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INTRODUCTION

What Is FreeHand?

FreeHand 8 is Macromedia's award-winning design and illustration program for print and the Internet. Its drawing and layout tools are used to develop everything from the simplest illustrations to the most complex designs. Because FreeHand is a vector illustration program, it is the ideal tool for any designer who needs to edit and scale art, create PostScript text and art, print spot colors, and maintain small file sizes.

Designers worldwide use FreeHand to create illustrations of all kinds, from fine art and maps to newspaper infographics, as well as corporate identity, marketing materials, and web graphics.

The best way to understand who uses FreeHand and why is to let them speak for themselves:

"I have and always will use FreeHand for illustration. It is simply superior to any other program." -Neville Brody, Research Studios, London

"With FreeHand, I have a lot of control and flexibility; there are an amazing number of options."-Mickey Richardson, Design Consultant and Manager, Superior Tape & Label

"We love FreeHand and use it for everything: design, animation, web graphics, and layout of both print and web pages."-Jenny Horn, Co-Producer, The Center for Advanced Whimsy

The best way to form your own opinion of FreeHand is to start working with it. This tutorial provides several sample projects and the steps for you to follow to explore the FreeHand's design environment and tools. While certainly not covering everything, it should give you a good idea of just how powerful and intuitive FreeHand is.

Using This Demo Tutorial

This tutorial was written with two different users in mind. The first is the person who has never used a vector drawing program. You don't need a lot of experience to complete the exercises. The second is the person who has used other vector programs, especially Adobe Illustrator or CorelDRAW. You will find notes in the exercises explaining how FreeHand is different from other programs. Once you understand those differences, you will see just how powerful FreeHand 8 is.

As you read through the exercises, there are several conventions you should know.

1. When you see a command listed as Modify › Combine › Blend, it means open the Modify menu, then choose Combine, and then the Blend command.

2. Whenever keys are listed, the Macintosh key is listed first, then the Windows key. So Command/Ctrl-N means hold Command-N on the Macintosh and Ctrl-N on Windows.

3. The tutorial is modular so you can skip around from section to section. However, if you have never worked with a graphics program, it is suggested that you follow the order listed.

4. While you can read the tutorial onscreen, you will probably find it easier to print it out to refer to as you work.

5. The demo version of FreeHand does not let you save your work. So as much as it hurts, you will just have to close without saving the graphics you create.

USER INTERFACE

In this section you will become familiar with the FreeHand 8 toolbox, the panels and interface features. You will also learn how to use the new FreeHand 8 tabbed panels and docking feature.

Opening FreeHand

1. Launch the FreeHand demo application as you would any other application. On Windows you can use the Start menu. On the Macintosh you can double click on the FreeHand demo icon.

2. On Windows, you see a Welcome to FreeHand 8 screen. This is the wizard that helps you with various features. Click the New button to start a new file.

   On the Macintosh, choose File › New to start a new document. The document window appears as shown (UI-1).

UI-1
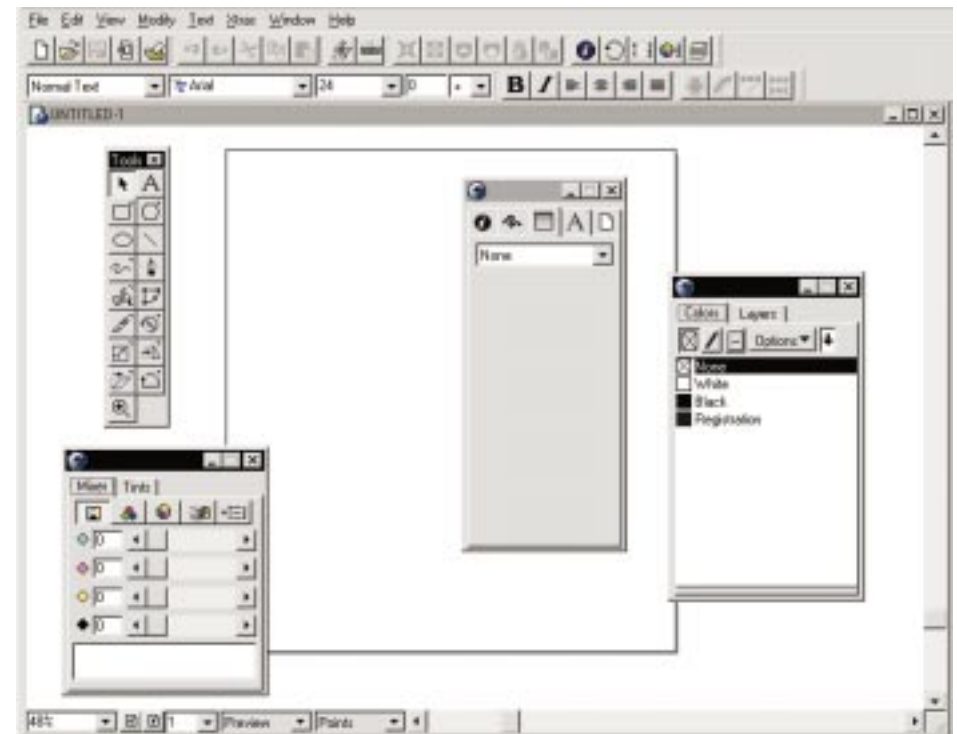
Magnification and Views

UI-2

UI-3

UI-4

1. If you do not see the entire page of the document, choose View › Fit To Page. This is the equivalent of Fit in Window in other programs. However, you notice that the View menu offers you 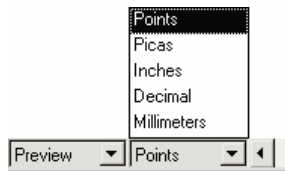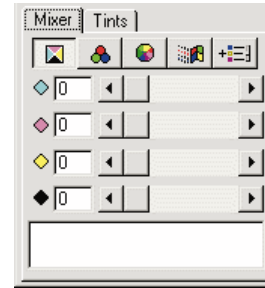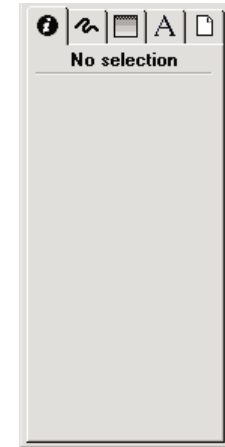far more choices than other programs. This includes Fit Selection, which zooms in on the currently selected objects, and Fit All, which zooms to show all the pages in a file.

2. FreeHand also has a zoom tool (UI-2) that works similarly to other programs. You can click with the Zoom tool to zoom in. Press the Option/Alt key while clicking with the Zoom tool to zoom out. You can also drag with the Zoom tool to zero in on a specific area and magnification.

3. You can also change your magnification by entering a specific amount in the magnification field in the lower-left corner of the document window. Simply double-click in the field (UI-3), enter a new amount, and then press the Return key. Unlike other programs, FreeHand lets you view at any amount from 6% to 25600%.

4. FreeHand also lets you change the ruler units without leaving the document. Open the units pop-up menu on the bottom of the document window (UI-4), and change from points to inches.

Opening Panels

UI-5

1. Depending on how the program was last used, you may or may not see the panels you need. If you do not see the Toolbox (UI-5) on your screen, choose Window › Toolbars › Toolbox.

2. If you do not see the Color Mixer (UI-6), choose Window › Panel › Color Mixer.

3. If you do not see the Color List (UI-7), choose Window › Panel › Color List.

UI-6

UI-7

4. If you do not see the Layers panel (usually behind the Color List), choose Window › Panel › Layers.

5. Use the Inspector panels to control much of the features of objects and your document. They usually are grouped into one unit. If you do not see the Inspector panels (UI-8), choose Window › Inspectors › Object. All five Inspectors should be visible in a group.

UI-8

Docking and Moving Panels

UI-9

1. FreeHand gives you total control over how the toolbox and panels are arranged. One feature is the ability to dock panels so they open, close, and move together. To dock the Colors List to the Color Mixer, press on the top bar of the Colors List. Hold the Control/Ctrl key as you drag the panel. Release the mouse when you are near the panel. A gray bar appears between the two panels indicating they are docked (UI-9). To release the dock, just click the gray bar between the panels.

2. If you are familiar with the tabbed panels of other programs, you will find it easy to work with FreeHand's tabbed panels. Tabbed panels can be separated and combined in any form you want. For instance, you may want the Stroke and Fill Inspectors to be separate from the rest of the Inspector panels.

