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FreeHand and Microsoft Windows

FREEHAND OPERATES IN A GRAPHICS ENVIRONMENT CALLED MICROSOFT WINDOWS, CREATED BY MICROSOFT CORPORATION. AN EXTENSION OF THE MS-DOS OPERATING SYSTEM, MICROSOFT WINDOWS GIVES A STANDARD LOOK AND FEEL TO FREEHAND AND ALL OTHER WINDOWS APPLICATIONS. TO RUN FREEHAND UNDER MICROSOFT WINDOWS, YOU NEED TO LICENSE AND INSTALL MICROSOFT WINDOWS.

FreeHand and the Apple Macintosh

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Getting Started

What's in this package

The FreeHand package contains the following items:

◆ A CD-ROM containing the FreeHand installer, font libraries, clipart, templates, and the sample artwork.

◆ *Using FreeHand* (this manual) is a guide to using FreeHand.

Note: To preserve disk space, the FreeHand clipart is not copied to your local hard drive during installation. The clipart is located in the Clipart folder on your FreeHand CD-ROM.

System requirements

FreeHand runs on both the Macintosh and Windows operating systems. Before you install FreeHand and begin using the application, you need the following equipment:

Macintosh

◆ System 7.1 or higher

   For double-byte support, double-byte System 7.1 or higher is required.

◆ PowerPC processor

◆ 16 MB of application RAM (32 MB or more recommended)

◆ 30 MB of available hard disk space (60 MB or more recommended)

◆ CD-ROM drive

◆ Mouse or digitizing tablet

◆ Color monitor recommended

◆ PostScript-compatible printer recommended

Windows

◆ Windows 95 or Windows NT 4 (with Service Pack 3) or later

◆ Intel Pentium processor or higher

◆ 16 MB of system RAM in Windows 95 (24 MB or more recommended)

◆ 32 MB of system RAM in Windows NT 4 (40 MB or more recommended)

◆ 30 MB of available hard disk space (60 MB or more recommended)

◆ CD-ROM drive

◆ Mouse or digitizing tablet

◆ Color monitor recommended

◆ PostScript-compatible printer recommended

Installing and starting FreeHand

This section describes how to install FreeHand on your hard disk and start the application.

Before you begin, make sure your computer meets the system requirements listed in the System Requirements section. Read the ReadMe document on the FreeHand CD-ROM for late-breaking information.

To install and start FreeHand on a Macintosh:

1 Disable virus-protection extensions and restart your computer.

2 Make sure the FreeHand CD-ROM is in your CD-ROM drive.

3 Double-click to launch the FreeHand installer.

4 Follow the instructions that appear on screen.

   The installation application prompts you to enter required information.

5 After FreeHand is installed, you may be prompted to restart your machine. Double-click the FreeHand icon to launch FreeHand from the Finder.

To install and start FreeHand in Windows NT 4 or Windows 95:

1 Insert the FreeHand CD-ROM in your CD-ROM drive.

2 Follow the instructions that appear on screen.

   The installation application prompts you to enter required information.

3 When FreeHand is installed, launch FreeHand from the Start menu.

There are four other ways to install FreeHand in Windows NT 4 and Windows 95:

◆ Double-click the installation application, Setup.exe, in the FreeHand folder. Be sure to use the Explorer, not My Computer.

◆ Click the Install button in the Add/Remove Programs module in the Control Panel and navigate to the Setup.exe application in the FreeHand folder.

◆ Use the Run command in the Start menu and navigate to the Setup.exe application in the FreeHand folder.

◆ Select the CD-ROM icon in the Explorer or My Computer, right-click to display the menu, and choose Autoplay.

Note: To disable Autoplay, hold down the Shift key while inserting the FreeHand CD-ROM.

Uninstalling FreeHand

Use the uninstaller to ensure that all FreeHand files are removed from the computer.

To uninstall FreeHand on the Macintosh:

1 Run the installer from the FreeHand CD-ROM and choose Remove from the Options pop-up.

2 Follow the instructions that appear on screen.

   The uninstaller removes all FreeHand application files from your computer.

On the Macintosh, manually removing FreeHand can result in several preferences and Kodak Color Management System files remaining in the System folder.

If you used Custom installation to install FreeHand in a different folder than the default location, you must specify the same location when uninstalling.

To uninstall FreeHand in Windows NT 4 or Windows 95:

1 Choose Start > Settings > Control Panel.

2 Double-click Add/Remove Programs.

3 Select Macromedia FreeHand 8 in the list box.

4 Click the Add/Remove button.

5 Follow the instructions that appear on screen.

   The uninstaller will remove all FreeHand program files from your system.

In Windows, manual uninstallation may leave several DLLs and registry database entries.

Resources for learning FreeHand

In addition to the printed *Using FreeHand* manual, there are resources to help you quickly learn how to use FreeHand.

◆ FreeHand Help

FreeHand's online help, available any time the FreeHand application is active, has expanded to include information on every FreeHand tool, panel, dialog box, and preference.

◆ Tutorials chapter

Located in the *Using FreeHand* manual, these tutorials guide you through fundamental and advanced FreeHand features.

◆ www.macromedia.com

Macromedia's award-winning web site contains FreeHand tutorials, sample art, and updates.

What's New in FreeHand 8

Creative tools

Lens fills—FreeHand's dynamic lenses include transparency effects and lighten, darken, and monochrome filters. The magnify lens automatically creates live, detailed views or insets with a movable focus point. The lighten, darken, and grayscale lenses create overlays for powerful imaging effects.

Emboss tool—Create buttons and depth effects using Chisel, Deboss, and Quilt effects.

Shadow tool—Create soft-edged and hard-edged drop shadows directly in FreeHand.

Mirror tool—Create symmetric objects and complex circular arrays.

Graphic Hose—Build a sequenced library of objects and interactively spray them throughout your document with options to vary their size and rotation.

Freeform tool and reshaping tool—Edit paths interactively without using Beziér control points.

Rasterize in place—Convert your image to bitmap format directly in FreeHand without exporting and importing.

Preset styles—Use libraries of preset stroke and fill styles for fast and efficient designing.

Customizable and integrated environment

Customizable keyboard shortcuts—Make FreeHand work the way you do using customizable keyboard shortcuts including sets of shortcuts for major applications such as Photoshop, QuarkXPress, Illustrator, and CorelDRAW.

Customizable toolbars—Customize FreeHand's environment for quick access to your most commonly used functions. Toolbars and panels are customizable, movable, and dockable.

Customizable views—Create saveable and nameable views of your workspace.

Product integration—Use FreeHand more smoothly and efficiently than ever with Photoshop, QuarkXPress, Illustrator, CorelDRAW, and Acrobat.

Performance enhancements

Faster display—Take advantage of accelerated screen redraw and image display for maximum efficiency. Use Fast Preview and Fast Keyline for optimal redraw.

Windows enhancements—Use time-saving wizards to make document setup quick and easy. Shortcut menus are available using the right mouse button. The Enhanced Windows Metafile format provides better integration with Microsoft Office.

Animation integration with Macromedia Flash

Flash export—Export your documents as Flash animations using pages and layers.

Blend animation—Release your blends to layers to quickly export as Flash animations.

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CHAPTER 2
Getting Your Bearings

Using the document window

FreeHand is an object-oriented drawing application. Object-oriented means that your document is composed of strokes and fills, rather than individual pixels, as with an image-editing application. Unlike bitmap graphics, an object-oriented drawing's resolution is device-dependent.

This means that the printed resolution of your document depends on the resolution of the output device, not on the resolution of the document itself.

Launching FreeHand displays the document window, your interface to the pasteboard—the area that contains the pages of your document. The 222-inch-by-222-inch pasteboard can hold over 675 letter-sized pages. The buttons, tabbed panels, and toolbars are customizable. See "Using panels" on page 9 and "Customizing toolbars" on page 32.

Main toolbar contains buttons to activate the most common functions.

Text toolbar provides access to the most frequently used text commands.

Page rulers display in the document's unit of measurement.

Object Inspector

Stroke Inspector

Fill Inspector

Text Inspector

Document Inspector

Inspectors display information and options for objects and text.

Info bar provides feedback on selected objects.

Set the page rulers' zero point.

Toolbox contains the drawing and transform tools.

Color Mixer and Tints panel display colors using a variety of color models.

Enter a custom magnification value directly into the entry field.

Use the Magnification pop-up to select a preset or custom page magnification.

Use the Units pop-up to define the unit of measurement for your document.

Use to switch between Preview and Keyline views.

Use the Page View pop-up to select an individual page. Enter a page number to go directly to a page.

Page selector buttons scroll between pages.

Use the Layers panel to create and modify the layers in your document.

The Color List displays all named colors.

Pasteboard contains all of the pages in your document.

Each document page contains your illustration and can be of any size. Objects must be on a page to print.

Using panels

FreeHand's panels float on top of the pasteboard and can be placed anywhere on your screen. These customizable tabbed panels can be moved, separated, or combined by dragging their tabs. For instance, the Inspector consists of five panels: Object Inspector, Stroke Inspector, Fill Inspector, Text Inspector, and Document Inspector. Click a tab to activate a particular panel.

Components of a panel
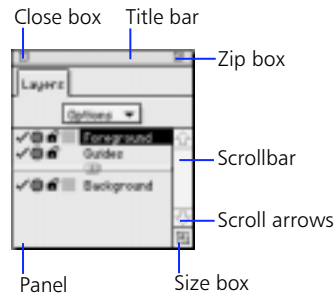
Macintosh
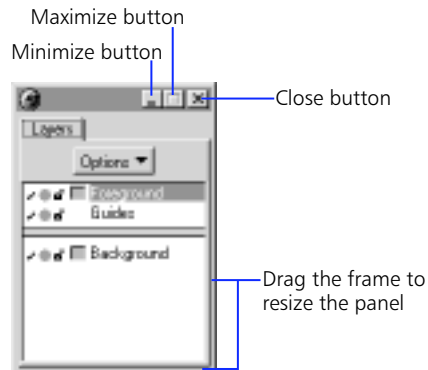
Windows

The following are tabbed panels: Object Inspector, Stroke Inspector, Fill Inspector, Text Inspector, Document Inspector, Color List, Layers panel, Color Mixer, Styles panel, Tint panel, and Halftones panel.

Panel shortcuts

To	Do this
Switch between the first edit field of each open panel	Use Command-Tilde (Macintosh) or Control-Tab (Windows).
Show or hide panels	Choose View > Panels, use F12, or use Command-Shift-H (Macintosh) or Control-Alt-H (Windows).

To add a panel to another panel:
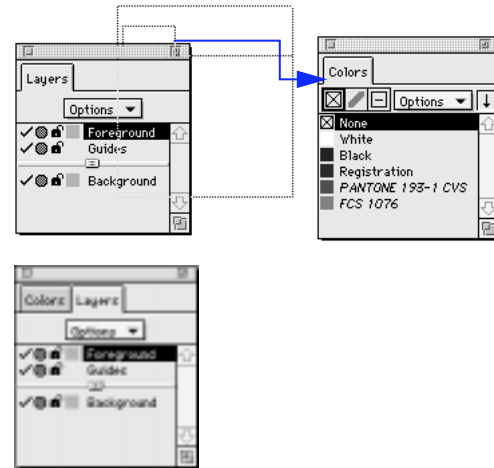
To return the panels to their default positions, quit FreeHand, delete the preferences file named "FreeHand 8 Preferences" located in the System Folder \ Preferences folder (Macintosh) or Fhprefs.txt in the application folder (Windows) and relaunch FreeHand. This will reset all of your preferences.

To remove a panel:
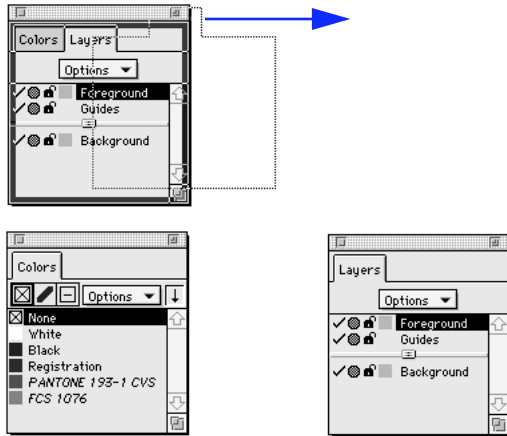
Docking panels
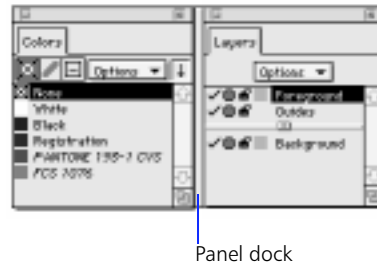
Panel dock

When moving, opening and closing, or zipping and unzipping docked panels, the action affects all docked panels as one unit. Dock one panel either horizontally or vertically to another panel. Resize panels within docked panels.

To	Do this
Dock panels	1. Hold down Control and drag one panel towards another by its title bar. Like snap distance, dragging a panel to within 12 pixels docks them together. 2. Release the mouse button. A panel dock appears to indicate docking.
Undock panels	Click the panel dock between two panels or hold down Control while dragging the title bar of a docked panel away from its adjacent panel.

On the Macintosh, Xtra panels do not snap or dock to other panels. In Windows, non-tabbed panels do not snap or dock to one another.

Snapping panels

Align panels in your workspace by snapping them together or to the monitor border. In Windows, you can also snap panels to the border of the application.

Drag a panel by its title bar to within 12 pixels of another panel to snap them together. Hold down Shift while dragging a panel to temporarily disable snapping. Resize and zip snapped panels independently.

Using the Inspectors

Virtually every FreeHand drawing task involves one or more of the five Inspectors.

Use	To
Object	Display the position and dimensions of a selected object. Use Command-I (Macintosh) or Control-I (Windows).
Stroke	Display the stroke attributes of a selected path. Use Command-Option-L (Macintosh) or Control-Alt-L (Windows).
Fill	Display the fill attributes of a selected path. Use Command-Option-F (Macintosh) or Control-Alt-F (Windows).
Text	Display text formatting of selected text. Use Command-T (Macintosh) or Control-T (Windows).
Document	Display thumbnail icons for each page in your document. Use Command-Option-D (Macintosh) or Control-Alt-D (Windows).

 Using the Object Inspector

The Object Inspector displays an object's position and dimensions. For example, with an ellipse selected, the Object Inspector displays position (x and y values based on the current page ruler setting) as well as dimensions (height and width in the document's unit of measurement). With a rectangle selected, the Object Inspector displays position and dimensions as well as the rectangle's corner radius. Values in the Object Inspector are editable. All changes made in the Object Inspector's entry fields are reflected in your document as soon as you press Return. The Object Inspector provides feedback even with multiple objects selected. This feature is especially useful when selecting a range of text blocks and changing their auto-expansion settings.

Using the Stroke Inspector

The Stroke Inspector displays stroke attributes of a selected path. For example, use the Stroke Inspector to enter a stroke width and assign a color. The Stroke Inspector has settings for five types of strokes: None, Basic, Custom, Pattern, and PostScript. For more information on the concepts of stroke width, cap, join, miter limit, dash setting, and arrowheads, see Chapter 6, "Color, Strokes, and Fills."
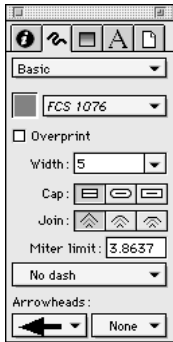
Using the Fill Inspector

The Fill Inspector defines the type of fill a path contains. For example, use the Fill Inspector to change the type of fill or assign a color. The Fill Inspector has settings for nine types of fills: None, Basic, Custom, Gradient, Lens, Pattern, PostScript, Textured, and Tiled. Fills are discussed fully in Chapter 6, "Color, Strokes, and Fills."

Using the Text Inspector

The Text Inspector has five subpanels:

◆ Character

◆ Paragraph

◆ Spacing

◆ Columns and Rows

◆ Adjust Columns
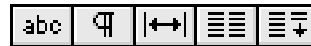
The Text Inspector's five subpanels are explained in Chapter 7, "Text."

Using the Document Inspector

The Document Inspector contains a miniaturized view of the pasteboard, showing thumbnail icons for each page in your document. With the Pointer tool, move the thumbnails, and the corresponding pages move.

The Document Inspector provides three magnification views when manipulating page thumbnails. When magnification is set to the middle or highest levels, all of the pages in the document may not be visible in the Document Inspector's pasteboard window. To navigate the pasteboard, hold down the spacebar to switch the cursor to a grabber hand to scroll the pasteboard window. The Document Inspector also contains options for adding, duplicating, and removing pages, as well as options to set page size, orientation, bleed, and printer resolution.

Grid size appears in the View menu, and the constrain angle appears in the Modify menu. The Units pop-up appears in the lower-left corner of the document window.

Add, duplicate, and remove pages.
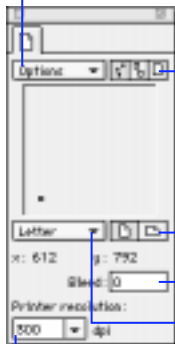
Choose magnification views for page thumbnails.

Set page orientation.

Set page bleed.

Set page size.

Set printer resolution for final output device.

Setting units of measurement

To set the unit of measurement for an entire document, choose a measurement from the Units pop-up in the lower-left corner of the document window. This setting affects almost every numerical entry field in the application. With the Units pop-up set to points, entering 125 in an entry field yields a value of 125 points.

To override the unit of measurement for a single entry field, enter a value in a numerical entry field with a unit override, and press Return. With the Units pop-up set to points, entering 125m in an entry field yields 125 millimeters instead of 125 points. This 125-millimeter value is automatically converted to 354.3307 points.

Unit override	Example
#i for inches	7i = 7 inches
p# for points	p7 = 7 points
#p for picas	7p = 7 picas
#m for millimeters	7m = 7 millimeters

Numerical entry fields accept mathematical functions. The following mathematical symbols are supported:

- ◆ + (addition)
- ◆ - (subtraction)
- ◆ * (multiplication)
- ◆ / (division)

To use mathematical equations, create an equation using these symbols. Type this equation in an entry field and press Return. With the Units pop-up set to points, entering "10/2" in an entry field yields a value of 5 points.

To override the unit of measurement using mathematical equations, create an equation using these symbols and any combination of unit overrides. Type this equation into an entry field and press Return. With the Units pop-up set to points, entering "2i + p7" yields a value of 151 points.

Using the toolbars

FreeHand has several toolbars:

◆ Toolbox

◆ Main toolbar

◆ Text toolbar

◆ Info bar

◆ Status bar (Windows)

The location and contents of the Main toolbar, Text toolbar, Toolbox, and Info bar are customizable. The Status bar is customizable on Windows. This chapter describes the default location and contents of the toolbars. The default location of the Main toolbar and the Text toolbar is below the menus and above the active document window.

To show or hide individual toolbars, choose Window › Toolbars. To show or hide all active toolbars, choose View › Toolbars. To show or hide the Toolbox, choose Window › Toolbars › Toolbox.

Toolbox

The Toolbox contains 17 tools.

Pointer tool: Select and drag objects.

Text tool: Create text blocks.

Rectangle tool: Draw rectangles and squares.

Polygon tool: Draw polygons and stars.

Ellipse tool: Draw ellipses and circles.

Line tool: Draw straight lines.

Freehand tool: Draw freeform and calligraphic paths.

Pen tool: Draw paths by anchoring points.

Freeform tool: Push and pull paths.

Bezigon tool: Draw paths using automatic curvature.

Knife tool: Cut a path into two or more paths.

Rotate tool: Rotate objects.

Reflect tool: Reflect objects.

Scale tool: Resize objects.

Skew tool: Skew objects.

Trace tool: Trace objects.

Magnification tool: Magnify objects.

Main toolbar

Use	To
	Create a new document.
	Open an existing document.
	Save the active document.
	Import a file or object.
	Print the active document.
	Undo the last action.
	Redo the last action.
	Cut the selected object to the Clipboard.
	Copy selected object to the Clipboard.
	Paste the Clipboard's contents.
	Open Find & Replace Graphics dialog box.
	Open the Align panel.
	Group the selected objects.

Use	To
	Ungroup the selected objects.
	Join the selected objects.
	Split the selected objects.
	Lock the selected objects.
	Unlock the selected objects.
	Open the Object Inspector.
	Open the Transform panel.
	Open the Color List.
	Open Color Mixer.
	Open Layers panel.
	Open FreeHand Help.

Tool Tips describe each button's function. Pause the cursor over a button on the toolbars, and a small label appears. This label disappears when you move the cursor away from the button.

Text toolbar

The Text toolbar contains common text commands.

Use	To
Normal Text ▾	Choose a paragraph style (Windows).
AGaramond ▾	Choose a font.
Plain ▾	Choose a character style (Macintosh).
B	Apply Bold character style (Windows).
I	Apply Italic character style (Windows).
12 ▾	Set point size.
0	Set leading.
▾	Choose leading options.
≡	Align text left.
≣	Align text center.
≣	Align text right.
≣	Fully justify text.
◌	Flow text inside a path.

Use	To
⬚	Attach text to a path.
⬚	Detach text from a path.
⬚	Convert selected text to paths.

In Windows, the Text toolbar includes a paragraph style pop-up and buttons for Bold and Italic character styles. Click both Bold and Italic buttons to apply a font's BoldItalic character style, when available. An icon next to the font name indicates whether the font is a TrueType or a PostScript font. Absence of an icon indicates a system font or an unidentifiable font.

Clicking a font name in the Font pop-up in the Text toolbar previews selected text in the chosen font. With no text selected, clicking a font name previews "AaBbCcDd" (Macintosh) or the name of the font (Windows).

Info bar

The Info bar provides feedback for selected objects, depending on object type and current action. Such feedback includes the object type, the position of the cursor, the change in an object's position, the angle, the center of rotation, the radius, and the number of sides. Choose Window › Toolbars › Info to show or hide the Info bar.

Status bar (Windows)

The Status bar contains the Magnification pop-up, page selector buttons, Page View pop-up, View pop-up, and Units pop-up. In addition, the Status bar displays status messages on the task in progress, the menu item highlighted, or tool selected.

Setting up your project

Consider your document's design and final output requirements. Decide in advance what settings are best.

Page size

Set the page size in the Document Inspector to define the size of your final document. Objects can span multiple printed pages. For more information on setting page size, see "Using the Document Inspector" on page 12.

 Page orientation

Page orientation can be portrait (tall) or landscape (wide). Set page orientation in the Document Inspector.

Bleed

If a document is to print off the edge of the paper set a bleed size in the Document Inspector and print on paper larger than the page size you specify. Page bleeds are discussed further in Chapter 8, "Printing."

Number of undo's

Use the File › Undo command to reverse an action. Enter a value of up to 100 in the General › "Undo's" entry field in the Preferences dialog box.

Number of pages

A single FreeHand document can contain multiple pages, each with its own dimensions, orientation, and bleed size. Add or delete pages in the Document Inspector.

Unit of measurement

Choose from points, picas, inches, decimal inches, or millimeters to display in the rulers, panels, and dialog boxes. Set the unit of measurement in the lower-left corner of the document window. Your selected unit of measurement can be overridden in any entry field as explained in "Setting units of measurement" on page 13 of this chapter.

Printer resolution

Set the printer resolution for your final output device. If you print proofs to a laser printer but plan to print the final document to an imagesetter, set the resolution for the imagesetter. Set the printer resolution in the Document Inspector. Use the printer resolution value to do the following:

◆   Calculate the number of default steps in a blend.

◆   Resize bitmap images to match the output device's resolution.

◆   Set the resolution of Gradient fills.

Page rulers

Page rulers use the document's current unit of measurement.

To show or hide page rulers, choose View › Page Rulers, or use Command-Option-M (Macintosh) or Control-Alt-M (Windows). To set the page ruler's zero point, click and drag the zero-point marker from the upper-left corner of the document window to a new location. The zero point represents the intersection of the horizontal and vertical page rulers. After moving the page rulers, double-click the zero-point marker.

Grid

The grid is a non-printing background of horizontal and vertical dotted lines. Choose View › Grid › Show to display the grid. Choose View › Snap to Grid to snap objects to the nearest grid intersection. Set the desired grid size in the View › Grid › Edit dialog box.

Guides

Use guides (non-printing blue guidelines) to precisely align and place objects. Choose View › Guides › Show to display guides or use the Guides layer in the Layers panel.

To add a guide with the page rulers active, drag from either the horizontal or the vertical page ruler. Choose View › Guides › Edit to display the Guides dialog box and add, delete, and modify guides.

With View › Snap to Guides turned on, objects snap to guides within the value set in the General › "Snap distance" preference.

This cursor	Appears when snapping to
	Horizontal guides
	Vertical guides

Working with the grid and guides

To	Do this
Show or hide the grid	Choose View > Grid > Show.
Snap objects to the grid	Choose View > Snap to Grid or use Command-; (Macintosh).
Modify the grid	Choose View > Grid > Edit.
Show or hide page rulers	Choose View > Page Rulers or use Command-Option-M (Macintosh) or Control-Alt-M (Windows).
Change unit of measurement	Use Units pop-up.
Show or hide guides	Choose View > Guides > Show.
Snap objects to guides	Choose View > Snap to Guides or use Command-\ (Macintosh) or Control-Alt-G (Windows).
Edit guides	Choose View > Guides > Edit.
Lock guides	Choose View > Guides > Lock Guides or click the padlock in the Guides layer.
Edit snap distance of guides	Enter a value in the General > "Snap Distance" preference entry field.

Editing guides

Choose View › Guides › Edit to display the Guides dialog box and review and edit all the guides.

Use	To
Page	Enter a page number in the entry field or click the next and previous page buttons.
Type	Identify the guide type for each guide on the selected page.
Location	Identify the location for each guide on the selected page.
Release	Turn the selected guide into an object.
Delete (Macintosh) or Remove (Windows)	Delete the selected guide.
Add	Add a new horizontal or vertical guide.
Edit	Set a new location for a horizontal or vertical guide.

See Chapter 4, "Organizing Your Illustration," for more information about turning objects into guides.

Navigating your document

To	Do this
Create a new document	Choose File > New, click the New document button on the Main toolbar, or use Command-N (Macintosh) or Control-N (Windows).
Open an existing document	Choose File > Open, click the Open document button on the Main toolbar, or use Command-O (Macintosh) or Control-O (Windows).

The four most recently saved documents appear in the File menu. Create templates for documents that share common design elements and production settings. To learn how to create and edit templates, see Chapter 4, "Organizing Your Illustration."

Working with pages
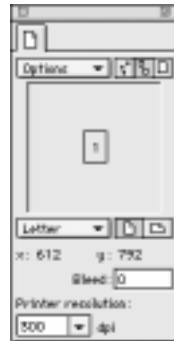
Document Inspector

Do one of the following to activate a page:

◆ Display the Document Inspector and click a desired page thumbnail.

◆ Choose a value from the Page View pop-up or enter a value in the entry field. Both are located in the lower-left corner of the document window.

◆ Click a page selector button.

◆ Scroll to a page using the document scrollbars.

◆ Click a page with a tool.

To arrange pages on the pasteboard:

1 Display the Document Inspector.

If necessary, click one of the page magnification buttons to enlarge or reduce the size of the page thumbnails.

2 Using the Pointer tool, click and drag a thumbnail to a new location in the Document Inspector's pasteboard window.

Hold down the spacebar to turn your cursor into a grabber hand to scroll the view.

To	Do this
Add pages	1. Choose Add Pages from the Document Inspector Options pop-up.
	2. Set options in the Add Pages dialog box and click OK.
	In the Add Pages dialog box enter the number, page size, page orientation, and bleed area for new pages.
Duplicate pages	1. Select a page.
	2. Choose Duplicate from the Document Inspector Options pop-up.
Remove pages	1. Select a page.
	2. Choose Remove from the Document Inspector Options pop-up.
	If the selected page contains objects, FreeHand warns you before deleting the page.

Setting page magnification

FreeHand supports magnifications ranging from 6 percent to 256 times actual size.

82% — Click to choose a magnification setting.

Highlight and enter a new magnification setting.

To	Do this
Enlarge a page view to the next increment	Select the Magnification tool and click a page.
	Choose an increment from the Magnification pop-up.
	Choose View > Magnification to select an increment.
Reduce a page view to the next increment	Select the Magnification tool, hold down Option (Macintosh) or Alt (Windows), and click a page.
	Choose an increment from the Magnification pop-up.
	Choose View > Magnification to select an increment.
Zoom to the highest magnification	Select the Magnification tool, hold down Control (Macintosh) or Shift (Windows), and click a page.
	Enter "256 x" in the magnification entry field.
Zoom to the lowest magnification	Select the Magnification tool, hold down Option-Control (Macintosh) or Shift-Alt (Windows), and click a page.
	Choose 6 percent from the Magnification pop-up.
	Choose 6 percent from View > Magnification.

To	Do this
Enlarge a selection area	Select the Magnification tool and drag a selection area.
	Enter a value in the magnification entry field in the lower-left corner of the document window.
Reduce a selection area	Select the Magnification tool and hold down Option (Macintosh) or Alt (Windows) and drag a selection area.
	Enter a value in the magnification entry field.

Using magnification shortcuts

To	Use
Change document view to fit the selection	Command-0 (zero) (Macintosh) or Control-0 (zero) (Windows)
Fit view to current page	Command-Shift-W (Macintosh) or Control-Shift-W (Windows)
Fit view to all pages	Command-Option-0 (zero) (Macintosh) or Control-Alt-0 (zero) (Windows)
Set view to 50%	Command-5 (Macintosh) or Control-5 (Windows)
Set view to 100%	Command-1 (Macintosh) or Control-1 (Windows)
Set view to 200%	Command-2 (Macintosh) or Control-2 (Windows)
Set view to 400%	Command-4 (Macintosh) or Control-4 (Windows)
Set view to 800%	Command-8 (Macintosh) or Control-8 (Windows)
Zoom in	Command-Spacebar (Macintosh) or Control-Spacebar (Windows)
Zoom out	Command-Option-Spacebar (Macintosh) or Control-Alt-Spacebar (Windows)

Multiple document views
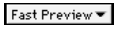
Use multiple views to see a document at different views or magnifications simultaneously. View up to eight windows showing the same document at one time. To close one of the document view windows, click the window's close box. To close all document views, hold down Option and click the close box (Macintosh) or press Control-Shift-F4 (Windows).

To open additional document views:

1 Select Window > New Window or use Command-Option-N (Macintosh) or Control-Alt-N (Windows).

2 Change the view and magnification of the new windows.

Naming and saving custom views

Name and save the current view's magnification percentage, view mode, and scrollbar positions to recall later. Choose View › Custom › New, type a name in the Name field, and click OK.

Use	To adjust
	Magnification percentage
	View mode
	Horizontal position
	Vertical position

Choosing View › Custom › New saves these settings to a custom view name. To recall a saved view, choose the view name from the Magnification pop-up or from the View › Custom submenu. In Windows, right-click to open the shortcut menu and choose a custom view from the View submenu.

To define, name, and save a view using the Magnification tool, click the tool, hold down Shift, and click and drag to define a view. The New View dialog box opens after the new view is set.

To edit a named view, adjust view elements to redefine the view, and then choose View › Custom › Edit. Choose a view name from the list in the Edit Views dialog box, then click Redefine. To delete the view, click Delete. To confirm edits and deletions, click OK.
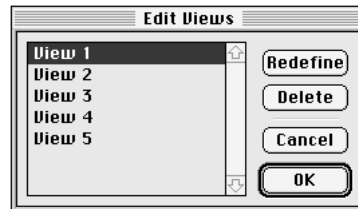
To switch from the current to the previous view, choose View › Custom › Previous or use Command-Option-1 (Macintosh) or Control-Alt-Shift-1 (Windows).

Optimizing document redraw

Choose one of four view modes from the View pop-up at the lower-left corner of the document window: Preview, Fast Preview, Keyline, and Fast Keyline. View modes affect a document's on-screen representation, not its object data or print quality. The fast modes optimize redraw by reducing blend steps to 10 and graying text for on-screen point sizes 50 and below.

Switch between Preview and Keyline by choosing View › Preview or using Command-K (Macintosh) or Control-K (Windows). Choose View › Fast Mode or use Command-Shift-K (Macintosh) or Control-Shift-K (Windows) to switch between normal and fast modes. For example, choosing View › Fast Mode when the document is set to Preview switches it to Fast Preview.

Note: To see a path in Keyline mode while the document setting is Preview mode (or vice versa), press and release Option (Macintosh) or Alt (Windows) as you drag the path.

Preview
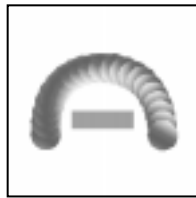
Fast Preview
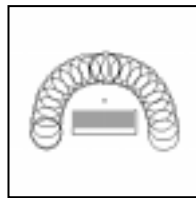
Keyline

Fast Keyline

Choosing a view mode

Choose	To
Preview	Display the document as it would print.
Fast Preview	Display blends with reduced steps and grayed text.
Keyline	Display only a black hairline stroke, no fill for objects, and X-boxes for paste insides, EPS images, and bitmap images.
Fast Keyline	Display blends with reduced steps and grayed text. X-boxes for paste insides are not visible.

Drawing fundamentals

Selecting objects

To	Do this
Select an object	Drag a selection area around the object,
	or click with the Pointer tool.
Select multiple objects	Drag a selection area around multiple objects,
	or hold down Shift and click with the Pointer tool.
Select all objects on the active page	Use Command-A (Macintosh) or Control-A (Windows),
	or choose Edit > Select > All.
Select all objects in a document	Use Command-Shift-A (Macintosh) or Control-Shift-A (Windows),
	or choose Edit > Select > All in Document.
Deselect all objects in a document	Press Tab,
	or choose Edit > Select > None.
Select an object within a composite path, group, blend, or paste inside.	Hold down Option (Macintosh) or Alt (Windows) and click with the Pointer tool.

To	Do this
Select an object underneath another object within a composite path, group, blend, or paste inside.	Hold down Control-Option (Macintosh) or Control-Alt-right click (Windows) and click with the Pointer tool to cycle through objects.
Select the composite path, group, blend, or paste inside in which a component object is selected.	Choose Edit > Select > Superselect.

Note: Double-clicking an object may display its transformation handles. To learn how to use these handles, see "Using transformation handles" on page 140.

Using the right mouse button (Windows)

Select an object with the right mouse button to display a shortcut menu containing a variety of commands. Such objects include paths, text blocks, bitmap images, EPSs, groups, and blends. Selecting dissimilar objects displays a shortcut menu of common commands.
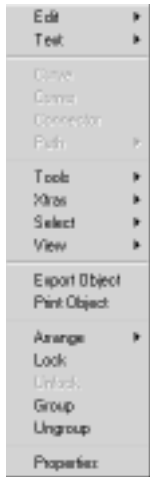
Selecting an object with the right mouse button displays object-specific options.

To display shortcut menus, right-click in the Document Inspector, Color List, Layers panel, Styles panel, Tints panel, on any color chip, color well, or on a blank area of the document.

Right-clicking a list item in a panel provides quick access to commands.

Alternatively, use the right mouse button to magnify an area of your document. Make sure the General › "Right mouse button magnification" preference is checked.

Moving objects

Move objects with the Pointer tool, the Transform panel, or the cursor keys.

To move objects with the Pointer tool, click an object or group of objects and drag to a new location. Hold down the mouse button for a moment or tap the Option (Macintosh) or Alt (Windows) key before dragging an object to display a preview of the object. Dragging an object using the right mouse button displays the option to move it or copy it (Windows).

Choose Modify › Transform › Move to move objects in precise increments. Refer to Chapter 5, "Drawing," or FreeHand Help for more information.

Move selected objects with the cursor keys in preset increments. Set the increment in the General › "Cursor key distance" preference.

The drawing tools

Pointer tool: Select and drag objects.

Rectangle tool: Draw rectangles and squares.

Ellipse tool: Draw ellipses and circles.

Freehand tool: Draw freeform and calligraphic paths.

Polygon tool: Draw polygons and stars.

Line tool: Draw straight lines.

Pen tool: Draw paths by anchoring points.

Bezigon tool: Draw paths using automatic curvature.

Use	To
Rectangle tool	Draw a rectangle. Select the Rectangle tool and click and drag on the page.
	Hold down Shift and drag to constrain a rectangle to a square.
	Hold down Option (Macintosh) or Alt (Windows) and drag to draw a rectangle from its center.
Ellipse tool	Draw an ellipse. Select the Ellipse tool and click and drag on the page.
	Hold down Shift and drag to constrain an ellipse to a circle.
	Hold down Option (Macintosh) or Alt (Windows) and drag to draw an ellipse from its center.
Polygon or Star tool	Draw a polygon or star. Select Polygon or Star tool and click and drag on the page.
	Hold down Shift and drag to constrain a polygon or a star to 45° increments of the angle entered in Modify > Constrain.
	Polygons and stars draw from their centers automatically.

Use	To
Line tool	Draw a straight line. Select the Line tool and click and drag on the page.
	Hold down Shift to constrain the line to 45° increments of the angle entered in Modify > Constrain.
	Hold down Option (Macintosh) or Alt (Windows) to draw a line from its center.
Freehand tool	Draw a freeform or calligraphic path using the mouse or pressure-sensitive tablet. Select the Freehand tool and click and drag on the page.
Pen tool	Place anchored points and alter path shape as you draw. Select the Pen tool.
	Click to place a corner point.
	Click and drag to place a curve point.
	Hold down Control and click to place a connector point.
Bezigon tool	Place points and control curvature of the path. Select the Bezigon tool.
	Click to place a corner point.
	Hold down Option (Macintosh) or Alt (Windows) and click to place a curve point.
	Hold down Control and click to place a connector point.

Note: The location and contents of the Toolbox are customizable. For more information on the drawing tools see "Drawing basics" on page 112.

To both constrain a shape and draw from the object's center, hold down Shift-Option (Macintosh) or Shift-Alt (Windows) while using a drawing tool. Double-click any tool with a bracket in its upper-right corner to display the tool options dialog box.

Types of points

Point type describes how the path behaves at that point.

Use	To
Corner point	Create a corner at the joint of two segments.
Curve point	Force a smooth connection between two segments.
Connector point	Connect a straight path to a curved path.

A rectangle is composed of four straight paths connected by corner points.

The connector point connects a straight path to a curved path.
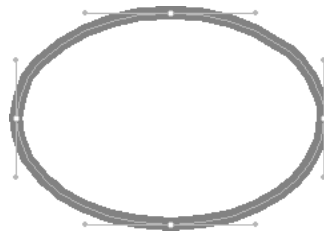
An ellipse is composed of four curved paths connected by curve points.

Importing and exporting

FreeHand can import and export a wide variety of vector (object-oriented) and bitmap graphic formats.

To import a graphic:

1 Choose File > Import or use Command-R (Macintosh) or Control-R (Windows).

2 Select the file you want to import and then click OK.

3 Position the import cursor where you want the upper-left corner of the graphic or text block to appear.

4 Click the mouse button to place the graphic at its default size. Click and drag to scale the graphic.

To export a graphic:

1 Choose File > Export or use Command-Shift-R (Macintosh) or Control-Shift-R (Windows) to display the Export document dialog box.

