apple II that has been upgraded to an Apple IIGS, there's no *enter* key on the keyboard.

folder

A file you create in which you can keep together pictures that are related (for example, pictures that make up an animated sequence).

font

A typeface—that is, a complete collection of letters, numbers, punctuation marks, and other symbols with a characteristic appearance. An example of a font is *Geneva*.

font size

The overall size of characters in text. Font sizes are given in *points* (for example, 12 point and 18 point).

gradient color

A color that's a blend of two or more colors in the palette.

highlight

To change the color of the background to make something stand out from the rest of a document. Highlighting usually shows that something has been selected or chosen.

I

The pointer you use to position the cursor when you add text to a picture.

icon

A simple, small picture that represents an object (such as a tool).

launcher

The program that gives you access to the entire Apple IIGS system. The launcher shows you a list of the files on the disk in the disk drive and lets you choose the one you want to start.

memory

The place your computer stores information while you're working on the information.

menu

A list of commands that appears when you point to and press a menu title in the menu bar. You drag a menu to open it, then release the mouse button while a command is highlighted to choose that command.

menu bar

The horizontal strip at the top of the screen that contains menu titles.

menu title

The name of a menu, which appears in the menu bar. Pointing to the menu title and holding down the mouse button causes the title to be highlighted and its menu to appear below it.

option

A key you use like the **_command_** key to make a tool act in a special way.

paste

To place a copy of the contents of the Clipboard—whatever was last cut or copied—in the drawing area.

pointer

A small shape on the screen that follows the movement of the mouse. The pointer can be an arrow, an **I**, or a set of cross hairs.

press

To position the pointer on something and then hold down the mouse button without moving the mouse.

return

A key you use to carry out a command. You can also use it when you're adding text to a picture to move the cursor to the beginning of the next line.

rounded rectangle

A rectangle with rounded corners.

save

To store information on a disk.

scroll

To move a picture, a catalog, or a list in a window so that a different part of it is visible.

scroll arrow

An arrow on either end of the scroll bar. Clicking a scroll arrow moves the catalog one line. Pressing a scroll arrow scrolls the catalog continuously.

scroll bar

The rectangular bar along the right of a window. Clicking or dragging in the scroll bar causes the view of the catalog to change.

scroll box

The white box in the scroll bar. The position in the scroll bar indicates the position of what's in the window relative to the entire catalog.

select

To designate where the next action will take place. You use the marker box and lasso to select a part of a picture.

shift

A key you use to make the tool you're using act in a special way. It also causes letters you type while you're holding it down to appear in upper-case and the upper symbol to appear when you type a numeric or symbol key.

slippy color

A color the lasso "slips" over just as if it were the background color.

spacebar

The long, unlabeled bar on the keyboard that you press to type a space.

style

A variation of a font: plain text, bold, italic, underline, outline, and shadow.

vanishing point

The point in a perspective drawing where all lines parallel to each other meet.

window

An area that displays information or holds the palettes.

Paintworks *Gold*

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