3. Press the tab for the Stroke Inspector (UI-10) and drag it away from the other Inspectors. When you release the mouse, the Stroke Inspector appears as a separate panel.

4. Press on the tab for the Fill Inspector (UI-11) and drag it into the panel for the Stroke Inspector (UI-12). The Fill and Stroke Inspectors will be on their own panel (UI-13). Position the panels in the positions that are best for you.

UI-10

UI-11 UI-12

UI-13
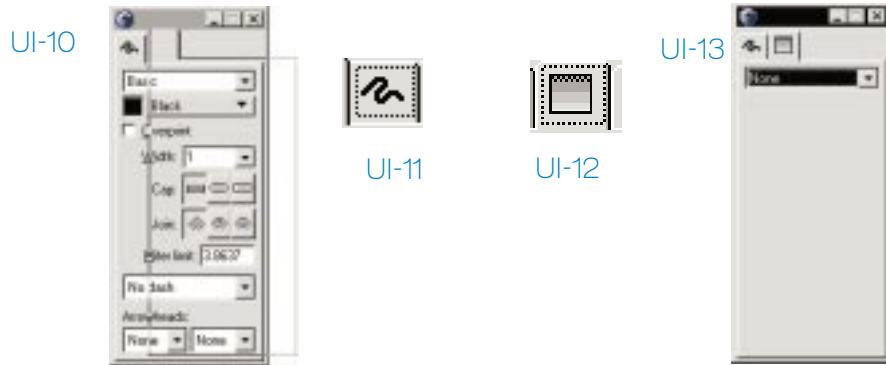
Customizing FreeHand

If you are more comfortable using other programs such as Illustrator or CorelDRAW, you can change the keyboard shortcuts to those in other programs.
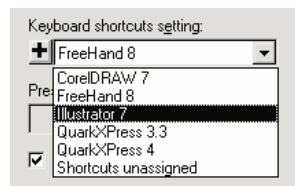
1. Choose File > Customize > Shortcuts. The Customize dialog box appears.

2. Use the Keyboard shortcuts setting pop-up menu (UI-14) to choose the program that you are familiar with. Click Done to close the dialog box and change the shortcuts. In addition to the preset shortcuts, you can customize the keystrokes to any combination you want.

UI-14

BASIC DRAWING TOOLS
BASIC COLOR

In this section you will use a selection of the drawing tools to create some basic shapes. You will use FreeHand's Pointer tool to modify the objects. You will learn how to mix and store colors. You will also learn how to apply colors.
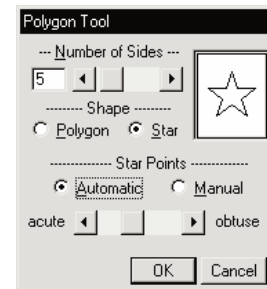
Basic Drawing Tools

BD-1

1. If you do not have a file open, choose File > New.

2. Click the Rectangle tool in the Toolbox (BD-1). If you are familiar with other drawing

programs, you will find the Rectangle tool easy to use. Press and drag from corner to corner to create a rectangle. Hold the Shift key to draw a square. Create several different sized rectangles on your page. (Do not worry if they overlap.)

BD-2

BD-3

3. Click the Ellipse tool in the Toolbox (BD-2). Press and drag to create an ellipse. Hold the Shift key to draw a circle. If you want to draw a rectangle or an ellipse from the center point outward, hold the Option/Alt key as you drag. Create several different sized ellipses on your page.

4. FreeHand also has a polygon tool to create polygons and stars. Double-click the Polygon tool in the Toolbox (BD-3). This opens the Polygon Tool dialog box (BD-4). (Any tool with a bracket indicates there is a dialog box associated with the tool.) Set the Polygon tool for 5 sides and Star shape. Set the Star Points for automatic to create a "perfect" star. Click OK to return to the page and drag to create several stars. Polygon and Star shapes are always drawn from the center outward. Hold the Shift key to keep the star aligned vertically.

BD-4

5. The main drawing tool of FreeHand is the Pen tool (BD-5). This tool allows you to create multi-sided objects with both straight and curved segments. If you are not at all familiar with using a vector pen, just remember that clicking with the Pen will create straight lines between the points (BD-6). Dragging with the Pen will create curved segments between the points (BD-7).

BD-5

BD-7

BD-6

6. With the Pen tool chosen, click several times around the page. As you get to the first point, the cursor shows a black dot indicating that the path will be closed (BD-8).

7. Draw several paths with the Pen tool. If you want to leave the path open, hold the Command/Ctrl key and click to deselect the path. Then start using the Pen again.

Optional Exercise: If you have a pressure-sensitive tablet, explore working with the Freehand tool (BD-9) in its three modes.
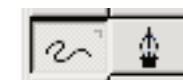
BD-8 BD-9

Selecting Points and Paths

BD-10

1. Click the Pointer tool in the Toolbox (BD-10). Unlike other programs with several different tools to select objects, FreeHand has just one tool that can perform all types of selections.

BD-11

2. Press and hold on the edge of one of the objects to move that object around the page. A four-headed arrow appears. Drag with that arrow to move the object (BD-11).

3. Click one of the points of the stars or the Pen paths. Drag to reshape those objects (BD-12).

BD-12

Tip: Ellipses and rectangles are created as grouped objects. This means that you need to ungroup them before you can manipulate their individual points.

4. Select one of the ellipses and choose Modify > Ungroup. This allows you to manipulate individual points.

Tip: A selected point in FreeHand is white. If you drag an object by its edge it moves even if the points are not white. The points are part of the object and move without each one selected.
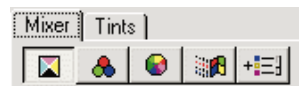
Colors
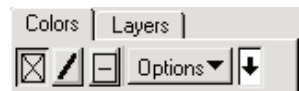
BD-13

1. Select one of the objects on the page. The Colors List indicates the fill and stroke settings for the object (BD-13). The first box is the Fill Selector and it indicates the fill color. The second box is the Stroke Selector and it shows the stroke. The third box indicates if the fill and stroke are the same color.

2. Drag the Black color chip onto the Fill Selector. The object has a black fill.

3. Drag the None color chip onto the Stroke Selector. The object has no stroke.

BD-14

4. If you do not see the Color Mixer, choose Window > Panels > Color Mixer. Click the CMYK button in the Mixer panel (BD-14). To create a CMYK color, either type in the numbers directly or drag the sliders. Drag to create a color of 100% Cyan. The color well at the bottom of the mixer shows the color created.

BD-15
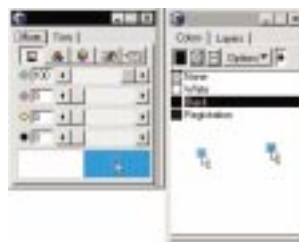
5. To apply the color to an object, drag the color from the bottom of the Color Mixer onto one of the objects (BD-15).

BD-16

6. You also need to store the color in Color List. Drag the color from the Color Mixer onto the drop box arrow in the Color List (BD-16).

7. In addition to CMYK, FreeHand lets you define colors using RGB, HLS, Tint, or Windows/Macintosh color systems. Click the RGB tab in the Color Mixer and then create an RGB color 255R, 0G, 255B. Store that RGB color in the Color List.

BD-17

8. While you could continue to define colors one at a time, you can add colors from the built-in color libraries. The standard version of FreeHand provides 21 different color libraries. The demo version you are working with only contains two libraries. Choose Crayon in the Options pop-up menu in the Color List to import the Crayon colors. The Crayon library appears (BD-17).

9. Use the Shift key to select as many colors as you want. Then click the OK button to add the colors to the Color List.

Transformation Handles

One of the new features in FreeHand 8 is the ability to scale or rotate objects directly on the page without changing tools. To do so, use the transformation handles.

1. With the Pointer tool, double-click an object. The eight transformation handles and centerpoint appear (BD-18).

2. Move the cursor onto any of the handles. The straight double-headed arrow indicates you can scale the object (BD-19). Drag to scale the object up or down.

3. Move the cursor next to any of the handles. The curved double-headed arrow indicates you can rotate the object (BD-20). Drag to rotate the object clockwise or counterclockwise.

Tip: You can move the centerpoint to control the point around which the transformation occurs. This can be a point inside or outside the object.

BD-18   BD-19   BD-20

Lens Effects

One of the most sought-after looks in vector programs is transparency—the ability to see through objects. FreeHand's transparency effects are some of the most sophisticated in the field of vector illustration. In this exercise you will use a variety of the lens fills to embellish an existing file.