    To re-export an updated version of the file last exported, choose Export Again.

2 Choose the file format from the Format (Macintosh) or Save as Type (Windows) pop-up.

3 Type a file name and select the destination.

4 Click Export (Macintosh) or Save (Windows) or press Return.

For more information on importing and exporting graphics, see Chapter 10, "Working with Other Applications."

Send mail (Windows)

If an MAPI32-compliant electronic mail system is available in your Windows NT or Windows 95 environment, choosing File › Send creates a new outgoing mail message with the active FreeHand document attached. This feature does not work with 16-bit MAPI services. Two options are available when sending an e-mail: include active document and include all documents.

◆ Choose [File name] to attach the active document.

◆ Choose All Open Documents to attach all currently open documents to your e-mail message.

The document is attached in its current state. If the document is unnamed, it will be attached with the default name.

Customizing your environment

Using preferences

Use FreeHand's extensive preferences to customize your work environment. Choose File › Preferences or press Command-Shift-D (Macintosh) or Control-Shift-D (Windows) to display the Preferences dialog box. See FreeHand Help for a detailed explanation of every preference.

On the Macintosh, click a Category name to display the associated preference options panel.

In Windows, click a tab to display the associated preference options panel.

Use category	To
General	Set the number of undo's and control path editing behavior.
Object	Control path fills and behavior; change default line widths and graphic style behavior.
Text	Control text behavior.
Document	Retain document views, window location, and FreeHand 4 page placement; control active page settings and document review upon close.
Import/Export (or Import and Export on the Macintosh)	Control the attributes of imported and exported files; control embedding graphics in EPS and other Clipboard formats.
Spelling	Customize the spelling checker.
Colors	Set guide and grid colors and Color Management options.
Panels	Set panel display options.
Redraw	Switch on and off text effects, activate high-resolution image display, and control Greek type.
Sounds (Macintosh)	Enable and configure snap sounds.

Customizing shortcuts and toolbars

Use the Customize dialog box to add or change keyboard shortcuts, re-arrange toolbars within FreeHand, and change the buttons on the toolbars.

Customizing shortcuts

Use the Shortcuts panel in the Customize dialog box to change current keyboard shortcuts or to assign shortcuts to commands that have no shortcuts.

Note: To keep all default FreeHand 8 shortcuts intact, click the plus (+) button next to the Keyboard shortcuts setting field and specify a custom shortcut group name before changing any shortcuts. See "Managing shortcut settings" on page 32.

To assign a custom shortcut:

1 Choose File > Customize > Shortcuts.

2 Scroll the Commands list and click the triangles (Macintosh) or plus (+) signs (Windows), if necessary, to find the command to which you want to assign a new shortcut.

The Commands list replicates all FreeHand menus, plus some additional features. If the command is not in a FreeHand menu, click Other.

Note: With the exception of the Xtras Manager and the Repeat Xtra command, Xtras are not available for shortcuts.

3 Click the command name.

The command description appears in the Description field. If the command already has a shortcut, it appears in the Current shortcut keys field. A command can have more than one shortcut, although only one appears in the menu.

4 Press Tab or click in the Press new shortcut key field to prepare to assign the shortcut.

5 Press the key or keys that make up the new shortcut sequence.

The shortcut appears in the Press new shortcut key field. If the shortcut is assigned to a command already, the command appears under "Currently assigned to," in the center of the dialog box.

6 Click Assign to assign the new shortcut to the specified command.

Clicking Assign disables any previous assignment for the shortcut. When Go to conflict on assign is checked, the command to which the shortcut had been assigned is highlighted in the Commands field, ready to receive a new shortcut assignment.

7 Continue assigning shortcuts.

8 Save all shortcut assignments in the following ways:

◆ Choose a new shortcut group from the Keyboard shortcut setting pop-up. See "Managing shortcut settings" on page 32.

◆ Click Close to confirm the new shortcut assignments.

To revert to the previous shortcuts without saving the shortcuts you entered, press Reset.

To remove a shortcut:

1 Perform steps 1 through 3 under "To assign a custom shortcut."

2 Click the shortcut in the Current shortcut keys field.

3 Click Remove.

4 Click Close or choose a new shortcut group to confirm the removal.

Managing shortcut settings

In addition to the default FreeHand 8 shortcut group, FreeHand provides the default shortcut groups for these applications on the Macintosh:

◆ Authorware 4

◆ CorelDRAW 6

◆ Director 6

◆ Fontographer 4.1

◆ Illustrator 7

◆ PageMaker 6

◆ Photoshop 4

◆ QuarkXPress 3.3

FreeHand provides the default shortcut groups for these applications in Windows:

◆ Authorware 4

◆ CorelDRAW 7

◆ Director 6

◆ Illustrator 7

◆ PageMaker 6

◆ Photoshop 4

◆ QuarkXPress 3.3

To view and choose from available shortcut groups, use the Keyboard shortcuts setting pop-up.

When you assign a shortcut, it is queued to be saved in the current group. You can save shortcuts to more than one group before you click Close. However, switching to a new group saves all shortcut assignments to—and removals from—the previous group.

To create your own shortcut group, click the plus (+) button to the left of the Keyboard shortcuts setting field. Enter a unique file name, and then click OK.

To replicate a customized shortcut group on another computer, copy the file from one computer's Settings\Keyboard folder (in the FreeHand 8 application folder) into the same folder on the other computer. The new group's name appears in the Keyboard shortcuts setting pop-up. In Windows, the extension SET is added to shortcut group file; the extension is dropped from group names in the pop-up.

Printing a shortcut quick-reference card

To print a shortcut quick-reference card, click Print on the Shortcuts panel, and then click Print on the Keyboard Shortcuts dialog box.

Note: For a custom quick-reference card, click Save As. This produces a text file that can be opened in another application capable of converting text to a table and sorting by shortcuts, commands, or descriptions.

Customizing toolbars

The form, location, and contents of the Main toolbar, Text toolbar, Toolbox, and Info bar are customizable. Also, the Status bar is customizable in Windows.

To customize toolbars from the Toolbars dialog box:

1 Choose File > Customize > Toolbars.

Current command

Associated button

2 Scroll the Commands list and click the triangles (Macintosh) or plus (+) signs (Windows), if necessary, to find the command whose button you want to place on a toolbar.

The Commands list replicates all FreeHand menus, plus some additional features. To locate a command quickly, type the first few letters of the command name. If the command is not on a FreeHand menu, click Other.

Note: With the exception of the Xtras Manager and the Repeat Xtra command, Xtras are not available for toolbars.

3 Click the command to highlight the associated button, or click the button to highlight the command.

4 Drag the button from the dialog box to a specific location on a toolbar and drop it.

Existing buttons move to make room for the new button, if necessary.

Drag the button from the Toolbars panel of the Customize dialog box.

Position the button outline on the toolbar and drop it.

The new button takes a place between the existing buttons.
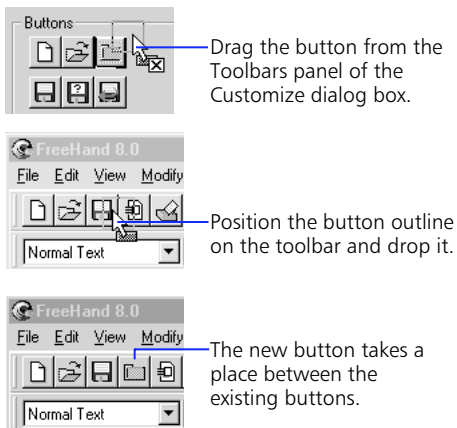
To remove the buttons from a toolbar, press and hold and drag the button away from the toolbar.

Drag the button to a neutral area on the pasteboard and drop it.

The button disappears from the toolbar and the remaining buttons close the gap.
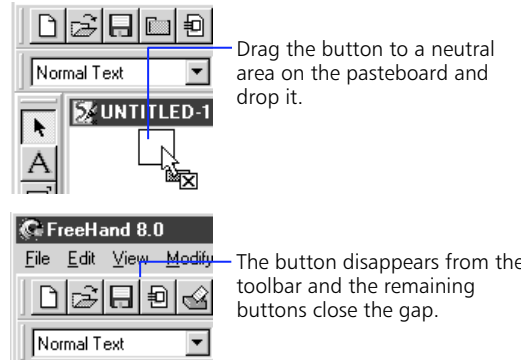
Customizing toolbars without using the dialog box

To move any button from one toolbar to another, hold down Command (Macintosh) or Alt (Windows) and drag the button to another location on a toolbar.

To remove the buttons from a toolbar, press and hold Command (Macintosh) or Alt (Windows) and drag the button away from the toolbar.

To duplicate a button for placement on more than one toolbar, hold down Option-Command (Macintosh) or Alt-Control (Windows) while dragging the button to the second location.

Note: Disabled buttons cannot be moved or deleted.

To move a toolbar onto the pasteboard:

1 Click and hold a toolbar handle.

Toolbar handle

2 Drag and drop the toolbar onto the pasteboard.

The toolbar becomes a resizable floating toolbar when dropped beyond the toolbar area.

To dock a floating toolbar onto the top or bottom toolbar area:

1 Click and hold the gray area on the floating toolbar.

2 Drag and drop the floating toolbar onto the top or bottom toolbar area.

3 The floating toolbar becomes a regular toolbar when dropped in the area above or below the pasteboard.

In Windows, when any toolbar is dragged within the toolbar area, the toolbar-arranging cursor is displayed, and the toolbar is highlighted.

Toolbar-arranging cursor

Using defaults

FreeHand's defaults file controls document and object defaults. Document-level defaults affect page size, unit of measurement, printer resolution, and other document settings. Object-level defaults affect objects and text. If you want to use different defaults or add document settings or object settings, create a new FreeHand defaults file.

To create a new defaults file:

1 Choose File > New.

2 Modify the document.

3 Choose the file format from the Format (Macintosh) or Save as Type (Windows) pop-up.
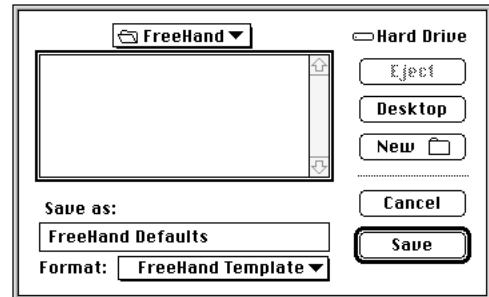
4 Name the file FreeHand Defaults (Macintosh) or Defaults.FT8 (Windows) and save it in the same folder as the FreeHand application.

Note: Check the Document > "New document template" preference to make sure that the template file name matches the name entered in this preference.

To apply default settings, check the Object › "Changing object changes default" preference to apply current object and text attributes to the next object or text you create. For example, if you draw a rectangle and apply a yellow fill using the Color List or Styles panel, the next closed path you draw will have a yellow fill. Dragging and dropping the color from the Color Mixer does not change the default.

Uncheck "Changing object changes defaults" to set default attributes for the document.

AppleScript (Macintosh)

Install AppleScript and the Script Editor (available from Apple) to automate some of FreeHand's functions, including document manipulation, printing, report generation, and Find & Replace Graphics.

See FreeHand Help or the AppleScript ReadMe for information about using AppleScript.

Working with wizards (Windows)

Use FreeHand's wizards to quickly begin a project and to simplify your workflow. Wizards are interactive screens that guide you through and actually perform a variety of tasks.

To view the wizards, choose Help › Wizards. The Choose a wizard screen offers access to five topics: Welcome, Setup, Screen-based, Stationery, and Publication.

Choosing a wizard

Use	To
Welcome	Create a new document, open the previous document, choose and open a document from a list, open a template on the FreeHand 8 CD-ROM, or launch FreeHand Help. This screen appears when launching FreeHand.
Setup	Create a document based on an illustration style, either freehand or technical. Choose colors, color mode, unit of measurement, page size, and page orientation.
Screen-based	Create a document optimized for creating graphics, either for the Internet or multimedia/image editing. Choose colors and set the size and orientation for on-screen designs.
Stationery	Create documents for common business usage: letterhead stationery, envelopes, and business cards. Choose colors and a standard paper size. You also can browse through a variety of layout ideas.
Publication	Create multipage documents. Choose page size, number of pages, page orientation, colors, unit of measurement, and styles.

Note: With some wizard settings, you can add more than one preset color palette to the Color List.

CHAPTER 3
Tutorials
. . . .

Tips for using the tutorials

Work through these lessons to quickly learn the basics of FreeHand's features. Follow these suggestions to help you make the most of each lesson.

References

In these lessons, specific references help define common tasks.

◆ The "›" sign indicates a series of menu commands. For example, a sentence directing you to choose the Blend command from the Combine submenu in the Modify menu would appear as follows: Choose Modify › Combine › Blend.

◆ Names of elements that appear in the menus and on panels are capitalized without quotation marks, except for the names of preferences.

◆ Check and uncheck refer to turning on and turning off a setting that has a checkbox.

Preferences

A preference is an object-, document-, or application-specific setting. Display the Preferences dialog box by choosing File › Preferences. For best results, check (turn on) the Redraw › "High-resolution image display" preference.

To reset your Preferences to the FreeHand defaults, quit FreeHand, delete the preferences file named "FreeHand 8 Preferences" located in the System Folder\Preferences folder (Macintosh) or Fhprefs.txt in the application folder (Windows) and relaunch FreeHand.

Working with templates

To open a FreeHand tutorial file, choose File › Open. Each tutorial is saved as a FreeHand template file, so each tutorial file opens as an untitled document. As you complete each lesson, save and name its file.

Fonts

To accurately reproduce the Working with Text tutorial, install the fonts located in your FreeHand Tutorial folder. If you choose not to install these fonts, simply choose from available fonts and complete the tutorials using your substitute fonts. See "How fonts affect printing" on page 243 for information on installing fonts.

Working with panels

Choosing a menu item in the Window menu shows or hides the panel. Frequently, you are instructed to open panels. However, if you already have a panel open, and you choose its command from the Window menu, the panel will close. If this happens, repeat the command to reopen the panel.

Working with layers

For some of the complex artwork in these tutorials, many items within the file exist on locked layers. If after completing a tutorial you wish to experiment further with the artwork, choose Window › Panels › Layers to open the Layers panel, and then click the padlock next to a layer name to unlock the layer.

Undo

If you make a mistake while working through these lessons, choose Edit › Undo as many times as necessary, and try again.

Shortcuts and toolbars

The form, location, and contents of the Toolbox, toolbars, and keyboard shortcuts are customizable and therefore may differ from the descriptions in this chapter. For these lessons, assume that all toolbars and keyboard shortcuts match the FreeHand defaults.

TUTORIAL CONTENTS

FreeHand essentials

Explore some basic features of FreeHand: selecting
objects, identifying objects, applying color to objects, and
cutting objects. Familiarize yourself with the FreeHand
environment and have a little fun along the way.

Pointer tool

1 Choose File > Open. In the Open Document
dialog box, navigate to the Tutorial folder within
the FreeHand folder. Choose the Apple.ft8 file,
and click Open. A template file opens as an
untitled document. If necessary, choose
Window > Toolbars > Toolbox to open the
Toolbox, and click the Pointer tool in the Toolbox
to choose it.

Open the template file and choose the Pointer tool in the Toolbox.

Kind of object

2 Use the Pointer tool to click the stroke (edge)
of the apple to select it. Four selection handles
appear at each "corner." If necessary, choose
Window > Inspectors > Object to open the
Object Inspector. Under the row of tabs, the
word "Group" indicates the kind of object
selected.

Select the apple to learn what kind of object it is.

Object attributes

3 Choose Modify > Ungroup to ungroup the apple
into separate parts: the body, the stem, and the
leaf. On the Object Inspector, the phrase
"3 objects" indicates the number of objects
selected. Choose Edit > Select > None, and
then use the Pointer tool to select the stroke
of the body. Look at the Object Inspector and
note that the body is a closed path that consists
of six points.

Ungroup the apple and select the body.

Drag and drop a color chip onto the body of the apple.

4 If necessary, choose Window > Panels > Color List to open the Color List. Find the square of color next to the words, "Apple skin" on the Color List. This square is called a color chip. Click the chip and drag it over the body of the apple. Release the mouse button to apply the color.

Note: If you accidentally apply the color to another part of the apple, choose Edit > Undo and then try again.
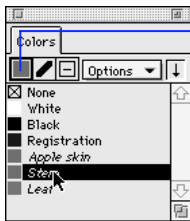
Fill selector

Select the stem and then select a color name to apply that color to the stem. Do the same for the leaf.

5 On the Color List, click the Fill selector to activate it. A bold, black border indicates the active selector. Use the Pointer tool to click the stem to select it, and then click the color name "Stem" in the Color List. In the same way, apply color to the leaf by selecting the leaf and clicking "Leaf." Clicking the Fill selector before clicking a color name assures that the chosen color is applied to the fill of an object.

Knife tool

Choose the Knife tool in the Toolbox and set options.

6 Choose Edit > Select > None. Use the Pointer tool to select the apple's body and leave it selected. Double-click the Knife tool in the Toolbox to display options. In the Knife Tool dialog box, click the Freehand button, type 0 (zero) in the Width field, check Close cut paths, check Tight fit, and click OK to save the settings.

Note: To select an object with a fill, such as the apple's body, click anywhere on the object.

Use the Knife tool to cut away a portion of the apple.

7 Begin and end dragging the Knife tool outside the apple to make sure that you cut through the stroke on the way in and on the way out. Choose Edit > Select > None, and use the Pointer tool to select and drag the cut portion away from the rest of the apple.

Selecting and moving objects

Use the Pointer tool to select and move objects and points. Click an object once to select it. When an object has no fill, you must click its stroke to select it. However, when an object has a fill, click either within or on its stroke to select it. To drag an object, click it and hold down the mouse button while moving the object to a new position.
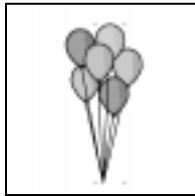
Pointer tool

Use the Pointer tool to select the orange balloon, which is a group.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Balloons.ft8 file, and click Open.

Choose the Pointer tool in the Toolbox. Click the orange balloon to select it. A selection handle appears at each "corner" of the balloon. Selection handles indicate that a group, a composite path, a blend, or an imported bitmap image is selected. Each balloon is a group.
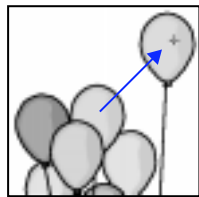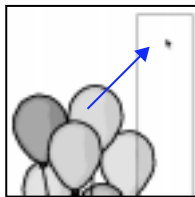
Select and move one object. Dragging an object displays a rectangular bounding box or a preview of the object.

2 Drag the orange balloon off the page and onto the pasteboard, which is the work space "underneath" the document page.

While dragging, a rectangular bounding box appears in place of the object. The object reappears when you release the mouse button. To preview the balloon while dragging, click and hold down the mouse button until a cursor with four arrows appears. Then, drag the balloon to a new position and release the mouse button.
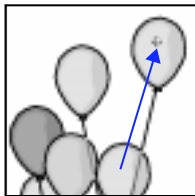
Select and move more than one object at a time.

3 Hold down Shift and use the Pointer tool to click each of the blue balloons. Release Shift and drag both balloons off the page and onto the pasteboard.

Choose Edit > Select > All to select the three remaining balloons. This command selects objects only on the active page, not on other pages or on the pasteboard.
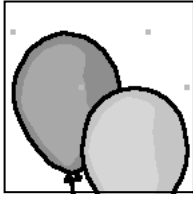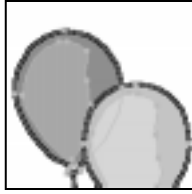
Grouped *Ungrouped*

Each ungrouped path exhibits a highlight color along the path's stroke showing the position of each point.

4 With the red, green, and purple balloons selected, choose Modify > Ungroup to separate each balloon into its individual parts. Each balloon is a group consisting of three paths: the balloon, its reflection of light, and its string. When ungrouped, each path is highlighted, which means that it is selected.
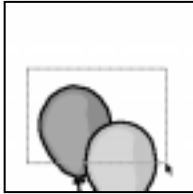
Select and move individual points on the red and green balloons to reshape them.
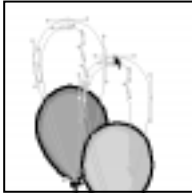
5 Using the Pointer tool, drag a selection area around the top portions of the red and green balloons to select some of the points in each. Selected points appear hollow. Use the Pointer tool to click one of the selected points and drag upwards to elongate both balloons. Only the selected points and adjacent path segments move.
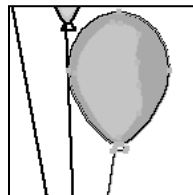
Select paths within a group.

6 Choose Edit > Select > All to select everything on the page, and then choose Modify > Group to group the three balloons together.

Select the purple balloon, its reflection, and its string. To select an object within a group, hold down Option (Macintosh) or Alt (Windows) as you click the object. To select more than one object within a group, hold down Option-Shift (Macintosh) or Alt-Shift (Windows) as you click each object.
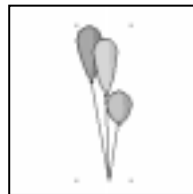
Objects moved within a group remain as part of the group.
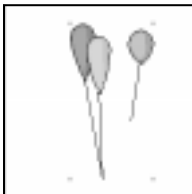
7 Click and drag the selected balloon, its reflection, and its string to a new position within the group.

Note: To deselect a selected object, click the Pointer tool away from the object, press Tab, or choose Edit > Select > None. When selecting more than one object using Shift, clicking a selected object deselects it.

Drawing with basic shapes

Precision drawing is easy in FreeHand. In this lesson, practice using four shape tools and one transformation tool: the Rectangle tool, the Line tool, the Ellipse tool, the Arc tool, and the Skew tool. Apply simple techniques when using these tools, and you can achieve a lot in a short amount of time!
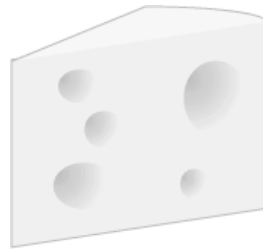
Rectangle tool   *Skew tool*   *Arc tool*

Line tool   *Ellipse tool*

Use these tools in this lesson.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Cheese.ft8 file, and click Open. This file contains colors and styles to help you complete a wedge of cheese. If necessary, choose Window > Toolbars > Toolbox to open the Toolbox. Choose File > Preferences, and check the Object > "Show fill for new open paths" preference so that newly created open paths display applied fills.

Draw a rectangle to create one side of a wedge of cheese. Skew the rectangle to angle the wedge.
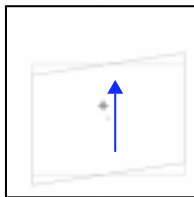
2 Choose the Rectangle tool in the Toolbox, and drag it on the page from the upper left towards the lower right to create a rectangle that is slightly greater in width than in height. Choose the Skew tool in the Toolbox. With the Skew tool, click the rectangle's center, hold down Shift, and drag upwards to angle the wedge of cheese. Holding down Shift constrains dragging so that the vertical sides remain parallel to each other.
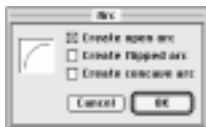
Draw the curved "back" of the wedge.
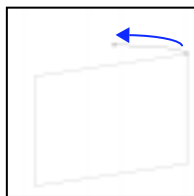
3 Choose Window > Xtras > Xtra Tools to open the Xtra Tools panel, if necessary, and double-click the Arc tool to display options. Check Create open arc, uncheck Create flipped arc, uncheck Create concave arc, and click OK. With the Arc tool, click the upper-right corner of the skewed rectangle, drag towards the left, and release the mouse button to end the arc.

Use an arc and a line to create the top of the wedge.
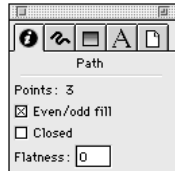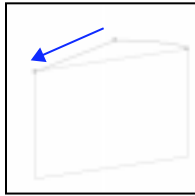
4 Choose the Line tool in the Toolbox. Click the end of the arc, drag to the upper-left corner of the rectangle, and release the mouse button. Hold down Shift and use the Pointer tool to select both the arc and the line and choose Modify > Join. If necessary, choose Modify > Object to display the Object Inspector. Note that Closed is unchecked to indicate the new path is an open path.

Color chip

0c 0m 35y 0k

Drag and drop a color onto the top of the wedge.

5 Choose Window > Panels > Color List to open the Color List, if necessary. Click the color chip named 0c 0m 35y 0k, drag it onto the top of the wedge, and release the mouse button to drop the color. If you make a mistake, choose Edit > Undo.

Choose File > Preferences, and make sure the Object > "Changing object changes defaults" preference is checked so the style applied to the first ellipse created in Step 6 also affects ellipses created in Step 7.

0c 0m 58y 0k

Drag and drop color onto the side of the wedge. Draw an ellipse to create the first cheese hole.

6 Drag and drop the 0c 0m 58y 0k color chip onto the skewed rectangle, which is a closed path. Both open paths and closed paths can display fills. Choose the Ellipse tool and draw an ellipse on the side of the cheese wedge. To draw an ellipse, click and drag, and then release the mouse button.

Apply a style to the first ellipse. Continue drawing ellipses to create more holes.

7 Choose Window > Panels > Styles to display the Styles panel if it is not open. Choose Hide names from the Options pop-up. With the ellipse still selected, click the predefined yellow-gold Gradient fill to apply a predefined style to the ellipse. Draw several more ellipses on the side of the cheese wedge. The yellow-gold style is applied to all new ellipses.

Drawing paths

Uniquely suited for a variety of tasks, the Freehand, Pen, and Bezigon tools are the instruments of choice when drawing paths. A path is an editable line segment connecting two or more points. In this lesson, practice drawing with each tool by tracing over finished artwork.

Magnification tool
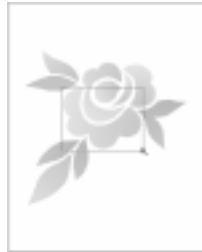
Use the Magnification tool to magnify part of the flower.

1   Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder in the FreeHand folder. Choose the Flower.ft8 file, and click Open. You should see a flower on the page. It is dimmed because it is on the Background layer, and it is locked to prevent accidental changes. Choose the Magnification tool in the Toolbox, and drag around the petals at the bottom of the flower to enlarge the view.

Freehand tool

Freehand tool cursor

Start here

Click and drag the Freehand tool to draw a path. Release the mouse button to end the path.
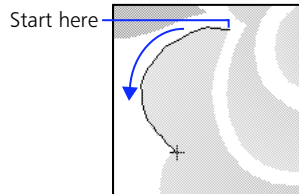
2   Choose the Freehand tool in the Toolbox. Click at one end of the petal shape. Drag as far as you can, rounding the curve of the first petal, and release the mouse button. With the Freehand tool, it may be easier to draw a path in a series of short segments.

Note: If the Freehand tool button does not appear as shown, press 5 and double-click the active tool in the Toolbox to display the Freehand Tool dialog box. Choose the Freehand option and click OK.

Continue the path when this cursor appears.
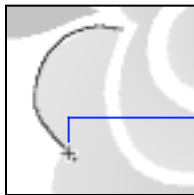
To continue the same path, click and drag from the path's end.

3   To continue the path, place the Freehand tool over the end of the path. A cursor indicates when to continue the path. When this cursor appears, click and drag around the next curve. If you make a mistake, choose Edit > Undo.

The drawing cursor indicates when to release the mouse button and close the path.

4 When you complete tracing around the petals, a cursor indicates when to release the mouse button and close the path. When this cursor appears, release the mouse button to close the path.

When you finish, hold down Command (Macintosh) or Control (Windows) and press the Page Down key to go to page 2. Use the Magnification tool to magnify the view of the lower petals.

Pen tool

Click the Pen tool to draw a corner point.

5 Use the numbers on the flower on page 2 as guides for placing points. Choose the Pen tool in the Toolbox, and click at number 1 to place a corner point.

Note: When you place a point, it looks hollow. This indicates it is selected. To continue the path, the last point in the path must be selected before you can place the next point. If an endpoint becomes deselected, select it again by clicking it with the Pen tool or the Pointer tool.
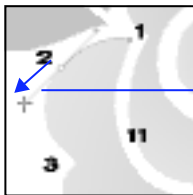
Outgoing handle

Click and drag the Pen tool to draw a curve point. Control adjacent curves by moving point handles.

6 Click and drag on the petal's edge at or slightly before number 2 to place a curve point. Do not release the mouse button. Continue dragging to lengthen the outgoing handle in the direction shown until the curve preceding the point matches the contours of the petal.
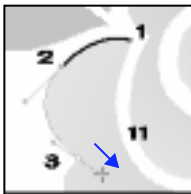
Clicking and dragging extends point handles.

7 Click and drag at number 3 to place a curve point. Continue dragging in the direction shown. When the preceding curve matches the contours of the petal, release the mouse button.
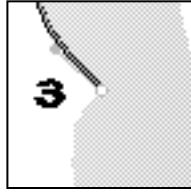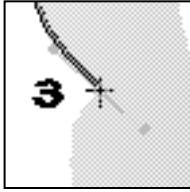
Clicking a point with the Pen tool retracts the outgoing handle.

8 Using the Pen tool, click the selected point at number 3 to retract its outgoing handle. Retracting an outgoing handle is especially helpful when drawing a sharp angle because a retracted handle does not control the curve following the point.

Place the next two curve points, retracting the outgoing handle of the second.

9 Click and drag on the petal's edge at or slightly before number 4 to place a curve point. Do not release the mouse button. Continue dragging to lengthen the outgoing handle as shown until the curve preceding the point matches the contours of the petal. Click and drag at number 5 to place a curve point and then retract the outgoing handle.
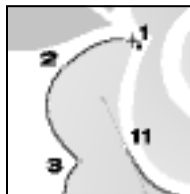
Use the Pen tool to close the path.

10 Continue placing curve points at numbers 6 through 11, retracting point handles at numbers 7 and 9. After placing point number 11, move the Pen tool over point number 1. When the cursor indicates when to close the path, click point number 1. Hold down Command (Macintosh) or Control (Windows) and press the Page Down key to go to page 3. Use the Magnification tool to magnify the view of the lower petals.

Bezigon tool

Use the Bezigon tool to place points.

11 Choose the Bezigon tool in the Toolbox. Click at number 1 to place a corner point. Hold down Option (Macintosh) or Alt (Windows) and click at number 2 to place a curve point. Do not be concerned that the path does not immediately follow the curve. Paths drawn with the Bezigon tool automatically curve and adjust as you draw. Release Option (Macintosh) or Alt (Windows).

Paths drawn with the Bezigon tool automatically curve.

12 Continuing with the Bezigon tool, click at number 3 to place a corner point. Notice that the previous path segment automatically curves around the petal. Choose Window > Inspectors > Object to open the Object Inspector, if necessary, and view the attributes of the last selected point. Automatic is checked in the Object Inspector, indicating that automatic curvature is turned on.

Place a curve point at number 4 and a corner point at number 5.
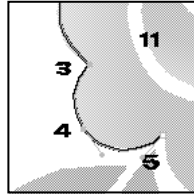
13 Hold down Option (Macintosh) or Alt (Windows) to place a curve point at number 4. Release Option (Macintosh) or Alt (Windows) and click at number 5 to place a corner point.

Continue placing curve and corner points to finish the path.
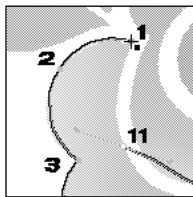
14 Following the numerical progression, place curve points at numbers 6, 8, 10, and 11, and place corner points at numbers 7, and 9. After placing point number 11, move the Bezigon tool over point number 1. When the cursor indicates when to close the path, click point number 1. If you make a mistake, choose Edit > Undo.

To edit a point, click it with the Pointer tool, drag it to a new position, and release the mouse button.

15 The path may not exactly follow the contours of the petal. With the Pointer tool, select a point, and click and drag it to reposition it, or click and drag a point handle to reshape adjacent curves. Remember that selected points are hollow.

Note: To find out more information about drawing with the Freehand, Pen, and Bezigon tools, see "Using the Freehand tool" on page 114 and "Drawing by placing points" on page 115.

Modifying paths quickly

A robust companion to FreeHand's drawing tools, the Freeform tool reshapes paths without manipulating the individual points of an object, creating an organic effect. This tool has three modes: one for pulling paths, one for pushing paths, and one for reshaping areas of paths. A unique cursor indicates the current mode. The pulling mode and pushing mode are discussed in this lesson.

Magnify the area surrounding the girl's right eye and select the right eyebrow.

1   Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Girl.ft8 file, and click Open. Use the Magnification tool to magnify the area of the girl's right eye. Choose the Pointer tool in the Toolbox and select the right eyebrow.

Freeform tool

Set the Freeform tool to the Push/Pull option.

2   Double-click the Freeform tool in the Toolbox to display the Freeform Tool dialog box. Click the Push/Pull button to set options. Type 15 in the Size field of the Push Settings, choose By Length from the Bend pop-up of the Pull Settings, type 10 in the Length field, and click OK. These settings determine the size of the reshaping circle and how path segments are pulled out.

Note: If the Freeform tool button does not appear as shown, press 9 and double-click the active tool in the Toolbox to display the Freeform Tool dialog box. Choose the Push/Pull option and click OK.

Push cursor

Pull cursor
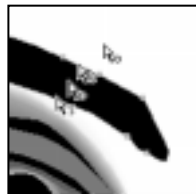
Moving the Freeform tool over a selected path activates one of two cursors.

3   Move the Freeform tool over the selected eyebrow to see how the cursor changes. Do not click and drag the tool. Moving the Freeform tool inside or outside the object's stroke activates the push cursor. Moving the Freeform tool over the stroke of a selected object activates the pull cursor.

Push cursor in use
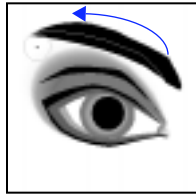
Use the push cursor to taper the eyebrow.

4 Move the Freeform tool above the eye and below the tip of the eyebrow nearest the nose. When the push cursor appears, hold down the mouse button to display a reshaping circle.

Drag the tool from right to left, tapering the eyebrow to a point. If you make a mistake, choose Edit > Undo to return to the original shape.

Pull cursor in use

Black outer rim
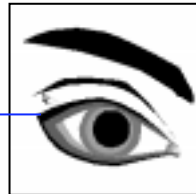
Use the pull cursor to create an eyelash.

5 Choose the Pointer tool and select the black outer rim of the eye. Choose the Freeform tool, move it over the object's stroke until the pull cursor appears, click the stroke and drag to pull out an eyelash.

Shorten the path segment while pulling out the next eyelash.

6 Click and drag the Freeform tool to pull out another path, continue holding down the mouse button, and press the left cursor key once to create a narrow eyelash.

Note: Press the left and right cursor keys to shorten or lengthen paths with the pull cursor. Pressing these keys also increases or decreases the diameter of the push cursor. The Freeform tool also responds to the stylus of a pressure-sensitive tablet.
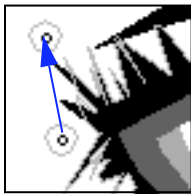
Continue pulling out eyelashes and curve their ends to create a natural effect.

7 Repeat the process described in Step 5, varying the length and angle of each eyelash to create a natural effect.

Add curvature to individual eyelashes. Move the Freeform tool along the outer corner of the eye nearest to the ear. When the push cursor appears, hold down the mouse button and press the left cursor key three times to reduce the size of the circle. Drag along the outside of the eyelashes to curve their ends.

Working with composite paths

A composite path consists of multiple paths that act as a single path with special characteristics that determine the way in which it is filled. Before beginning this lesson, you may want to refer to "Composite paths" on page 127 for a complete description of these characteristics.
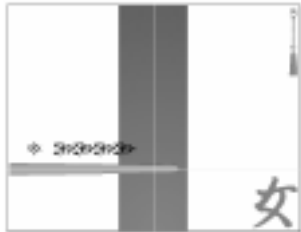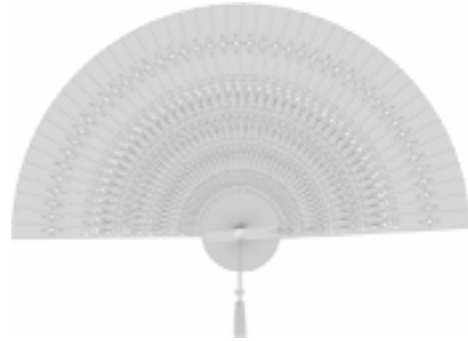
Open the template file.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Fan.ft8 file, and click Open. For this tutorial, make sure that the General > "Enable transform handles" preference is checked and the Object > "Option-drag copies path" preference (Macintosh) or "Alt-drag copies path" preference (Windows) is checked.

Scale cursor
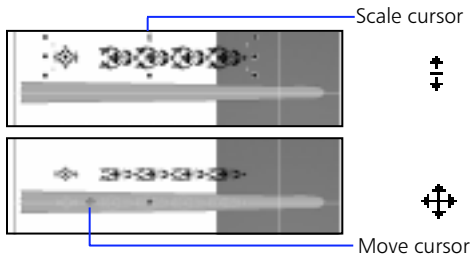
Move cursor

Scale the pattern and move it over the slat.

2 Use the Pointer tool to double-click the black pattern to activate eight transformation handles. Dragging the tool over each handle changes the cursor to indicate which transformation function is available. Move the Pointer tool over the top-middle handle until the Scale cursor appears and drag the handle to reduce the pattern's width to fit on the slat. Move the tool over the pattern until the Move cursor appears and drag the pattern to place it on top of the slat.

Intersection of the guides
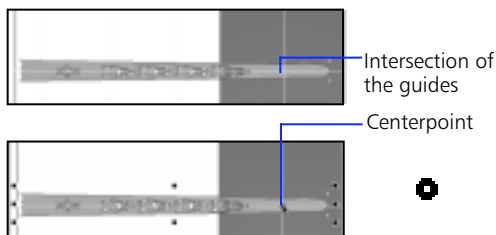
Centerpoint

Join the pattern and the slat, and move the composite path's centerpoint.

3 Double-click the pattern to deactivate the transformation handles. Hold down Shift and use the Pointer tool to select both the pattern and the slat. Choose Modify > Join. A composite path assumes the fill color of the bottom object in the stack—in this case, the slat. The "white" areas are actually transparent. Double-click the composite path to activate its transformation handles. Drag the centerpoint to the intersection of the guides.

Rotate cursor with a plus (+) sign

Copy the slat and rotate the duplicate around the centerpoint.

4 Move the Pointer tool near the upper-left corner of the slat. When the Rotate cursor appears, hold down Option (Macintosh) or Alt (Windows) and drag upward to create a copy of the object slightly overlapping the original. Release the mouse button before you release Option (Macintosh) or Alt (Windows).
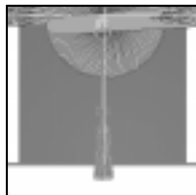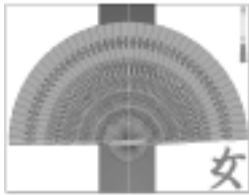
Power-duplicate the slat and add the tassel to finish the fan.