See-through effects

1. Choose File > Open and then find the file Map.fh8. This file is in the Demo folder that accompanies this tutorial. The file is a map. (The small blue shield on the pasteboard is used in another exercise and is not part of this one.)

2. Move the letters NY over the left side of the map. These letters will be used to show a variety of the lens effects. (The letters are text that was converted into paths.)

LE-1

3. With the letters selected, click the tab for the Fill Inspector. Use the top pop-up menu to change the fill of the letters from Basic to Lens (LE-1). The letters immediately change their appearance.

4. Use the second pop-up menu to choose the different lens effects (LE-2).

5. Choose Transparency and then change the color of the object to a light blue. The slider lets you adjust the amount of transparency of the color.

6. Choose Invert to swap the color values of the area inside the letters. (White becomes black, black becomes white, and so on.)

7. Choose Lighten or Darken and then adjust the slider to change the effect on the image.

LE-2

8. Choose Monochrome to change the image to one color. Apply different colors to see the various monochrome effects. Leave the letters set for Monochrome with a Blue color (LE-3).

LE-3

Magnifying effects

The other type of lens fill is the Magnify fill. This fill allows you to blow up an area of an image. This is excellent for creating callouts or exploded views of technical illustrations, maps, diagrams, and so on.

1. Draw an oval over the right side of the map. Set this oval for Lens fill at the Magnify setting of 2 (LE-4).

LE-4

2. Because you need to move the oval off of the map, you need to fix the oval so it continues to magnify that area of the map. Click the Centerpoint box. A small diamond icon appears inside the oval (LE-5). This icon fixes the center of the magnification effect of the lens.

LE-5

3. Move the oval over to the right area of the page. The centerpoint icon stays over the original area.

4. Move the letters NY to the middle of the map. The blue appears inside the magnification oval. You need a way to keep this blue from appearing inside the oval.

5. Move the letters to the left so they do not appear inside the oval. Select the oval and then click the Snapshot option. This freezes the effect inside the oval to the current look.

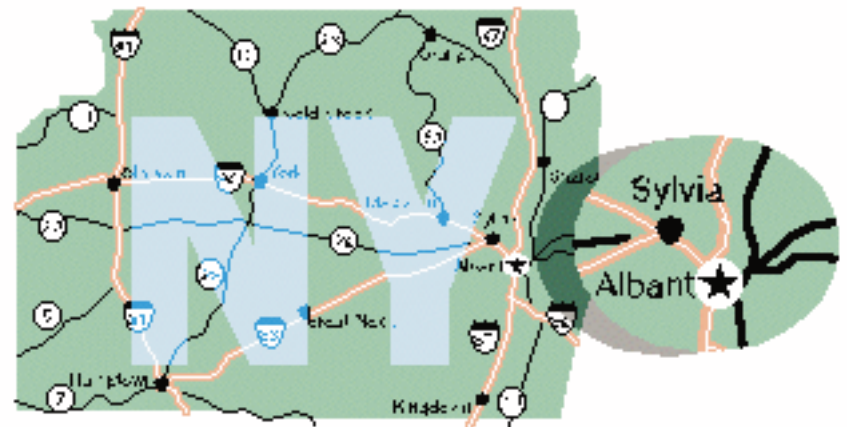6. Move the blue letters back to the middle of the map. This time the letters do not appear inside the oval

Optional effect

Make a copy of the magnification oval and set it to darken. Use the Modify > Arrange > Move Backward to position the darkened oval as a shadow behind the magnification oval (LE-6).

LE-6

Multi-page Environment

FreeHand offers you very sophisticated multi-page features. Even dedicated page layout programs do not provide all the features for varying page size, orientation, and position. In this section you will open a multi-page document. You will learn how to add new pages and then modify the artwork to fit the size of the new pages.

1. Choose File › Open and then find the file Music.fh8. This file is in the Demo folder that accompanies this tutorial. If you do not see all four pages of the file (MP-1), choose View › Fit All.

MP-1

MP-2

2. Click the Document Inspector tab (MP-2) The four pages of the document are shown in the thumbnail window (MP-3).

3. The Document Inspector indicates that page 1 is the active page by the dark black line around the thumbnail labeled 1. If you double-click the thumbnail labeled 2, you will move to that page as well as fit the page to the size of the window.

4. You can also use the arrows, or the page pop-up menu in the lower-left corner of the window (MP-4) to move from page to page.
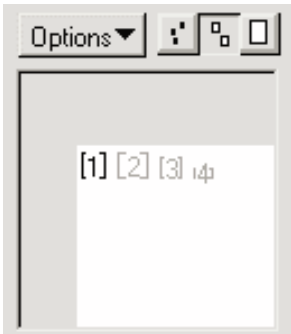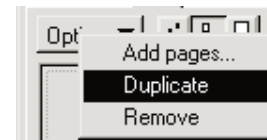
MP-3
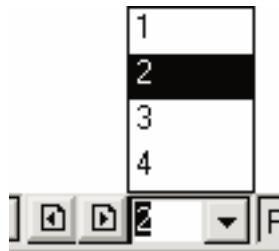
MP-4

Adding Pages

1. Use the Document Inspector or the pop-up menu to move to page 4 of the document. This page is for a business card for the group.

MP-5

2. You need to copy this page and then modify it into ticket for the group. Open the Options pop-up menu in the Document Inspector and choose Duplicate (MP-5). This duplicates the page as page 5.

3. Move to page 5 by scrolling to the right or press on the page pop-up menu or double click on the page 5 thumbnail. (Make sure that page 5 is highlighted in the Document Inspector.)

4. To make page 5 wider, click on the X field in the Document Inspector and change the amount to 6 inches. Press Return to apply the change.

Modifying Art

1. Deselect any objects on page 5 by clicking off the page. Then click on the edge of the black rectangle.

MP-6

2. Drag the top corner of the black rectangle to fill the new size of the page. A small symbol appears next to the arrow indicating you are at the edge of the page (MP-6). Click away from the page to deselect the rectangle.

3. With the Pointer tool, select the word "Shattered." Use the Shift key to select the word "Sounds," and drag both words over to the right side of the page.

4. Select the text for the name and title and delete it.

MP-7

5. Select the "shattered" artwork. Because this artwork has been grouped together you can simply drag on one of the corners to make the artwork bigger or smaller. Hold the Shift key as you drag to make keep the artwork in proportion (MP-7).

6. Add a rectangle with a white fill in the blank area of the ticket. This is where the local information for the concert will be added. Choose View › Fit All to see all the elements in your presentation (MP-8). Each page will print out with its own crop marks and registration marks in the right positions.

MP-8

Special Effects

FreeHand has expanded the types of tools available to artists. In addition to the tools found in other programs, FreeHand has added many new types of tools that are revolutionary in the field of vector illustration. In this exercise you will use many of FreeHand's special effect tools to create an illustration. Even if you don't consider yourself an illustrator, you will see how simple it is to work with the FreeHand tools.
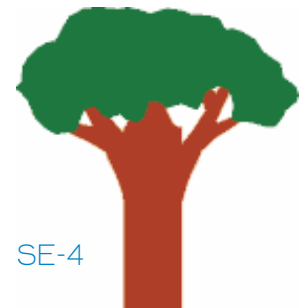
Freeform tool

SE-1

1. Choose File › Open and then find the file Tree.fh8. This file is in the Demo folder that accompanies this tutorial. The file is a blank page with a brown rectangle on the workpage and a green oval and two little "apples" on the pasteboard.

SE-2

2. The rectangle needs to be made into the trunk and branches of the tree. Double-click the Freeform tool (SE-1) in the Toolbox to open the dialog box (SE-2). Make sure the setting is for Push/Pull. Click OK to close the dialog box.

3. The Push/Pull tool has two different modes depending on where you start the drag. Place the cursor on the edge of the rectangle. The cursor displays the pull icon, an arrow with an S after it (SE-3).

SE-3

4. Drag away from the edge. The rectangle reshapes into a branch shape.

5. Press the 1, [, or left arrow key to decrease the size as you drag to make smaller branches. (Press the 2,], or right arrow key to increase the size of the shape.) Continue to pull branches out from the rectangle until you have enough branches.

Tip: If you use a pressure-sensitive tablet, the size of the branch changes as you drag.

You now need to change the oval so it resembles the leaves on top of the tree.