5 Choose Edit > Duplicate to create a fan. The shortcut for Duplicate is Command-D (Macintosh) or Control-D (Windows). Duplicate repeatedly. When finished, double-click the fan to deactivate the transformation handles. Locate the tassel at the upper-right corner of the page. Drag the tassel to the centerpoint, leave it selected, and choose Modify > Arrange > Bring to Front.
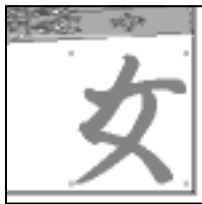
Select the Kanji character.

6 Use the Pointer tool to select the Kanji character, which is also a composite path. Choose Window > Inspectors > Object to display the Object Inspector. With Even/odd fill checked, the transparent area of this composite path is created by alternating the fills of each subpath, either filled or not. Uncheck Even/odd fill to fill the inner path.
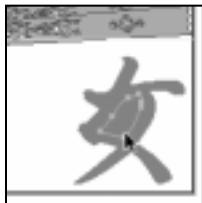
Subselect the inner path and change the way in which the transparent area is created.

7 Hold down Option (Macintosh) or Alt (Windows) and use the Pointer tool to select the inner path. Choose Modify > Alter Path > Reverse Direction to return the path to its original appearance. The transparent area of this composite path is now created by alternating the path direction of each subpath.

Aligning and distributing objects

Quickly place objects with precision using FreeHand's Align panel and power-duplication functions. Align and distribute objects as well as individual points. In this lesson, create a pinwheel by power-duplicating a basic shape and aligning points. Then use the Align panel to create a border.

Pointer tool

Clone the triangle.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder in the FreeHand folder. Choose the Triangle.ft8 file, and click Open to open a letter-sized page with placed guides and a single triangle.

Use the Pointer tool to select the triangle, and choose Edit > Clone to create a copy of the triangle directly on top of the original.
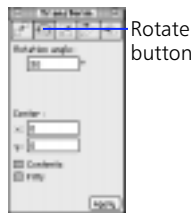
Rotate button

Zero point

Rotate the cloned triangle around the zero point.

2 Choose Window > Panels > Transform to display the Transform panel, and click the Rotate button. Type 30 in the Rotation angle field, and type 0 (zero) in both the x and y coordinate fields. Click Apply (Macintosh) or Rotate (Windows) to rotate the clone 30° around the zero point. In this document, the centerpoint is located at the intersection of the horizontal and vertical guides at the center of the page. To learn how to move the zero point, see Chapter 2, "Getting Your Bearings."
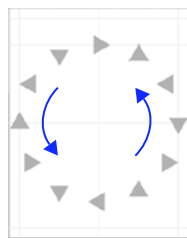
Duplicate the clone to create a circle of triangles. Select a point from each triangle.
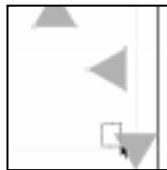
3 With the cloned triangle selected, choose Edit > Duplicate ten more times, until you have a circle of twelve triangles. The shortcut for Duplicate is Command-D (Macintosh) or Control-D (Windows).

Select a point from each of the triangles. Hold down Shift and use the Pointer tool to drag a selection area around the innermost point of each triangle. Selected points are hollow.

Align the selected points to the center.

4 Choose Window > Panels > Align to display the Align panel. Double-click the center square of the grid to create a pinwheel. In the Align panel, the first pop-up controls vertical movement so that objects align horizontally. The second pop-up controls horizontal movement so that objects align vertically. Make sure that Align to page is not checked.

Before

After

Align the pinwheels along the bottom and top of the page.

5 Hold down Command (Macintosh) or Control (Windows) and press the Page Down key. On page 2 is an array of smaller pinwheels. Hold down Shift and use the Pointer tool to select all the pinwheels along the bottom of page 2. Choose Distribute centers from the second pop-up, and click Align (Macintosh) or Apply (Windows). Repeat this step for the pinwheels along the top of the page.

Before   *After*

Align the pinwheels along the left and right of the page.
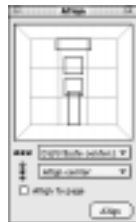
6 Use the Pointer tool to drag-select all the pinwheels along the left side. Choose Distribute centers from the first pop-up, choose Align center from the second pop-up, and click Align (Macintosh) or Apply (Windows). Repeat this step for the pinwheels along the right side.

Group the pinwheels and align the group to the center of the page.

7 Choose Edit > Select > All, and choose Modify > Group. Choose Align center from the first pop-up, choose Align center from the second pop-up, check Align to page, and click Align (Macintosh) or Apply (Windows). This centers the pattern on the page.

Creating symmetrical patterns

Use the Mirror tool to create a variety of symmetrical patterns from just a few objects. Set the Mirror tool to clone a selected object and flip it vertically, horizontally, or both, or to create multiple clones rotated around a fixed center. You can mirror one or more selected objects at a time.
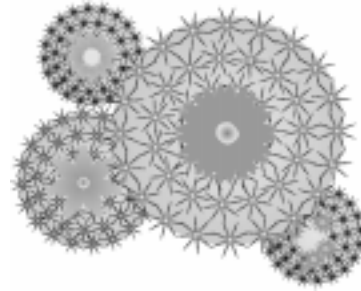
Open the template file.
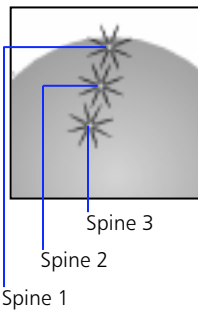
Spine 3

Spine 2

Spine 1

1 Choose File > Open. In the Open document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Cactus.ft8 file, and click Open.

Illustrated in this file is an overhead view of cactus plants. Choose the Magnification tool from the Toolbox and drag a magnification area around the largest cactus. You can use the Mirror tool to create a pattern of spines on the cactus.

Mirror tool

Transformation

Number of transformations

Mirror type

2 Use the Pointer tool to select Spine 1 on the largest cactus. Choose Window > Xtras > Xtra Tools to display the Xtra Tools panel, and double-click the Mirror tool button to display options. Choose Multiple from the Mirror type pop-up, type 20 in the Number of transformations field, choose Rotate from the Transformation pop-up, and click OK.
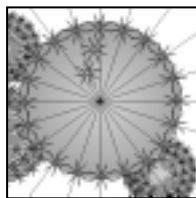
With Spine 1 selected, click the Mirror tool to create more spines rotated around the center of the cactus.
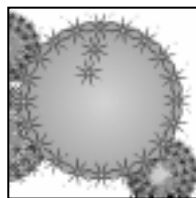
3 Click and hold the Mirror tool at the center of the largest cactus. Keylines of the original object appear rotated around the point at which you click. As you drag the Mirror tool, these objects move closer together or farther apart. If necessary, drag the tool so that the spines border the edge of the cactus, and release the mouse button. Press Tab to deselect all objects.
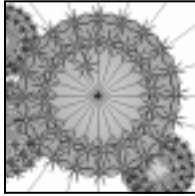
Repeat the process with Spine 2...

4 Temporarily switch to the Pointer tool by holding down Command (Macintosh) or Control (Windows), and select Spine 2. Release the modifier key to return to the Mirror tool, and click and hold at the center of the cactus. Press the left cursor key five times to reduce the number of spines to 15, drag the spines into place, and release the mouse button. Press Tab to deselect all objects.

...and with Spine 3.

5 Repeat this process to draw the last circle of spines. Temporarily switch to the Pointer tool, and select Spine 3. With the Mirror tool, click and hold at the center of the cactus. Press the left cursor key five times to reduce the number of spines to 10, drag the spines into place, and release the mouse button. Press Tab to deselect all objects. Choose Fit page from the Magnification pop-up at the lower-left corner of the document window.

Set the Mirror tool to Reflect and mirror the petal to create a flower.

6 With the Pointer tool, select the petal on the lower portion of the page. With the Mirror tool, click and hold the lower-left edge of the petal as shown to create a flower. Press the down cursor key to change the Transformation setting from Rotate to Reflect. Press the right cursor key twice to increase the number of petals. Release the mouse button. With all of the petals still selected, choose Modify > Group to group them.

Center the eye of the flower on the petals to finish the look.

7 Select the flower's eye and choose Modify > Arrange > Bring to Front. Drag the eye to the center of the petals; it should appear on top. Select both the petals and the eye, and choose Modify > Group to group them. Drag the flower to the center of the large cactus.

Creating fills

Gradient, Pattern, and Tiled are just a few of the types of fills you can apply to objects in FreeHand. The Fill Inspector provides you with control over color, texture, and fill angles. Save fills created in the Fill Inspector as styles, so that you can easily drag and drop them onto objects. To learn how to create and use object styles, see "Using styles" on page 99.

Both selector
Stroke selector
Fill selector

Open the template file.
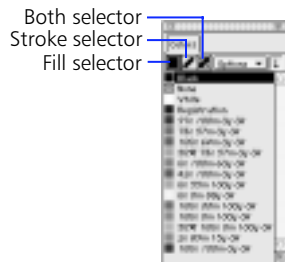
*Color List*

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Rooster.ft8 file, and click Open.

Choose Window > Panels > Color List to display the Color List. The selectors at the top of the Color List indicate the stroke color and the fill color of a selected object. A bold black border indicates the active selector.

Active selector

Color chip
Color name
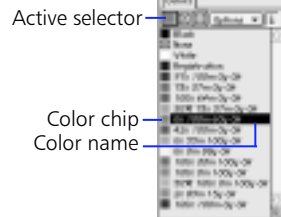
Select the rooster's face, which has a red fill and no stroke.

2 Select the rooster's face. The Color List shows that it has a red fill and no stroke. Click the Fill selector, and the color name of the fill becomes highlighted. The default color name (0c 100m 60y 0k) represents CMYK values.

Note: For information about creating and naming colors, see "Creating colors" on page 153 and "Assigning custom color names" on page 157.

New fill

Apply a new fill color to the rooster's face.
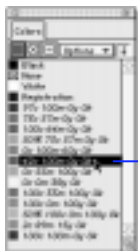
3 To change the fill color of the rooster's face to purple, click the color name 42c 100m 0y 0k. Choose Window > Inspectors > Fill to display the fill color and fill type of the rooster's face. The Fill Inspector provides fill information for selected objects.

Force-apply a Basic fill to the rooster's comb.

4 Select the rooster's comb. To change its red Pattern fill to a purple Basic fill, drag the color chip 42c 100m 0y 0k, hold down Shift, and drop it (release the mouse button) onto the rooster's comb. Release the mouse button before you release Shift.

Graduated
fill button

Color ramp

Select the left wing and apply a Gradient fill.

5 Select the rooster's left wing, which has a blue fill and no stroke. On the Fill Inspector, choose Gradient from the Fill type pop-up. Click the graduated fill button. The fill color gradates from blue to white along the color ramp.

Note: Another way to apply a graduated fill is to drag a color chip, hold down Control, and drop it onto an object. Where you drop the color determines the angle of the fill.

100c 64m 0y 0k

100c 64m 0y 0k

100c 33m 100y

50% 100c 0m 100y 0k

Drag and drop colors onto the Fill Inspector's color ramp.

6 Choose 50% 100c 0m 100y 0k from the bottom pop-up to change the bottom color to green. Using the Fill Inspector at the left as a guide, drop 100c 64m 0y 0k and 100c 33m 100y 0k from the Color List onto the color ramp to create a multicolor graduated Gradient fill.

Force-apply a radial fill to one of the rooster's plumes.

7 Each of the plumes has a red Basic fill and no stroke. Drag the color chip 2c 89m 15y 0k, hold down Option (Macintosh) or Alt (Windows), and drop the color chip onto one end of a plume. Make sure that you release the mouse button before you release Option or Alt. This applies a fill that gradates from red to pink.

- 0c 100m 60y 0k
- Radial fill button
- 97c 100m 0y 0k
- 0c 100m 60y 0k
- 42c 100m 0y
- Knob
- 2c 89m 15y
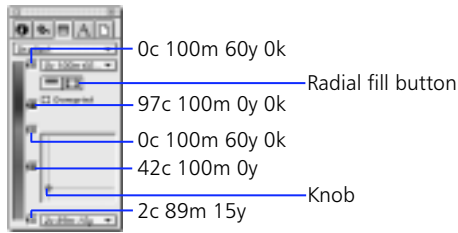
Drag and drop additional colors onto the color ramp, and set the center of the radial fill.

8 Select the plume you changed. The Fill Inspector shows that the radial fill button is chosen. Using the Fill Inspector at the left as a guide, drop 97c 100m 0y 0k, 0c 100m 60y 0k, and 42c 100m 0y 0k onto the color ramp to create a multicolor radial Gradient fill.

Move the knob in the Locate Center preview to the lower-left corner. This knob sets the center of the radial fill for a selected object.

Copy the attributes of one plume and apply them to the others.

9 With the changed plume selected, choose Edit > Copy Attributes. Press Tab to deselect it, hold down Shift, and use the Pointer tool to select each of the other plumes. Choose Edit > Paste Attributes. This applies the same radial fill to the other plumes.

Paste an object into the Fill Inspector to create a Tiled fill...

10 Apply a Tiled fill to the rooster's claws. Select the tile on the upper-right corner of the page. Choose Edit > Cut.
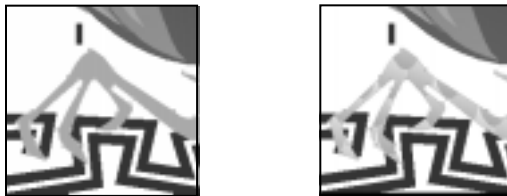
...and apply the Tiled fill to the rooster's claws.

11 Hold down Shift and use the Pointer tool to select both claws. On the Fill Inspector, choose Tiled from the Fill type pop-up, and click Paste in to apply the tile pattern to the claws.

Blending objects

Experiment with blending to create interesting effects quickly. Blend together two or more paths of various colors and shapes. When blending, make sure that the types of fills and strokes are the same. For better control of the shape of a blend, attach it to another path. You can also alter the original objects of a blend to dynamically change its transitions.

Open the template file.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Dragon.ft8 file, and click Open.

Use the four circles above the dragon to create the dragon's body. Each circle has a Basic stroke and a Basic fill. Only objects with the same stroke and fill attributes blend.
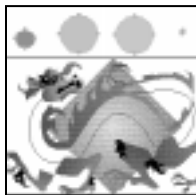
Select all the circles and blend them.
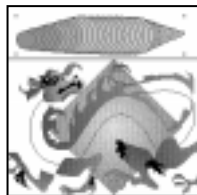
2 Hold down Shift as you select all four circles. Choose Modify > Combine > Blend to blend them together.

The order in which the original objects are created determines the flow of the blend. In this case, the circles were created from right to left. Each object in the blend is a transition from the small, gold circle to the midsize, red circle.

Increase the number of blend steps.
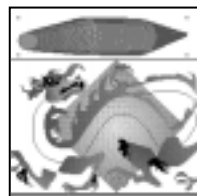
3 Make sure that the blend is still selected. Choose Window > Inspectors > Object to display the Object Inspector.

Highlight the current value in the Number of steps field, enter 40, and press Return to increase the number of intermediate objects between each pair of original objects.
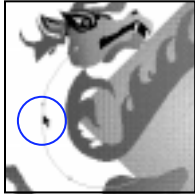
Join the blend to the path that defines the dragon's body.

4 Select both the blend and the path that defines the dragon's body, and choose Modify > Combine > Join Blend to Path.

The blend appears on top of the other parts of the dragon. Choose Modify > Arrange > Move Backward to arrange the blend underneath the dragon's face but in front of the green background.
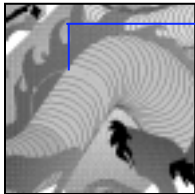
Circle selected

Select one of the original circles in the blend.

5 Select the second of the four original circles. Press Option (Macintosh) or Alt (Windows) as you click it with the Pointer tool. You cannot select any of the intermediate objects using this method, so click until the second circle becomes highlighted.

Note: Holding down Option or Alt and moving the object copies it when File > Preferences > Object > "Option-drag copies path" or "Alt-drag copies path" is checked.
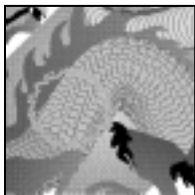
Roughen the circle, and the blend flows using new intermediate objects.

Roughen tool

6 Choose Window > Xtras > Xtra Tools to display the Xtra Tools panel, and choose the Roughen tool. Click and drag the tool a short distance to roughen the circle's shape. Release the mouse button and watch the objects blend again. Press Tab to deselect the roughened circle.
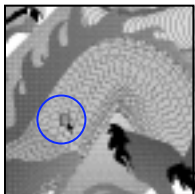
Drop a Fuchsia color chip onto the roughened part of the blend. The blend's transitions change to reflect the new color.

7 Choose Window > Panels > Color List to display the Color List if it is not open. Drag and drop a Fuchsia color chip onto the roughened part of the blend to change its fill transitions.

Creating easy Flash animations

Here's a quick and easy animation you can create using FreeHand's blending and layering functions. Using the techniques learned in this lesson, experiment with different objects and text to create your own web-ready animation.
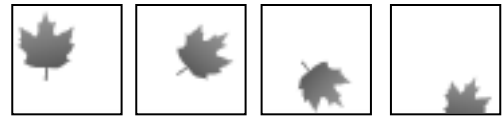
Open the template file.
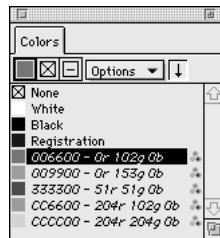
1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Leaf.ft8 file, and click Open. Choose Window > Panels > Color List to display the Color List. The leaf is a closed path with no stroke and a graduated Gradient fill from dark green to light green.

Clone the leaf and apply an orange-yellow Gradient fill.

2 Use the Pointer tool to select the Leaf, and choose Edit > Clone. This makes a copy of the leaf directly on top of the original. Drag and drop an orange color chip onto the dark green portion of the clone's Gradient fill, and drag and drop yellow onto the light green portion. The gradient of the clone adjusts automatically.

Clone the leaf again and apply an orange-brown Gradient fill. Blend the three leaves together.

3 Select the orange-yellow leaf, and choose Edit > Clone again to create another clone directly on top of the other leaves. Drag and drop brown onto the yellow portion of the second clone's Gradient fill. Choose Edit > Select All, and choose Modify > Combine > Blend to create a blend from the three leaves.

Set the number of intermediate objects from one original leaf to the next.

4 With the blend selected, choose Window > Inspectors > Object to display the Object Inspector. The number of blend steps equals the number of intermediate objects, from one original object to the next. Type 15 in the Number of steps field, and press Return.
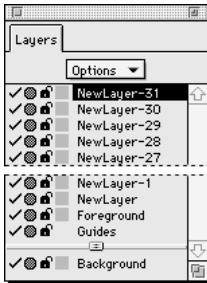
Ungroup the blend and place each object on its own layer.

5 Choose Xtras > Animate > Release to Layers to ungroup the blend and place each object on its own layer. Choose Window > Panels > Layers to display the Layers panel. Release to Layers creates a layer for each object.

Press Tab to deselect all objects. Choose File > Preferences, and check the General > "Enable transform handles" preference.
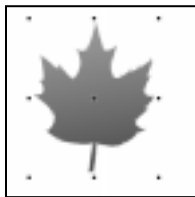
Scale one of the leaves using its transformation handles.

6 Use the Pointer tool to double-click the topmost leaf, which is on NewLayer-31, to activate its transformation handles. Hold down Shift, and drag a handle at one of the corners to decrease the size of the leaf proportionally. Release the mouse button before releasing Shift. Double-click anywhere in the document to deactivate the transformation handles.
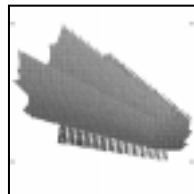
Create a blend from the larger leaf to the smaller leaf.

7 Use the Pointer tool to drag the smaller leaf away from the larger one. Hold down Shift and use the Pointer tool to select both leaves. Choose Modify > Combine > Blend to create a blend from the larger leaf to the smaller one.

Note: Your blend may not look like the picture because the distance between the larger leaf and the smaller leaf determines the number of blend steps.

Freehand tool

Draw a winding path on the page.

8 Use the Freehand tool to draw the path of the leaf's fall: Double-click the Freehand tool to display options, click the Freehand button, and click OK. Drag the tool back and forth to draw a path that winds downward from the larger leaf.

Note: Make sure the path stays on the page. The page defines the area of each frame of animation. Any object off the page does not appear in the animation.
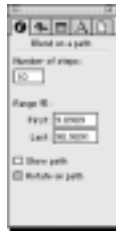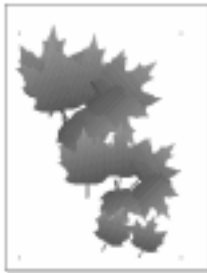
Attach the blend to the path, change the number of blend steps, and check Rotate on path.

9 Select the line and the blend, and choose Modify > Combine > Join Blend to Path. On the Object Inspector, type 10 in the Number of steps field, uncheck Show path, check Rotate on path, and press Return.
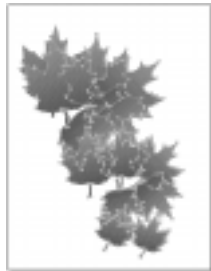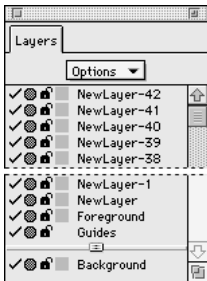
Ungroup the blend and place each object on its own layer.

10 With the blend selected, choose Xtras > Animate > Release to Layers to place each blend object on its own layer. This creates new layers on top of the layers already created. Press Tab to deselect all objects.

Choose File > Export. In the Export document dialog box, choose Flash 2 SWF from the Format (Macintosh) or Save as type (Windows) pop-up.
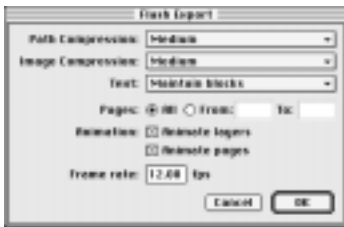
Set export options and export the document to the Flash format.

11 Click Options to display the Flash Export dialog box. Set the options as shown and click OK. Name the file and click Export to export an SWF file. The animation begins with the original leaf on the Foreground layer and ends with the last leaf on the topmost layer, NewLayer-42.

Note: For more information about exporting FreeHand files to Flash, see "Exporting Flash animations" on page 274.

Spraying objects

Use the Graphic Hose Xtra to spray, or scatter, stored objects in your document. Specify how objects are sprayed by determining their order, spacing, scaling, and rotation. Create a library of common elements for use again and again.

Graphic Hose button

Graphic Hose cursor

Open the template file showing four geese and a sunset.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Geese.ft8 file, and click Open.

Choose Window > Xtras > Xtra Tools, and double-click the Graphic Hose button to display options. The Graphic Hose panel has two modes: Hose and Options.

—Active hose

—Preview

—Object currently in preview
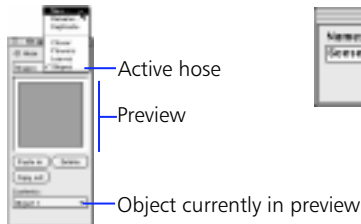
Create a new hose named Geese.

2 Click the Hose button on the Graphic Hose panel. Choose New from the Active hose pop-up. Type Geese in the Hose dialog box, and click Save to create a new hose. Geese appears in the Active hose pop-up, and the preview is blank.

Paste the first object into the Geese hose.

3 Hold down Command (Macintosh) or Control (Windows) to temporarily switch to the Pointer tool, and select the first goose. Choose Edit > Copy, and click the Paste in button on the Graphic Hose panel. The first goose becomes Object 1.

4 For the remaining geese, select each in order, choose Edit > Copy, and click the Paste in button on the Graphic Hose panel. They become Object 2, Object 3, and Object 4. Click the Options button on the Graphic Hose panel.

Paste each of the remaining geese into the Geese hose.
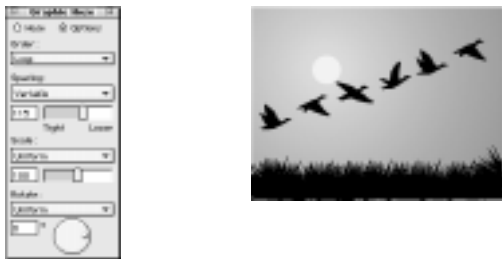
5 Choose Loop from the Order pop-up. Choose Variable from the Spacing pop-up, and type 115 in the Spacing field. Choose Uniform from the Scale pop-up, and type 100 in the Scale field. Choose Uniform from the Rotate pop-up, type 0 (zero) in the Rotate field, and press Return. To spray a row of geese, drag from left to right with a constant speed and in a straight line.

Spray a row of larger objects to draw geese in the foreground.

6 Choose Random from the Order pop-up, type 85 in the Spacing field, type 65 in the Scale field, and press Return. Drag the cursor from left to right to draw geese that appear farther in the distance than the geese you created in Step 5. Drag with a constant speed and in a straight line. Hold down Command (Macintosh) or Control (Windows), and press the Page Down key to go to page 2, where there is another backdrop.

Spray rows of smaller objects to draw geese in the background.

7 Type 100 in the Spacing field, type 100 in the Scale field, and press Return. Hold down the down cursor key, and drag the cursor from left to right. When finished, note the new Scale field value. Using the down cursor key with Uniform chosen in the Scale pop-up reduces the size of each successive object by 5%. Using the down cursor key with Random chosen in the Scale pop-up reduces the degree of randomness in scaling, not the size of each object.

Spray a row of geese while gradually reducing each bird's size.

Masking objects

Use a clipping path, also known as a paste inside, to crop or hide part of another object. Objects inside of a clipping path are known as the contents.

When using text as a clipping path, first convert text to paths. Converted text becomes separate objects grouped together. Ungroup these objects and then join them. Joining the text creates a single, composite path, which is suitable for use as a clipping path.
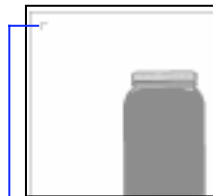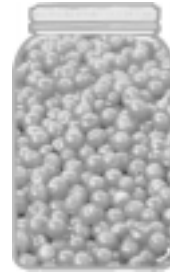
Place cursor

Open the template file and then choose a bitmap image to import.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Jar.ft8 file, and click Open. With the template file open, choose File > Import. In the Import Document dialog box, choose the SS01021.TIF file in the Tutorial folder, and click Open. Move the place cursor to the upper-left corner of the page.

Place the image and then cut it. Select a path for use as the clipping path.

2 Click the place cursor to place an image of a bowl of berries over the jar. With the image still selected, choose Edit > Cut to cut the image. The jar is a group. Hold down Option (Macintosh) or Alt (Windows) and use the Pointer tool to select the pink path within the group.
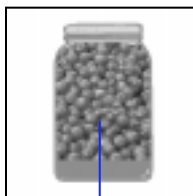
Paste inside handle

Paste the image inside the jar, and adjust the placement of the contents of the clipping path.

3 Choose Edit > Paste Inside to paste the image inside the pink path, which becomes a clipping path. Do not deselect the path. Drag the paste inside handle downwards to move the image so that only the berries fill the clipping path.

Note: If you accidentally deselect the path, hold down Option-Control (Macintosh) or Alt-Control (Windows) and click the group until you select the clipping path.

Creating interlocking shapes

Creating the illusion of solid objects interlocking with one another does not have to be time-consuming. Use FreeHand's Divide command to quickly create this effect. For more information about Divide, see "Creating new paths from existing paths" on page 130.
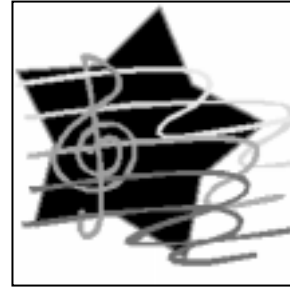
Select the orange treble clef and the yellow bar and divide them.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Music.ft8 file, and click Open. Hold down Shift, and use the Pointer tool to select the orange treble clef and the yellow bar. Choose Modify > Combine > Divide. Divide yields three composite paths: the treble clef, the bar, and the segments where the treble clef and the bar intersect. Press Tab to deselect all objects.

Hide the treble clef and the bar, leaving the newly created composite path in view.

2 To view the segments of the intersection more easily, use the Pointer tool to select only the treble clef and the bar, and choose View > Hide Selection. A composite path of two orange pieces remains on top of the star. Select this composite path, and choose Modify > Split to separate it into two pieces. Press Tab to deselect the pieces and then select only the piece on the left side.

Split the composite path and apply yellow to the piece on the left. After showing the treble clef and bar, the yellow piece stays on top to create the pass-through effect.

3 Choose Window > Panels > Color List to display the Color List, and click the color name Munsell 7.5Y 9:12 to color the piece yellow. Choose View > Show All to show the treble clef and the bar. The yellow piece should stay on top, giving the effect of the yellow bar passing through the loop in the treble clef.

Creating shadows

Use the Shadow tool to apply shadows to vector objects. Choose from three shadows: Hard Edge, Soft Edge, and Zoom. Specify the color, size, and position of the shadow.

Open the template file.

Shadow tool

Shadow tool cursor

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Cards.ft8 file, and click Open.

Choose Window > Panels > Color List to display the Color List, and choose Window > Xtras > Xtra Tools to display the Xtra Tools panel. Use the Pointer tool to select the spade, and double-click the Shadow tool on the Xtra Tools panel to display options.
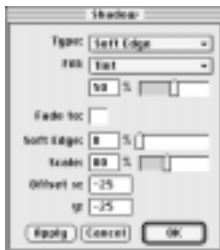
Create a soft-edged shadow, smaller and lighter in color than the original object.

2 Choose Hard Edge from the Type pop-up. Choose Tint from the Fill pop-up, and type 50 in the Fill percentage field. Tint adds a percentage of white to the original object's color to yield the shadow color.

Type 80 in the Scale percentage field, type -25 in the Offset x coordinate field, type -25 in the Offset y coordinate field, and click OK. The spade and its shadow are grouped together. Choose Edit > Select > None to deselect the group.
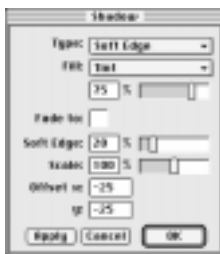
Set Shadow tool options for the diamond.

3 Double-click the Shadow tool. Choose Soft Edge from the Type pop-up and type 75 in the Fill percentage field. Type 20 in the Soft Edge percentage field, type 100 in the Scale percentage field, and click OK.

Note: The Shadow tool dialog box saves custom settings only during the current session. Relaunching FreeHand resets the Shadow tool to its default settings.

Drag the Shadow tool on the diamond to create a soft-edged shadow that fades to white.

4 Use the Pointer tool and select the diamond. Choose the Shadow tool and drag on the diamond to initiate its shadow. Move the Keyline preview of the shadow to the right and release the mouse button. In the Soft Edge settings, the Fade to color is the color to which the shadow fades, in this case, white.

Create a hard-edged shadow the same size as the original object but lighter in color.

5 Use the Pointer tool to select the club. Double-click the Shadow tool. Choose Hard Edge from the Type pop-up. Type 50 in the Fill percentage field, type -15 in the Offset x coordinate field, type -10 in the Offset y coordinate field, and click OK.

Create a soft-edged shadow, larger and darker in color than the original object.

6 Use the Pointer tool to select the heart. Double-click the Shadow tool. Choose Soft Edge from the Type pop-up, choose Shade from the Fill pop-up, and type 25 in the Fill percentage field. Shade adds a percentage of black to the original object's color to yield the shadow color. Type 10 in the Soft Edge percentage field, 110 in the Scale percentage field, -5 in the Offset x coordinate field, -40 in the Offset y coordinate field, and click OK.
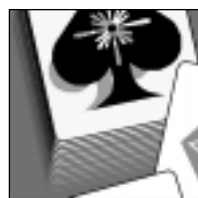
Create a zoomed shadow that fades to the background color.

7 Use the Pointer tool to select the card with the spade on it. Double-click the Shadow tool. Choose Zoom from the Type pop-up. Drag and drop a green color chip onto the Fill color well and onto the Stroke color well. Type 100 in the Scale percentage field. Type -75 in the Offset y coordinate field, and click OK. The zoom shadow becomes the top object in the document. With the zoom shadow selected, choose Modify > Arrange > Send to Back and then Modify > Arrange > Move Forward.

Creating transparent objects

Choose from six Lens fills to create a variety of effects: Transparency, Magnify, Lighten, Darken, Invert, and Monochrome. An object with a Lens fill is called a lens. Stack up to eight lenses on top of one another.

1   Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Wine.ft8 file, and click Open. Choose Window > Inspectors > Fill to display the Fill Inspector.

Note: Choose File > Preferences, and make sure that the Redraw > "High-resolution image display" preference is checked.

Open the template file.

2   Select the bottle's shadow, which has a Basic fill of Pantone 254-4 CVS, a light green color. On the Fill Inspector, choose Lens from the Fill type pop-up, and choose Darken from the Lens type pop-up. Type 25 in the percentage field and check Objects Only. Darken adds a percentage of black to underlying colors. Checking Objects Only on the Fill Inspector applies the lens to objects underneath the lens but not to empty space.

Create a shadow that ends abruptly at the table's edge.

3   Select the grayish bowl of the glass, which has a Basic fill of 4c 4m 4y 4k. Choose Lens from the Fill type pop-up, and choose Transparency from the Lens type pop-up. Type 40 in the Opacity percentage field and check Centerpoint. Transparency tints underlying colors by the opacity percentage.

Create the look of glass.

Centerpoint handle

Centerpoint handle — Centerpoint handle
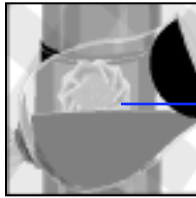
Offset the part of the wine label seen through the glass.

4 Checking Centerpoint displays a handle, which marks the center of the area seen in the lens. Using the Pointer tool, drag this handle slightly up or down to offset the view of the wine label as seen through the glass. Press Tab to deselect the bowl.

Create a shine near the mouth of the glass.

5 Select the half-circle shape at the mouth of the glass. This shape has a Basic fill of Black. Choose Lens from the Fill type pop-up, and choose Lighten from the Lens type pop-up. Type 35 in the percentage field, and press Return. Lighten adds a percentage of white to underlying colors.

Create the look of liquid in a glass.

6 Select the wine in the glass. The wine has a Basic fill of Pantone Rubine Red CVP. Choose Lens from the Fill type pop-up, and choose Transparency from the Lens type pop-up. Type 25 in the Opacity percentage field, and press Return.

Distort the look of the wine label seen through the liquid.

7 With the wine selected, choose Edit > Clone to clone the shape. Choose Magnify from the Lens type pop-up, type 1.25 in the magnification factor field, and press Return. Notice how the text in the wine label increases in size through the wine in the glass.

Embossing objects

Use the Emboss Xtra to simulate objects that are raised or impressed, creating a three-dimensional effect. Available variations of this effect are Emboss, Deboss, Chisel, Ridge, and Quilt.
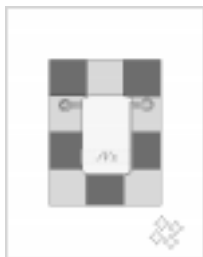
Open the template file.

Emboss

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Towel.ft8 file, and click Open. Choose Window > Xtras > Operations to display the Operations panel. Select the gray clone of the yellow towel, and choose View > Hide Selection.

Quilt button

Apply the Quilt effect to the tile.

2 Select the group of dark blue and light blue tiles. Click the Emboss button on the Operations panel to display options for five kinds of Emboss effects. Click the Quilt button on the Emboss panel. Choose Contrast from the Vary pop-up, and type 72 in the percentage field. Type 5 in the Depth field, 135 in the Angle field, and click OK. Choose Edit > Select > None.
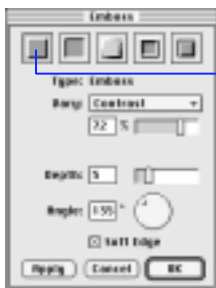
Emboss button

Apply the Emboss effect to the towel and towel rack.

3 Select the group consisting of the towel and the towel rack. Click the Emboss button on the Operations panel to display options. Click the Emboss button on the Emboss panel, check Soft Edge, and click OK. Choose Edit > Select > None. Choose Window > Panels > Color List to display the Color List.

Apply the Deboss effect to the towel's band.
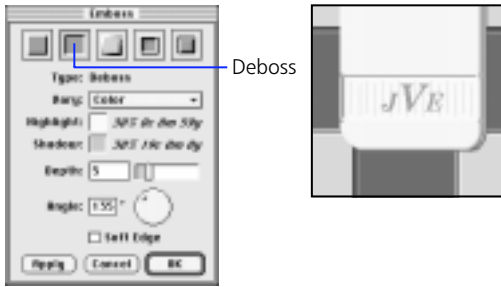
4 Select the towel's wide band, which is a rectangle with a yellow fill and no stroke. Do not select the initials or the stitching (vertical gray lines). Click the Emboss button on the Operations panel, and click the Deboss button on the Emboss panel. Choose Color from the Vary pop-up. Drag and drop 30% 19c 0m 0y 60k onto the Shadow color well and 30% 0c 0m 59y 0k onto the Highlight color well. Uncheck Soft Edge, and click OK. Choose Edit > Select > None.

Apply the Ridge effect to the initials.

5 Select the initials, "JVE." Click the Emboss button on the Operations panel, and click the Ridge button on the Emboss panel. Type 2 in the Depth field, and click OK. Choose Edit > Select > None.

Apply the Emboss effect to objects for a Tiled fill.
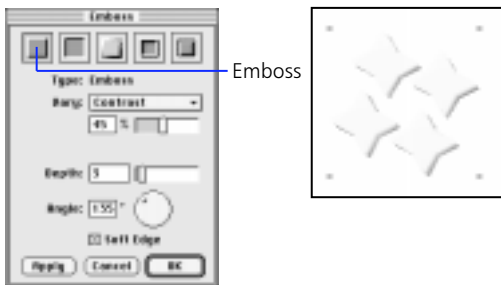
6 Create a texture for the towel. Select the group of four, pale yellow stars at the bottom of the page. Click the Emboss button on the Operations panel, and click the Emboss button on the Emboss panel. Choose Contrast from the Vary pop-up, and type 45 in the percentage field. Type 3 in the Depth field. Check Soft Edge, and click OK.

Apply the Tiled fill to the towel.

7 With the group of stars selected, choose Edit > Copy to copy it to the Clipboard. Choose View > Show All to display the gray clone of the towel hidden in Step 1. Leave the clone selected. Choose Modify > Fill to display the Fill Inspector, choose Tiled from the Fill type pop-up, and click Paste in. Type 20 into each of the x and y Scale % fields and press Return. This applies a texture to the towel.

Working with text

Create a menu using both auto-expanding and standard text blocks. Learn how to flow text along a path, change text attributes, and run text around an object.

Note: This lesson uses the following fonts: URWBaskerTMed, URWBaskerTExtBold, and Freak.

Open the template file.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Menu.ft8 file, and click Open. You should see the first page of a menu. All items on the page are on the Paper layer, which is locked to prevent the accidental moving of objects. Choose Window > Toolbars > Toolbox to display the Toolbox, and choose Window > Toolbars > Text to display the Text toolbar.

Ellipse tool
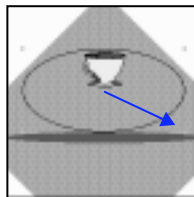
Draw an ellipse, and center it horizontally on the page.