SE-4

6. Move the green oval so that it covers the top branches of the tree. Place the cursor outside. The cursor displays the push icon, an arrow with an O after it (SE-4).

7. Drag around the oval. The perfect edge of the oval becomes more natural looking. Continue to drag on both the inside and the outside of the oval until you have created the top of the tree.

SE-4

Graphic Hose

You now need to add the apples to the tree. Right now, you only have two different apples. Rather than copy and paste identical apples on the tree, you can use the Graphic Hose to "paint" apples of different sizes and rotations.

SE-5

SE-6

1. Open the Xtra Tools panel by choosing Window › Xtras › Xtra Tools. Double-click the Graphic Hose tool (SE-5) to open the Graphic Hose dialog box.

2. Make sure the Hose option is selected. This is where you define objects for each of the Graphic Hose sets.

3. To create a new set, press the top pop-up menu in the Graphic Hose dialog box and choose New. Type the name Apples and click OK.

4. Select one of the apples on the pasteboard and choose Edit › Copy. Then click the Paste in button. The apple appears in the preview window (SE-6). Repeat for the other apple. This gives you two apples in the set.

5. Click the Options button. This side of the dialog box is where you set the controls for painting with the hose.

6. Set the pop-up menus as follows. Order: Random. Spacing: Variable at 200 (Loose). Scale: Random at 130. Rotate: Random at 45°. These settings give a variety apples.

7. Click the Graphic Hose in the Xtra Tools panel and drag around the top of the tree. The apples are placed in different sizes and rotations.
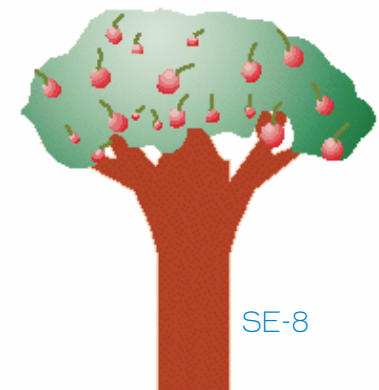
Color Effects

FreeHand also lets you apply special effects such as gradients, very simply.

1. Set the color in the Mixer to a very light green.

2. Hold the Option/Alt key as you drag that color square onto the leaves at the top of the tree (SE-7). This turns the fill from a solid green to a radial gradient with a light green center (SE-8).

SE-7

SE-8

Special Effects

In this exercise you will use many of FreeHand's special effects tools. The project you will create is ta 3-dimensional slice of cheese. (While you probably won't need to draw a slice of cheese in your work, the project was designed to show you how you can enhance your work using FreeHand's special effects.

1. Close any previous documents and then choose File › New.
2. Use the Rectangle tool to draw a rectangle.

SP-1

3. Click the tab for the Object Inspector (SP-1) and enter 4i for the width and 3i for the height. (The "i" suffix is needed only if the unit of measurement for the document is not in inches.)

4. Change the corner radius to .25i. (Unlike other programs that make discrete objects for a corner radius, FreeHand's corner radius can be modified at any time.)

5. Use the sliders in the Color Mixer to create a yellow color of Magenta 12%, Yellow 100%. Drag that yellow color onto the rectangle. (If the object has a stroke, drag the None color onto the Stroke Selector or the edge of the rectangle.) Your rectangle is now ready for some special effects.

Effects Tools
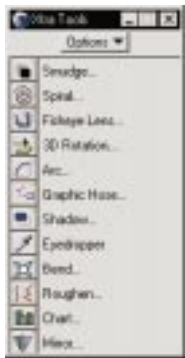
SP-2

1. Open the Xtra Tools panel (SP-2) by choosing Window › Xtras › Xtra Tools.

2. Rather than have a "perfect" rectangle, you will use several tools to make it more organic. The first tool is the Fisheye Lens. Click on the Fisheye Lens tool and position the + cursor in the middle of the rectangle. Hold the Option/Alt key as you drag so that the Fisheye Lens oval extends all around the rectangle (SP-3). Release the mouse to set the Fisheye effect.

3. Next you will use the Knife to punch some holes in the object. Double-click the Knife tool (SP-4) in the Toolbox. The Knife Tool dialog box appears (SP-5).
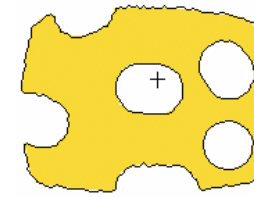
SP-3

SP-4
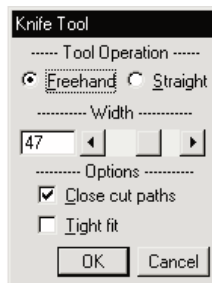
SP-5

4. At the width of 0, the Knife tool can be used to cut selected objects. Set to a larger width, the Knife can be used to eat away objects. Set the Knife tool as Freehand and a 47 width. Make sure that Close cut paths is checked and that Tight fit is unchecked.

SP-6

5. As you drag with the Knife tool, you see black circles. Drag as shown (SP-6) to punch holes in the object. (Make sure you punch some holes on the edges of the object.)

6. You now need to make your rectangle a little less "perfect." FreeHand's Roughen tool will do this. Double-click the Roughen tool in the Xtra Tools and set it for 7 amount and Rough Edge. Click OK.

SP-7

7. Drag with the Roughen tool on the object. A black line indicates the effect is being applied. Release the mouse when the edge has been slightly modified (SP-7).

8. One of the most complex effects to make is a smudge or soft shadow for an object. Fortunately, FreeHand's Smudge tool makes this effect very easily. Click on the Smudge tool in the Xtra Tools and drag slightly down and to the right (SP-8). The Smudge fingers indicate the length and direction of the Smudge. Your rectangle is now ready for some more sophisticated coloring.

SP-8

SP-9

SP-10

Color Effects

1. FreeHand also lets you apply special effects, such as gradients, very simply. Change the color in the Color Mixer to 100% yellow, and then drag that color chip onto the object (SP-9). (Only the top object changes color, leaving the rest of the smudge the darker yellow.)

2. Set the color in the Color Mixer to 50% yellow. Drag this lighter color onto the object while holding the Option/Alt key. This will turn the fill from a solid yellow to a radial gradient with a light yellow center (SP-10). (Hold the Control/Ctrl key to make a linear gradient.) Congratulations, you've finished your 3D slice of cheese.

Blends and Blends on a Path

FreeHand has some of the most sophisticated blending commands of any vector program. With FreeHand 8 those commands are even more versatile. In this section you will use the Blend command to create dramatic highlight effects. You will also modify those blends using FreeHand's live blends feature. Finally, you will use the Join Blend to Path to create complex effects very quickly.

1. Close any previous documents and then choose File › New.

2. Use the Polygon tool to draw a 5-pointed star. Fill the star with a dark blue color and set the stroke for None.

3. Position the cursor in the middle of the first star and draw another star slightly smaller than the first. Make this star fill: white; stroke: none.

4. Draw one more star positioned inside the other two. Make this star fill: light blue, stroke: none. Your screen should appear as shown (BB-1).

5. Choose Edit › Select › Select All. Then choose Modify › Combine › Blend. Unlike other programs that force you to create blends between only two objects at a time, FreeHand 8 allows you to select several objects at once and apply the Blend command. All three objects are blended together (BB-2) creating a highlight effect in the middle of the star.

BB-1

BB-2

Live Blends

Unlike programs that create finite objects from blends, FreeHand lets make changes to the objects. This is the concept of live blends.

1. Use the Color Mixer to create a light yellow color. Drag the color chip onto the white highlight. The highlight and the rest of the blend changes to reflect the new color.

2. Drag some other color chips onto the blended objects. Remember, only the original three objects are modified as a Live Blend. The objects in between are modified as part of the blend.

Optional Step: You can modify the shape of any of the original objects in a blend, and the blend adjusts accordingly. Hold the Option/Alt key and select one of the points of the outside star (BB-3). Release the Option/Alt key, drag the point down, and watch how the blend redraws.

BB-3

Blends on a Path

Perhaps one of the most exciting uses of blends in FreeHand 8 has been the ability to align blends onto a path. In this case you will create the outer edge of the face of a clock.

1. Clear any previous objects off the page by choosing Edit › Select › Select All. Then press the Delete/Backspace key. If you have no document open, choose File › New.

2. Use the Line tool or Pen tool to draw a short line at the top of your page. Make sure the line has a stroke.

3. To make an exact duplicate of this line, switch to the Pointer tool and hold the Option/Alt key as you drag the line to the right. Notice a + sign next to the selection arrow (BB-4). This indicates that you are creating a copy of the line, rather than just moving it.