2 Choose the Ellipse tool in the Toolbox. Hold down Option (Macintosh) or Alt (Windows) and drag from center, beginning just underneath the small coffee cup at the top of page 1. Draw an ellipse slightly shorter in length than the brown ellipse, yet wide enough to enclose the cup. If necessary, drag the ellipse with the Pointer tool to center it horizontally on the page.

Text tool

Choose a font, style, and size, and type "Coffee."

3 Choose File > Preferences, and make sure the Text > "New text containers auto-expand" preference is checked, and click OK. In the Text toolbar, choose Freak as the font, choose Plain as the style, type 66 for the size, and press Return. Choose the Text tool in the Toolbox, and click to create an auto-expanding text block at the upper-left corner of page 1. Type "Coffee," and double-click the word to highlight it.

Apply a brown stroke color to the text.
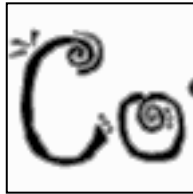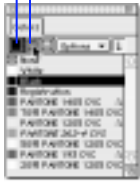
4 Choose Window > Panels > Color List to display the Color List. Drag and drop Black onto the Fill selector and 70% Pantone 1405 CVC onto the Stroke selector. This applies a color to the stroke of the text.

Select the text block and the ellipse. Attach the text to the ellipse.
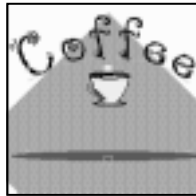
5 Choose the Pointer tool, hold down Shift, and select both the text block and the ellipse. Choose Text > Attach to Path to place the word "Coffee" along the top of the ellipse. Once attached, the ellipse is no longer visible. Choose Window > Inspectors > Object to display the Object Inspector and choose Baseline from the Text Alignment Bottom pop-up.

Type "Cafe" along the bottom of the ellipse, and apply a fill color and a stroke color to it.

6 Choose the Text tool again, click after the last "e" in "Coffee," and press Return. Type "Cafe," and double-click the word to highlight it. On the Color List, drag and drop Pantone 193 CVC onto the Fill selector. This applies a color to the fill of the text. Drag and drop Black onto the Stroke selector.

Vertical auto-expansion button

Position the list of menu items, and turn off vertical auto-expansion.
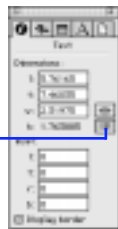
7 Locate the menu items on the pasteboard to the right of and off of page 1. With the Pointer tool, select the text block, and drag it underneath the "Coffee Cafe" and the brown ellipse. Do not double-click it. Double-clicking the text block with the Pointer tool switches to the Text tool. Leave the text block selected, and on the Object Inspector, click the button to the right of the height field to turn off vertical auto-expansion.

Drag the handle to alter the leading. Text fills the new size.

8 Modify the text block's leading, which is the spacing between lines. Notice the text handle that is in the center and bottom of the text block. Use this handle to increase the leading of the text. With the Pointer tool, drag the handle downward so that the menu items fill the remainder of page 1.

Note: Dragging a side-middle text handle adjusts range kerning.

Center the text block.

9 Choose 2 from the pop-up at the lower-left corner of the document window to view page 2. Locate the text block beginning with the words "Lorem ipsum dolor" to the right of page 2. Use the Pointer tool to select the text block, drag it to the left, and center it on page 2.
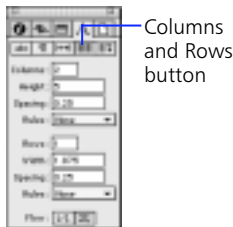
Columns and Rows button

Create two columns.

10 Click the Text tab to display the Text Inspector. Click the Columns and Rows button. With the text block selected, enter 2 in the Columns field and press Return. This divides the text block into two columns of equal width.

Trace tool
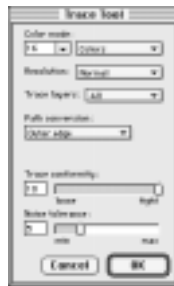
Choose the Trace tool and set options.

11 To wrap text around a grouped object, first trace a path around the outside of the group. Double-click the Trace tool in the Toolbox to display the Trace Tool dialog box. Choose "Outer edge" from the Path conversion pop-up, and click OK.

Trace an area around the large cup and saucer. This draws a path around the group.

12 With the Trace tool, drag a selection area around the large cup and saucer, located on the pasteboard to the right of page 2. This should draw a black stroke of one point weight around the edges of the entire object, creating an outline.
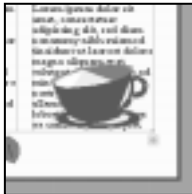
Select the path and the group. Move the selection to the lower-right corner of the text block.

13 Choose the Pointer tool. With the outline still selected, hold down Shift and select the group consisting of the cup and saucer. Click and drag the object to the lower-right corner of the text block. The graphic should be on top of the text. Press Tab to deselect all. Use the Pointer tool to select only the outline.
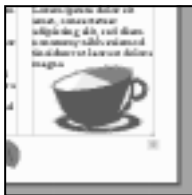
Use Run Around Selection so that the text avoids the object.

14 With the outline selected, choose Text > Run Around Selection. Click the button on the right, leave the Standoff distance settings as 0 (zero) for all sides, and click OK. This runs the text around the cup and saucer.

Create a title. Auto-expanding text blocks are ideal for creating titles because they expand to fit the text.

15 Create a title. In the Text toolbar, choose URWBaskerTExtBol, choose Plain, and enter 16, and press Return. With the Text tool, click to place an auto-expanding text block above the "Lorem ipsum dolor" text block. Type "History of Coffee Cafe." Choose the Pointer tool, select the new text block, and center it above the larger text block.

Creating drop caps

Creating drop caps is easy using FreeHand's inline graphic feature. You can use groups, composite paths, blends, paste insides, and bitmap images as inline graphics to create drop caps. Experiment with this feature.

Select and cut the graphic. Paste the graphic at the beginning of the paragraph.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Dolphin.ft8 file, and click Open.

Use the Pointer tool to select the graphic of a dolphin on the letter. Choose Edit > Cut. Use the Text tool to highlight the first letter in the paragraph. Choose Edit > Paste to insert the graphic into the text block.

Character button

Select the inline graphic and apply a negative baseline shift.

2 A graphic inserted into a text block is called an inline graphic, and it behaves like a text character. Choose Window > Inspectors > Text to display the Text Inspector. Click the Character button to display the Character Inspector. Use the Text tool to highlight the graphic just as you would a text character. Enter -80 into the Baseline shift field, and press Return to create a drop cap.

After creating the drop cap, change the attributes of the surrounding text.

3 Highlight only the text, choose a new point size, style, and font from the Character Inspector. This changes the attributes and flow of the surrounding text without affecting the drop cap.

Using styles

Styles are a powerful way to selectively modify text and graphics throughout a document, without repetitious, time-consuming manual formatting.

Paragraph styles

Graphic styles
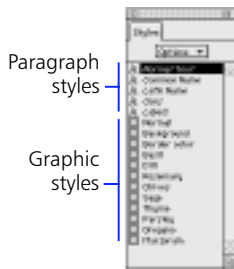
On the Styles panel, list the styles by name.

Style override

Select the word "HERB." Note that any changes to the text since the selected style was applied results in a style override.

Create a new style based on the altered Normal Text style applied to HERB.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Garden.ft8 file, and click Open.

Choose Window > Panels > Styles to display the Styles panel. If necessary, choose Show Names from the Options pop-up to list the styles by name. On the Styles panel, each letter "A" indicates a paragraph style, and each square indicates a graphic style.

2 Using the Pointer tool, select the text block containing the word "HERB," and look at the Styles panel. A plus sign next to the Normal Text style indicates that the object's current paragraph attributes have changed since the Normal Text style was applied. The plus sign is a style override.

3 One way to remove a style override is to create a new style based on the modified attributes. With HERB selected, choose New from the Options pop-up on the Styles panel. Style-1 appears at the bottom of the list. Double-click Style-1, type "Title," and press Return to rename the style.

Apply the Title style to the word "GARDEN."

4 Select the text block containing the word "GARDEN," and click the Title style name in the Styles panel to assign the newly created style to the text.

Increase the font size in the Title style.

5 Modify the Title style by increasing the font size to 64. Choose Edit from the Options pop-up to display the Edit Style dialog box. Make sure Title appears in the Style pop-up. Highlight 48 in the Size field, and enter 64 to increase the font size. Click OK to apply the change to "HERB GARDEN." Choose Edit > Select > None to deselect all objects.
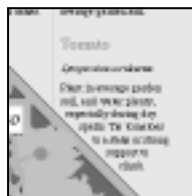
Drag and drop styles onto the appropriate paragraphs of the Tomato entry to match the other entries.

6 Drag and drop the appropriate paragraph style icon onto each paragraph:

Common Name onto "Tomato"

Latin Name onto "Lycopersicon esculentum"

Uses onto "Plant in average…. grow with herbs."

Note: Styles affect entire text containers when the Editing > Text > "Dragging a paragraph style changes entire text container" preference is checked.

Create a sequence of three styles by setting one style to follow another.

7 Set one style to follow another in this order: Common Name, Latin Name, Uses. In the Edit Style dialog box, choose Common Name in the Style pop-up and choose Latin Name in Next pop-up. Then, choose Latin Name in the Style pop-up. Click Update in the "Update changes to style Common Name?" dialog box (Macintosh) or click OK in the "Do you want to save changes to style "x"?" dialog box (Windows). Choose Uses from the Next pop-up. Then, choose Uses from the Style pop-up, and click Update (Macintosh) or OK (Windows). Choose Common Name from the Next pop-up, and click OK.

For the next entry, type the common name, the Latin name, and the use; each new paragraph assumes the appropriate style.

8 Choose the Text tool in the Toolbox. After the Tomato entry, press Return to begin a new paragraph. Click the Common Name style name. Type "Sweet Marjoram," and press Return. The style automatically switches to Latin Name. Likewise, type "Majorana hortensis," and press Return. The next style becomes Uses. Finally, type "Sow in warm soil in a sunny place. Grow in rich soil for a stronger flavor."
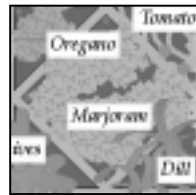
Each herb graphic in the garden has its own style. Drag and drop a style onto an object, or select an object and click a style name.

9 Apply a unique graphic style to each herb in the garden. You can either select an object and then click a style name, or you can drag and drop a graphic style icon onto an object. Change the herb graphic and not its text label.

Note: The parsley, thyme, marjoram, and basil graphics each consist of objects joined together in a composite path. Applying a style to a composite path affects all objects in that path.

Select the oregano, and reduce the Scale % of the tile object in the Fill Inspector.

10 Redefine a style based on a selected object. Select the oregano in the garden with the Oregano style already applied. Choose Window > Inspectors > Fill to display the Fill Inspector. Enter 20 in each of the Scale % fields, and press Return to apply the changes.

Redefine the Oregano style based on changes made to the object.

11 The Oregano style has a style override. Choose Redefine from the Options pop-up to display the Redefine Style dialog box. With the Oregano style selected, click OK to redefine the style.

Using the Find & Replace Graphics panel

The Find & Replace Graphics panel is a tool to quickly alter complex illustrations. This lesson shows only a few examples of the many functions of the Find & Replace panel. Experiment with other options available in the panel and take advantage of what it can do for you. For more information, see "Find & Replace Graphics" on page 144.

Open the template file.

1 Choose File > Open. In the Open Document dialog box, navigate to the Tutorial folder within the FreeHand folder. Choose the Yucatan.ft8 file, and click Open to open a map file of the Yucatan peninsula in Mexico.
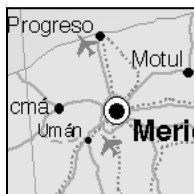
Magnify the area surrounding the city of Merida.

Magnification tool cursor

2 Hold down Command (Macintosh) or Control (Windows) and the spacebar to switch to the Magnification tool, and click to magnify the area surrounding the city of Merida.

To fit the map in the document window, choose View > Fit to Page. Use the Magnification tool in the Toolbox and the Fit to Page command throughout this lesson to view the details of this map.

Select one airplane, and use its attributes to select all airplanes.

3 Use the Pointer tool in the Toolbox to select one of the red airplanes. Choose Edit > Find & Replace > Graphics. Click the Select tab. Choose Same as selection in the Attribute pop-up, Fills & strokes in the Match pop-up, and Document in the Search pop-up. Click Find to select all 10 red airplanes.

Note: If you cannot select an airplane, press Tab to deselect all objects and try again.

With all the airplanes selected, rotate them clockwise 90°.

4 Click the Find & Replace tab, and choose Rotate from the Attribute pop-up and Selection from the Change in pop-up. Enter -90 for the Rotation angle. With all the airplanes still selected, click Change to rotate all the airplanes clockwise 90 degrees. On the Find & Replace panel, note the feedback provided: Changed 10 items. Fit the map in the document window.
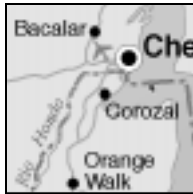
Select international borders.

5 In Steps 5 and 6, increase the width of the international borders from 1.5 points to 2 points. Magnify the area surrounding the city of Chetumal. With the Pointer tool, select a red dashed line marking one of the international borders. Click the Select tab, and use the same settings for it as those described in Step 3. Click Find to select all eight international borders.

Increase the width of the international borders to 2 points.

6 Click the Find & Replace tab, choose Stroke width from the Attribute pop-up, and choose Selection from the Change in pop-up. Leave the Min and Max fields blank, but choose 2 pt from the To pop-up. Click Change to increase the width of all international borders.
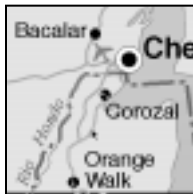
Select the primary roads.

7 Use the Pointer tool to select a solid brown line marking one of the primary roads. Use the same settings for the Select tab as described in Step 3. Click Find to select all 85 primary roads.

Note: You do not need to use the Select tab in cases in which you can accurately specify the search criteria using only the Find & Replace tab.

Color List pop-up

Change the color of the primary roads.

8 Click the Find & Replace tab and choose Color from the Attribute pop-up. Choose 0c 40m 80y 10k from the From pop-up and choose 50c 100m 0y 0k from the To pop-up. Choose Strokes from the Apply to pop-up. Click Change. This changes all the primary roads from brown to purple. Fit the map in the document window.

Select Italic text labels.

9 In Steps 9 and 10, select all text labels indicating bodies of water. Notice that the text is Italic and blue. Select one of these labels, such as "Gulf of Mexico." Click the Select tab. Choose Font from the Attribute pop-up and Page from the Search pop-up. Leave Any font in the first pop-up. Choose Italic from the second pop-up. Leave the Min and Max pop-ups blank. Click Find to select all 35 text blocks with an Italic style.
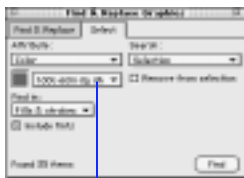
Color List pop-up

Select the blue text labels.

10 Choose Color from the Attribute pop-up and Selection from the Search pop-up. Choose 100c 60m 0y 0k from the Color List pop-up. Choose Fills or Fills & strokes in the Find in pop-up. Click Find to select only the 20 blue text objects from your selection.

Apply the BoldItalic style to all text labels indicating bodies of water.

11 Click the Find & Replace tab, and choose Font from the Attribute pop-up and Selection in the Change in pop-up. Choose BoldItalic from the style pop-up on the right, underneath the To pop-up, and click Change. All selected text retains the same font and size, but it changes to a BoldItalic style. Magnify the country of Guatemala.

Select a symbol for an archaeological site, copy it, and paste it into the first window.

12 In Steps 12 through 15, replace the symbols for major archeological sites. Click the Find & Replace tab, choose Path shape from the Attribute pop-up, and choose Page from the Change in pop-up. With the Pointer tool, select one of these green symbols. Choose Edit > Copy. On the panel, click the Paste in button next to the From window. Make sure Transform to fit original is checked.

Polygon tool

Draw a triangle to replace the original symbol.

13 Draw a replacement symbol. Double-click the Polygon tool in the Toolbox to display options. Type 3 in the Number of Sides field, click the Polygon button, and click OK. Hold down Shift and drag the Polygon tool on the map to draw a triangle which has one corner pointing straight up. Do not deselect it.

Note: It does not matter if the triangle is much larger in size. The Transform to fit original option resizes the shape to the same size as the original.

Fill selector
  Stroke selector

Apply color to the triangle.

14 Apply a color to the triangle's fill. Choose Window > Panels > Color List to display the Color List. With the triangle selected, drag and drop an 80c 0m 80y 15k color chip onto the Fill selector at the top of the Color List. Drag and drop the None color chip onto the Stroke selector at the top of the Color List.

Cut the triangle and paste it into the To window. Replace all symbols.

15 With the triangle selected, choose Edit > Cut, and click the Paste in button next to the To window on the Find & Replace panel. Click Change to replace the original symbols with the 16 new symbols throughout the map.

CHAPTER 4
Organizing Your Illustration

Organizing your illustration is time well spent. The more complex your illustration, the more you benefit from organizing it with templates, layers, groups, and object and paragraph styles.

◆ **Templates—**Use them as defaults for creating new documents to avoid recreating frequently used design elements and production settings.

◆ **Layers—**Use them to edit and manage complex illustrations with many overlapping objects in manageable portions. Categorize related objects, and turn off layers to print objects selectively.

◆ **Groups—**Use them to freeze two or more objects in relation to one another. Move or transform multiple objects together.

◆ **Object styles—**Use them to quickly apply the same formatting to multiple objects and globally edit graphic attributes.

◆ **Paragraph styles—**Use them to quickly apply and modify text formatting.

Using templates

To work more efficiently and avoid design inconsistencies, create templates for documents that share common design elements and production settings.

A template's settings and attributes are defaults for creating other documents. Save a document as a template when you want to create new documents with the same objects, settings, colors, and object and paragraph styles. For example, to create a series of designs that have the same page size and layout, save the first one as a template and then use it to create the rest in the series.

A template file saves what is in a FreeHand document, including the following:

◆ Guides

◆ Layer information

◆ Object styles

◆ Paragraph styles

◆ Custom colors

When opening a template, an untitled copy of it appears. Use the untitled copy to create or replace an existing template. You can also designate a template as your default for new documents.

To restore the original FreeHand 8 defaults, quit or exit FreeHand. Delete the FreeHand 8 Preferences file inside the Preferences folder in the System folder (Macintosh) or delete Fhprefs.txt in the FreeHand application folder (Windows). Restart FreeHand.

To save a document as a template:

1 Choose File > Save As.

2 Enter a name for your template file in the Save (Macintosh) or Save Document (Windows) dialog box.

3 Choose FreeHand Template from the Format (Macintosh) or Save as type (Windows) pop-up.

4 Choose a destination and click Save. In Windows, an FT8 extension is added to the file name.

Macintosh Save dialog box

Windows Save Document dialog box

To edit a FreeHand template:

1 Open the template, make changes, and then choose File > Save.

2 Save the newly revised document as a template with the same name and location.

3 FreeHand prompts you to replace the original template file. Click Replace and the new template replaces the old one.

To set a template as the default for new documents:

1 Open and edit a template.

To edit the default template, choose File › New and edit the untitled copy.

2 Choose File > Save, and name the file.

Name the file FreeHand Defaults (Macintosh) or Defaults.ft8 (Windows). To use a template file with a different name, type the file name in the Document › "New document template" preference.

3 Save the template in the same folder as the FreeHand application.

The default template must be kept in the folder with the FreeHand application. The next time you choose File › New, an untitled copy of your new default template appears.

To convert any FreeHand file into a template without opening it (Macintosh):

1 Select the file in the Finder.

2 Choose File > Get info and check the Stationery pad checkbox.

To convert a template into a FreeHand document, uncheck the Stationery pad checkbox.

Simplifying a complex illustration using layers

Layers divide an illustration into discrete planes, as though the different components of the illustration were drawn on separate tracing paper overlays. Every object in an illustration resides on a layer. Only objects on visible, unlocked layers are editable. Create all layers before you draw or add individual layers as you need them.
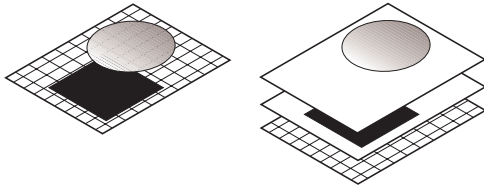
Objects on a checked layer are visible.

A layer in Preview mode displays objects as they will print.
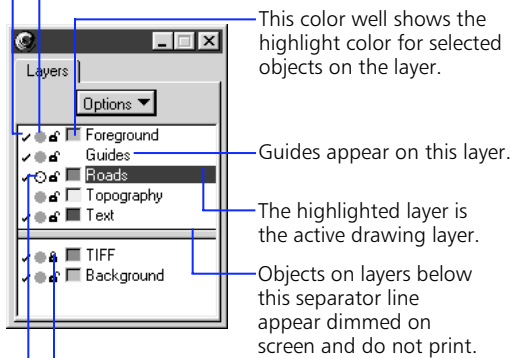
This color well shows the highlight color for selected objects on the layer.

Guides appear on this layer.

The highlighted layer is the active drawing layer.

Objects on layers below this separator line appear dimmed on screen and do not print.

Objects on a locked layer cannot be moved.

A layer in Keyline mode displays outlines of objects.

To show or hide the Layers panel choose Window › Panels › Layers or use Command-6 (Macintosh) or Control-6 (Windows). The Layers panel displays the current state of all layers in your document. It is the primary tool for adding, duplicating, and removing layers.
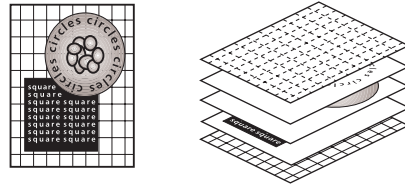
To control how objects on a layer display, use the check mark, padlock, color well, and Preview/Keyline icons beside the layer name. Hide or lock layers to avoid accidentally moving or deleting objects. Work in Preview mode to see objects as they will print. Choose Keyline mode to view only the outlines of objects on a layer and to speed redraw. Use the color well to assign a highlight color, which distinguishes objects on one layer from those on another. The customizable color wells on the Layers panel display the highlight color of a particular layer.

Press Tab to deselect all objects and click the layer name to choose a layer to be the active layer. The next object you draw appears on this layer. Deselecting all objects prevents inadvertently moving objects to the new active layer.

To rename a layer, double-click the layer name, type a new name, and press Return to accept the name.

Adding, duplicating, and removing layers

Copies the contents of the
selected layer onto a new layer.

Adds a new layer.

Deletes the selected layer and all
objects on it.

Hides (unchecks) all layers.
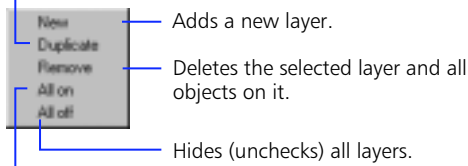
Shows (checks)
all layers.

Options pop-up on the Layers panel

To	Do this
Add a new layer	Choose New from the Options pop-up.
Duplicate a layer and all objects on it	Click a layer name and choose Duplicate from the Options pop-up.
Remove a layer and all objects on it	Click a layer name and choose Remove from the Options pop-up.
Remove several layers and all objects on them	Hold down Command (Macintosh) or Control (Windows) and click the layer names. To remove contiguous layers, hold down Shift and click the multiple layer names. Choose Remove from the Options pop-up.

Turning on and turning off layers

To	Do this	
Turn on a layer		Click to the left of the unchecked layer name.
Turn off a layer		Click the check mark to the left of the checked layer name.
Turn on all layers	Choose All on from the Options pop-up, or hold down Option (Macintosh) or Control (Windows) and click to the left of an unchecked layer name.	
Turn off all layers	Choose All off from the Options pop-up, or hold down Option (Macintosh) or Control (Windows) and click to the left of a checked layer name.	

Turning off a layer hides all objects on that layer, but does not remove them from the document. Turning on a layer shows all objects on that layer. If the active layer is turned off, then new objects are not visible until the layer is turned on again.

Note: To print all foreground layers when layers are turned off, choose File > Output Options, and check Include invisible layers.

Hiding selected objects from view

To hide specific objects, select them and then choose View › Hide Selection.

Using Hide Selection hides all selected objects. Hidden objects print as if they are visible. Locked objects remain locked when hidden. Guides cannot be hidden using Hide Selection.

To show all hidden objects, choose View › Show All. Hidden objects reappear when the file is closed and reopened.

If an object was hidden, and then the layer on which the hidden object was turned off, the hidden object is shown again when the layer is turned on again.

Note: Show All does not show a hidden layer.

Locking and unlocking layers

To	Do this	
Lock a layer		Click the open padlock to the left of the layer name.
Unlock a layer		Click the closed padlock to the left of the layer name.
Lock all layers	Hold down Option (Macintosh) or Control (Windows) and click an unlocked padlock.	
Unlock all layers	Hold down Option (Macintosh) or Control (Windows) and click a locked padlock.	

Viewing layers in Preview or Keyline mode

To	Do this	
View a layer in Preview mode		Click the hollow Keyline icon.
View a layer in Keyline mode		Click the filled Preview icon.
View all layers in Preview mode	Hold down Option (Macintosh) or Control (Windows) and click a Keyline icon.	
View all layers in Keyline mode	Hold down Option (Macintosh) or Control (Windows) and click a Preview icon.	

Guides

To view guides, turn on the check mark at the far left of the Guides layer name. To hide the guides, turn off the layer. To view the guides in black, set the drawing mode to Keyline for the Guides layer. To view them in the guide color chosen in the Colors › "Guide color" preference, set the viewing mode to Preview.

To turn an object into a guide, select the object and click the Guides layer. The object displays in the guide color. To turn a guide into an object, double-click the guide and click Release in the Guides dialog box. The object returns to its original layer.

For more information about guides and the Guides layer, see Chapter 2, "Getting Your Bearings," and the FreeHand Help.

Moving objects and reordering layers

Change the way objects overlay one another in your document by moving objects from one layer to another, or by rearranging the order of the layers. Designate layers as non-printing by dragging them below the separator line, or by dragging the line up and down.

To move an object to another layer:

1   Select an object.

    The object's layer name appears highlighted on the Layers panel.

2   Choose the destination layer by clicking the destination layer name.

To move one layer in front of or behind another layer:

1   Choose Edit > Select > None or press Tab to deselect all objects in the document.

2   On the Layers panel, click the name of the layer you want to move.
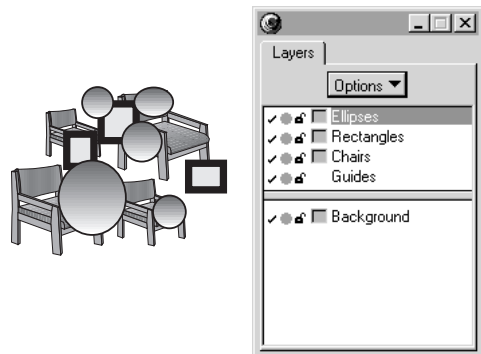
3 Drag the layer name to a new position, either
above or below another layer name.
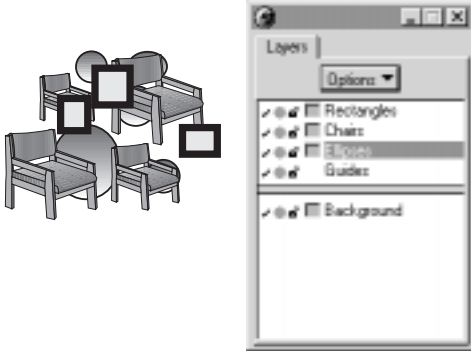
To copy layer information to another document:

1 Check the General > "Remember layer info"
preference.

2 Select an object in the source document and
choose Edit > Cut or Copy.

3 Open the destination document and choose
Edit > Paste.

If the layer name in the destination document is the
same as the one in the original document, then
FreeHand places the object on that layer. Otherwise,
a new layer with the original layer name is created.

Using highlight colors to distinguish objects on different layers

With the General › "Smoother editing" preference
checked, highlight colors for each layer can distinguish
objects on one layer from those on another. The editable
color wells on the Layers panel display the highlight
color of a particular layer.

With the General › "Highlight selected paths"
preference checked, the layer highlight color appears as a
one-point line on top of selected, ungrouped paths. View
and edit highlighted paths on any layer without
bringing them to the front of your illustration. The
highlight color does not affect the color of the object.

To assign a highlight color, check the
General › "Smoother editing" › preference and drop a
color chip from any color well onto the color well next to
the layer name. FreeHand now uses the new color to
highlight all selected items on that layer.

To highlight selected objects, handles, and points, but not
draw a highlight line on top of paths, uncheck the
General › "Smoother editing" › "Highlight selected paths"
preference.

Uncheck "Smoother editing" to eliminate all highlight
colors. Although the "Smoother editing" preference uses
more RAM, this feature also provides other drawing
enhancements in addition to highlight color. For best
results, leave "Smoother editing" turned on.
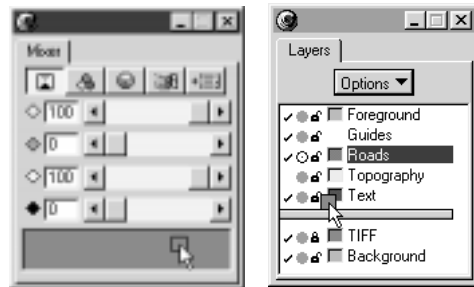
*To assign a highlight color, drag a color chip from any color
well onto the color well next to the layer name.*

Organizing a complex Layers panel

When working with a document with many layers, consider adding or inserting empty layers with descriptive names to organize your Layers panel. In the example below, empty layers with descriptive names serve as dividers to categorize the layers in a complex map.

Use descriptive layer names to organize the Layers panel.

Working with objects on a single layer

Arranging objects on the same layer

To	Do this
Move an object forward on the same layer	Select the object and choose Modify > Arrange > Move Forward.
Move an object to the front of a layer	Select the object and choose Modify > Arrange > Bring to Front.

To	Do this
Move an object backward on the same layer	Select the object and choose Modify > Arrange > Move Backward.
Move an object to the back of a layer	Select the object and choose Modify > Arrange > Send to Back.
Paste an object behind a selected object on the same layer	1. Select the object and choose Edit > Cut or Copy. 2. Select the object behind which you want to paste. 3. Choose Edit > Paste Behind.
Paste an object in front of a selected object on the same layer	1. Select the object and choose Edit > Cut or Copy. 2. Select the object in front of which you want to paste. 3. Choose Edit > Paste in Front.

Use the Arrange commands to change the stacking order of objects. However, you may not see a change in the stacking order if the objects are not overlapping. Pasting an object behind or in front of an object within a group or a clipping path integrates the pasted object into the group or the clipping path. Clipping paths are paths in which other objects are pasted inside. To learn how to create clipping paths, also known as paste insides, see "Working with clipping paths" on page 129.

To select all objects on a single layer in a multilayer document:

1 Hold down Option (Macintosh) or Control (Windows) and click any open padlock on the Layers panel to lock all layers.

2 Unlock the layer containing the objects you want to select.
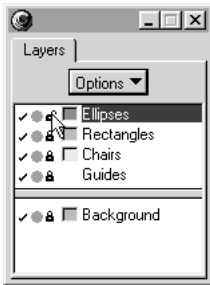
3 Choose Edit > Select > All in Document to select all objects on the unlocked layer.

To hide selected objects on a layer without turning off the layer, select one or more objects and choose View › Hide Selection. See "Hiding selected objects from view" on page 93.

Grouping objects
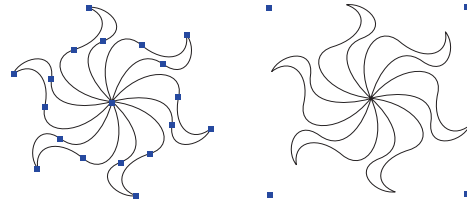
Grouping two or more objects freezes their positions and stacking order relative to one another, so you can manipulate them as a single object. Objects within a group retain their individual characteristics, unless you modify the entire group.

To	Do this
Group objects	1. Select multiple objects.
	2. Choose Modify > Group or use Command-G (Macintosh) or Control-G (Windows).
	After grouping, click any object in the group to select the entire group.
	Grouping objects on different layers moves these objects to the current drawing layer but retains their relative stacking order.
Ungroup objects	1. Select the group.
	2. Choose Modify > Ungroup or use Command-U (Macintosh) or Control-U (Windows).
	Ungrouping objects with the General > "Remember layer info" preference checked returns these objects to their original layers.

Subselecting within a group

Grouped object   *Component subselected*
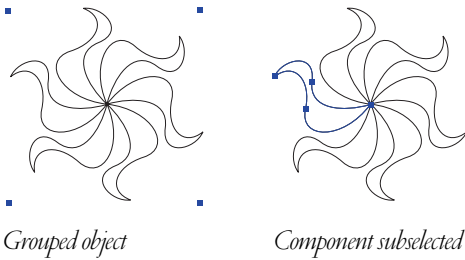
To work with individual objects within a group, either ungroup the objects or subselect only the objects you want to modify. Modifying attributes of a subselected object changes only the subselected object and not the rest of the group. Subselected objects cannot be moved to other layers or grouped with other groups.

To	Do this
Subselect one object within a group	Hold down Option (Macintosh) or Alt (Windows) and select the object.
Subselect two or more objects within a group	Hold down Shift-Option (Macintosh) or Shift-Alt (Windows) and select the objects.
Subselect one object behind another object within a group	Hold down Control-Option and click the object (Macintosh) or hold down Control-Alt and right-click the object (Windows).
Deselect a subselected object	Press Tab or click the document outside the group.
Select the group containing a subselected object	Choose Edit > Select > Superselect, or press Tilde (~).

Working with nested objects

Nested objects are objects in groups within larger groups. Manipulate them just as you would any other group.

To nest an object within an existing group:

1 Select an object and a group.
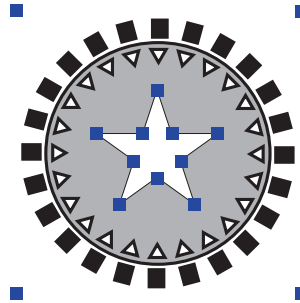
2 Choose Modify > Group or use Command-G (Macintosh) or Control-G (Windows).

Use Group up to 20 times in succession to nest objects within a group, or to combine groups within a larger group. A nested object is an object within a group. Although the actual nesting limit is 28, certain objects such as inline graphics and paste insides may have nested objects within them and therefore may account for more than one nest.
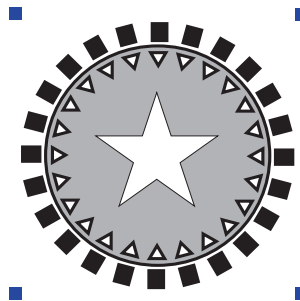
To subselect a nested group:

1 Hold down Option (Macintosh) or Alt (Windows) and select an object within the nested group.

2 Choose Edit > Select > Superselect or press Tilde (~) until you have selected the nested group you want.
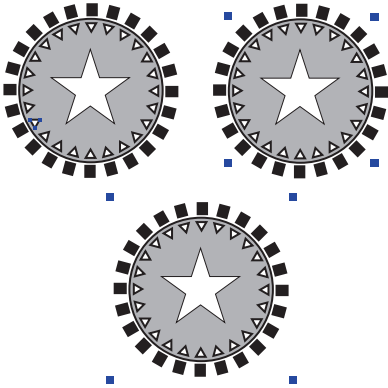
Using styles

Use styles to maintain visual consistency and to simplify formatting. Modify object styles and paragraph styles to quickly change graphics and text throughout your document. You can create and save styles to use as part of a template.

Object styles—Use object styles to format graphics with preset stroke, fill, color, and halftone attributes. These attributes are available in the Stroke Inspector, the Fill Inspector, or in the Halftones panel. Object styles are available in the Styles panel.

Paragraph styles—Format individual paragraphs or entire text blocks. Options include font, color, style, size, justification, text effects, tabs, margins, spacing, range kerning, baseline shift, hanging punctuation, and paragraph rules. These attributes are available in the Text menu, the Text Inspector, or the Text toolbar. Paragraph styles are available in the Styles panel, the Text Character Inspector, and the Text toolbar (Windows).
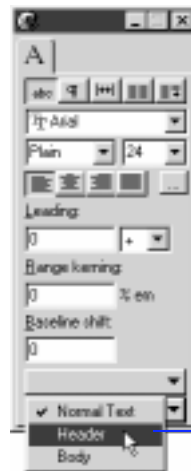
Assign a paragraph style to selected text or text blocks.

Text Character Inspector

Navigating the Styles panel

To show or hide the Styles panel, choose Window › Panels › Styles or use Command-3 (Macintosh) or Control-3 (Windows). The Styles panel displays the current object styles and paragraph styles in your document. It is the primary tool for adding, duplicating, removing, and modifying object and paragraph styles. Choose available commands from the Options pop-up. Click a style name and choose Edit from this pop-up to set specific attributes.

Choose from two viewing options available in the Options pop-up on the Styles panel: Show names or Hide names. When Show names is selected, styles are listed by name, with either the graphic or text symbol shown. When Hide names is selected, styles are represented using previews that reflect the styles' attributes.

Object style icon
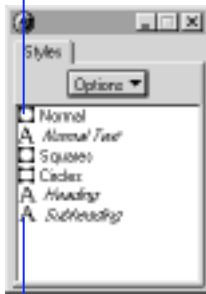
Paragraph style icon

Show names selected

Object style preview
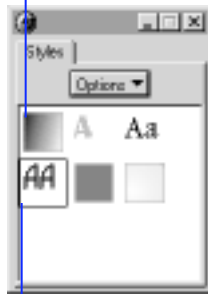
Paragraph style preview

Hide names selected

Managing styles

Applying a style

To apply a style	Do this
To selected objects or text	1. Select one or more objects, paragraphs, or text blocks. 2. Click a style name in the Styles panel to apply the style's attributes to the object or text.
Using drag and drop	Drag and drop a style from the Styles panel to an object or text.
Using the paragraph styles pop-up in the Text Character Inspector or the Text toolbar (Windows)	1. Select one or more paragraphs or text blocks. 2. Choose a style name to apply the style's attributes to the text.
From one object to another using Copy Attributes and Paste Attributes	1. Select the source object. 2. Choose Edit > Copy Attributes or use Command-Shift-Option-C (Macintosh) or Control-Shift-Alt-C (Windows). 3. Select the destination object and choose Edit > Paste Attributes or use Command-Shift-Option-V (Macintosh) or Control-Shift-Alt-V (Windows).
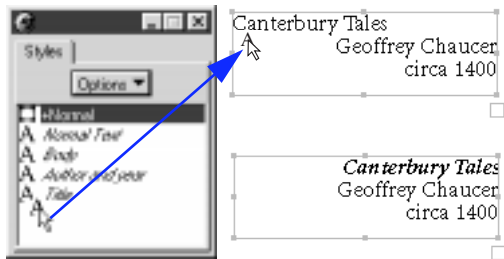
Drag and drop a style to apply it to a paragraph of text.