4. Select both lines at the top of your page, and choose Modify › Combine › Blend. Don't worry about the number of steps. You just need to create a blend between the lines (BB-5).

BB-4

BB-5

5. To create the circle for the clock, drag with the Ellipse tool while holding the Shift key.

6. Use the Pointer tool to select both the circle and the blend. Choose Modify › Combine › Join Blend To Path. The lines arrange themselves around the circle (BB-6).

BB-6

Blend Steps

Unlike other programs that create a finite number of steps for a blend, the number of steps in a blend can be adjusted at any time using the Object Inspector.

BB-7

1. Click on the Object Inspector. The Blend on a path information appears (BB-7). (The Inspector information changes depending on the type of object selected.)

2. Change the number of steps to 59. This creates a circle with 60 lines around it. (The number of steps means the number of interim steps between the original two lines. Since the original two lines are stacked over each other, 59 steps makes a circle with 60 visible lines around it.)

3. Change the number of steps to 11 and you create a circle with lines for 12 hours.

Tracing Graphics
Converting Text

FreeHand lets you import graphics and then convert them into vectors using the Trace tool. Once graphics have been traced, they are vector objects that can be further manipulated. In this section you will convert both text and a imported image into a form that can be manipulated using the 3D Rotation tool.

1. Choose File › Open and then find the file Logo.fh8. This file is in the Demo folder that accompanies this tutorial.

Tracing a Placed Image

The image of the butterfly in the file was scanned in a program such as Adobe Photoshop or Macromedia xRes, saved as a TIFF, and them imported into FreeHand. In order to create the logo, this image needs to be converted from a single bitmap into distinct vector objects. For this you will use the Trace tool.

TG-1

TG-2

1. Double-click the Trace tool (TG-1) to open the Trace Tool dialog box (TG-2).

2. Open the Color mode pop-up and choose 16 colors. This gives the image a solarized effect.

3. Make sure the Resolution mode is set for Normal, the Trace layers is set for ALL, and the Path conversion is set for Outline. Also check the box for Overlap paths. This creates the best look for the image.

4. Set the Trace conformity to 6. This causes the Trace Tool to put down a relatively high number of points in following the image contours.

5. Because the scan is rather clean, you can set the Noise tolerance for 0. This too will create a tighter representation of the artwork. Click OK to return to your document.

6. Drag with the Trace tool to create a marquee around the butterfly image (TG-3). When you release the mouse, the Trace Tool outlines your image. You will see many control handles in the image. These handles indicate the many vector objects that have been created. Do not deselect the objects that have been created. Go to the next part of this section.

TG-3

Grouping Traced Images

Because tracing images can create many objects at once, you need to group the currently selected objects.

1. Choose Modify › Group. All the control handles are then grouped into one object with four control handles. This makes it easier to select all the objects created by the Trace tool.

2. Use the Pointer tool to move the traced objects away from the original image. You should now see two butterflies, the original and the trace.

3. Open the Preview pop-up menu at the bottom of the document window and choose Keyline (TG-4). This shows you the difference between the original placed image and the traced objects (TG-5).

TG-4
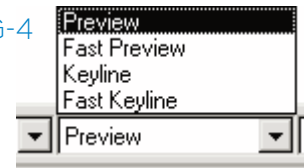
TG-5
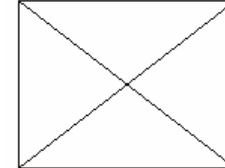
4. Although you can always work in Keyline mode, you will most likely want to choose Preview to continue your work.

Tip: Hold the Option/Alt key to select individual members of a group. To then select all the members of a group, press the Tilde (~) key.
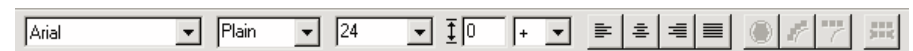
Converting Text

Just as placed images need to be converted to vector objects before some effects can be applied, so does text need to be converted.

TG-6
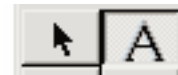
1. Choose the Text tool (TG-6) in the Toolbox and click on an empty area on the page. A blinking cursor indicates you can now type.

2. Type the words BLUE BUTTERFLY.

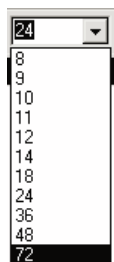3. Choose Edit › Select All to select all the text.

TG-7

4. If you do not have the Text toolbar (TG-7) at the top of your screen, choose Window › Toolbars › Text. Then open the font pop-up menu (TG-8) and choose a thick, sans serif typeface such as Arial Black or Futura Heavy.

TG-8

TG-9

5. Open the point size pop-up menu (TG-9) and choose 72 point. (Use a smaller point size if the text is too big for the page.)

6. With the text still selected, choose Text › Convert To Paths. (Unlike other programs, text in FreeHand can be converted to paths when selected as text or as an object.)

7. Hold the Option key as you drag with the Pointer tool around the word BLUE. This selects just those letters within the group (TG-10).

TG-10 **BLUE BUTTERFLY**

8. Click the inside of one of the selected letters and move it to the left so there is enough room for the traced butterfly. (Do not drag on the control handles, just the inside or edges of the letters.)

9. Select the traced image and drag it in the space you just created. Your artwork should look as shown (TG-11).

TG-11 **BLUE BUTTERFLY**

3D Rotation

The traced image and text can now be manipulated using the 3D Rotation tool.

1. Select both the converted text and the traced image. You can tell they are both selected because two sets of control handles appear around the images.

2. If you do not see the Xtra Tools panel, choose Window › Xtras › Xtra Tools.

3. Click the 3D Rotation tool (TG-12) and then position its cursor inside the letter U of the word Butterfly.

4. Press and hold with the 3D Rotation tool and then drag to the right. A box appears and a line extends out from the cursor.

TG-12

5. Drag along the line until the box looks as shown (TG-13). This is the perspective you are applying to the art.

6. Release the mouse and the artwork is rotated into that position (TG-14).

TG-13 **BLUE BUTTERFLY**

TG-14 **BLUE BUTTER**
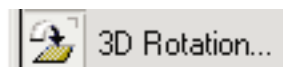
Page Layout

Many designers have discovered that FreeHand is an excellent application for page layouts. In this section you will flow the text between the pages of a brochure. You will also use styles to quickly modify text and objects. Finally you will work with FreeHand's sophisticated tab commands.

1. Choose File › Open and then find the file Brochure.fh8. This file is in the Demo folder that accompanies this tutorial.

PL-1

2. If you see a missing font dialog box (PL-1) that says the font "Times" is missing, click the Replace button. Then use the font pop-up menu to choose a font from your system. Try to choose a similar font such as Times New Roman.

3. Choose View › Fit To Page and then choose Keyline from the bottom Preview pop-up menu.

Linking Text

The text that was imported is in the lower text block on the page.

PL-2

PL-3

1. Use the Pointer tool to select this text block (PL-2). Handles appear as well as a square with a large blue dot in it. This is the overflow symbol which indicates there is more text than can fit in the block. You need to add more text blocks on the other pages to hold the additional text.

2. Click the Text tool (PL-3) in the Toolbox, and drag within the guides on page 2 (PL-4). This creates another text block.
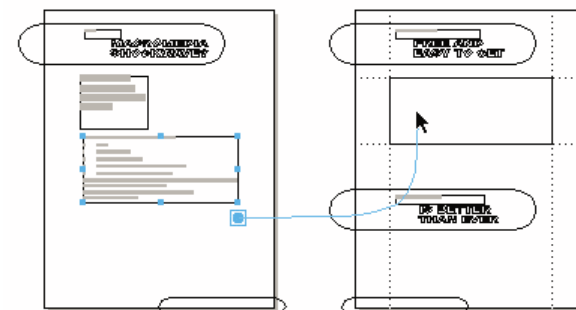
3. Drag with the Text tool within the guides on page 3 to create a text block on that page.

4. Change your magnification so you can see both pages 1 and 2. Using the Pointer tool, drag from the overflow symbol on that page to the text block on page 2. A curved blue line indicates when you have reached the new text block (PL-5). Release the mouse button. The text is linked.
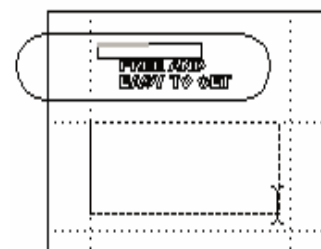
PL-4

PL-5

5. Do the same for the text from page 2 to page 3. Don't worry if there is still an overflow.

6. Move to page 1. Make sure the text in the block stops with the words "Flash, Director, or Authorware." If not, use the Pointer tool to drag one of the bottom corner handles to change the size of the block.