By default, applying a paragraph style changes an individual paragraph's attributes. To affect an entire text block, choose the Text › "Dragging a paragraph style changes" › "Entire text container" preference. To learn how to prevent changing text effects, paragraph rules, hanging punctuation, tabs, or margins when applying a new style, see "Keeping previously applied paragraph attributes" on page 103.

See FreeHand Help for additional information regarding the Object › "New graphic styles" preference and the Text › "Build paragraph based on" preference.

Adding, duplicating, and removing styles

Options pop-up on the Styles panel

To	Do this
Add a new style	1. Choose Edit > Select > None to deselect objects. 2. Set object or text attributes. 3. Choose New from the Options pop-up.
Add a new style based on a selection	1. Select an object or text. 2. Choose New from the Options pop-up.
Duplicate a style	1. Choose Edit > Select > None to deselect objects. 2. Click a style name on the Styles panel. 3. Choose Duplicate from the Options pop-up.
Remove a style	1. Choose Edit > Select > None to deselect objects. 2. Click a style name on the Styles panel. 3. Choose Remove from the Options pop-up.
Remove all unused styles	Choose Remove unused from the Options pop-up.

Note: To rename a style, double-click the style name, type a new name, and press Return.

Importing and exporting styles

Options pop-up on the Styles panel

Use the Style panel's Options pop-up to import and export styles. Export styles to transfer to other illustrations, distribute to other users, or store for future use.

To export styles

1   Choose Window > Panels > Styles to display the Styles panel.

2   Choose Export from the Options pop-up.

3   Using the Export dialog box, choose styles for export.

4   Choose a destination—type a file name for the exported style library, and click Export.

FreeHand has many preset object styles that can enhance your illustrations. These preset styles are located in Styles panel's Options pop-up.

To import styles

1   Choose Window > Panels > Styles to display the Styles panel.

2   Choose Import from the Options pop-up.

3   Click the name of the styles library or FreeHand document containing the desired styles, and click Import.

Modifying styles

To edit an object style:

1   Click an object style name in the Styles panel.

2   Choose Edit from the Options pop-up to display the Edit Style dialog box.

3   Change any attribute and click OK to save your style.

You can modify any stroke, fill, color, or halftone attribute in the Edit Style dialog box.

To edit a paragraph style:

1   Click a paragraph style name on the Styles panel.

2   Choose Edit from the Options pop-up to display the Edit Style dialog box.

3   Change any attribute and click OK to save your style.

To regain the settings present before modifying a paragraph style in the Edit Style dialog box, choose Restore Original Values from the Global Settings pop-up. Choose Restore Program Defaults to regain the default settings.

Keeping previously applied paragraph attributes

When creating a new style or modifying an existing style, disable attributes in the Edit Style dialog box. This prevents modifying them when applying the style to text that already has the attributes you want.

To disable	Do this
Font	Choose No selection from the Font pop-up.
Style	Choose No selection from the Style pop-up.
Point size	Leave the field blank.
Justification	Click the blank button to the right of the justified button.
Leading	Choose No selection from the Leading pop-up.
Text effect	Choose No selection from the Text effect pop-up.
Color	Uncheck Style affects text color.
Paragraph spacing	Leave the fields blank.
Spacing %	Leave the fields blank.
Range kerning	Leave the field blank.
Baseline shift	Leave the field blank.
Horizontal scale	Leave the field blank.
Hang punctuation	Click the Hang punctuation checkbox until a hyphen [-] (Macintosh) or a dimmed check mark (Windows) appears.
Rules	Choose No selection from the Rules pop-up.
Tabs and margins	Check the No selection checkbox on the text ruler.
All settings	Choose No selection from the Global Settings pop-up.

Each click of the Hang punctuation checkbox changes its status. An empty checkbox indicates that hanging punctuation is turned off. An X (Macintosh) or a check mark (Windows) indicates that the option is turned on. A hyphen (Macintosh) or a dimmed check mark (Windows) indicates No selection.

Note: Unlike choosing No selection, choosing None in the Rules pop-up removes all paragraph rules in paragraphs to which the style is applied, and choosing No effect in the Text effect pop-up removes all text effects.

Overriding styles

To	Do this
Override a style	1. Select an object, paragraph, or text block. 2. Change any stroke, fill, color, halftone, or text attribute. 3. When you select the object or text, the overridden style appears highlighted with a "+" in front of it.
Redefine a style based on a selected object or text	1. Select an object and apply the desired attributes. 2. Choose Redefine from the Options pop-up in the Styles panel. In the Redefine style dialog box, click the name of the style you are redefining, and click OK. The style now assumes the attributes of the selected object or text.
Remove a style override	1. Select an object, paragraph, or text block with an overridden style. 2. Click its style name. 3. The original style applies to the object or text, removing any override.

To base one style on another style:

1   Choose Edit > Select > None to deselect all objects.

2   Click the style name for the child or dependent style.

3   Choose Set Parent from the Options pop-up to display the Set Parent dialog box.

4   Choose another style to be the parent or source style, and click OK.

Use Set Parent from the Options pop-up to base variations of a style on another style. The resulting style, called the child style, depends on the attributes of its source style, called the parent style. When you edit a parent style, the attributes shared by the child style also change. Attributes unique to the child style do not change.

If you remove a child style from an object or text, the parent style becomes the active style, but the object or text retains all of its attributes.

To copy style information to another document:

1   Select an object, paragraph, or text block in the source document and choose Edit > Cut or Copy.

2   Open the destination document and choose Edit > Paste.

The object or text appears in the document, and its style appears in the Styles panel.

When a style in the destination document has the same name as the style you want to copy, the style is overridden but not redefined.

Use the Import and Export commands to transfer styles between documents. See "Importing and exporting styles" on page 102.

CHAPTER 5
Drawing

Vector drawing

When drawing in FreeHand, paths are the basic elements of your graphic designs. Generated mathematically within FreeHand, a path consists of at least two points. Each point connects one or more line segments, either straight or curved.

Because of the way it generates lines on screen, FreeHand is classified as a vector drawing application. Vector applications produce resolution-independent graphics, which appear crisp and smooth regardless of the level of on-screen magnification. A vector graphic always appears at your computer's maximum screen resolution, no matter how closely you zoom in to see its details.

In contrast, by displaying a matrix of pixels on screen, bitmap image applications produce resolution-dependent graphics. When viewed from afar, these pixels form a continuous graphic, but as you zoom in, the graphic becomes increasingly granulated as you begin to see individual pixels.

Bitmap image applications, such as Macromedia xRes, are best used for computerized painting and texturizing, as well as for editing continuous-tone graphics such as photographs. Whether vector or bitmap, each application has its unique strengths. To learn how other applications work with FreeHand, see Chapter 10, "Working with Other Applications."

Vector image
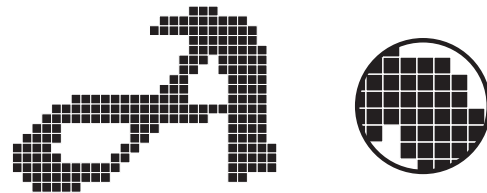
Bitmap image

Path characteristics

Vector graphics consist of paths, which consist of points and path segments. A path segment, either straight or curved, is the element spanning two points. Paths have a variety of characteristics:

◆ Path status (open or closed)

◆ Stroke and fill attributes

◆ Direction

Types of paths

◆ **Open**—An open path is one where the beginning point and the ending point do not connect.

Open paths

◆ **Closed**—Although it may have overlapping path segments, a path is not closed until the beginning and ending points are the same.
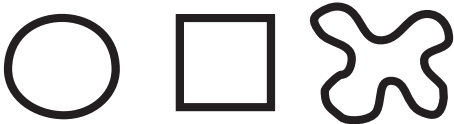
Closed paths

Stroke and fill attributes

Color, the primary attribute for both strokes and fills, enables you to distinguish other visible attributes of open and closed paths. Without color, paths would not appear on screen or in print.

◆ A stroke consists of the attributes applied to a path's line segments. To display and print fills contained in open paths, check the Object › "Show fill for new open paths" preference.

◆ A fill consists of the attributes applied to the area within the border of a closed path. Closed paths always print both strokes and fills.
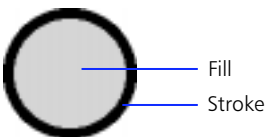
The Stroke, Fill, and Both selectors in the Color List indicate the color applied to paths. To learn how to apply strokes and fills to paths, see Chapter 6, "Color, Strokes, and Fills."

Direction

When drawing a path, the order in which you place points establishes path direction. Think of path direction as either clockwise or counterclockwise. The initial path direction of FreeHand's preset shapes—ellipses, rectangles, and polygons—is clockwise.
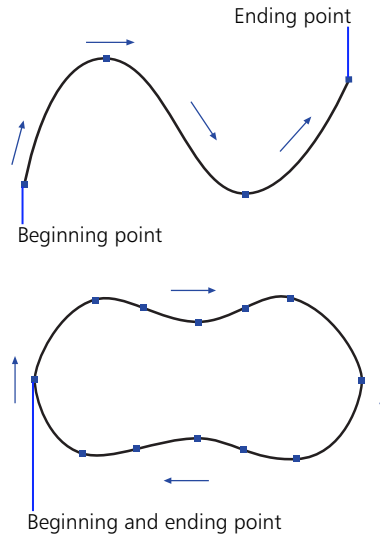
Path direction determines which handle adjusts a given path segment and to which path end an arrowhead applies. Path direction is also important when you bind text to a path, blend paths, or fill composite paths created from two paths with different directions.

To change the path direction of any path once drawn, use the Reverse Direction path operation. Choose Modify › Alter Path › Reverse Direction, choose Xtras › Cleanup › Reverse Direction, or click the Reverse Direction button on the Operations panel.

Selecting paths

Using the Pointer tool, select paths just as you would any other object: either click the path or drag a selection area around the path. Hold down Shift when clicking paths to select more than one.

With a path selected, the Object Inspector provides feedback on path characteristics and displays the following:
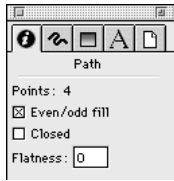
A path of 4 points is selected.

◆ **Object type**—A path is an object. When your selection includes more than one object, the Object Inspector tells you the number of objects selected.

◆ **Number of points**—FreeHand's limit of 32,000 points per path lets you import very complex files from other sources. Depending upon your output, you may want to monitor the number of points in a selected path. Increasing the number of points increases the file size, slows redraw, and slows printing. The fewer points a path has, the easier it is to modify, display, and print. Use Xtras › Cleanup › Simplify to decrease the number of points in a path. Use Find & Replace Graphics to selectively simplify paths in an entire document. For more information on Find & Replace Graphics see page 144.

◆ **Even/odd fill**—With Even/odd fill checked, overlapping portions of closed paths are transparent.

◆ **Closed**—Check Closed to automatically connect the endpoints of a selected, open path. Uncheck Closed to remove the last path segment from a selected, closed path.

◆ **Flatness**—On a PostScript output device, a curve consists of a series of tiny line segments. Flatness gauges the size of the line segments comprising a path—the lower the flatness value, the smaller the line segments and the smoother the path. If your output device generates PostScript error messages, assign a higher flatness value. Printed objects will appear more blocky, but the document will print faster.

Use this option only when you want to assign different flatness values to individual paths. The flatness value set in the Object Inspector overrides the value set in the Output Options dialog box, which is for the entire document.

Point characteristics

Points not only determine path direction but also the shape and position of adjacent path segments. Providing the framework for vector graphics, corner, curve, and connector points are useful tools to create and edit paths. Most of the points you create will be corner or curve points.

Type of point	Function	Handle behavior
Corner	Creates hinges between adjacent path segments	Corner point handles are retracted and move independently. Therefore, it is possible to adjust adjacent path segments, either straight or curved, one at a time.
Curve	Maintains smooth, winding transitions through a point between adjacent curves	By default, curve point handles extend. They move around a point in tandem, affecting adjacent path segments at the same time.
Connector	Maintains smooth transitions between a straight path segment and a curved one or between two curves meeting at a sharp angle	When a connector point is preceded by or followed by a curve, handles extend. The position of the points on either side of a connector point limits the movement of its handles.

Selecting points

Using the Pointer tool, click individual points to select them, or drag a selection area around either an entire path or a portion of it to select points. Hold down Shift when clicking points to select more than one. Selected points appear hollow rather than solid.
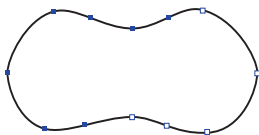
With a point selected, the Object Inspector provides feedback of point characteristics, in addition to the path information shown in "Selecting paths" on page 108.

Click to change the point type of a selected point.

Click to retract point handles.

Enter position of point in relation to the page ruler's zero point.

Check to automatically adjust point handles.
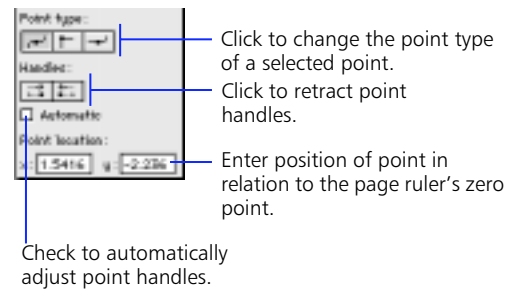
◆ **Point type**—Use the Pointer, Pen, or Bezigon tools to select a point. With a point selected, one of three point buttons is selected. To change the point type, select a point and click a different point button.

◆ **Handles**—To retract handles and adjust the path shape, select a point and click the button corresponding to its point handle.

◆ **Automatic**—This setting positions the point handles of a selected point with respect to the position of the preceding and following points. Select the desired points and then check Automatic. Manually adjusting or retracting a point handle turns off Automatic.

The Automatic setting is useful when you want to drag a selected point so that the curvature of the path segments before and after the point automatically adjust.

◆ **Point location**—The Point location entry fields display the x and y coordinates of the point in the document unit of measurement. The displayed point location is relative to the zero point defined on the active page.

Viewing paths with highlight color

Check the General › "Highlight selected paths" preference to view the non-printing highlight color of paths. With "Highlight selected paths" checked, a line of the designated highlight color appears on top of the selected path. With "Highlight selected paths" unchecked, only the points of the selected path appear in the highlight color.

This line is selected with the "Highlight selected paths" preference checked. The highlight color appears on top of the path.

Hiding selected objects from view

To hide specific objects, select them and choose View › Hide Selection.

Using Hide Selection hides all selected objects. Hidden objects print as if they are visible. Locked objects remain locked when hidden. Guides cannot be hidden using Hide Selection.

To show all hidden objects as selected objects, choose View › Show All.

If an object was hidden, and then the layer on which the hidden object was turned off, the hidden object is shown again when the layer is turned on.

Note: Choosing Show All does not show hidden layers.

Selecting a path with the right mouse button (Windows)

Commands from a variety of menus appear in the Path shortcut menu. To display path commands, select one or more paths with the right mouse button.

Choosing shortcut commands for paths (Windows)

Choose	To
Edit	Display the Edit menu showing commands applicable to the path.
Text	Create a new text block that flows either along or inside the path.
Curve, Corner, or Connector	Change the point type of a selected point.
Path	Change the status of the path to either Open or Closed.
Tools	Choose one of the applicable Toolbox tools.
Xtras	Choose a command from the Xtras menu.
Select	Choose to select All, All in Document, None, or to Superselect.
View	Choose a magnification view for the active page.
Export Object	Export one or more selected objects.
Print Object	Print one or more selected objects.
Arrange	Move the path or object by choosing: Bring to Front, Move Forward, Move Backward, or Send to Back.
Lock or Unlock	Lock or unlock the path's position. Locked paths cannot be transformed, cut, or deleted.
Group or Ungroup	Group or ungroup objects.
Properties	Display the Object Inspector to view path or point options.

Toolbox tools for drawing paths

Use	To
Pointer tool Shortcut key: 0 (zero)	Select paths and other objects on screen. Although the Pointer tool is not a drawing tool, it is essential for selection and placement of objects.
Rectangle tool Shortcut key: 1	Draw rectangles and squares.
Polygon tool Shortcut key: 2	Draw polygons and stars.
Ellipse tool Shortcut key: 3	Draw ellipses and circles.
Line tool Shortcut key: 4	Draw straight lines.
Freehand tool Shortcut key: 5	Draw freeform paths. Choose from three options: Freehand, Variable stroke, and Calligraphic pen.
Pen tool Shortcut key: 6	Draw by placing points. Use the Pen tool to anchor points and manipulate point handles as you draw.

Use	To
Knife tool Shortcut key: 7	Cut a path into two or more paths.
Bezigon tool Shortcut key: 8	Draw by placing points. Use the Bezigon tool to reposition a point before releasing the mouse button to place it. Point handles adjust to adjacent path segments.
Freeform tool Shortcut key: 9	Edit a path or paths within a specified area. Choose from two options: Push/Pull, or Reshape Area.
Trace tool	Trace both imported and native graphics and text to yield editable paths.

To momentarily switch back to the Pointer tool while drawing, hold down Command (Macintosh) or Control (Windows). This is useful when you need to quickly select an object while using a drawing tool.

Double-click any tool button with a bracket in its upper-right corner to display tool options.

Drawing basics

In FreeHand, there are three ways to draw:

◆ To draw paths by dragging, use the Rectangle, Polygon, Line, Ellipse, or Freehand tools. FreeHand automatically places the appropriate type of point.

◆ To draw paths by placing points, use either the Pen or Bezigon tools. Choose the types of points to place as you draw.

◆ To create paths by tracing another object, use the Trace tool. FreeHand traces text, bitmap images, or vector graphics to yield editable paths.

Drawing by dragging

To draw using a basic shape tool:

1 Select one of the shape tools: Rectangle, Polygon, Ellipse, or Line.

2 Hold down the mouse button to start a path, drag to draw, and release the mouse button to end the path.

To constrain a shape, hold down Shift while dragging.

Use Shift with	To constrain shapes to
Rectangle tool	Squares
Ellipse tool	Circles
Polygon tool	Angles at increments of 45°
Line tool	Angles at increments of 45°

To draw a rectangle, an ellipse, or a line from its center, hold down Option (Macintosh) or Alt (Windows) and drag the respective tool. The Polygon tool automatically draws from the center.

The center cursor

To both constrain a shape and draw it from its center, hold down Shift-Option (Macintosh) or Shift-Alt (Windows) while using a drawing tool.

When drawn, rectangles and ellipses are initially grouped. When selected, a rectangle and an ellipse are labeled as such in the Object Inspector. Choose Command-U (Macintosh) or Control-U (Windows) to ungroup them and manipulate individual points. If ungrouped they are no longer editable as rectangles or ellipses.

The corner radius value determines the curvature of the corners of your rectangle.

To assign a value	Do this
Before drawing a rectangle	1. Double-click the Rectangle tool to display the Rectangle Tool dialog box.
	2. Enter a numerical value or use the slider to adjust the corner radius, click OK, and then draw the rectangle.
	A value of zero yields standard, 90° corners.
After drawing a rectangle	Select the rectangle and then enter a numerical value in the Corner radius entry field in the Object Inspector. Press Return. The shape of the rectangle changes.

Creating polygons and stars

To	Do this
Set the number of sides for polygons and stars	1. Double-click the Polygon tool to display the Polygon Tool dialog box.
	2. Choose either the Polygon or Star option.
	3. Choose a value ranging from 3 to 20 using the Number of Sides slider or enter a value up to 360 in the entry field.
Set the angle of star points	1. Choose the Star option to create a star and set the Number of Sides. Star options appear.
	2. Click the Automatic option or move the acute/obtuse slider to set the star shape.
	With Automatic selected, stars are drawn to preset star shapes. Moving the acute/obtuse slider changes Automatic to Manual.
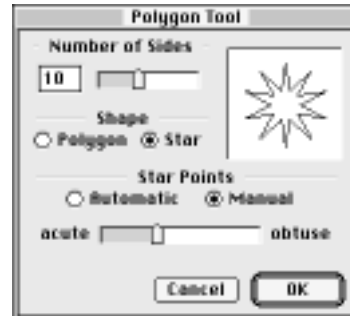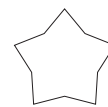
Automatic   Acute   Obtuse

Using the Freehand tool

With the Freehand tool, draw freeform paths following the direction of your hand movements. The three modes of operation for this tool are Freehand, Variable stroke, and Calligraphic pen.

To draw a path using the Freehand tool:

1 Double-click the Freehand tool to display the Freehand Tool dialog box.

2 Click one of three options in the dialog box: Freehand, Variable stroke, or Calligraphic pen. Click OK.

3 Hold down the mouse button to start a path, drag to draw, and release the mouse button to end the path.

4 Hold down Option (Macintosh) or Alt (Windows) to draw a straight line with the Freehand tool.
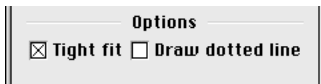
Freehand options in the Freehand Tool dialog box.
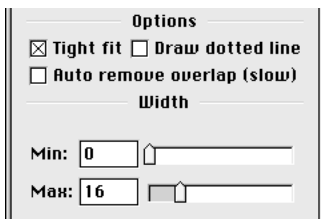
Variable stroke options in the Freehand Tool dialog box.

Calligraphic pen options in the Freehand Tool dialog box.

To draw paths with more accuracy, check Tight fit in the Freehand tool options. As you draw, Tight fit tells FreeHand to match your hand movements as closely as possible to the paths on screen. With Tight fit unchecked, FreeHand yields more simplified paths with fewer points. The visual difference is usually not noticeable, but fewer path points generally make printing faster.

Note: To speed up path creation, check Draw dotted line. With this checked, FreeHand displays fragmented paths as you draw; the actual path appears when you release the mouse button.

Using the Variable stroke tool and the Calligraphic pen

Depending upon the width settings, the Variable stroke tool and the Calligraphic pen tool draw closed paths with stroke and fill attributes. Width refers to the distance between the centerline of the strokes opposite each other. Verify that the Color List displays the stroke and fill attributes of your choice.

To draw paths of varying widths:

1 Click the Variable option in the Freehand Tool dialog box.

For the Calligraphic pen only, click the Fixed option to set calligraphic paths to a constant width.

2 Set minimum and maximum widths for your path, and then start drawing.

3 As you draw, increase and decrease path width in one of the following ways:

◆ To decrease path width, use the left cursor key, the numeral 1 key, or the open bracket key.

◆ To increase path width, use the right cursor key, the numeral 2 key, or the close bracket key.

Note: The open and close bracket keys apply only to the Macintosh.

Each time you press a key, the width changes by one-eighth of the width range as defined in the Variable stroke tool settings or the Calligraphic pen settings.

When using a pressure-sensitive tablet, the width of the path segments increase or decrease according to the amount of pressure applied. When switching from the Wacom pressure-sensitive pen to its eraser, FreeHand switches from a drawing tool to the Knife tool.

To automatically remove overlap from paths as you draw, check Auto remove overlap, which maintains the path's original shape while removing unnecessary path segments. Auto remove overlap yields composite paths.

Auto remove overlap unchecked

Auto remove overlap checked

Note that checking Auto remove overlap may slow redraw. Therefore, you may first draw the path and remove overlap later. Select the finished path and then choose Modify › Alter Path › Remove Overlap, choose Xtras › Cleanup › Remove Overlap, or click the Remove Overlap button on the Operations panel.

To set the angle of the Calligraphic pen, enter a degree value in the Angle entry field or move the circular Angle dial to a location representing an angle from 0˚ to 360˚. The angle set corresponds to the angle of the Calligraphic pen tip. Choose no stroke and a Basic fill to most closely approach a real calligraphy pen.

To erase as you draw using the Freehand tool, continue to hold down the mouse button, press Command (Macintosh) or Control (Windows), and trace backwards—opposite to the path's original direction. Release the modifier key to continue drawing.

Drawing by placing points

The Pen tool and the Bezigon tool

The fundamental difference between the Pen tool and the Bezigon tool is the way each places points:

◆ Use the Pen tool to place anchored points and interactively manipulate handles to adjust path shape. To move the position of the point and the point handles simultaneously, hold down Command (Macintosh) or Control (Windows) as you place a point.

◆ Use the Bezigon tool to create and then freely move a point before placing it; FreeHand adjusts handles and path shape in reference to the position of the point.

When it is important for you to control the shape of the path regardless of point position, use the Pen tool. When you want FreeHand to predict the curve for you, use the automatic curvature of the Bezigon tool.
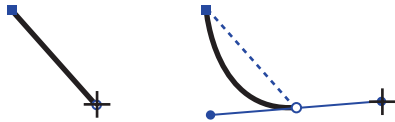
Use the Pen tool to interactively move point handles.
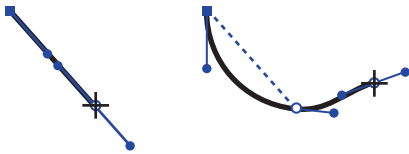
Use the Bezigon tool to create paths that automatically curve.

Use the Pen tool to	Do this
Place a corner point	Click.
	As you place a corner point, hold down Option (Macintosh) or Alt (Windows) and drag to extend a handle as you place it. This handle affects the next path segment.
Place a curve point	Click and drag.
	Curve point handles extend automatically. Since the Pen tool anchors points in place, use the point handles to adjust path shape.
	Press Command (Macintosh) or Control (Windows) while dragging to move the curve point to a new location.
Place a connector point	Hold down Control, click, and drag (Macintosh).
	Hold down Alt and the right mouse button and drag (Windows).
	Dragging as you place a connector point extends a handle. This handle affects the next path segment.
Continue a path from its last point	Select the last point on the path and click with the Pen tool to continue the path.

To place a path segment at a sharp angle to a preceding curve, place a curve point and leave it selected. With the Pen tool, click the point to retract its outgoing handle. Place the next point wherever you wish.
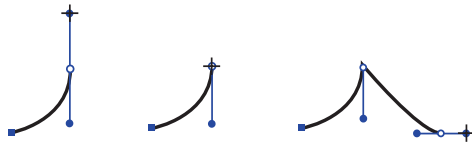
Placing a path segment at a sharp angle.

Use the Bezigon tool to	Do this
Place a corner point	Click. With the Bezigon tool, you cannot extend handles until after the point is placed.
Place a curve point	Hold down Option (Macintosh) or Alt (Windows) and click. Curve point handles extend automatically. Both the handles and the preceding and following curves adjust as you position the point. Releasing the mouse anchors the point in place.
Place a connector point	Hold down Control, click, and drag (Macintosh). Hold down Alt and the right mouse button and drag (Windows).

Inserting and deleting points

To insert a corner, curve, or connector point into the middle of a path, click the path with the Pen tool or the Bezigon tool. For example, with the Pen tool, click and drag to insert a curve point and extend its handles. Reshape adjacent path segments. With the Bezigon tool, insert a curve point and reshape the path using automatic curvature.

Repositioning points

Reposition points in paths using any of three methods:

◆ With the Pointer tool or the Bezigon tool, select an endpoint or a point in the middle of a path and move it. Release the mouse button to place the point.

◆ With the Pen tool, select an endpoint or a middle point. Hold down Command (Macintosh) or Control (Windows) and drag the point to a new place. Release the mouse button. Using either method, point handles and path segments adjust automatically.

◆ With the Freeform tool, reshape a path or an area containing paths. Points are added, deleted, or changed accordingly.

To reposition two or more points at a time, use the Pointer tool to select a point and then hold down Shift to select more points, or drag a selection area around a portion of the path. Use the Pointer tool to click one of the selected points and drag to reshape the path. Point handles and path segments adjust automatically as you move the point.

Closing paths

To close a path manually with the Pointer, Pen, or Bezigon tool, select an endpoint and drag it to the other endpoint. When the point turns into a black square, release the mouse button to close the path. To close a path automatically, select a path, display the Object Inspector, and check Closed. In Windows, right-click the path to open the Path shortcut menu and choose Path › Closed.

As you draw a path with the Pen or Bezigon tools, double-click as you place the last point to end the path or press Tab to deselect the path. Click in a new place to start another path.

Path cursors

As you draw and edit paths, cursors confirm the operation you are performing.

This cursor	Indicates
✛	Using a tool (other than Freeform). This is the standard crosshair cursor.
✛▫	Placing the first path point of a new path when using either the Pen or Bezigon tool.
✛▪	Closing a path when one endpoint is on top of the other.
✛ᴧ	Inserting a point into the middle of a path.
✛.	Placing the cursor over the endpoint of a path drawn with the Freehand tool. Continue drawing from this endpoint rather than beginning a new path.

Basic point handle manipulation

To extend point handles manually, select a corner, curve, or connector point. First hold down Option (Macintosh) or Alt (Windows). Then, using the Pointer tool, click and drag handles, one at a time, from the selected point. The first handle you extend curves the path segment following the point. The second handle you extend curves the path segment preceding the point.

Note: If you click a point before you hold down Option (Macintosh) or Alt (Windows) when extending point handles manually, dragging will clone the path rather than extend point handles unless you release the modifier key before releasing the mouse button.

To extend point handles using the Object Inspector, select a curve point with handles retracted. Use either Command-I (Macintosh) or Control-I (Windows) to display the Object Inspector. Check Automatic to adjust point handles and adjacent path segments to best conform to the existing path. Therefore, the curve point handles do not necessarily return to the position in which they were first placed. Checking Automatic does not extend the handles of corner or connector points.

To retract point handles automatically, select a point with handles extended and display the Object Inspector. For curve points, click the left and right point handle buttons. For corner and connector points, check Automatic; FreeHand automatically adjusts the adjacent path segments.

To retract point handles manually, select a corner, curve, or connector point with handles extended. With the Pointer tool, click and drag the end of each handle into the point.

Adjust the curvature and the angle of path segments by manipulating point handles. The range and direction of handle movement varies for each type of point. In FreeHand, point handles are slender with small point knobs. If you wish to use larger handles, uncheck the General › "Smaller handles" preference.
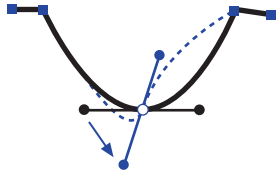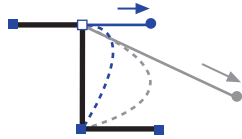
The farther you drag a handle away from a corner, curve, or connector point, the more pronounced the curve becomes.
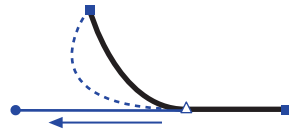
Constraining path segments as you place points

To	Do this
Place a corner point at the constrain angle	Hold down Shift and click the Pen tool or Bezigon tool.
Place a curve point at the constrain angle	Hold down Shift and click and drag the Pen tool. Hold down Shift-Option (Macintosh) or Shift-Alt (Windows) and click the Bezigon tool.
Place a connector point at the constrain angle (Macintosh)	Hold down Control-Shift and click the Pen tool or Bezigon tool.

The Modify › Constrain command affects editing points, creating objects such as rectangles and ellipses, and constraining angles using Shift. When holding down Shift as you place a point, the angle set in the Constrain dialog box determines the angle of a newly placed point measured from the axis of the previously placed point.

When the constrain value is 0 (zero), holding down Shift constrains objects to 0°, 45°, 90°, etc. Changing the constrain angle to 10°, for example, changes constrain lines to 10°, 55°, 100°, and so on.
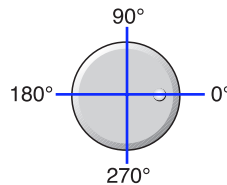
Path manipulation

Choose from several path-modification techniques.

Using Bend-O-Matic

To change path shape using the Pointer tool, hold down Option (Macintosh) or Alt (Windows), point to the path, not individual points, and drag the path to a new position. Point handles adjust automatically to the position of the point. This is known as Bend-O-Matic.
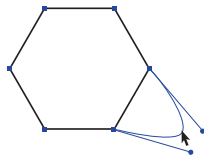
Editing paths without selecting point

For greater control and flexibility when changing the shape of a path, use the Freeform tool to push or pull any part of the path. Unlike Bend-O-Matic, the Freeform tool automatically adds points, deletes points, or changes point type along the path as you edit the path. The Reshape Area feature reshapes all paths within an area. Double-click the Freeform tool in the Toolbox to display the Freeform tool dialog box.

Push/Pull—Check to display settings for the Freeform tool's push and pull features.

Reshape Area—Check to display settings for the Freeform tool's reshape feature.

Size—To set the diameter of the push cursor, type a number from 1 to 1000 pixels or use the slider.

Precision—To set the accuracy of the push cursor, enter a number from 1 to 10 or use the slider. Lower numbers result in less precision (fewer points added to the path); higher numbers result in more precision (more points added to the path).

Bend—Choose one of two bend methods in the pop-up.

◆ To pull a segment between two points on a selected path, choose Between Points.

◆ To pull a segment of a specific length with the pull cursor as the centerpoint, choose By Length.

Length—When bending By Length, enter a segment length from 1 to 1000 pixels or use the slider.

Size (Pressure)—Check to activate a drawing tablet's pressure-sensitive size adjustment capability.

Length (Pressure)—Check to activate a drawing tablet's pressure-sensitive length adjustment capability.

The cursor changes to reflect the current Freeform tool feature.

This cursor	Indicates
	The Freeform tool is active. Click and hold on a selected path to activate the pull cursor. Click and hold away from the selected path to activate the push cursor.
	The pull cursor is active, and By Length is set, if on a selected path. Pull the path to reshape the path. This cursor also indicates no path is selected. Use the Freeform cursor to select a path.
	The pull cursor is active and Between Points is set. Pull the path to reshape the path.
	The push cursor is active; push the selected path with the adjustable outer circle to reshape the path.
	The reshape area cursor is active; pull all paths inside a specified radius and with a specified gravitational strength.

Note: To deselect a path, press Tab.

To pull a path segment of a specified length:

1 Double-click the Freeform tool in the Toolbox to display the Freeform Tool dialog box.

2 Choose the Push/Pull option.

3 Choose By Length in the Bend pop-up.

4 Specify the length of the path segment to be pulled in the Length field or use the slider, and then click OK.

5 Point to the selected path, press and hold the mouse button, and drag the path.
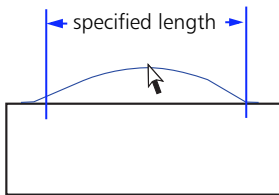
Pull: By Length

To pull a path segment between two points:

1 Double-click the Freeform tool in the Toolbox to display the Freeform Tool dialog box.

2 Choose the Push/Pull option.

3 Select Between Points in the Bend pop-up, and then click OK.

4 Move the cursor onto the selected path, click and hold the mouse, and drag the path.
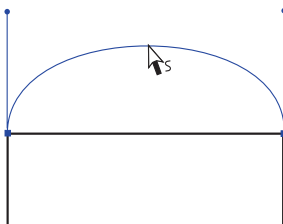
Pull: Between Points

To push a path segment:

1 Double-click the Freeform tool in the Toolbox to display the Freeform Tool dialog box.

2 Choose the Push/Pull option.

3 Type the size (diameter) of the push cursor from 1 to 1000 pixels or use the slider.

4 Type the precision from 1 to 10 or use the slider, and then click OK.

5 Move the cursor away from the path and click and hold the mouse button.

The push cursor appears. If the pull cursor appears instead, select the path.

6 Drag the push cursor along the path.

The outer circle pushes the path.
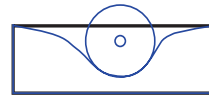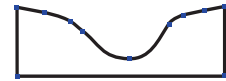
Push set at 50   *Curve after being pushed*

Note: To increase the width of the push cursor, press the right cursor key, the number 2 key, or the close bracket key. To decrease the width, press the left cursor key, the number 1 key, or the open bracket key.

To	Do this
Temporarily switch between By Length and Between Points	Hold down Option (Macintosh) or Alt (Windows) before you start moving the pull cursor and then drag the cursor.
Clone the path you are changing and leave the original path	Hold down Option (Macintosh) or Alt (Windows) after you start moving the cursor.
Constrain push cursor direction to 45-degree increments	Hold down Shift while using the Freeform tool to push a path.
Temporarily switch to the Pointer tool	Hold down Command (Macintosh) or Control (Windows).

Freeform Reshape Area

Choose Reshape Area in the Freeform Tool dialog box to display the Freeform Reshape dialog box.

With Reshape Area chosen, the Freeform tool button in the Toolbox changes to indicate that Reshape Area mode is active.

Freeform toolbar button in Reshape Area mode

To reshape an area of a drawing:

1 Double-click the Freeform tool in the Toolbox to display the Freeform Tool dialog box.

2 Check the Reshape Area option.

3 Type the size (diameter) of the reshaping circle from 1 to 1000 pixels or use the slider.

4 Type the strength of the reshaping circle from 1 to 100 percent, and click OK.

With the General › "Smoother editing" preference checked, the distance between the red inner circle and the outer circle represents the strength setting.

5 Move the reshape area cursor over an area to be reshaped.

6 Hold down the mouse button and drag the reshape area cursor.

Using the Knife tool

Use the Knife tool to manually split paths yielding either open or closed paths. Select a path and drag the Knife tool across the path.

◆ **Freehand**—Use to cut along a freeform path. With the Freehand option selected, hold down Option (Macintosh) or Alt (Windows) to cut a straight line.

◆ **Straight**—Use to cut along a straight line.

◆ **Width**—Set the width of the Knife tool's path. The higher the value, the wider the cut; the width is best seen when cutting a filled path with Close cut paths checked.

◆ **Close cut paths**—With Close cut paths checked, both the stroke and the fill are retained. With Close cut paths unchecked, only the stroke of a filled path is retained. FreeHand adds endpoints at the intersection of the Knife tool and your path.

Unchecked   *Checked*

◆ **Tight fit**—Create a cut that closely follows the path of your hand movements.

Note: When switching from the Wacom pressure-sensitive pen to its eraser, FreeHand switches from a drawing tool to the Knife tool.

Replicating an existing path

Create new paths that resemble an existing path by duplicating or cloning.

Duplicating

To duplicate an object, select the path and choose Edit › Duplicate or use Command-D (Macintosh) or Control-D (Windows). A copy of the path appears offset from the original. Holding down Option (Macintosh) or Alt (Windows) when dragging an object also copies it.

Cloning

To clone an object, select the path and choose Edit › Clone or use Command-= (Macintosh) or Control-Shift-C (Windows). A copy of the path appears on top of the original. Use Clone when you want to maintain the original path's position. For example, to copy a path and scale the resulting path so that the centers of both objects match, use Clone.

Power-duplicating

Using power-duplication, you can repeatedly move, scale, rotate, reflect, or skew copies of an object. Combine more than one kind of transformation, but use each kind of transformation only once.
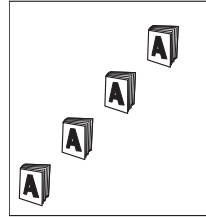
Moving
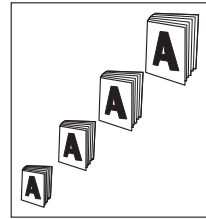
Moving and scaling
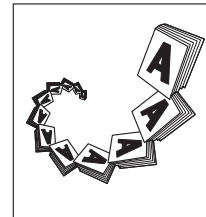
Moving, scaling, and rotating

To power-duplicate, select an object, choose Edit › Duplicate or Edit › Clone, transform the object, and then choose Edit › Duplicate again. Do not deselect the transformed copy before duplicating it. Choosing Edit › Duplicate with the most recent copy selected applies the transformation to the next copy.

To learn how to transform an object, see "Modifying shape and position" on page 139. Experiment by using the Mirror Xtra tool to create rotated and reflected copies of an original object.

Drawing by automatically tracing

To trace a graphic, click the Trace tool in the Toolbox. Use the Trace tool crosshair cursor to drag a selection area around the object to trace. Hold down Shift to constrain the Trace tool's selection area to a square.

Set the maximum number of colors.

Select the color mode.

Set the resolution to Low, Normal, or High.

Select the layers to trace: All, Background, or Foreground.

The path conversion setting determines how FreeHand generates the trace paths from the original graphic.

Path conversion options appear according to the setting chosen from the pop-up.
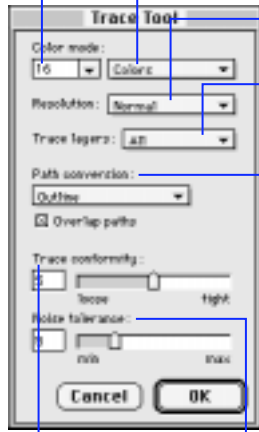
Gauge how closely the trace paths conform to the shape of the original graphic.

Determine how many stray pixels FreeHand retains when tracing a bitmap image.

The original default settings for the Trace tool provide good results when tracing bitmap and vector graphics using a reasonable amount of RAM. See "Considering resolution and memory allocation" on page 125.

The Trace tool traces any object appearing on screen: TIFFs, EPSs, LRGs, PNGs, text, or native graphics. The Trace tool traces graphics according to the settings in the Trace Tool dialog box. Double-click the Trace tool in the Toolbox to display trace settings. Because the Trace tool's settings are saved to the FreeHand Preferences file when you quit FreeHand, it is a good practice to confirm the dialog box settings before tracing objects.

Choosing a color mode

To set the color mode of your resulting trace, choose either Colors or Grays from the Color mode pop-up in the Trace Tool dialog box. Whether your original graphic is bitmap or vector, use the Trace tool to convert a graphic in one of the following ways:

◆ From color to color

◆ From grayscale to grayscale

◆ From color to grayscale

For example, if you wish to trace a color TIFF in grayscale, then choose Grays from the Color mode pop-up. In the resulting vector graphic, gray values are substituted for the original color pixels in the TIFF.

Note: Use the Name All Colors Xtra to place colors from imported or traced graphics into the Color List. Choose Xtras > Colors > Name All Colors.

Choosing the number of colors

FreeHand internally identifies the frequency of each color in a graphic and then averages all color values evenly within the number of colors set in the Color mode pop-up (up to 256). Since the colors available determine how true of a match your trace is to the original graphic, choose a high value when tracing graphics with subtle color variations. Otherwise, you may lose these variations in your trace.

If the graphic goes beyond the limit you specify, FreeHand automatically converts the excess values to the closest values of the colors selected in the graphic. In the Color mode pop-up, either enter a color value limit in the entry field or choose from the pop-up. Settings higher than 16 require more RAM.

Considering resolution and memory allocation

When tracing graphics, choose High, Normal, or Low resolution in the Resolution pop-up to determine the degree of detail in the resulting trace. A setting of High will capture more detail than a setting of Normal, and a setting of Normal more than a setting of Low. However, there are two advantages of using Normal or Low. One is that conversion time is less than when using the High setting. The other is that the Low setting requires less RAM than the Normal setting and Normal less than High.

FreeHand must perform an intense operation when tracing high-resolution TIFFs. Therefore, you may need to allocate more RAM to FreeHand on the Macintosh. When the amount of system RAM limits your ability to trace a high-resolution graphic and you cannot allocate more RAM, FreeHand uses the lowest allowable resolution setting.

Choosing trace layers

With the Trace layers pop-up, designate traceable layers: All, Foreground, or Background. FreeHand traces all paths on the layers designated.

Choosing the way FreeHand creates trace paths

Trace paths can be either open or closed. FreeHand converts your graphics into paths according to the settings in the Path conversion pop-up.

The Path conversion pop-up consists of four choices: Outline, Centerline, Center/Outline, and Outer edge. These settings determine the placement of strokes in the resulting trace paths.

◆ **Outline**—FreeHand traces along the outside border of the graphic elements. The resulting trace objects are closed, filled paths.

Choosing Outline displays the Overlap paths checkbox.

◆ With Overlap paths checked, the trace objects overlap each other to prevent light leaks. Checking this option is most suitable when tracing continuous-tone images such as scans of photographs, paintings, and rendered graphics.

◆ Uncheck Overlap paths when tracing logos, line art, and text.

◆ **Centerline**—FreeHand traces at the center of the graphic strokes. This option is best suited for tracing line-intensive graphics that have almost no filled areas, such as technical drawings and schematics.

Choosing Centerline displays the Uniform lines checkbox.

◆ Checking Uniform lines yields a trace object with a consistent stroke width of one point throughout, even though the original graphic contains lines of varying widths.

◆ With Uniform lines unchecked, FreeHand generates open paths with varying stroke widths.

◆ **Centerline/Outline**—Choose this to use a combination of both Outline and Centerline methods. FreeHand evaluates the original graphic and decides what attributes to give each trace path based on the Open paths below option.

Enter a value from 2 to 10 pixels in the Open paths below entry field. The default value is 3 pixels. The Trace tool uses this value to determine which paths are drawn as open paths. For example, using the default setting of 3, FreeHand draws an open, stroked path for any item in the graphic that is less than 3 pixels wide.

◆ **Outer edge**—FreeHand traces only the outer contours of the graphic, providing an accurate clipping path so that the original graphic can be pasted inside.

Setting trace conformity

Use the Trace conformity slider or entry field, with values ranging from 0 to 10, to define how closely the resulting paths conform to the curved and straight lines of the original graphic. A setting of 10 produces resulting paths that closely conform to the original graphic, but it increases the number of points in the trace paths. A setting of 0 has the least amount of conformity to the original graphic and has fewer points, resulting in a smaller converted graphic file. This setting is useful to create traces that are less precise versions of the original graphic.

Setting noise tolerance

With the Noise tolerance slider or entry field, FreeHand eliminates stray pixels, or noise, most frequently found in bad scans or original graphics of poor quality. The higher the setting, the more FreeHand ignores noise. In contrast, a minimum setting makes FreeHand keep as much file information as possible.

Working with complex objects

Groups

Grouping two or more objects freezes their positions and stacking order relative to one another, so you can manipulate them as a single object. Objects within a group retain stroke and fill attributes. Apply path operation, transformation, and distortion commands to an entire group.
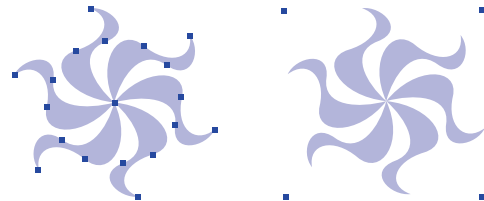
Ungrouped, selected object   *Grouped, selected objects*

When you transform groups, stroke widths stay proportional if "Strokes" is checked in the Scale subpanel of the Transform panel. Check Transform as Unit in the Object Inspector to transform stroke widths to show perspective. When these objects are ungrouped, the stroke width reverts to its undistorted state.

Composite paths

Joining two or more closed paths creates a composite path, which acts as a single path. Stroke and fill attributes of the object farthest back are applied to every object within the composite path. Union, Remove Overlap, Expand Stroke, Punch, and Convert to Paths can be used to create composite paths.

To create a composite path:

1 Select two or more closed paths.
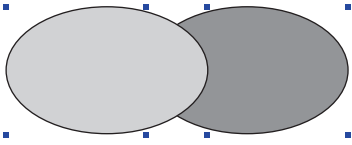
2 Choose Modify > Join or use Command-J (Macintosh) or Control-J (Windows).
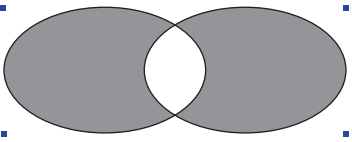
To edit a path within a composite path:

1 Select a composite path.
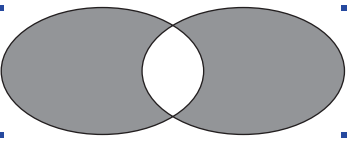
2 Hold down Option (Macintosh) or Alt (Windows) to subselect a path within the composite path.

Hold down Shift while subselecting to subselect more than one path.
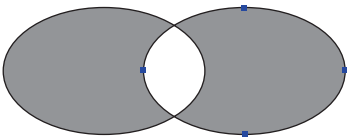
To split a composite path:

1 Select a composite path.
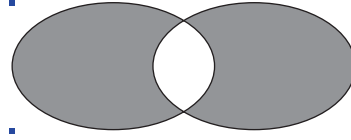
2 Choose Modify > Split or use Command-Shift-J (Macintosh) or Control-Shift-J (Windows).
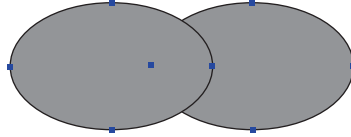
To remove transparent sections of a composite path:

1 Select a composite path.
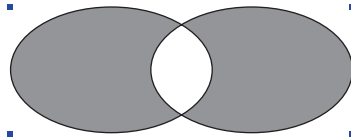
2 Display the Object Inspector and uncheck Even/odd fill.
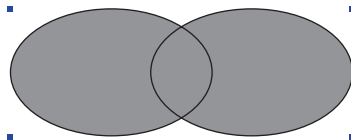
☐ Even/odd fill

Working with path direction

◆ **Even/odd fills**—With a composite path selected and Even/odd fill checked in the Object Inspector, overlapping subpaths of a composite path alternate between filled and transparent. With Even/odd fill unchecked, these overlapping sections are filled or transparent based on the winding of the fill.

◆ **Winding fills**—Closed paths have one of two directions: clockwise or counterclockwise. When a clockwise path meets a counterclockwise path, these paths yield a transparent, overlapping section in a composite path. When two closed paths of the same direction overlap, these paths yield a filled, overlapping section. If your composite path's winding fill does not behave as expected, then try Modify › Alter Path › Correct Direction or subselect a path and apply Modify › Alter Path › Reverse Direction.

Fills based on Even/odd fill—Paths are filled and transparent regardless of direction.

Fills based on winding—All paths are of the same direction in this example, so overlapping sections are filled.

To apply Correct Direction:

1 Select a composite path.

2 Choose Modify > Alter Path > Correct Direction, Xtras > Cleanup > Correct Direction, or click the Correct Direction button on the Operations panel.
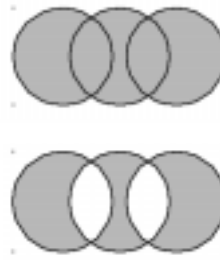
In addition to composite paths, path direction is important when working with arrowheads, blends, or text or blends attached to paths, and when exporting paths.

Since some applications, such as Adobe Illustrator, base fills on winding, use the winding method to fill composite paths for use in another application. Before exporting, apply Remove Overlap to a composite path with Even/odd fill to reconstruct the composite path such that no path overlaps. This yields an accurate screen representation of your original path, although paths themselves are in discrete sections.

Working with clipping paths

Fill a closed path with any object: vector graphics, text, TIFFs, EPSs, LRGs, and PNGs. These paths are called clipping paths, and the items they contain are called contents. To use composite paths as clipping paths, create the composite path before pasting inside. When transforming a clipping path, the contents are transformed when Contents is checked in the Transform panel.

To create a clipping path (using Paste Inside):

1 Select an object to use as the contents.

2 Position the contents as you want it to appear in the clipping path.

3 Choose Edit > Cut.

4 Select the clipping path.
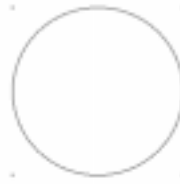
5 Choose Edit > Paste Inside.

Only the contents within the clipping path are visible. Whatever fill is set in the Fill Inspector appears in areas not covered by the contents.

To modify the clipping path, select it and modify it. Adjusting the path shows or hides portions of the contents.

To edit contents:

1 Select the clipping path.

2 Select its contents.

◆ Subselect the contents to edit them.

◆ Double-click the handle to select all contents for editing.

Once items in the contents are selected, edit as usual.

3 With the Pointer tool, drag the handle to reposition the contents.

Contents extending beyond the clipping path are hidden, not deleted.

To remove contents from a clipping path:

1 Select the clipping path.

2 Choose Edit > Cut Contents.

To add additional contents to a clipping path:

1 Select an object or objects.

2 Choose Edit > Cut.

3 Choose Edit > Paste Inside.

The new elements appear in front of the original contents.

Modifying objects

Creating new paths from existing paths

Use	To
Union	Combine two or more closed paths into a single path enclosing the entire area of the original paths. Stroke and fill attributes of the object farthest back are applied to the resulting path.
Divide	Cut selected paths into sections defined by areas of overlap. Use open paths, closed paths, or a combination. Stroke and fill attributes of the topmost path are applied to the areas common to all selected paths.
Intersect	Create a path enclosing the area common to all selected, closed paths. Stroke and fill attributes of the object farthest back are applied to the resulting path.
Punch	Remove portions of selected, closed paths below the topmost, closed path. Stroke and fill attributes remain unchanged.
Crop	Remove portions of selected, closed paths outside the area of the topmost, closed path. Stroke and fill attributes remain unchanged.
Transparency	Create a new path from the area common to two or more closed paths containing Basic fills. Using the color information from the fills of the original paths, an intermediate color giving the appearance of transparency is created. To make the topmost path appear more transparent, enter a value greater than 50 in the Transparency dialog box. Values less than 50 make the topmost object appear more opaque.
Blend	Create a transition between two or more paths, with respect to shape, stroke, and fill.

To apply Blend, Union, Divide, Intersect, Punch, Crop, or Transparency, first select objects. Then, choose Window › Xtras › Operations to display the Operations panel, and click the appropriate button, or choose one of these commands from Modify › Combine.

Applying Union, Divide, Intersect, Punch, or Crop to objects may yield a composite path, which consists of individual paths joined together.

With the Object › "Path operations consume original paths" preference checked, original paths are deleted when using any path operation. Uncheck this preference to retain original paths automatically. To retain original paths for a single path operation without changing the default setting, hold down Shift while applying a path operation.

Applying Divide discards segments of open paths outside areas of overlap regardless of whether the "Path operations consume original paths" preference is checked. However, Divide discards closed paths depending upon the preference setting.

Note: For a complete discussion of blends, see "Working with blends" on page 133. See "Creating interlocking shapes" on page 69 to learn how to weave objects in front of and behind other objects using Divide.

Objects selected
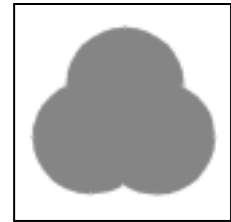
Union

Divide
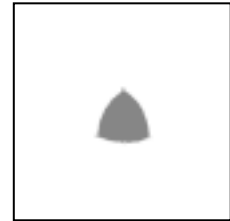
Intersect
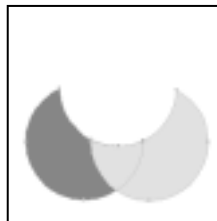
Punch
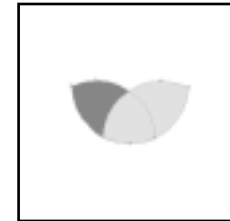
Crop

Maintaining fills and contents when dividing

To yield composite paths that maintain these fills across individual paths, hold down Option (Macintosh) or Alt (Windows) when applying Divide to paths with Gradient fills. To subselect a path within a composite path, hold down Option (Macintosh) or Alt (Windows) and click it with the Pointer tool. Splitting a composite path (Modify › Split) applies the Gradient fill to each individual path.
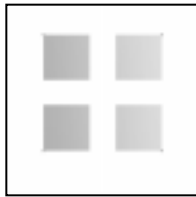
Gradient joined
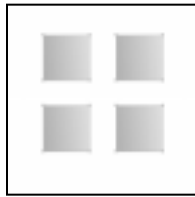
Gradient split

When applying Divide to a clipping path, make sure that it is the top object in the stacking order so that the paste inside's contents are not lost. Hold down Option (Macintosh) or Alt (Windows) when applying Divide to a clipping path to yield a composite path in which each divided area shows a portion of the paste inside's contents.

Divide a clipping path with contents.

Subselect and move each divided area with its contents.

 Expand Stroke

Use Expand Stroke to create closed paths from open paths.

To expand the stroke of a path:

1   Select a path and choose Expand Stroke.

Choose Xtras › Path Operations › Expand Stroke, Modify › Alter Path › Expand Stroke, or click the Expand Stroke button on the Operations panel.

2   Enter a Width value and click OK.

The Width value sets the width of the resulting closed path, with the appearance that the stroke of the open path has been widened. You can adjust the line cap or the miter limit and click OK. The primary location of these options is the Stroke Inspector.

Inset Path

Following the edge of the original path, Inset Path expands or contracts one or more closed paths by a specified amount.

To create an inset path or paths:

1 Select a closed path and then choose Inset Path.

Choose Xtras › Path Operations › Inset Path, Modify › Alter Path › Inset Path, or click the Inset Path button on the Operations panel.
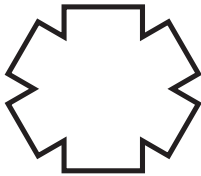
Before Inset Path

2 Set options in the Inset Path dialog box.

After Inset Path

To	Do this
Apply Inset Path to alter the path once	Enter a positive or negative value in the Inset entry field and click OK.
Apply Inset Path to alter the path in steps	In addition to entering an Inset value, enter the number of steps and choose whether you want a uniform, farther, or nearer arrangement of the new paths.

Working with blends

Paths are blended from bottom to top in the stacking order. Blend paths must have the same stroke type and fill type. Blends do not work on groups, composite paths, bitmap images, or paths with Tiled fills. Blends automatically regenerate after modification. Once ungrouped, they no longer retain blend properties and will not regenerate. Click the Blend button on the Operations panel, choose Modify › Combine › Blends, or Xtras › Create › Blends.

Blends between spot colors result in intermediate steps using only tints of those spot colors and will print on just two separation plates. When printing a spot-to-process blend, the spot color is set to overprint the process color. Steps in spot-to-spot and spot-to-process blends are set to process colors if the blend is ungrouped. This also occurs if incompatible colors or fills are chosen, or if the blends are exported to earlier versions of FreeHand or to applications such as Illustrator, which do not support spot colors in blends.

To create a blend:

1 Select multiple objects.

2 Click the Blend button on the Operations panel, choose Modify > Combine > Blend, or choose Xtras > Create > Blend.

To blend an open path to a closed path:

1 Select the open path and apply Expand Stroke with the width of the path's original stroke.

2 Hold down Shift, select the closed path, and choose Modify > Combine > Blend or use Command-Shift-B (Macintosh) or Control-Shift-B (Windows).

To blend objects from point to point:

1. Select objects and subselect points within each object.

2. Choose Modify > Combine > Blend.

   The selected points determine the transformation pattern of the intermediate blend paths, moving from one path to another. Path direction can also affect blending.

Before blend   *After blend*

Point selected

Point selected

Before blend   *After blend*

Point

Point selected

Before blend   *After blend*

Modifying blends

Blend

Number of steps:

25

Range %:

First: 3.8461

Last: 96.1539
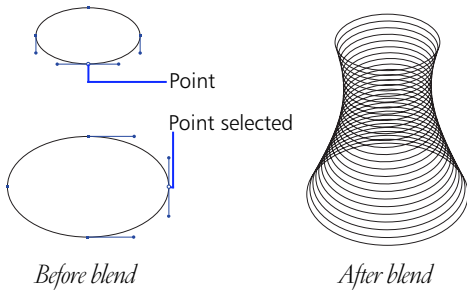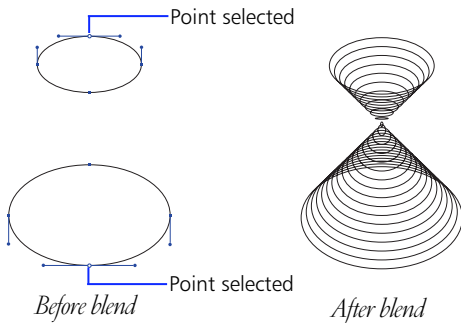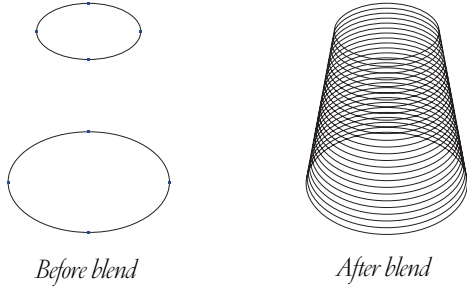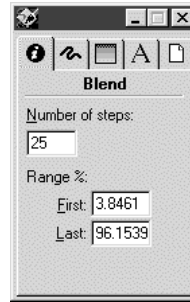
◆ Enter a value in the Number of steps entry field in the Object Inspector to adjust the number of intermediate paths. The greater the value entered, the smoother the blend. The Range % values automatically update.

Note: Specify 256 steps or less for a color or tint blend when printing to a PostScript Level 1 device. Extra steps increase processing time and file size without improving quality.

◆ Designate where the steps begin and end by adjusting the Range % in the Object Inspector. The steps appear at even intervals between the original paths. The First entry field affects how closely the steps are placed to the bottom path. The Last entry field affects how closely the steps are placed to the top path.

Range %:

First: 25

Last: 96.1539

◆ The number of steps is related to the target printer resolution of the document. Smoothness of blends depends on the number of steps in the blend and the distance between the steps. For example, a blend 15 inches across with 25 steps would not be as smooth as a blend 2 inches across with 25 steps.

◆ Subselect one of the original paths and make changes.
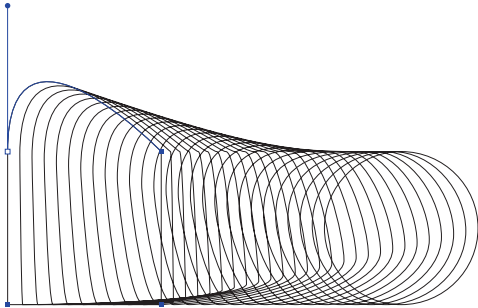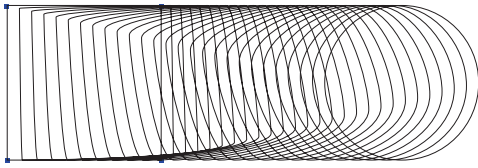
◆ Change one of the colors by dropping a color chip onto the blend.
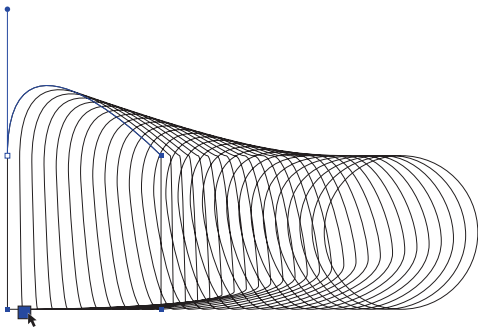
To join a blend to a path:

1 Select a path.
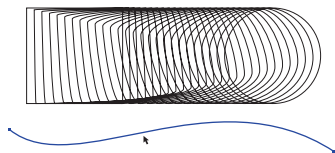
2 Hold down Shift and select the blend.

3 Choose Modify > Combine > Join Blend to Path.
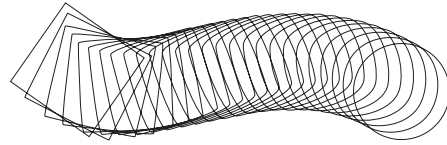
Modifying blends on a path

◆ Show path in the Object Inspector shows or hides the path.

☑ Show path
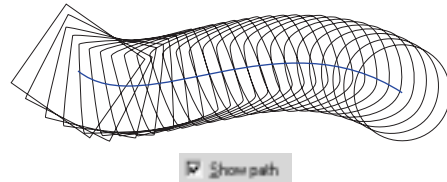
◆ With Rotate on path checked in the Object Inspector, the blend is rotated around the path. With it unchecked, the blend is positioned parallel to the path.

☑ Rotate on path

☐ Rotate on path
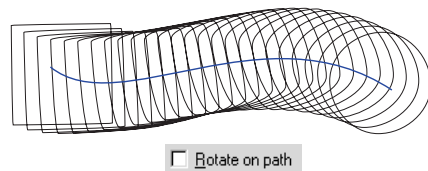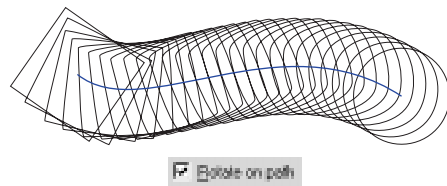
◆ Hold down Option (Macintosh) or Alt (Windows) and click to subselect the path to edit.

The center of the first object in the blend is matched to the first point in the path and the rest of the blend follows the path. Subselect the path and reverse its direction to make the blend flow in the opposite direction.

Removing a blend from a path

◆ Splitting a blend from a path yields the blend and the path.

◆ Ungrouping a blend from a path yields the path and breaks the blend into the original paths and the steps, which remain in the same position.

Note: Exporting FreeHand 8 documents containing blends along a path to versions of FreeHand earlier than FreeHand 7 causes the blends along a path to be converted to groups.

Adding drop shadows to objects

Use the Shadow tool in the Xtra Tools panel to apply drop shadows to FreeHand vector objects. The Shadow tool does not apply shadows to bitmap images, EPSs, clipping paths, or text. Choose from three different types of shadows: Hard Edge, Soft Edge, and Zoom.

Hard Edge   *Soft Edge*   *Zoom*

To apply a drop shadow:

1 Select one or more objects.

2 Choose Window > Xtras > Xtra Tools to display the Xtra Tools panel, and click the Shadow button.

Double-click the Shadow tool button to display options.

3 Drag the Shadow tool on the original object or objects to initiate the shadow, move the Keyline preview of the shadow to a desired location, and release the mouse button.

Moving the Shadow tool moves only the shadow, not the original object. The original object and its shadow comprise a group.

To apply a drop shadow to text, first convert the text to paths. To apply a drop shadow to a clipping path, apply the shadow to an object before using it as a clipping path or cut the contents of a paste inside to apply the shadow only to the clipping path. Then, select the contents, choose Edit › Cut, subselect the clipping path within its group, and choose Edit › Paste Inside.

Choose from three types of shadows.

Fill options vary.

Set the shadow's size as a percentage of the original.

Position the shadow with respect to the original.
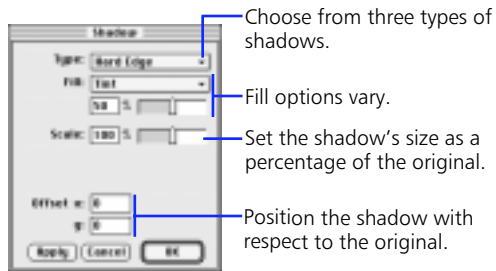
Setting the drop shadow's fill

Fill options vary depending upon the shadow type. For Hard Edge and Soft Edge shadows, choose from these options in the Fill pop-up:

◆ **Tint**—Define the shadow color as a tint of the original object's color. A value of 0 yields white; a value of 100 yields 100 percent of the original object's color.

◆ **Shade**—Define the shadow color as a percentage of black added to the original object's color.

◆ **Color**—Define the shadow color according to the color chip dropped onto the color well available with this option.

Soft Edge provides these additional options:

◆ **Fade to**—Drop a color onto the Fade to color well to define the shadow's background color. The default is white.

◆ **Soft edge**—Define the degree to which the shadow's edges are softened to the Fade to color. A value of 0 yields a hard edge; a value of 100 softens the shadow throughout.

Designate the color for the Zoom shadow type using two color wells—one for the stroke color and one for the fill color.

The Shadow tool creates incremental colors to achieve the Soft Edge and Zoom effects. Applying soft-edged or zoomed shadows to objects with spot, Hexachrome, or RGB colors yields incremental CMYK process colors.

Embossing objects

Use Emboss to create a three-dimensional effect in which the edges of an object are raised or impressed. Use the Emboss Xtra only on objects that are closed paths with Basic, Gradient, or Pattern fills. Applying the Emboss Xtra creates multiple objects much like blending or smudging.

Emboss

Deboss

Chisel

Ridge

Quilt
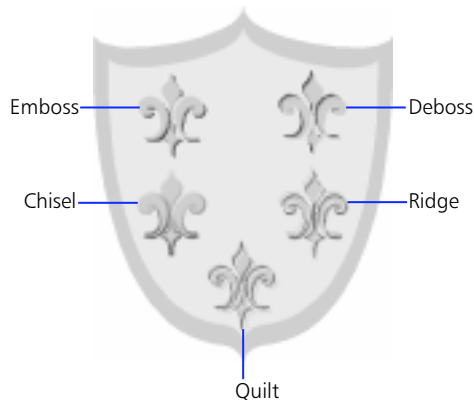
Choose Window › Xtras › Operations to display the Operations panel, select one or more objects, and click the Emboss button to display the Emboss dialog box. Choose one of five effects from the buttons across the top: Emboss, Deboss, Chisel, Ridge, or Quilt. Set options, and click Apply to preview the effect, or click OK to apply the effect and close the dialog box.
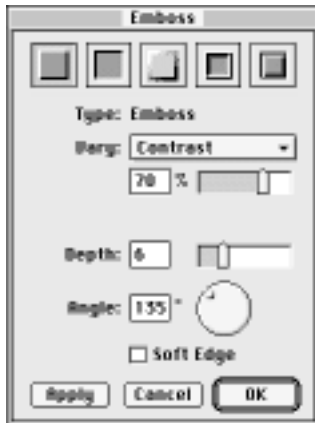
Note: To apply the effect without opening the dialog box, hold down Command (Macintosh) or Control (Windows), and click the Emboss button. Alternatively, choose Xtras > Create > Emboss to display options and apply the effect.

Specifying the relief

◆ **Vary**—The Vary option sets the way in which an object's colors create highlight and shadow. Choose either Contrast or Colors from the pop-up. Contrast uses tints of the path's original colors to create highlight and percentages of black combined with the path's original color to create shadow. Colors uses colors you specify in the Highlight and Shadow color wells available with this option.

The Emboss Xtra creates incremental colors to achieve each effect. Applying Emboss, Deboss, Chisel, Ridge, or Quilt to objects with spot, Hexachrome, or RGB colors yields incremental CMYK process colors.

◆ **Depth**—Depth controls the distance by which the effect is raised or impressed. Slider values range from 1 to 20, but you can enter a value up to 72 in the field. Values are measured in the document's unit of measurement.

◆ **Angle**—Angle controls the placement of the light source, which affects the direction of the highlight and shadow. Values are measured in degrees.

◆ **Soft Edge**—Check Soft Edge to apply a blended look to the relief. Soft Edge is available only with Emboss and Deboss.

Modifying shape and position

Using transformation tools

The following tools transform points or objects: Move, Rotate, Scale, Skew, and Reflect.

To manually transform an object:

1 Select a transformation tool from the Toolbox.

2 Click in the document to establish the center of transformation.

To set the center of transformation to the center of the object, hold down Shift and click with the mouse button.

3 Drag to transform the object.

The farther you drag away from the point of transformation, the more control obtained over the transformation.

Hold down Shift while transforming to constrain to 45° increments.

To numerically transform an object:

1 Click the appropriate button in the Transform panel.

2 Enter values in the Center entry fields to set the center of transformation.

3 Adjust settings in the Transform panel and click Apply.

Transforming contents and fills

Each transformation tool offers the option to transform the contents and fills of objects. In addition, the Scale tool offers an option to transform lines. The Contents and Fills settings in the Transform panel affect both manual and numerical transformation.

When you transform groups, stroke widths stay proportional. Check Transform as a Unit in the Object Inspector to transform stroke widths to show perspective. When these objects are ungrouped, the stroke width reverts to its undistorted state.

Use	To
Move	Precisely move objects a given distance with respect to their current position. Positive x values move the selection right and negative x values move the selection left. Positive y values move the selection up and negative y values move the selection down. You cannot set a center of transformation for the Move tool.
Rotate	Apply two-dimensional rotations to objects. Positive values rotate the selection counterclockwise around its center. Negative values rotate the selection clockwise around its center.
Scale	Proportionally enlarge or reduce objects. Uncheck Uniform to adjust x and y scaling separately. Positive x values enlarge the selection horizontally and negative x values reduce the selection horizontally. Positive y values enlarge the selection vertically and negative y values reduce the selection vertically.
Skew	Obliquely transform objects. Positive h values skew the selection to the right and negative h values skew the selection to the left. Positive v values skew the selection up and negative v values skew the selection down.
Reflect	Flip objects. A reflect axis of 90° flips the selection horizontally. A reflect axis of 180° flips the selection vertically.

Note: Use the cursor keys to move selected objects in preset increments. Set the increment in the General > "Cursor key distance" preference.

Using 3D Rotation

The 3D Rotation Xtra tool applies three-dimensional rotations to two-dimensional objects. See "3D Rotation" in FreeHand Help.

Using transformation handles

Using the Pointer tool, double-click an object or a selection of objects to activate eight transformation handles for the entire selection. Double-click again to deactivate the handles. To prevent activation of the transformation handles, uncheck the General › "Enable transform handles" preference.

Drag these handles to move, rotate, or scale objects without using the Transform tools in the Toolbox or the Transform panel. Moving the Pointer tool over and around the selection changes the cursor to indicate which transformation function is available.
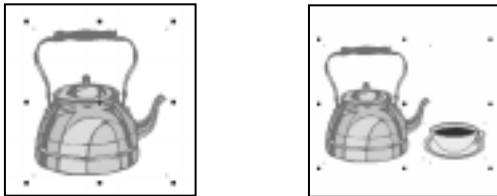
Transformation handles active for selected objects

To activate the transformation handles of a text block, double-click the text block's border. To adjust the kerning or the leading of a text block with transformation handles active, hold down Command (Macintosh) or Control (Windows) and drag the appropriate text block handle. For an explanation of how text block handles work, see "Anatomy of a text block" on page 181.

Cursors indicating transformation functions

To	Do this
Move ⊕	Move the cursor over the object within the selection rectangle, and drag the object to a new position. Do not drag the centerpoint.
Rotate ↻	Move the cursor next to one of the handles, and drag to turn the object clockwise or counterclockwise. Hold down Shift when dragging to rotate in 45-degree increments.
Scale ⬂	Move the cursor over one of the handles, and drag to resize the object according to the direction of the cursor. Hold down Shift when dragging to resize proportionally.
Set the center of rotation ▶	Drag the centerpoint to a new location.

When using transformation handles to move, rotate, or scale an object or objects, holding down Option (Macintosh) or Alt (Windows) copies the entire selection. A plus sign next to the cursor indicates copying.

Working with the centerpoint

Drag the object's centerpoint anywhere in the document to set the center of rotation. To reset a centerpoint, deselect and then reselect the object, or hold down Shift and click the object.
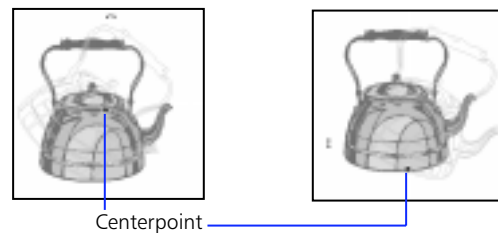
Centerpoint

To move an object without moving its centerpoint, hold down Command (Macintosh) or Control (Windows), and drag the object to a new location. To add an object to a selection without moving the centerpoint, hold down Command (Macintosh) or Control (Windows), and click the additional object.

When using Command-C and Command-V (Macintosh) or Control-C and Control-V (Windows) to copy and paste an object, the centerpoint of the object does not move.

Activating transformation handles in a specified selection

To transform an object within a group or a paste inside, hold down Option (Macintosh) or Alt (Windows), select the object, and release the modifier key. Double-click the selected object to activate the transformation handles, and then move, rotate, or scale it. Pressing Tilde (˜) activates transformation handles for the entire group or paste inside without moving the centerpoint.
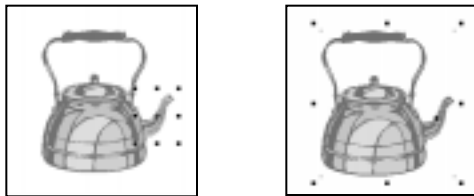
Press Tilde (˜) to activate handles for an entire group.

To transform points within a selected path, select the points, double-click a point to activate transformation handles for the entire selection, and then move, rotate, or scale the points. Pressing Tilde (˜) activates transformation handles for the entire path without moving the centerpoint.

Transform panel settings

When moving, rotating, or scaling an object, its move distance, rotation angle, or scale percentage appears in the Transform panel, respectively. Each subpanel of the Transform panel has x and y coordinate fields that indicate the location of an object's center after each transformation.

Check Contents, Fills, or Lines to specify what object attributes are affected by the transformation. Contents refers to the objects pasted inside a clipping path. Fills refers to the objects within a Tiled fill. Lines refers to the strokes of objects in paste insides and Tiled fills.

Creating patterns with reflections of a path

Use the Mirror Xtra tool to create simple or complex patterns by creating one or more reflections of an existing path. To choose the Mirror Xtra tool, select a path, then click the Mirror tool button on the Xtra Tools panel.

Click and drag the mirror cursor to specify the halfway point between the selected path and its reflection or the centerpoint of a group of reflections. Keylines show the position of each reflection upon release.

To	Do this
Rotate the keylines around the cursor	Hold down Option (Macintosh) or Alt (Windows).
Constrain rotation to 45˚ degree increments	Hold down Option-Shift (Macintosh) or Alt-Shift (Windows).
Toggle between reflect and rotate when setting Multiple mirrors	Up and Down cursor keys
Increase or Decrease number of axis when setting Multiple mirrors	Right and Left cursor keys

Note: An entire path, text container, or image must be selected when you use the Mirror tool. If only some points on a path are selected, FreeHand selects the entire path to mirror.

Double-click the Mirror Xtra tool to display the Mirror dialog box.

Choose	To create
Vertical	A copy of the selected path flipped along its vertical edge (default).
Horizontal	A copy of the selected path flipped along its horizontal edge.
Horizontal and Vertical	A 2x2 matrix of reflections centered on the cursor location.
Multiple	A radial array of either clones and their reflections or clones only, centered on the cursor location.

Choosing the Multiple option displays additional options.
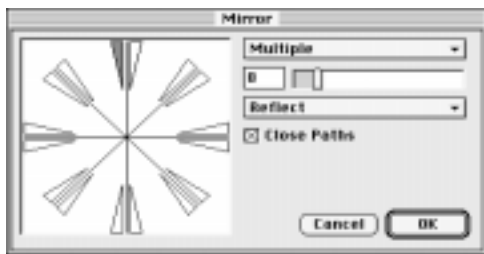
◆ **Reflection factor—**Type a number 1 through 100 or use the slider to enter 1 through 50. If Reflect is set, the path and its reflection are multiplied. If Rotate is set, only the path is multiplied. To increase the reflection factor while using the tool, press the right cursor key. To decrease the reflection factor, press the left cursor key.

◆ **Effect type—**Choose between multiple clones of paths and their reflections (Reflect) or multiple clones of paths only (Rotate). To switch between Reflect and Rotate while using the tool, press the up or down cursor key.