7. Move to page 2. Make sure the text in the block stops with the words "much as 500K." If not, drag one of the corner handles to change the size of the block.

Tip: Use the corner handles to change the size of text blocks. Dragging on the side handles lets you change the leading or tracking as well as changing the size of the block.

Formatting with Styles

With text styles you can automatically apply and modify text formatting. The document you are working on already has some styles in it.
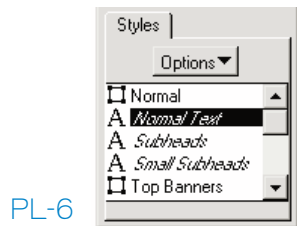
PL-6

1. If you do not see the Styles panel (PL-6), choose Window › Panels › Styles.

2. Select the Normal Text style and then choose Edit from the Options pop-up menu. The Edit Style dialog box appears as shown (PL-7). Make sure the correct font is listed and then click OK.

3. Click with the Text tool inside any of the linked text blocks and choose Edit › Select › All. Select the Normal Text style in the Styles panel. This applies the style to all the text.

4. On page 1, select the text "With Shockwave you can enjoy the best of the Web." Select the Subheads style. The text changes as shown (PL-8).

5. Select the bulleted text and click on the Bullets style. The text will change.

6. You can also apply styles by dragging the little Style chip "A" onto the text (PL-9). On page 3, drag the Style chip for Subheads onto the following lines: "Shockwave attracts more visitors." "Visitors to shocked sites stay longer." "Visitors to shocked sites return often."
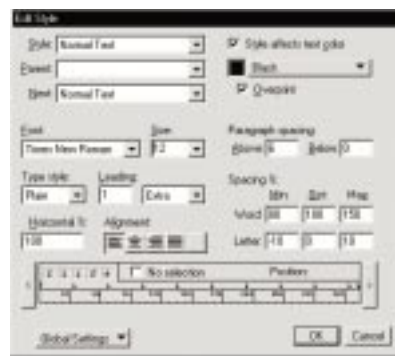
PL-7
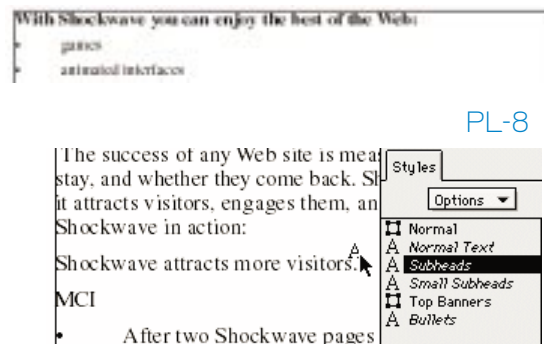
PL-8

PL-9

7. Drag the style chip for Small Subheads onto the following lines: "MCI" "Broderbund Software" "Multimedia Art Design" "Zeek Interactive" "Sportsline USA" "K-Swiss"

8. Use either method (click or drag) to apply the Bullets style to the bulleted text.

Modifying Styles

Once you have applied styles, you can then make global changes very quickly.

1. Deselect any objects by clicking off the page with the Pointer tool. Then click the Small Subheads style name in the Styles panel and choose Edit from the Options pop-up menu.

2. In the Edit Style dialog box, open the color list, and choose Pantone 1665 CVC (PL-10). Click OK. All the subheads automatically change to the new color.

The brochure also has an object style applied to the rounded rectangles. By changing the definition of the style, you can globally change all those objects.

3. Instead of using the Options pop-up menu, hold the Option/Alt keys and click the Top Banners style. This opens the Edit Style dialog box (PL-11).

PL-10

PL-11

4. In the Edit Style dialog box, open the Fill pop-up menu and choose Gradient. The Gradient controls appear where you can set the fill colors for the object.

5. Open the color pop-up menu at the bottom of the gradient controls and choose the 30% tint of the Pantone color. This means that the objects start at 100% of the Pantone color and then fade to a 30% tint. Click OK to apply the change to the style. All the objects filled with the style adjust automatically.

6. Choose Hide Names from the Options pop-up menu in the Styles panel. This gives a visual display of the styles (PL-12).
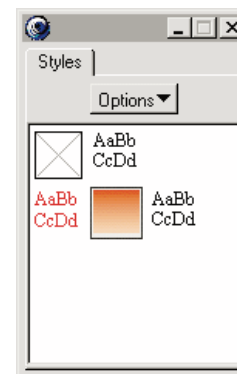
PL-12

Columns and Copyfitting

FreeHand can also change single columns of text into multi-columns.


PL-12

PL-13

1. Use the Pointer tool to select the text block on page 3. Click on the tab for the Text Inspector (PL-12). This is where you can control many of the text functions.
2. Click on the Column button (PL-13) within the Text Inspector. The column controls (PL-14) appear.
3. Change the columns field from 1 to 2. Press Return to see the change.

The text is now in two columns, but they need to be balanced.

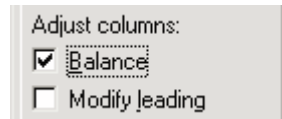4. Click the Copyfit button (PL-15) on the Text inspector. The copyfit controls appears.

PL-14
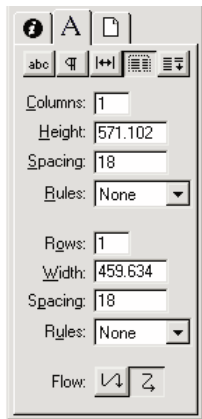
5. Check Balance (PL-16). The text is automatically balanced within the columns.

PL-15

PL-16

Wrapping Tabs

In addition to ordinary tabs, FreeHand has a feature called "wrapping tabs" that is virtually unique in the field of desktop publishing. With wrapping tabs you can easily create multi-column tables.

PL-17

1. Move to page 4 and zoom in on the chart. This chart is supposed to be columns of information but has come in as continuous text. You can use wrapping tabs to clean up the chart. If you do not see the Info Bar (PL-17), choose View › Info Bar.

2. Select all the text in the chart. If you do not see the Text Ruler (PL-18) at the top of the block, choose View › Text Rulers.

PL-18

PL-19

PL-20

3. Drag the wrapping tab icon (PL-19) and place the tab on the ruler at the 116 point mark (PL-20).
4. Drag the wrapping tab icon again, and place the tab at the 132 point mark. Your text will start to arrange in columns.
5. Continue adding wrapping tabs at the followng marks:
   218
   236
   354
   371

6. Deselect the text. All the columns will be correctly wrapped (PL-21).

Tip: To work with wrapping tabs, you need to add two tab characters between the text as well as two wrapping tabs. The first tab ends the column. The second tab begins the next column.



PL-22

Find and Replace Graphics

Once you have created a project, you may find it necessary to make global changes to the many items in the project. These could be design decisions or production needs. Since clicking and selecting objects one at a time can take hours, you need some way of automating the procedure. In this section you will use FreeHand's incredibly powerful Find and Replace Graphics feature to make some changes to a map.

1. Choose File › Open and then find the file Map.fh8. This file is in the Demo folder that accompanies this tutorial.

Color Find & Replace

The first thing that needs to be changed is that the light red lines need to be changed to a darker red. These lines are directly behind the white stripe. While FreeHand does let you select through objects stacked on top of each other, it would still be cumbersome to select all the lines one by one. So you will use the Find and Replace Graphics.

1. Choose Edit › Find and Replace › Graphics to open the Find and Replace Graphics dialog box (FR-1).
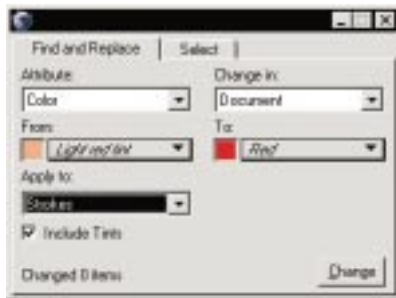
FR-1

2. Set the dialog box as follows:
   Attribute: Color.
   Change in: Document.
   From: Light red tint.
   To: Red.
   Apply to: Strokes.

3. Click the Change button and all the light red lines are automatically changed to dark red. A message at the bottom of the box indicates that 14 items were changed.

Path Shape Find and Replace

Next, the oval road markers need to be changed to a shield shape. One shield has already been drawn. You now need to make the global changes.