◆ **Close Paths—**With Close Paths checked, FreeHand closes any open paths whose endpoints are no farther apart than the width specified by the General › "Snap distance" preference.

Using distortion tools

The following tools distort objects: Envelope, Add Points, Roughen, Bend, and Fisheye Lens.

Choose Xtras › Distort › Envelope and Add Points or click the appropriate buttons on the Operations panel. Click the Roughen, Bend, and Fisheye Lens buttons on the Xtra Tools panel.

Use	To
Envelope	Distort an object by altering the outer boundary.
Add Points	Add points halfway between every pair of points on a path.
Roughen	Create a jagged effect.
Bend	Create a bloated or spiked effect.
Fisheye Lens	Create a concave or convex effect.

See FreeHand Help for a more detailed explanation about each of these distortion tools.

Aligning objects or points

The Align panel options either align or distribute objects or points along a horizontal axis, vertical axis, or both axes. The vertical and horizontal pop-up options determine the position of each alignment.

Choose Window › Panels › Align or choose Modify › Align to display the Align panel.

Click an outer-edge trapezoid to set objects to align to the top, bottom, left, or right.

Click any of nine squares to set vertical and horizontal alignment options.

Choose a vertical option.

Choose a horizontal option.

Click to apply alignment to selected points or objects.

Check to orient alignment to page dimensions.
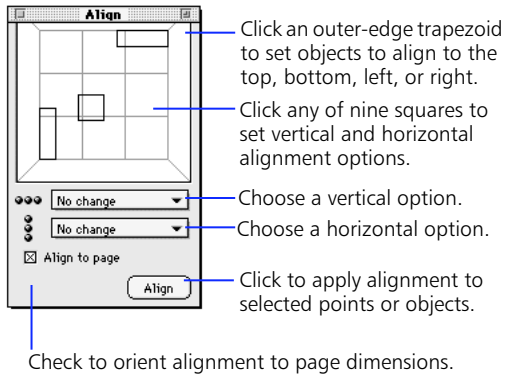
Three rectangles in the preview illustrate the current alignment setting; they do not represent the actual selected points or objects. When a distribute option is set, a fourth rectangle appears. Select objects and double-click a preview area to directly apply the alignment.

When Align to Page is checked, one or more objects are aligned or distributed in relation to the current page dimensions. If only one object is selected, Align to Page must be checked to apply an alignment.
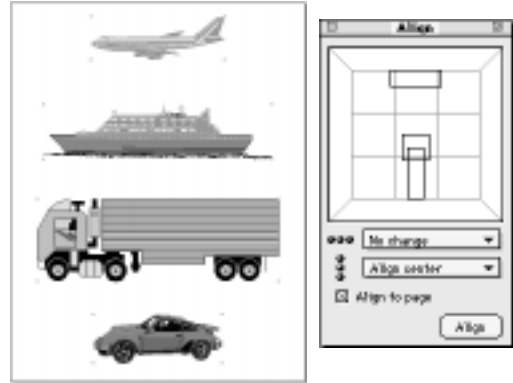
Use	To
Align objects	Align objects based on an object's center or one side of its bounding box.
Distribute objects	Place objects at even distances from one another based on an object's center or one side of its bounding box.
	Maintain horizontal position and adjust vertical position.
	Maintain vertical position and adjust horizontal position.
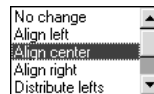
Aligning and distributing points is similar to moving points using automatic curvature; adjacent paths move according to the position of the point rather than the position of its handles. To move points to a position, select at least two points in one or more paths, and choose a setting from the Align panel. To achieve a smooth arc when aligning points, check Automatic in the Object Inspector. Align and distribute selected points in a path with other objects.

To use an object's position as a basis for aligning other objects, lock it in position. Select it and the other objects, and then set the alignment. The unlocked objects align to the locked one.

To lock an object, choose Command-L (Macintosh) or Control-L (Windows); to unlock an object, choose Command-Shift-L (Macintosh) or Control-Shift-L (Windows).

Using other methods to distribute objects

Two ways to evenly space identical objects across a page are blending and power-duplicating. Blends quickly create and space objects.

To use a blend to distribute objects:

1 Create an object and copy and paste it.

2 Position the copy where the last object should be and select both the object and its copy.

3 Choose Modify > Combine > Blend.

4 Set the Number of steps in the Object Inspector.

To use power duplication to distribute objects:

1 Create the first object and clone it.

2 Transform it with the tools in the Transform panel.

Do not deselect the transformed object before duplicating.

3 Duplicate it and repeat.

Modifying attributes

 Find & Replace Graphics

Use Find & Replace Graphics to search for objects by name or with similar characteristics. The Find & Replace Graphics panel has two tabs: Find & Replace and Select.

Click the Find & Replace tab to find and modify every occurrence of a specific attribute. Click the Select tab to select every object with a given attribute. Designate the range of your search to include the entire document, a page, or only the current selection.

To display the Find & Replace Graphics dialog box, choose Edit › Find & Replace › Graphics, use Command-Option-E (Macintosh) or Control-Alt-E (Windows), or click the Find & Replace Graphics button on the Main toolbar.

Find & Replace
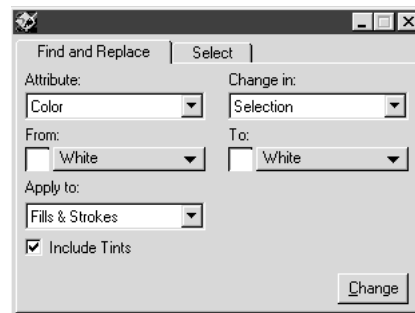
Note: The Find & Replace feature applies to hidden objects. The Select feature does not apply to hidden objects.

Use	To find
Color	Any color applied to objects and replace with another color.
Stroke width	Strokes within a given range of widths and replace with a new stroke width or modify the width using mathematical equations.
Font	Any font, style, or type size and replace with a font of a given style and size, or modify the size using mathematical equations.
Remove	Invisible objects, overprinting, custom halftones, or contents.
Path shape	Path shapes exactly matching that of the object pasted in the panel and replace with any object, except TIFFs and EPSs. Applied transformations are considered exact copies. Contents pasted inside a clipping path are not searched. EPSs and TIFFs will not be found.
Simplify	Paths with a given number of points and replace with simplified paths according to the Allowable Change value. Use mathematical equations to specify a range of values.
Rotate	All objects and rotate them around their individual centerpoints according to the Rotation angle.
Scale	All objects to scale them according to the Scale factor.
Blend steps	Blends with a given number of steps and replace with a blend of the given number of steps or resampled at the current printer output resolution. Use math functions to specify a range of values.

Select
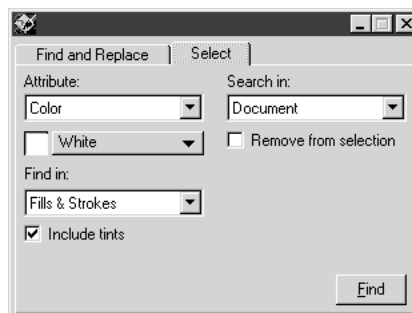
Use	To select objects containing
Color	The specified color.
Style	The specified object or paragraph style.
Same as selection	Matching strokes and fills.
Fill type	A particular fill type or any filled object.
Stroke type	A particular stroke type, any stroked object, arrowhead, or dashed line.
Stroke width	A particular range of stroke width values.
Font	A particular font, style, or range of type size.
Text effect	A particular text effect or any text effect.
Object name	A note matching the object name. Assign names to objects using Xtras > Other > Set Note.
Object type	A given number of points, composite paths, clipping paths, groups, blends, ellipses, rectangles, text, bitmaps, or EPSs. Check Open paths only to find and select all open paths, so that you may easily fill or remove fills from open paths imported from earlier versions of FreeHand.

Use	To select objects containing
Path shape	Path shapes exactly matching the object pasted in the panel.
	Applied transformations are considered exact copies. EPSs and TIFFs will not be found.
Halftone	Halftones.
Overprint	Strokes and fills set to overprint.

Find & Replace Graphics offers options to select and modify object attributes. For all searches, choose a category from the Attribute pop-up and define the search area in the Change in pop-up: Selection, Page, or Document. For numeric entry fields, use equations (+, -, *, /) to specify values.
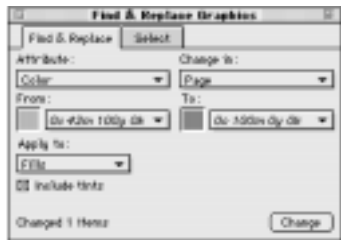
To replace color:

1 Select a From color and a To color from the Color List pop-ups.

Make sure that all the colors in the document are named before finding and replacing.

2 Choose from the Apply to pop-up to confine your search to strokes, fills, or both. Check Include tints to include tints of the From pop-up base color.

3 Click Change to apply the replacement color.

The number of items changed appears at the lower-left corner of the dialog box.
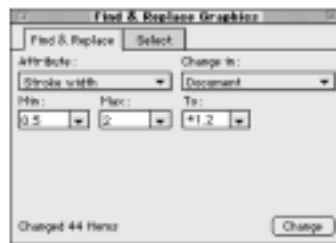
To replace stroke width:

1 Enter minimum and maximum widths to define a search range. Enter a width in the Min entry field and leave the Max entry field blank to search for a specific width.

2 Enter a value in the To entry field to define the replacement width.

3 Click Change to apply the replacement stroke.

Use mathematical equations to search for stroke widths and to define replacement stroke widths. In the example above, all stroke widths between 0.5 and 2 points are increased by 20%.

To replace a font:

1 Select a font type from the From pop-up, choose a style, and enter minimum and maximum point sizes.

2 Enter a replacement font, style, and size.

You can use mathematical equations to specify font sizes.

3 Click Change to apply the replacement font.
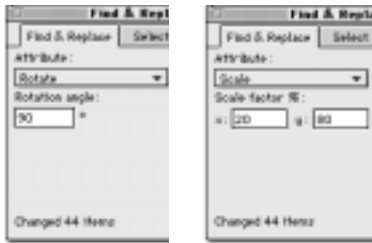
To rotate or scale multiple objects:

1 Choose Rotate and enter a Rotation angle, or choose Scale and enter Scale factor percentages.

Entering the same percentage in both the x and y entry fields scales objects proportionally.

2 Click Change to apply the rotation angle or the scale factor according to the range of your object search.

Use Find & Replace Graphics to rotate and scale objects relative to each object's center, which are operations not available when using the transformation tools alone.

To find objects with a magenta fill and a black stroke:

1 Click the Select tab, and search for all objects with a magenta fill. Choose Color from the Attribute pop-up, Document from the Search pop-up, magenta from the Color List pop-up, and Fills from the Find in pop-up.
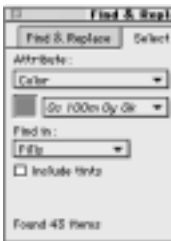
2 Choose Selection from the Search pop-up, black from the Color List pop-up, and Strokes from the Find in pop-up.

3 Click Find.

Illustrating with stored objects

Use the Graphic Hose tool in the Xtra Tools panel to spray frequently used objects on your document page for quick illustration. Each hose consists of up to 10 objects that can reside in a FreeHand document, including groups, blends, text, EPSs, and TIFFs. Choose from a collection of preset hoses, or create your own hoses. Choose Window › Xtras › Xtra Tools to display the Xtra Tools panel, and click the Graphic Hose button. To spray objects, drag the tool on your document page. The speed and direction that you drag the tool affects how objects are placed.

 Graphic Hose   *Graphic Hose cursor*

Objects comprising a hose

Spraying the hose

Note: Use the left and right cursor keys to increase or decrease the spacing as you spray hose objects. Use the up and down cursor keys to increase or decrease the scale factor as you spray hose objects. See "Specifying an array" on page 149.

Managing hoses

Double-click the Graphic Hose button to display options. The Graphic Hose panel has two buttons: Hose and Options.

Choose a hose to activate it.

Preview objects contained in the active hose.

Choose an object to preview.
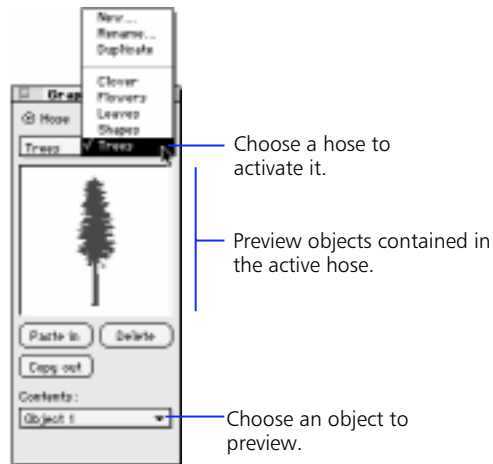
Hose setting

To activate a hose, click the Hose button on the Graphic Hose panel and choose from available hoses listed in the active hose pop-up. The Rename and Duplicate commands in the active hose pop-up only affect the active hose. Choose New when adding a hose to the list. The Contents pop-up lists each object available in the active hose and previews each in the window provided.

To add a new hose:

1 Click the Hose button on the Graphic Hose panel, and choose New from the active hose pop-up.

2 Name your hose in the Hose dialog box, and click Save to add it to the list.
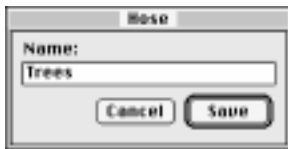
3 Select one or more objects, choose Edit > Cut or Copy, and click Paste in to add it to the list of active hose objects in the Contents pop-up.

When basing a new hose on a default hose, duplicate and rename the default hose to prevent inadvertent modification.

To delete a hose, discard the corresponding FreeHand file of the same name from the Xtras\Graphic Hose folder in the FreeHand application folder. If you modify a default hose and cannot retrieve it by using Edit › Undo, you must uninstall and then reinstall FreeHand to regain the default set of hoses.

Managing hose objects

The Contents pop-up lists the objects available in the active hose. To add an object to the active hose, select it, cut or copy it, and click Paste in. The maximum number of objects that can comprise a single hose is 10. Each new object is assigned a name: Object-1, Object-2, and so on. Choose an object name from the Contents pop-up to display it in the preview. Once an object is deleted from the active hose, it is not possible to use Edit › Undo to retrieve it.

Note: Avoid placing too many memory-intensive objects such as EPS and TIFF images in a hose because spraying a great number of these generally results in larger and slower documents.

Specifying an array

On the Graphic Hose panel, click the Options button to specify the way in which hose objects are sprayed in your document. Define how objects are ordered, spaced, scaled, and rotated.

Control the order of sprayed objects.

Control the distance between sprayed. objects.

Control the size of sprayed objects.

Control the rotation of sprayed objects.
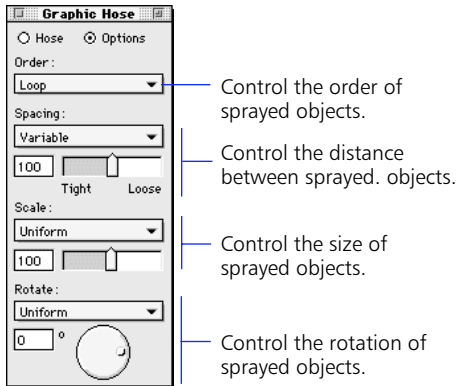
Options setting

Setting Graphic Hose options

Choose	To
Loop (Order pop-up)	Place objects in the order they appear in the Contents pop-up.
Back and Forth (Order pop-up)	Place objects from first to last and then from last to first in the order they appear in the Contents pop-up.
Random (Order pop-up)	Randomly place objects listed in the Contents pop-up.
Grid (Spacing pop-up)	Space objects in rows and columns defined by a fixed distance.
Variable (Spacing pop-up)	Space objects based on a specified value. Slider values range from 0 to 100, where 0 is Tight and 100 is Loose. Enter a value of up to 100 in the entry field.

Choose	To
Random (Spacing pop-up)	Randomly space objects based on a percentage of randomness ranging from 0 to 200, where 0 indicates no deviation from the value specified in the entry field.
Uniform (Scale pop-up)	Scale objects progressively by a fixed percentage, ranging from 1 to 300.
Random (Scale pop-up)	Randomly scale objects based on a percentage of randomness ranging from 0 to 300, where 0 indicates no deviation from the percentage specified in the entry field.
Uniform (Rotate pop-up)	Rotate objects progressively by a fixed rotation angle.
Incremental (Rotate pop-up)	Rotate objects by progressively increasing or decreasing the rotation angle.
Random (Rotate pop-up)	Randomly rotate objects by applying a rotation angle ranging from 0 to the angle specified in the entry field.

CHAPTER 6
Color, Strokes, and Fills

Using color in FreeHand

The Color Mixer and the Color List are the mainstays of your work environment. Use these panels to create, modify, and organize the colors in your document. Using the Color Mixer, create process colors, adjust hue, lightness, and saturation, and choose colors from the System Color dialog box. Using the Tints panel, create colors that are tints of existing colors.
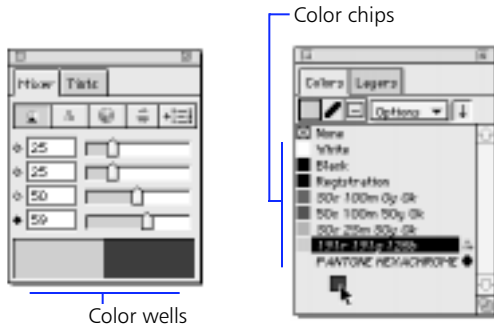
Create colors using the Color Mixer.

Organize colors using the Color List.

Use the Color List to track the colors in your document. The Color List automatically names colors according to their color component values, such as percentages of CMYK or RGB. When you select an object, its color name appears highlighted in the Color List.

Name your colors for fast, easy, and accurate access. When objects in the document contain unnamed colors—colors that are in a document but not on the Color List—use the Name All Colors Xtra to add them to the Color List. If viewing color names is unnecessary, choose Hide names from the Color List Options pop-up to display only the color chips.

Use the Color List Options pop-up to modify existing colors or add new ones from a variety of custom color-matching libraries.

Color List options include adding, duplicating, and removing colors. Other options convert spot colors into process colors, and vice versa, and convert CMYK colors to RGB colors, and vice versa.

To learn about using CMYK and RGB colors, see the Show Me movie "Colors" in FreeHand Help.

Working efficiently with color

Displaying the Color Mixer

Click this button on the Main toolbar to show or hide the Color Mixer.

◆ Choose Window › Panels › Color Mixer.

◆ Use Command-Shift-C (Macintosh) or Control-Shift-9 (Windows).

◆ Double-click a color chip in the Color List.

Displaying the Color List

Click this button on the Main toolbar to show or hide the Color List.

◆ Choose Window › Panels › Color List.

◆ Use Command-9 (Macintosh) or Control-9 (Windows).

◆ Double-click a color well in the Color Mixer.

Double-click a color well or color chip almost anywhere in the application to show or hide both the Color Mixer and the Color List.

Viewing colors in the Color Mixer

CMYK view
RGB view
HLS view

System Color
Add to Color List button

Color well (split)

Original   New
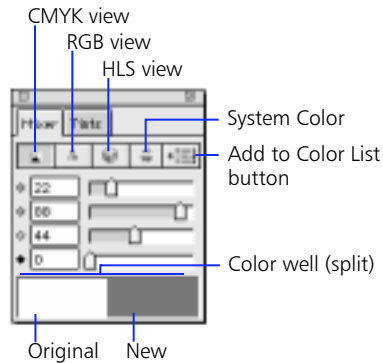
◆ **CMYK view**—The Color Mixer displays percentages of the cyan, magenta, yellow, and black color components for the standard, four-color printing process.

◆ **RGB view**—The Color Mixer displays red, green, and blue color components. RGB values are calculated based on a range of 0 to 255.

◆ **HLS view**—The Color Mixer displays the hue, lightness, and saturation of an RGB color.

◆ **System Color**—The Color Mixer displays the Apple Color Picker (Macintosh) or the Windows Color dialog box (Windows).

The color well at the bottom of the Color Mixer is split into two sections. When creating or modifying color, the Color Mixer displays the original color on the left side of the color well and the new color on the right side of the color well. Uncheck the Colors › "Color Mixer/Tints panel uses split color well" preference to view the new color across the entire color well.

Note: The on-screen accuracy of color chips and wells depends on the current settings in the Colors > "Color Management" preference. See Chapter 9, "Color Management," to set on-screen colors to closely approximate colors in your final output.

Drag a color chip onto the Color Mixer color well or hold Option (Macintosh) or Control (Windows) and click the color chip. The Color Mixer displays the color's CMYK or RGB values as appropriate.

◆ Dragging and dropping a CMYK color changes the Color Mixer to CMYK mode.

◆ Dragging and dropping an RGB color changes the Color Mixer to RGB mode. When the Color Mixer is in HLS mode, dropping an RGB color onto the color well does not change the mode.

On the Color List, process color names are italicized and spot color names are plain. A triple-dot symbol designates RGB colors. CMYK colors have no symbol. A black hexagon designates Hexachrome colors, as shown on page 156. Colors created in HLS view, Apple Color Picker, and Windows Color dialog box are RGB colors.

Color attributes	Naming convention
CMYK process (italic)	*65c 15m 65y 15k*
CMYK spot (plain)	65c 20m 65y 15k
RGB process (italic; triple dot)	*51r 119g 79b*
RGB spot (plain; triple dot)	51r 125g 79b

Creating colors

To create a CMYK color or an RGB color:

1 Click the CMYK or RGB mode button to display either Color Mixer mode.

2 To adjust color component values, move the sliders or enter values in each entry field. Use the color well to monitor the color as you mix it.

When you switch to RGB mode from CMYK, or vice versa, notice that the sliders and fields change to display the color's relevant component values.

3 Drag a chip from the color well to apply directly to an object's stroke or fill, or add the newly created color to the Color List. See "Applying color directly to objects" on page 155 and "Adding colors to the Color List" on page 155.

Hue, lightness, and saturation

Lightness slider

Hue entry field
Lightness entry field
Saturation entry field
Color well

Color point
Color picker
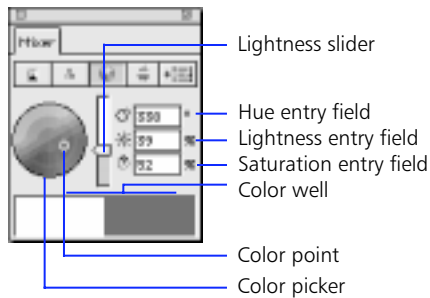
Click the HLS button to display the HLS color picker. FreeHand displays the hue, lightness, and saturation values of any color appearing in the Color List. The HLS panel produces RGB colors.

◆ **Hue**—Hue is the color itself, such as green, orange, or pink. Switch to CMYK view or RGB view to see the color component values that correspond to the hue that is numerically identified in the Hue entry field and indicated by the color point.

◆ **Lightness**—Lightness indicates how close the hue is to black (0%) or white (100%).

◆ **Saturation**—Saturation refers to the vividness or dullness of the hue. Increasing saturation adds color; decreasing saturation adds gray.

To modify	Do this
Hue	Choose a different color point from the HLS color picker,
	click and drag the color point, or
	enter a new degree value in the Hue entry field.
Lightness	Move the slider or enter a percentage value in the Lightness entry field.
Saturation	Enter a percentage value of saturation in the Saturation entry field.

Displaying the Tints panel

The Tints panel displays options for creating tints. Use the Color Mixer toolbar button to display the Tints panel, unless the Tints panel has been removed from the Color Mixer. Choose Window › Panels › Tints, or use Command-Shift-Z (Macintosh) or Control-Shift-3 (Windows) to display the Tints panel.

Note: In FreeHand 8, the Tints panel is a tabbed panel. In previous versions, Tint was a Color Mixer view.

Creating tints

Tints are colors derived from percentages of a base color. Choose a base color from the Color List or drag a color onto either base color well.

Drag a base color onto the color well.

Click to choose the Tints panel.

Click to name a tint, specify spot or process, and add it to the Color List.

Choose a base color from the Color List pop-up.

Click to choose a tint preset in 10% increments.

Enter a value from 1 to 100 to specify a custom tint percentage value.

View the newly created tint; drag on the Color List, a color well, or a graphic element.

View the base color or drag onto a base color.

To create a tint:

1 Display the Tints panel.

2 Drag a color chip onto either of the Tints panel's base color wells, or choose a base color from the Color List pop-up.

3 Click on a preset tint from the tint bar, create a custom tint by moving the slider, or enter a percentage from 1 to 100 in the entry field.

4 Drag a chip from the color well to apply directly to an object's stroke or fill, or add the newly created tint to the Color List. See "Applying color directly to objects" on page 155 and "Adding colors to the Color List" on page 155.

If not on the Color List already, the base color is added to the Color List along with the newly created tint. The tint's name comprises the tint percentage and the original name.

— Base color
— Tint
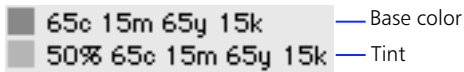
Applying color directly to objects

Drop a color chip onto the stroke or fill of an object.

Hold down Shift as you drag to force a color to apply to only the fill of an object. Use this method to change any other fill type to Basic.

Hold down Command (Macintosh) or Control-Shift (Windows) as you drag to force a color to apply only to the stroke of an object.

Change any selected object's fill by selecting another fill option in the Fill Inspector. The most efficient way to change any fill to a graduated fill or a radial fill is to use modifier keys as you drag a color onto an object.

To force a color to apply as a graduated Gradient fill, hold down Control as you drag a color chip onto an object. Where you drop the color sets the angle of the Gradient fill.

To force a color to apply as a radial Gradient fill, hold down Option (Macintosh) or Alt (Windows) as you drag a color chip onto an object. Where you drop the color sets the fill's center.

For detailed information about applying color to text, see Chapter 7, "Text."

Adding colors to the Color List

Add to the Color List those colors you intend to use in your FreeHand illustration. Create colors in the Color Mixer or choose them from color-matching system libraries.

Adding colors from the Color Mixer or Tints panel

Choose one of the following ways to add colors created in the Color Mixer or tints created in the Tints panel:

Add to Color List button

◆ Click the Add to Color List button on the Color Mixer or Tints panel. Name the color and specify Spot or Process in the Add to Color List dialog box. Hold down Command (Macintosh) or Control (Windows) while clicking the Add to Color List button to bypass the dialog box and reuse the last choice of Process or Spot.
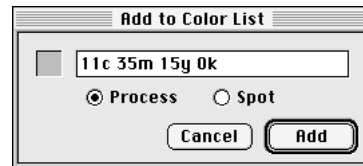
◆ Drag the newly created color from the color well of the Color Mixer or Tints panel and drop it either onto an empty space at the bottom of the Color List or onto the color drop box. Do not drop a color onto an existing color name.

— Color drop box

◆ Create a color and choose New from the Color List Options pop-up.

◆ In Windows, right-click any color well on the Color Mixer or Tints panel to choose the Add to Color List command.

Adding Colors from an object with unnamed colors

Unnamed colors are colors that appear in the illustration but not on the Color List. Choose one of the following ways to add colors from objects:

◆ Select an object and display either the Stroke or Fill Inspector. Drag a color chip from an Inspector color well to the Color List or choose the Add to Color List command from a Color List pop-up.

◆ Select an object, choose the Eyedropper tool from the Xtra Tools panel, and drag a color chip from the object to the Color List color well.

◆ Choose Xtras › Colors › Name All Colors to add to the Color List all unnamed colors in a document.

See "Naming unnamed colors" on page 158.

Adding Colors from copied or imported objects

The Color List displays colors from some imported file formats automatically, such as FreeHand, Adobe Illustrator, and CorelDRAW. Named colors applied to copied or imported objects, such as EPS files, remain in the Color List even if you delete the objects.

Note: FreeHand adds named spot or process colors from an editable EPS to the Color List upon import. Check the Import/Export > "Convert editable EPS when imported" Import preference to import EPS files as editable.

Adding colors from a pre-defined library

Listed in the Color List Options pop-up, the predefined color libraries that come with FreeHand are part of commercially available color-matching systems and contain both spot and process colors. Color-matching systems provide printed and on-screen color chips for designers and contain instructions for printers so they print the colors you specify. Consult with your commercial printer to know which color libraries they support and recommend. See "Color libraries" on page 160.

Choose colors from color library dialog boxes, such as this one for the Pantone Hexachrome Coated color library.

Custom colors display the name of the custom color library with a library-specific color reference. Pantone® Hexachrome colors comprise two of the custom color libraries in FreeHand. In the Color List, these colors appear with hexagon-shaped icons to the right of the color names.
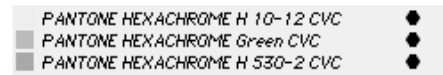
Organizing colors in the Color List

As you drag newly created colors from the Color Mixer and drop them onto the Color List, FreeHand names them. Newly added colors appear at the bottom of the Color List, but you can rearrange them.

Fill selector
Stroke selector
Both selector

Choose options for modifying, importing, and exporting colors, and for choosing color libraries.

Drop a color chip onto the drop box to add it to the Color List.

View the colors in the Color List.
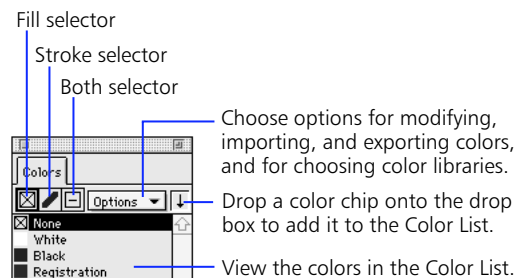
The Color List default colors are None, White, Black, and Registration. These colors cannot be deleted or renamed. Black is a spot black that prints on the process black plate. Registration-colored objects, such as crop marks or trim marks, print solid on all color separations.

Color List pop-up

Color List pop-up's color well

Color List pop-ups appear throughout the application to easily apply colors to selected objects or name unnamed colors. These pop-ups show the named colors in the document, replicating the Color List. Each color name has a color chip next to it.

Using the Color List selectors

Use the Color List selectors to view and assign fill and stroke colors. Selecting an object displays the colors in the selectors.

To apply fill and stroke colors to selected objects, drag colors onto selectors, or activate a selector and click on a color name in the Color List.

Newly created objects automatically assume the current fill and stroke color scheme shown in the selectors if the Object › "Changing objects changes defaults" preference is checked.

These selectors	Indicate
	The Fill selector is active; None is applied to both fill and stroke.
	The Fill selector is active; a color is applied to fill; None is applied to stroke; fill and stroke color choices differ from one another.
	The Stroke selector is active; the same color is applied to both fill and stroke.
	The Stroke selector is active; two or more objects are selected and at least one object's fill and one object's stroke differ from the fill and stroke of other selected objects.

A thick, black border indicates the active selector. The selectors display the fill and stroke colors currently applied to them. When None is applied to a selector, an X is displayed.

When two or more objects are selected and do not share the same fill color, a dash is displayed in the Fill selector; the same is true of stroke colors and the Stroke selector. When the fill color and stroke color differ—whether one object or several are selected—a dash is displayed in the Both selector.

Rearranging colors

To rearrange colors in the Color List, click a color name and drag it to a new position. Make sure that you drag the color name and not the color chip; otherwise, you will replace an existing color rather than relocate the one you are moving.

To move contiguous names, hold down Shift and click the range of colors. To move two or more names while skipping names between them, hold down Command (Macintosh) or Control (Windows) and click the name of each color.

Assigning custom color names

To rename a color in the Color List:

1 Double-click the color name to highlight it and type the new name.

Clicking the color name applies that color to all selected objects. If that is not your intent, deselect all objects before editing a color name.

2 Press Return or click anywhere in the application to apply the name.

When you enter a custom color name directly into the Color List that is the same as one already on the panel, a dialog box prompts you to use a different name.

Naming unnamed colors

Use the Add to Color List button to name unnamed colors. For example, if you drag a color directly from the Color Mixer to an object or from a TIFF image using the Eyedropper tool to the Fill Inspector color well, FreeHand does not automatically name the color and does not add it to the Color List.

To name and add the color, click the Add to Color List button in the Color Mixer or Tints panel. Accept the default name or enter a name for the color in the Add to Color List dialog box. Define it as either spot or process and click OK.
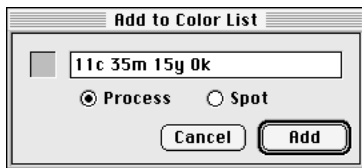
Duplicates of names already on the Color List are labeled with a dash and a duplicate-counter number at the end of the name as shown below.
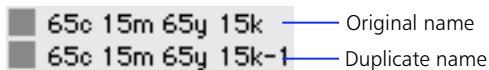
Click Cancel in the Add to Color List dialog box to leave the color unnamed and omit it from the Color List.

When objects contain an unnamed base color and its tints, the Name All Colors Xtra adds each tint and its base color to the Color List. Since Name All Colors adds a base color for each tint, you can delete duplicate base colors. Hold down Command (Macintosh) or Control (Windows) while clicking each duplicate and choose Remove from the Color List Options pop-up. If the base color is named, Name All Colors adds only the tints to the Color List.

To name unnamed colors throughout a document, choose Xtras › Colors › Name All Colors to place every color used in the document in the Color List. FreeHand names them in the Color List using their corresponding color values.

Click one or more colors and use Remove or Replace to standardize your colors by eliminating the ones you do not need. Alternatively, choose Xtras › Delete › Unused Named Colors to remove all unused colors if the Color List pop-ups become unmanageable.

Sorting colors

To sort the Color List entries by color name, choose Xtras › Colors › Sort Color List by Name. FreeHand sorts the colors first numerically and then alphabetically. The default colors—None, White, Black, and Registration—remain at the top of the Color List.

Hiding color names

When using FreeHand for process printing, color composite printing, or screen output such as Internet or multimedia, the ability to hide names in the Color List becomes very useful, since it is not necessary to visually distinguish between spot and process colors. When working with custom color libraries, you can view a large number of colors at once.

Choose Hide names in the Options pop-up to hide color names and RGB or Hexachrome icons. This option economizes space on the Color List by arranging color chips in a grid according to the current width of the panel. Changing the width of the Color List reflows the color chips into a new row and column arrangement. A solid border around a single color chip indicates the color is active.
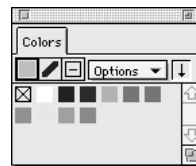
Turning on Hide names displays only chips on the Color List.

You cannot rearrange the Color List when Hide names is turned on. Moving a color either replaces an existing color or adds an existing color to the Color List.

Duplicating colors

To duplicate a color, choose a color on the Color List and choose Duplicate from the Options pop-up. The new color is named "Copy of [original color]."

Removing colors

To remove colors, click a color name on the Color List and choose Remove from the Options pop-up. Removing colors from the Color List does not remove them from corresponding FreeHand objects. These colors remain in the objects as unnamed colors. When removing multiple colors, a dialog box prompts you to either remove all colors or only the unused colors.

◆ **Spot colors—**Convert removed spot colors to process colors. Objects containing these spot-to-process converted colors may not print separations as intended.

◆ **Hexachrome colors—**Convert removed Hexachrome colors to RGB values. The Hexachrome icon appears to the side of the name in the Color List.

◆ **Tints—**Removing a color that is a base color for tints also removes from the Color List all tints that were based on the color.

Note: It is not possible to remove or replace imported spot or process colors from a locked or uneditable EPS. To know whether an imported EPS is locked, switch to Keyline mode, Command-K (Macintosh) or Control-K (Windows). If the EPS displays an X-box, then the EPS is locked.

Modifying color

To alter color component values of an existing color:

1 Drag a color chip from the Color List to the color well in the Color Mixer.

2 Adjust the color values in the Color Mixer by entering new values in any of the entry fields or by moving the corresponding sliders.

Modified color
Original color
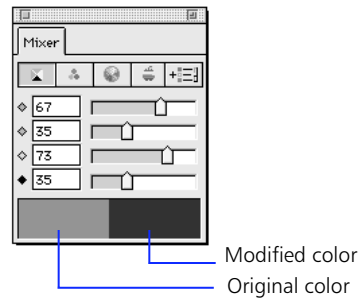
3 Drag a color chip from the Color Mixer's color well and drop it onto the original chip in the Color List.

To prevent color names from automatically changing when altering color values, uncheck the Colors › "Auto-rename changed colors" preference. The default name of a color is retained when dragging the replacement color chip onto the original color chip.

To replace colors in the Color List:

1 Choose a color name and choose Replace from the Color List Options pop-up.

A dialog box prompts you to choose another color from the Color List or from a color library. With Black, White, None, or Registration chosen, Replace is not available in the pop-up.

2 Choose a color from the Color library pop-up or the Color List pop-up and click OK.

All selected objects with an old color will display the new color.

The Colors › "Auto-rename changed colors" preference—whether checked or unchecked—does not effect the Replace option from the Color List Options pop-up to replace colors. Also, the preference does not affect colors with custom names.

Converting colors

Designate how a color prints to separations by converting it to either a spot or process color.

- ◆ **From Process to Spot**—Choose a color name in the Color List. Choose Make spot from the Options pop-up.

- ◆ **From Spot to Process**—Choose a color name in the Color List. Choose Make process from the Options pop-up.

Converting colors from CMYK to RGB, or vice versa, involves transferring colors from one color space into another.

- ◆ **From CMYK to RGB**—Choose a color name in the Color List. Choose Make RGB from the Options pop-up. Make RGB changes the CMYK color to the nearest RGB value.

- ◆ **From RGB or Hexachrome to CMYK**—Choose a color name in the Color List. Choose Make CMYK from the Options pop-up. Make CMYK changes the RGB or Hexachrome color to the nearest CMYK value.

Note: Converted colors may not appear the same as they did before they were converted, especially if a color management preference is active.

Converting colors when exporting

To maintain color consistency when exporting a file in PDF, EPS, and Adobe Illustrator 7.x formats, or when dragging and dropping into another application, three conversion options are available from the Convert Colors to pop-up: CMYK, RGB, and CMYK and RGB.

Using FreeHand's Convert Colors to options before exporting is typically more precise than relying on the import conversion features of other applications. For more information, see Chapter 10, "Working with Other Applications."

Color libraries

To add colors from a color-matching system library:

1 Choose a color-matching system library from the Options pop-up on the Color List.

2 Choose colors from the library dialog box and click OK to add them to the Color List.

To import colors from a custom color library:

1 Choose a custom color library from the Color List Options pop-up.

2 Choose the colors to add and click OK.

If a custom color library is stored outside of the Color folder in the FreeHand application folder, choose Import from the Color List Options pop-up to locate and open the library.

Import the colors from a Photoshop or xRes color index table into FreeHand so that the color values are the same in either application. Choose Xtras › Colors › Import RGB Color Table, and then choose the Photoshop ACT file or xRes CTB file that contains the index to import.

To export colors to create a custom color library:

1 Choose Export from the Color List Options pop-up, choose the colors for export, and click OK.

Export non-Hexachrome colors from the Color List as a custom color library and share them among multiple documents.

2 In the Create Color Library dialog box, type a Library name, and then type a file name. Enter the number of rows and columns and any notes.

3 Click Save as (Macintosh) or Browse (Windows) and specify the Color folder (Macintosh) or Fh8\English\Colors folder (Windows) as the destination. Click Save.