1. Set the Find and Replace Graphics dialog box as follows:
   Attribute: Path Shape
   Change in: Document.

2. Use the Pointer tool to select and copy one of the numbered circles. (Select the circle, not the number.)

3. Click the Paste In button on the From side.

4. Use the Pointer tool to select and copy the blue shield at the upper-left corner.

5. Click the Paste In button on the To side.

6. Check Transform to fit original. This scales the shield down to fit the same size as the original numbered markers. The Find and Replace Graphics panel should appear as shown (FR-2).

FR-2

7. Click the Change button and all the road markers are automatically changed. (The message indicates 11 items were changed.)

Stroke Width Find and Replace

Finally, some of the strokes for the roads are too thick. They need to be made thinner by a certain amount.

1. Set the Find and Replace Graphics dialog box as follows:
   Attribute: Stroke width.
   Change in: Document.

2. Set the Min field: › 3. This will find all strokes greater than 3 points. Because you used the greater than symbol in front of the 3 you do not need to set a Maximum value.

3. Set the To field: -1.5. This will subtract 1.5 points from each of the strokes (FR-3). So a stroke of 6 points will reduce to 4.5 points and a stroke of 4 points will reduce to 2.5 points. Without the minus sign, all the strokes would be changed to one finite amount.

4. Click the Change button and all the strokes that are greater than 3 points are changed. (The message indicates that 45 items were changed.)
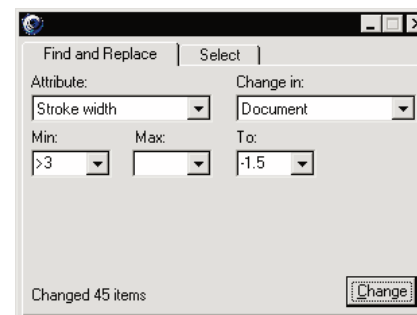
FR-3

Inter-application Compatibility

Macromedia recognizes that people working with FreeHand also work with other programs such as Adobe Photoshop. Macromedia has made sure that FreeHand 8 offers the highest degree of integration with Adobe Photoshop.

FreeHand Compatibility with Photoshop

If you are accustomed to working with Illustrator and Photoshop, you may be concerned with how well FreeHand interacts with Photoshop. The answer is FreeHand actually works better with Photoshop than Illustrator 7.0.1. (Because you are working with the demo version of FreeHand, you will not be able to use these features.)

- No loss of resolution: Photoshop files can be dragged and dropped directly onto FreeHand pages without any downsampling of resolution as they are into Illustrator 7.0.1.
- Pixels or paths: FreeHand paths can be copied and pasted directly into Photoshop files as either pixel art on layers or vector art on paths. They can also be dragged and dropped with the same results.
- Opening Vector and Bitmap art: FreeHand EPS files open correctly in Photoshop with both vector and placed images rasterized together. Native Illustrator files do not open correctly in Photoshop and must be saved in the EPS format.

Working with Scanned Artwork

FreeHand also offers some of the most impressive tools for working with scanned artwork. Some of these tools mean you may not need to work with Photoshop at all.

1. Choose File > Open and then find the file America.fh8. This file is in the Demo folder that accompanies this tutorial.

Modifying Grayscale Images

A grayscale TIFF image was placed, then embedded, in the file. However, you can now recolor that grayscale image so that it matches the vector graphics in the file.

1. Press and drag the Dark Red color chip from the Color List onto the grayscale image (IA-1). The image changes color. Drag the Medium blue color onto the image.
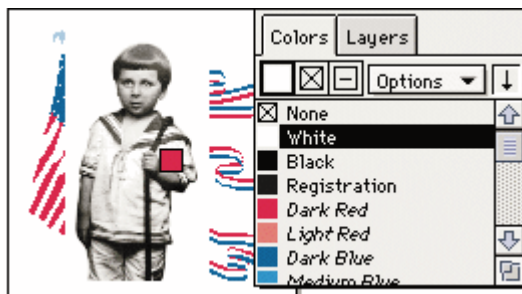
IA-1

2. You can also change the brightness and contrast of imported placed images. With the placed image selected, open the Object Inspector. The Grayscale TIFF information appears (IA-2).

3. Click the Edit button. The Image adjustment dialog box appears (IA-3).

4. While you can change the Lightness and Contrast settings using the sliders, you will use the solarize effect. Click the solarize icon (IA-4). Then click the OK button to see how the image has been adjusted.
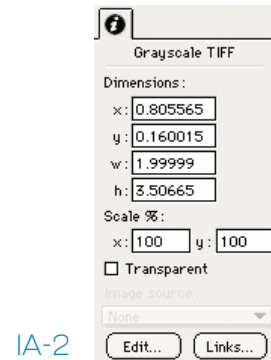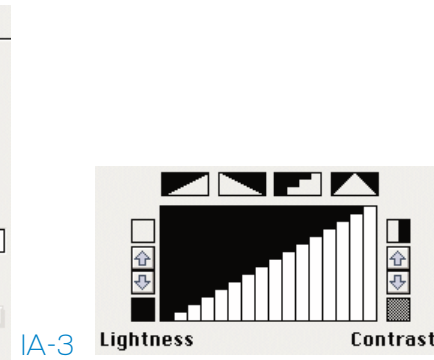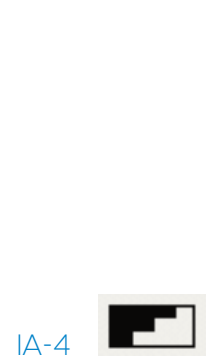
IA-2   IA-3   IA-4

5. Click the Links button in the Object Inspector. The Links dialog box opens. This is where you can check the status of placed images or extract embedded images back into linked ones. This is particularly helpful for working in cross-platform environments. Click OK to close the Links dialog box.
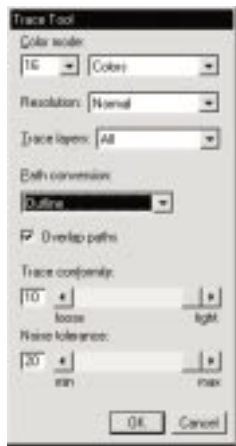
Masking Out a White Background

Silhouetted TIFF images contain a white background that will obscure any objects behind them. Fortunately the combination of FreeHand's Trace tool and Paste Inside feature makes it very easy to eliminate the white background.

IA-5

IA-6

IA-7
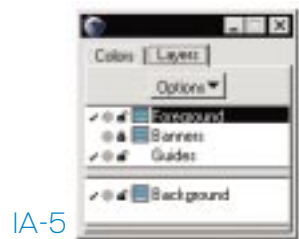
1. Click on the tab for the Layers panel and check the mark for the Banner layer (IA-5). This makes the Banner layer invisible, which will help working with the Trace tool.

2. Double-click the Trace tool (IA-6) in the Toolbox. The dialog box appears (IA-7).

3. Set the Path conversion pop-up menu to Outer edge. Set the Trace conformity to tight and the Noise tolerance to Max. This will create a path that follows all the details of the silhouetted image. (Because you are creating an Outer edge only, you do not have to worry about the Color mode, or resolution. Nor do you have to worry about the layers.)

4. Drag with the Trace tool cursor to create a marquee all around the image (IA-8). When you release the mouse, a path is created around the image.

5. Use the Pointer tool to select the image. Choose Edit › Cut. The image disappears leaving an outline of the original image.

6. Click with the Pointer tool to select the outline. Then choose Edit › Paste Inside. (The Paste Inside command is the equivalent of masks or clipping paths in other programs.)

7. Click again on the Layers panel and turn the checkmark back on. The image is only seen within the boundaries of the traced outline.

8. With the outline still selected, drag the None color chip onto the Stroke Selector. This eliminates the black outline on the path.

IA-8

Animation and Web Graphics

FreeHand is not just a print illustration program. FreeHand gives you the ability to convert static images into dynamic animations. In this section you will use two different techniques to convert FreeHand files into animations.

1. Choose File › Open and then find the file M.fh8. This file is in the Demo folder that accompanies this tutorial.

Creating a Blend Animation

This animation will take the "M" logo and morph it into the question mark and then into the person.

1. Select all four of the images on the page (AW-1). Do not select the spiral on the pasteboard.

AW-1

2. Choose Modify › Combine › Blend. All four objects are joined by intermediate blend steps.

3. Move the spiral onto the art as shown (AW-2).

4. Choose Edit › Select All. Then choose Modify › Combine › Join Blend To Path. The objects of the blend follow the spiral.

5. Open the Object Inspector. Change the number of blend steps to 7.

6. Uncheck the Rotate on path box in the Object Inspector. This keeps all the objects vertical as they spiral around (AW-3).
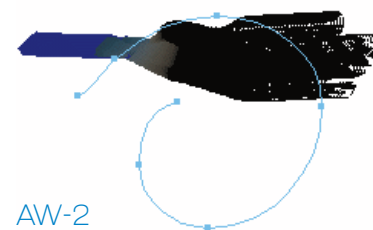
AW-2
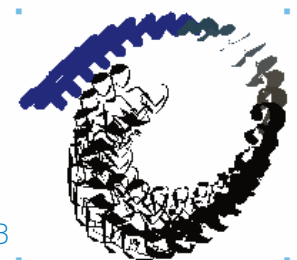
AW-3

7. Choose Xtras › Animate › Release to Layers and then look at the Layers panel. Each of the objects of the blend has been placed on its own layer.

Because you are working with the demo version you cannot export the file as a Flash animation. However, in order to let you understand how exciting these animations can be, we have created an animation based on the above steps. There are several different ways you can see this animation.

Playing a Flash Movie

1. Find the file Mmovie.swf. This file is in the Demo folder that accompanies this tutorial.
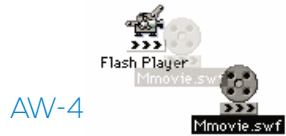

AW-4

2. Drag the Mmovie.swf file onto the Flash player (AW-4) which comes with the trial version of FreeHand 8. The animation window opens and you can choose Play from the Play menu.

3. You can also drag the Mmovie.swf file onto the open window of the Netscape or Internet Explorer browsers that have the Shockwave for Flash plug-in. The animation automatically plays.

As you can see from the size of this animation, Flash files are incredibly small. This makes them very useful for working on the web where the smaller the file size, the faster the download and playback.

Creating a Page Animation

In addition to animations created from blends, FreeHand also lets you create animations from individual pages.

1. Close any files you may have open. Choose File › Open and then find the file Clip.fh8. This file is in the Demo folder that accompanies this tutorial. This file already has the first three pages of the animation created. In each page the illustration of the cherub gets smaller as the arrow changes its position.

AW-5
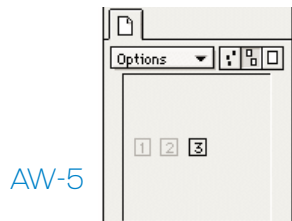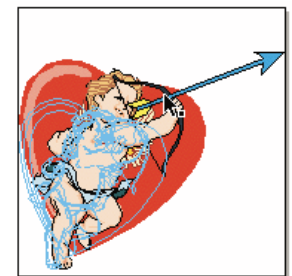
2. Open the Document Inspector and use the thumbnail preview (AW-5) to make sure you are working on page 3.

3. Use the Options pop-up menu to duplicate page 3 and then move to page 4. Deselect the art by clicking on the pasteboard.

AW-6

4. Select the cherub group and use the corner handles of the group to decrease the size of the art (AW-6). (While you could use the Transformation Handles to scale the cherub, you can also you the corner handles of a group to change its size.) Make sure the cherub moves down and to the left corner of the page.

5. Select the arrow group. Click the Rotation tool (AW-7) in the Toolbox and press with the tool to rotate the arrow (AW-8). (You could also you the transformation handles to rotate the arrow.)

AW-7

AW-8

6. Use the Options pop-up menu to duplicate page 4 and then move to page 5. Deselect the art.

7. Repeat step 4 and make the cherub even smaller.

8. Click on the arrow group and move the arrow slightly off the page.

9. Duplicate the page one last time. And perform the same operations on the artwork. Your finished set of pages should appear as shown (AW-9).

AW-9

Again, since you are working with the FreeHand demo application, you cannot complete the rest of the steps for a real animation. This would be to choose Xtras › Create › Flash Animation. This opens a dialog box where you can name your file and set the animation options.

However, we have created another animation based on the above steps. Follow the steps in the Playing a Flash animation exercise (earlier in this section) to view the file Clipmvie.swf.

FreeHand and Flash on the Web

In the short time that Flash 2 has been available, it has become an important tool for web designers. The following are some web sites where you can see how FreeHand and Flash 2 animations can be used.

MSN (www.microsoft.com): Animation used extensively throughout the North American and International websites.

Spooky & the Bandit (www.spookyandthebandit.com): Flash 2 used to create "web toys."

Simpsons (www.foxworld.com/simpsons): A total experience of interactivity, even animated cartoons on the Simpsons television.

Macromedia (www.macromedia.com/shockzone.ssod/): It's hard to keep up with how many sites now use FreeHand and Flash 2 technology. Visit our own page for the most recent "Site of the Day" for a look at the most recent exciting ones.

GIF Exporter

Because you are working with the demo version, you cannot see FreeHand's GIF Exporter. However, as the illustration shows (AW-10), the GIF Exporter in FreeHand 8 gives you complete control over transparency, colors, etc. when you export from FreeHand as a GIF.

AW-10
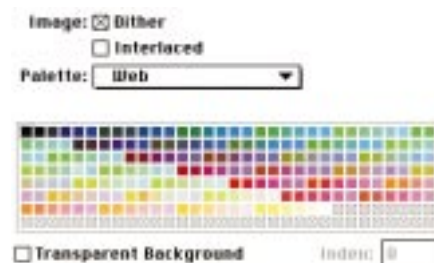
Print Output

Just as FreeHand has been innovative in the creation of artwork, so has it pioneered some innovations in printing. In this section you will explore the many options available for printing.

1. Choose File › Open and then open any of the files in the Demo folder that accompanies this tutorial.

Creating Print Settings

One of FreeHand's print features is the ability to save complicated print setups as customized Print Settings. This means that you can use individual sets for each of the printers in your office or you can have specialized settings for different client's output needs.

1. Choose File › Print to open the Print dialog box and click the Setup button. (On the Macintosh, switch from General to the FreeHand application settings to access the Setup button. The Print Setup dialog box appears (PO-1).

PO-1

2. Click one of the three tabs on the right side of the Print Setup box and set each for the way you would want your artwork to be printed.
3. Click on the + sign next to the Print setting to save these settings.

Printing

1. Click OK. This sets the Print settings and returns you to the Print dialog box.
2. Click Print. This demo version prints your file with banners at the top and bottom of the page that read "FreeHand 8 Demo Version."

Collect For Output

If you send files to another locations, such as a service bureau, for printing, you may find that you need to send linked files and fonts as well as the original FreeHand file. FreeHand 8 gives you a sophisticated Collect For Output feature that automatically finds all the necessary files to print a job and copies them all into one central location.

How to Purchase

FreeHand 8 can be purchased as a single application or in the Design in Motion Suite, which includes FreeHand 8 together with Flash 2 for web animations with sound and interactivity, and Insta.HTML for converting FreeHand files into complete web pages.

To order, go to www.macromedia.com/freehand, call 800-457-1774, or contact your favorite reseller or mail order company.

Resources

Online

One of the best places to get the latest information about FreeHand 8 is to visit the FreeHand pages of the Macromedia web site (www. macromedia. com/ freehand). The site also has an Searchable Knowledgebase (www. macromedia. com/ freehand/ support/) where you can search for the answers to your specific design and technical questions.

You can also subscribe to the Macromedia newsgroup (News:// forums. macromedia. com), which is an open forum for Macromedia users to discuss technical issues and share helpful techniques involving Macromedia products.

Training Materials

This tutorial can only give you a glimpse of all the features in FreeHand 8. If you are interested in learning to use FreeHand 8, there are many sources you can choose from.

Authorized Training Centers

Macromedia maintains a list of training centers that have been authorized to provide FreeHand training. You can find the centers nearest you by going to the Macromedia web site (www. macromedia. com/ support).

Books and CD-ROM Training

You can use any of the excellent books and training materials available from Macromedia Press and Peachpit Press. These books are available at bookstores or may be purchased by calling 1-800-283-9444 or through the Peachpit Press web site (www.peachpit.com).

On the web, visit the Peachpit Press web site (www.peachpit.com), or visit www.macromedia.com for updated information on the latest FreeHand books and training materials, authored by experts such as Sandee Cohen and Olav Martin Kvern. On Macromedia's web site, search for Macromedia Press or TechNote #3624, FreeHand Publications.