Converting colors during import and export

◆ Exporting documents to previous versions of FreeHand—When exporting to the FreeHand 3.x, 4.x, and 5.x formats, all colors are converted to CMYK process or spot colors because FreeHand 3.x, 4.x, and 5.x store all colors as CMYK. The color names remain unchanged in the original document after export. Colors originally defined as RGB or Hexachrome remain in CMYK format even after reopening them in FreeHand 8.

◆ Importing documents from previous versions of FreeHand—FreeHand 8 stores colors internally as CMYK, RGB, or Hexachrome (CMYKOG). Because FreeHand 3.x, 4.x, and 5.x store colors as CMYK, documents converted from these versions to FreeHand 8 contain CMYK spot or process colors, even if these colors have RGB color names on the Color List.

Note: For more information on FreeHand's color libraries, see FreeHand Help.

Stroking and filling objects

Choosing stroke and fill types

Choose from five stroke types in the Stroke Inspector: None, Basic, Custom, Pattern, and PostScript.

Choose from nine fill types in the Fill Inspector: None, Basic, Custom, Gradient, Lens, Pattern, PostScript, Textured, and Tiled. An open path, a closed path, or a composite path can have only one fill. Each object within a group can have its own fill.

Compatible output devices

These	Print to
Basic strokes and fills	PostScript and non-PostScript.
Custom strokes and fills	PostScript.
Pattern strokes and fills	PostScript Level 2 or higher. Pattern strokes are designed for use on low- and medium-resolution printers, not for output to film recorders and imagesetters, because the pattern dots appear much smaller on high-resolution output devices.
PostScript strokes	PostScript.
PostScript fills	PostScript. PostScript fills do not print to non-PostScript printers even after exporting FreeHand documents that contain them to file formats such as TIFF, PICT, or LRG.
Gradient fills	PostScript and non-PostScript.
Lens fills	PostScript and non-PostScript.
Textured fills	PostScript.
Tiled fills	PostScript and non-PostScript.

On-screen and printed appearance

These	Appear
Basic strokes and fills	Solid on screen and in print.
Custom strokes	Solid on screen, but print correctly. In print, color appears on the solid portions of the pattern and transparent areas print correctly—except for the Arrow, Braid, and Neon stroke patterns, which are opaque.
Custom fills	With an opaque pattern of C's on screen but print correctly. In print, color appears only on the solid portions of five of the custom fills. The background of four of the custom fills is opaque—even if there are spaces between repeating patterns.
Pattern strokes and fills	At 72 dpi (dots per inch) on screen and print at a fixed resolution.
PostScript strokes	Solid on screen and print according to the PostScript code. In print, color appears on the solid portions of the pattern and transparent areas print correctly.
PostScript fills	With an opaque pattern of PS's on screen but print according to the PostScript code. In print, color appears on the solid portions of the pattern and transparent areas print correctly.
Gradient fills	Opaque on screen and in print.
Lens fills	As any of a variety of custom effects created by the lens.
Textured fills	With an opaque pattern of C's. In print, color appears only on the solid portions of the pattern, but the background is opaque.
Tiled fills	Transparent. Objects behind them appear through the spaces in the pattern.

Overprinting

Overprinting is one way to avoid trapping problems when printing separations. Check the Overprint option in the Stroke or Fill Inspector to print the color of a stroke or fill on top of the colors beneath it.

With the Redraw › "Display overprinting objects" preference checked, overprinting strokes or fills appear as a pattern of white O's on screen but print normally to a PostScript or non-PostScript printer. Check this preference to view strokes and fills on screen. The Overprint setting is available for Basic strokes and fills and Gradient fills.

For a more detailed discussion of overprinting, knocking out, and trapping, see "Overprinting" on page 236 and "Trapping" on page 238.

Basic strokes

Check to overprint strokes.

Choose a type of cap:
Butt, Round, or Square.

Choose a type of join:
Miter, Round, or Beveled.

Choose arrowheads to apply to the ends of open paths.

Choose No dash or any of several dashed strokes.
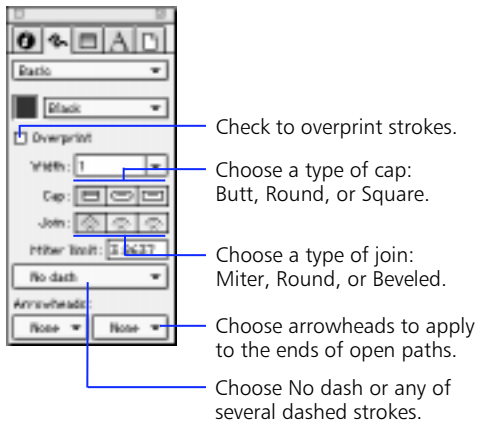
Stroke Inspector: Basic

The ampersand object has a black stroke and a fill of None.

Following are descriptions of the Basic stroke options appearing on the Stroke Inspector. Width appears for all stroke types.

Width

Width specifies the thickness of a stroke. FreeHand offers default line widths in the Width pop-up on the Stroke Inspector and throughout the application. Preset widths range from a hairline (0.25 of a point) to 12 points. Width pop-ups display width settings in points regardless of the unit of measurement set for the entire document. Type custom widths in the Width entry field, and then press Return.
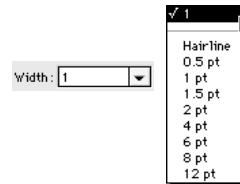
Add or edit the preset width values in the Object › "Default line weights" preference. Like that of the Width pop-ups, the unit of measurement for these width values is always points.

To apply a Custom stroke width in a different unit of measurement than that set for the document, enter a value and a unit override code into a Width entry field. For example, with the unit of measurement set to inches, typing "p7" in the Width entry field converts 7 points to 1.1667 inches. The "#" symbol in the Unit overrides chart refers to the numerical value.

Unit overrides

Use	For example
#i for inches	7i = 7 inches
p# for points	p7 = 7 points
#p for picas	7p = 7 picas
#m for millimeters	7m = 7 millimeters

Caps

Butt cap

Round cap

Square cap

A butt cap is flush with the end of the path. Round and square caps extend beyond the end of the path by half the stroke width. To change the ends of an open path, select a path and choose another cap option to change.

Joins

Miter join

Round join

Beveled join

Joins define how two path segments meet—miter, round, or beveled. To change the corners in an open or closed path, select a path and choose another join option to change the path's corner or curves.

Miter limit

A miter join automatically becomes a beveled join when the join's miter limit exceeds the value set in the Stroke Inspector.

The miter limit is the ratio between the length of the miter join and the stroke width. This measurement sets the maximum length of a miter join. Any length beyond this limit automatically converts the miter join to a beveled join. FreeHand accepts values ranging from 1 to 57.

For example, if you enter 2 as the miter limit for a stroke width of 3 points, the miter join converts to a beveled join when the length of the miter join exceeds 6.

Miter join

Beveled join

The arrows indicate the length of the miter join.

Dashed strokes

Dashed strokes are strokes with transparent breaks.

To edit a dashed stroke and create a new one:

1 Hold down Option (Macintosh) or Alt (Windows) while choosing a dash from the dash type pop-up in the Stroke Inspector to display the Dash Editor.

2 To set dash sizes, enter values in one or more of the On entry fields. To set the space sizes between dashes, enter values in one or more of the Off entry fields.

Verify the unit of measurement in the Units pop-up at the lower-left corner of the document window.

3 Click OK to add a new dash to the Dash pop-up.

The new dashed stroke appears at the bottom of the Dash pop-up rather than replacing the original dash. FreeHand applies this newly created dashed stroke to any selected paths. If no path is selected, then the dashed stroke applies to the next path created.

The Dash pop-up can display up to 255 dashed strokes. Once you have added new dashed strokes to the Dash pop-up you cannot remove them from the document.

The center line is a dashed stroke.
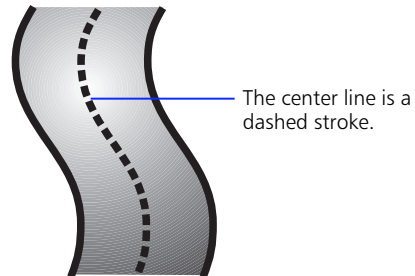
Arrowhead Editor

Arrowheads extend beyond the end of the path. Create or edit paths using the Arrowhead Editor.

The left pop-up applies an arrowhead to the first point (origin) of the selected path, and the right pop-up applies to the last point. Arrowheads are proportional to the stroke width and extend beyond the end of the path. Arrowheads indicate path direction.

To create an arrowhead from an existing one:

1 Choose Basic from the stroke type pop-up on the Stroke Inspector.

2 Hold down Option (Macintosh) or Alt (Windows) and choose an arrowhead to display the Arrowhead Editor.

3 Create or edit the arrowhead.

4 Click New to add a new arrowhead to the Arrowheads pop-up.

Both the left and the right pop-ups can list up to 255 arrowheads. Once you have added new arrowheads to the pop-up you cannot remove them from the document.

To create a new arrowhead:

1 Cut or copy an object from your document.

2 Choose New from the Arrowheads pop-up to display the Arrowhead Editor, and click Paste in.

Custom strokes

A Custom stroke applies a preset repeating PostScript pattern to a path. Modify the width, length of each pattern, spacing between patterns, and color of 22 of the 23 Custom strokes. Neon is the only Custom stroke that is not editable.

◆ **Length**—Set the horizontal distance of a single pattern in a series.

◆ **Spacing**—Set the distance between each occurrence of a repeating pattern.

To edit a Custom stroke, change the width or length of its repeating pattern or the spacing between patterns. Type values in the Width, Length, and Spacing entry fields in the Stroke Inspector. Press Return to apply.
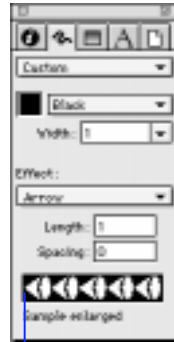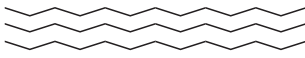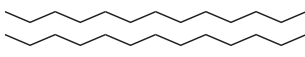
A sample of the current Custom stroke is displayed, but modifications to stroke width, length, spacing, or color do not change the sample.
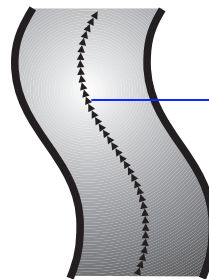
The center line is a wedge Custom stroke.

Note: When transformed, a Custom stroke pattern keeps its original length and spacing. However, the pattern's orientation follows path's orientation.

Custom stroke catalog

Arrow	
Ball	
Braid	
Cartographer	
Checker	
Crepe	
Diamond	
Dot	
Heart	
Left Diagonal	
Neon	
Rectangle	

Right Diagonal	
Roman	
Snowflake	
Squiggle	
Star	
Swirl	
Teeth	
Three Waves	
Two Waves	
Wedge	
ZigZag	

Basic fills

Fill Inspector: Basic
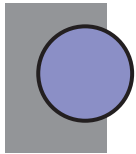
The circle object has a blue Basic fill and a black Basic stroke.

Choose fill colors from the Color List pop-up.

Check to overprint fills.

Apply one of ten Custom fills to a selected object.
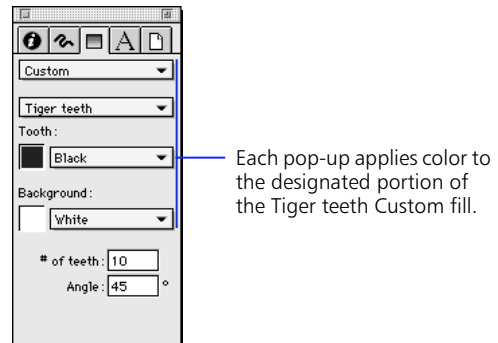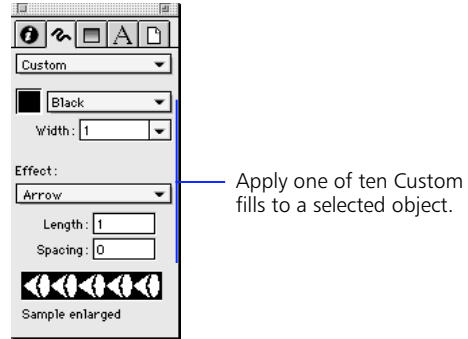
Fill Inspector: Custom: Tiger teeth

Each pop-up applies color to the designated portion of the Tiger teeth Custom fill.

Custom fills

A Custom fill applies a preset, repeating PostScript pattern to a path. Except for "Black and white noise," each Custom fill is editable in the Fill Inspector and has its own options.

Black & white noise

Bricks

Circles

Hatch

Noise

Tiger teeth

Top noise

Squares

Random leaves

Random grass
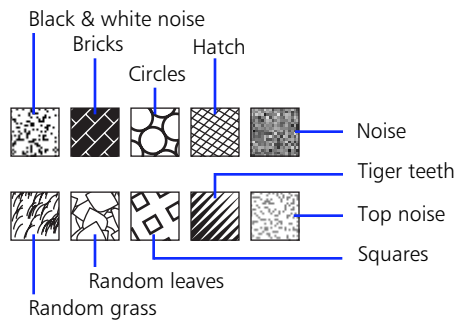
Custom fills

Note: Because a Custom fill prints at one size on all PostScript output devices, it does not scale with its respective object; the fill keeps its original size even though the path itself increases or decreases in size.

Pattern strokes and fills

FreeHand offers 64 editable bitmap patterns for both strokes and fills. Color appears on the solid portions of the patterns.
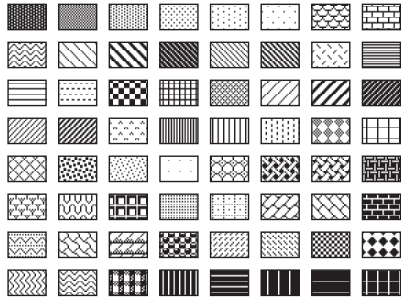
Pattern strokes and fills

Use the Stroke Inspector to edit Pattern strokes and the Fill Inspector to edit Pattern fills.

Edit patterns pixel by pixel.

Use the slider to choose from 64 predefined patterns.
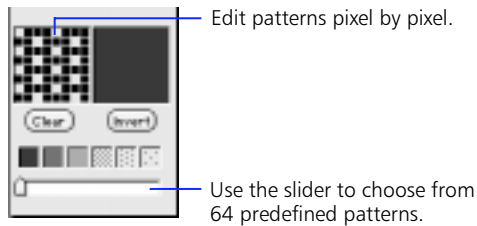
Stroke Inspector: Pattern

Important: Do not use Pattern strokes and fills when printing to high-resolution output devices, including imagesetters.

Pattern display and preview

An editable display of the pattern appears on the left and a preview of that pattern appears on the right. As you edit the pattern on the left, the overall effect previews on the right.

Clear and Invert

The Clear button removes a pattern from the entry field and displays white until you choose another or create a new pattern. The Invert button inverses pixel color—from black to white or from white to black.

Pattern type

Scroll through the predefined pattern types using the slider at the bottom of the Stroke Inspector. The chosen pattern appears in the display and preview.

Note: A Pattern stroke or fill does not transform with its respective object; the stroke or fill pattern keeps its original orientation and size even though the path itself transforms.

PostScript strokes and fills

PostScript applies a stroke or a fill of a unique pattern and shape that you create in the PostScript code entry field. FreeHand sends the PostScript code entered in the Stroke or Fill Inspector to the PostScript Interpreter in your printer's Raster Image Processor (RIP). If your code is incorrect, you will receive a PostScript error message when printing.

Enter PostScript code sequences up to 255 characters. Use the spacebar to separate code commands, letting the text wrap on its own. After entering or pasting code, press Return to apply the code to a selected object.

Stroke Inspector

Fill Inspector
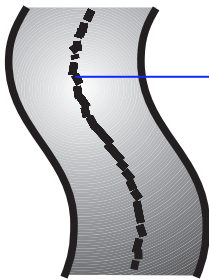
The center line is a PostScript stroke.

PostScript stroke and fill

PostScript resources

PostScript programming is beyond the scope of this manual. To learn PostScript programming or to find more information about the PostScript description language, consult such books as *Learning PostScript: A Visual Approach*, by Ross Smith (Berkeley, California: Peachpit Press, 1990) and the *PostScript Language Reference Manual*, Second Edition, by Adobe Systems Incorporated (Reading, Massachusetts: Addison-Wesley, 1990).

Gradient fills

Use the top color well to apply color to the start of a graduated fill or to the perimeter of a radial fill. Use the bottom color well to apply color to the end of the graduated fill or to the center of a radial fill.
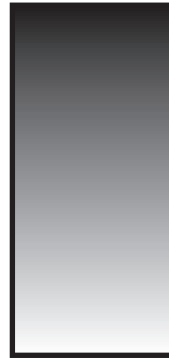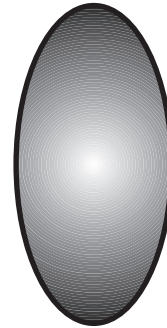
Graduated fill   *Radial fill*

The color transition in graduated fills is always straight. In radial fills it is always circular, regardless of the shape of the fill. Use blends along a path to create fills that follow the contours of an object. See Chapter 5, "Drawing," to learn about blends.

Graduated fills

Graduated fills consist of smooth color progressions that extend from one edge of an object to its opposite edge at the angle you specify.

Use the color ramp to create multicolor graduated fills.

Set the rate of color transition.

Set the angle of taper.
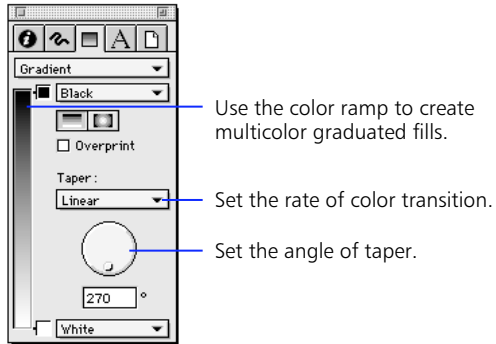
Fill Inspector: Gradient › graduated

Taper

A linear taper progresses in increments of equal width from one color to another. A logarithmic taper progresses from a narrow band of color to increasingly wider increments towards another color.

Linear taper

Logarithmic taper

Angle

Set the graduated fill's angle using the Fill Inspector's Angle dial. FreeHand's default angle is 270°. Hold down Shift to constrain the angle to 45° increments. As with all angle dials in FreeHand, 0° is at 3 o'clock, and 90° is at 12 o'clock.

 Radial fills

A radial fill consists of a series of concentric color progressions that extend from the farthest edge to the center of an object's bounding box. The centerpoint is set relative to the bounding box.

Use the color ramp to create multicolor radial fills.

Use the locate center preview to set the center of a radial fill.

Fill Inspector: Gradient › radial

Locate center preview

Drag the knob in the locate center preview to set the centerpoint for radial fills. The knob's default position is the center of the preview. Hold down Shift and click anywhere in the preview to reset the radial fill's center to the center of the fill object's bounding box.

Note: To simultaneously set a radial fill's center position and center color, hold down Option (Macintosh) or Alt (Windows) while dropping the color chip onto the object.

Multicolor fills

To apply a multicolor fill, choose the Gradient option from the Fill Inspector. Click either the graduated fill button or the radial fill button. Drop colors onto the color ramp.

Color ramp

The color ramp displays a preview of your fill. Use it to specify colors: a minimum of 2 colors and a maximum of 32.

To	Do this
Add a color to the color ramp	Drag a color chip onto the desired location on the color ramp. A color well for this chip appears.
Reposition a color within the fill	Drag a color chip along the color ramp to a new position.
Place a color in more than one location on the color ramp	Hold down Control (Macintosh) or Alt (Windows) and drag an existing color on the color ramp to copy it to a new location.
Remove a color from the color ramp	Choose a color chip, drag it away from the color ramp to an inactive area, and release the mouse button.
Change a color on the color ramp	Drag a new color onto an existing color chip. To change the colors of the top color well and the bottom color well, choose a new color from the appropriate Color List pop-up.

Note: Changing the fill from multicolor to Basic fills the object with the color displayed in the top color well.

Lens fills

A Lens fill transforms a selected object into any of six special-effect lenses—Transparency, Magnify, Invert, Lighten, Darken, and Monochrome. These effects in turn modify the appearance of images, objects, and text over which the lens is placed.

Spot colors under a lens are converted to process colors for output. Use the Eyedropper Xtra tool to capture new colors created by a Lens fill effect.

- Choose the Lens fill.
- Choose a type of Lens fill.
- Choose a color.
- Adjust the effect.
- Check to display a moveable centerpoint handle located at x and y coordinates in the fields.
- Check to apply the lens effect to objects but not to empty areas.
- Check to capture the current contents of a lens as a moveable picture.
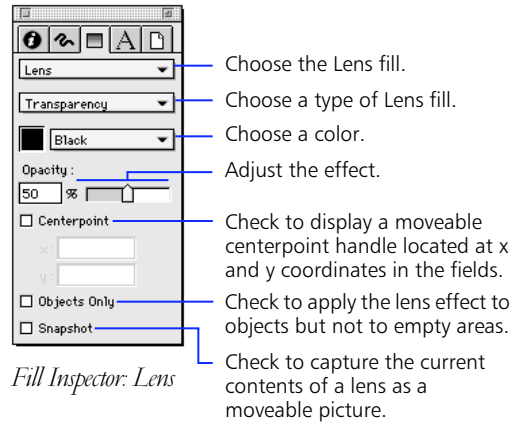
Fill Inspector: Lens

Centerpoint—Check to display a moveable centerpoint handle at the center of a selected lens. Drag the centerpoint anywhere in the document using the Pointer tool. Shift-clicking the centerpoint returns the centerpoint to the center of the lens. Unchecking Centerpoint removes the centerpoint. Deselecting the lens causes the centerpoint to disappear without changing the lens effect.

- Magnify fill at 3x magnification.
- Centerpoint
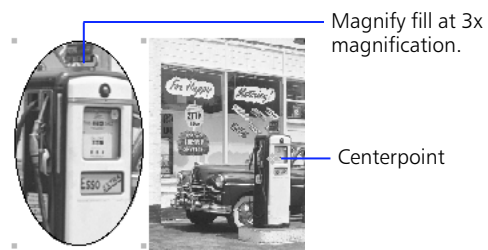
Objects Only—Check to apply the lens effect to objects, not empty areas, under the lens.

Invert fill with Objects Only checked

Invert fill with Objects Only unchecked
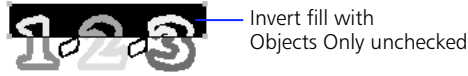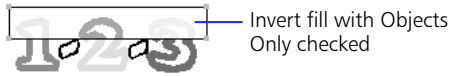
Snapshot—Check to capture the current contents of the lens, allowing the lens to be moved anywhere in the document without changing the lens contents.

With Snapshot checked, the magnify fill retains its contents when moved.

The image remains in the lens without checking Centerpoint.
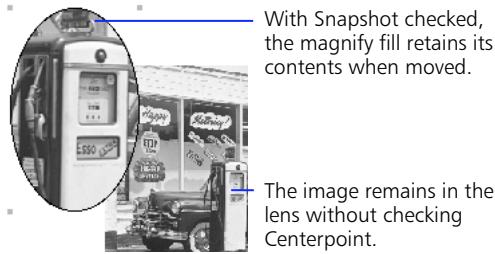
Note: Choosing a new Lens type automatically unchecks Centerpoint, Objects Only, and Snapshot.

From one Lens fill to another, the options located between the Lens type pop-up and the Centerpoint checkbox on the Fill Inspector differ.

Transparency

Enter a number from 0 (completely transparent) to 100 (completely opaque) or use the slider to adjust the opacity of the transparency fill.

Applying a transparency fill to the fairy's wing and gown creates a see-through effect.

Magnify

Enter a number from 1 to 100 or use the slider to adjust the number of times the magnify fill magnifies objects under it.
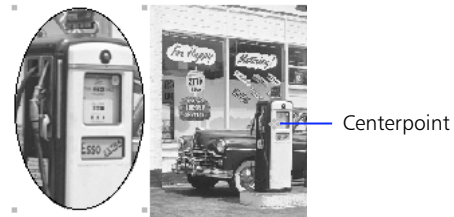
Centerpoint

The ellipse has a magnify fill set at 3x with a floating centerpoint.

Invert

Colors under the invert fill appear as their complementary CMYK colors (their opposites on a color wheel).

An invert fill applied to an image creates a negative image.

Lighten

Enter a number from 0 (no change) to 100 (completely white), or use the slider to adjust the percentage by which the lighten fill lightens colors under it.

A triangle with no stroke has a lighten fill to simulate a ray of light.

Darken

Enter a number from 0 (no change) to 100 (completely black), or use the slider to adjust the percentage by which the darken fill darkens colors under it.
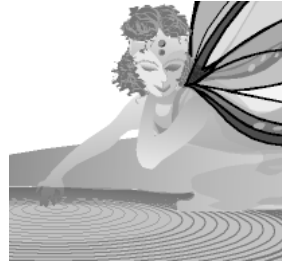
An object created by tracing the water has darken fill to darken the water.

Monochrome

Choose a color in the monochrome Fill Inspector. Colors under the monochrome fill appear as monochrome degrees of that color. Each color under the monochrome fill appears as a tint of the chosen color. The amount of lightness in the original color determines the tint value.

A monochrome fill creates a monochrome effect.

Using Lens fills

A lens does not actually change properties of the objects under it; it creates duplicate objects inside the lens. This is apparent when Centerpoint is checked and the lens is moved from the centerpoint or vice versa.

Remember that using Lens fills, especially on top of each other, can quickly add hundreds of objects to the document, greatly increasing both file size and print time, which may render your file unprintable.

An awareness of the placement of layers, as well as the arrangement of objects within a layer, is key to successful use of Lens fills.

EPS files are not affected by lens-filled objects. An object with a paste inside cannot receive a Lens fill; however, a lens-filled object can be pasted inside another object. Text cannot receive a Lens fill unless the text is converted to paths.

To remove a Lens fill, select the lens-filled object, and then choose None or another type of fill in the Fill Inspector, or delete the lens-filled object.

Up to eight lenses can be stacked on top of each other. When a ninth lens is stacked upon eight others, the bottom lens no longer affects the lenses above it.

Tiled fills

Tiled fills are patterns based on a repeating object, or tile, that you create. Create a Tiled fill using graphics or text pasted into the Fill Inspector. FreeHand will not allow EPSs, bitmap images, or other Tiled fills in a Tiled fill.

Click to paste from the Clipboard.
Click to copy tile to the Clipboard.

Type or use the wheel to set the angle (orientation) of the tile.

Type x and y values to reduce or enlarge the tile.

Type x and y values to set the starting position of the tile.
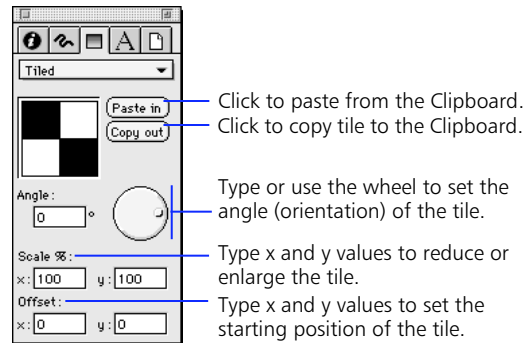
Fill Inspector: Tiled

Spacing

The bounding box of each repeating object of a Tiled fill abuts those of its neighbors and determines the space between each object. When the Tiled fill consists of text, the text block determines the size of the tile, unless the text is first converted to paths. The more complex the fill, the slower it prints and redraws on screen.

Scale%

Enter x and y values to set percentages of the original object's height and width. Enter equal values to scale proportionally or different values to create distortion.

Offset

Enter a positive value or a negative value to realign the pattern within the object you are filling by the amount you specify.

◆ Positive x values move the fill to the right.

◆ Negative x values move the fill to the left.

◆ Positive y values move the fill up.

◆ Negative y values move the fill down.

To create and apply a Tiled fill:

1   Create an object to use as the tile and choose Edit > Cut or Copy. If you choose Copy, remember to deselect the original object before proceeding.

2   Select an object. Choose Tiled from the Fill Inspector and click Paste in.

Note: To create a Tiled fill with space between its repeating tiles, draw a rectangle with a stroke and fill of None around the tile, and paste them in together.

To realign a Tiled fill within an object:

1   Select the object with a Tiled fill.
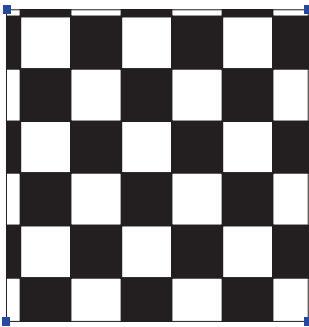
2   Display the Transform panel and uncheck the Fills checkbox.
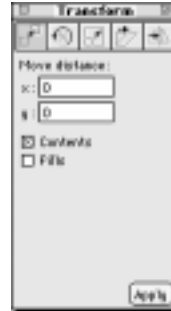
3   Drag the object with the Pointer tool over its Tiled fill, realigning them.
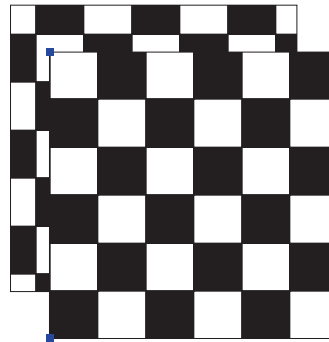
4   Check Fills in the Transform panel and reposition the object as needed.
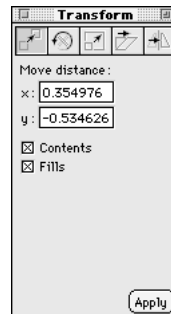
Textured fills

Textured fills are non-editable PostScript language patterns. Because Textured fills print at one size, they cannot be scaled with an object. Choose a Textured fill from the Fill Inspector. The sample displays the currently chosen Textured fill. Note that the sample does not change as you modify the fill color.

Fill Inspector: Textured
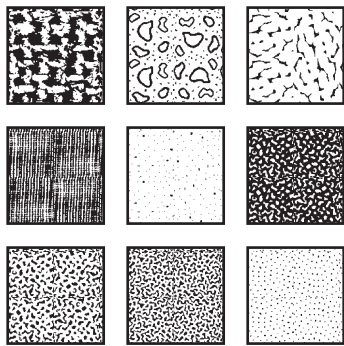
Textured fills

CHAPTER 7

Text

Basic FreeHand text concepts

The Text tool and the Pointer tool are the only tools necessary for working with text, and they appear in the Toolbox.

Using the Text tool

To	Do this
Create a new text block	Click or click and drag in your document.
Type text	Click in your document and begin typing, or click within an existing text block to place an insertion point and begin typing.
Highlight text	Click to place an insertion point and drag to include the desired characters, words, or paragraphs.
Select a word	Double-click anywhere in the word.
Select a paragraph	Triple-click anywhere in the paragraph.
Select all text within a text block	Choose Edit > Select > All after placing an insertion point to select all text within a text block or linked text blocks. Selecting all text and pressing Delete does not remove the text block, only the characters.
Momentarily switch to the Pointer tool	Hold down Command (Macintosh) or Control (Windows). Release Command or Control to return to the Text tool.
Switch to the Pointer tool	Press 0 (zero) when no text block is selected.

Using the Pointer tool

To	Do this
Select a text block	Click a text block. Drag to move it, or press Delete to remove it.
Manipulate a text block handle	Click a side-middle or bottom-middle handle to turn on or turn off auto-expansion, or click and drag a side handle to adjust kerning, a bottom handle to adjust leading, or a corner handle to adjust the size of a text block.
Link one text block to another	Click and drag from the link box of one text block to the body of another text block.
Finish typing	Click outside the text block. Clicking outside the text block with the Text tool creates a new text block.
Switch to the Text tool	Press "." (period), press "A," or double-click a text block. On the Macintosh, use Shift-F9.

Note: On the Macintosh, use Command-Tab to finish typing text and deselect the text block.

Anatomy of a text block

FreeHand text is container-based. There are two kinds of containers, or text blocks: standard and auto-expanding. Text blocks selected with the Pointer tool display eight handles and a link box. Learning how these handles work is crucial to understanding text in FreeHand.

Drag the top-middle handle to adjust leading.

Drag corner handles to scale the text block.

Drag the side-middle handle to adjust range kerning.

Use the link box to link one text block to another or to an object.
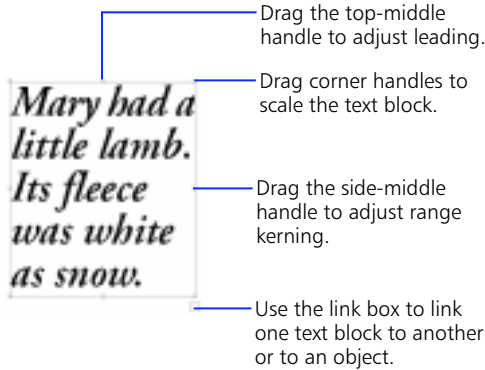
Solid middle handles indicate a standard text block. Hollow middle handles indicate an auto-expanding text block. Double-click a handle to switch between solid and hollow.

When switching between standard and auto-expanding, click directly on the appropriate text block handle and not on the border. Double-clicking the border of a text block activates the text block's transformation handles.

A standard text block maintains a fixed size. In contrast, an auto-expanding text block dynamically increases or decreases in size to fit the text it contains.

Use standard text blocks for large amounts of text. In standard text blocks, text automatically wraps from one line to the next. Use auto-expanding text blocks for small amounts of text, like labels and captions.

The highlight color of text block borders are visible on screen in Preview mode—when deselected, only the text is visible. In Keyline mode, both the text block border and the text is visible. If a selected text block does not display its highlight color in Preview mode, check the General › "Smoother editing" › "Highlight selected paths" preference.

See "Applying color to text blocks" on page 195 to assign color to text block borders.

Text blocks selected with the Text tool display only the text rulers and the Text tool cursor. To show or hide the text rulers, choose View › Text Rulers or use Command-/ (Macintosh) or Control-Shift-Alt-T (Windows).
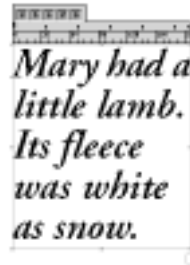
Creating text blocks

With the Text › "New text containers auto-expand" preference checked, click the Text tool to create a text block that expands both horizontally and vertically when typing.

To create a standard text block with the Text › "New text containers auto-expand" preference checked, drag the Text tool to the size of the text block. With this preference unchecked, click with the Text tool to create a standard text block, in which text wraps automatically.

On the Macintosh, hold down Control and click with the Text tool to create an auto-expanding text block when this preference is unchecked.

Choose one of the following ways to turn on auto-expansion of existing text blocks:

◆ Using the Pointer tool, double-click the side-middle handles to turn on or turn off horizontal auto-expansion. Double-click the bottom-middle handle to turn on or turn off vertical auto-expansion.

◆ Select single or multiple text blocks. Click the horizontal and vertical buttons on the Object Inspector to turn on or turn off auto-expansion.

To turn on or turn off auto-expansion for all text blocks within a selection of multiple objects, on the active page, or within a document, use the Find & Replace Graphics panel. Choose Edit › Find & Replace › Graphics, and click the Select panel. Choose Object type from the Attribute pop-up and Text from the Object type pop-up. Specify a search criteria in the Search pop-up and click Find. This selects all text blocks. Click the appropriate buttons on the Object Inspector to turn on or turn off auto-expansion.

Auto-expanding text blocks function like standard text blocks, with these exceptions:

◆ Auto-expanding text blocks can contain only one column.

◆ The corner handles of an auto-expanding text block do not scale the text block.

◆ Deselecting an empty auto-expanding text block deletes it.

Manually adjusting spacing and leading

To	Do this
Increase or decrease letter spacing (range kerning)	Drag a side-middle handle.
Increase or decrease word spacing	Hold down Option (Macintosh) or Alt (Windows) and drag a side-middle handle of a single-column text block.
Increase or decrease leading	Drag a top-middle or bottom-middle handle.

To modify range kerning and leading using the Text Inspector, the Text menu, or the Text toolbar, see "Adjusting kerning and range kerning" on page 190. For information about word spacing, see "Spacing" on page 204.

Manually scaling standard text blocks

In a standard text block, a dot in the link box indicates text overflow. When this happens, scale the text block, or link the overflow text block to another text block or to an object. An empty link box indicates all the container's text is visible.

To	Do this
Scale a text block	Drag a corner handle with the Pointer tool. Text within the container reflows to fill the new size.
Scale a text block proportionally	Hold down Shift and drag a corner handle. Text within the container reflows to fill the new size.
Scale a text block and text (font size)	Hold down Option (Macintosh) or Alt (Windows) and drag a corner handle.

To	Do this
Scale a text block and text (font size) proportionally	Hold down Shift-Option (Macintosh) or Shift-Alt (Windows) and drag a corner handle.
Reduce the size of a text block to fit the text	Double-click the link box with the Pointer tool.

Only standard text blocks are scalable. Use corner handles when scaling. The top-, bottom-, or side-middle handles change text attributes rather than reflow text. To scale a text block by assigning precise dimensions, select a text block and enter width and height values in the Object Inspector.

Linking text blocks

Three text blocks and a path

Link text blocks to flow text from one text block to another or from a text block to an object, such as a path. A linked object acquires text block attributes and retains these attributes even after deleting text from the object. Use the Object Inspector and the Text Inspector together to format text linked to a path.

To create a link, select the link box of a text block with text overflow and drag the link line to the inside of an empty text block or onto an object. Once objects are linked, text flows into the empty text block or into the object. Link any number of text blocks on a single page or across multiple pages.
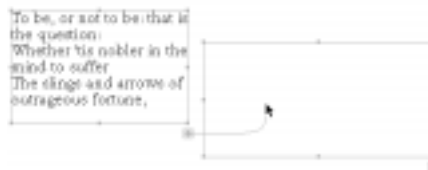
Changes to selected text in a linked text block may affect text in other linked blocks. For example, when enlarging the font size in one text block, text may reflow into the next block.

Breaking links

To break a link, click the link box of a text block and drag the link line to an empty area in the document. Text flows back into the last linked text block. Breaking links in the middle of a chain of text blocks leaves empty text blocks after the last linked block.

To break a link and retain text placement:

1   With the Text tool, select the text in the second text block and choose Edit > Cut.

2   Drag a link line from the link box of the first text block to an empty area in the document.

3   Place an insertion point in the second text block with the Text tool and choose Edit > Paste.

Text remains intact but is no longer linked. The first text block has an empty link box indicating no text overflow and no link.

Cutting or deleting a text block other than the first text block in a linked series does not delete the text itself. When pasting the cut text block, the text is a copy of the original text. After deleting a text block, the existing text reflows across the remaining text blocks.

Deleting empty text blocks or objects

Breaking links may leave empty blocks. With an empty text block selected, press Delete, or choose Edit › Clear, or double-click its link box to delete it. Because deselected text blocks are invisible in Preview mode, choose View › Preview to turn off Preview mode or use Command-K (Macintosh) or Control-K (Windows) to switch to Keyline mode.

To delete all the empty text blocks in a document, choose Xtras › Delete › Empty Text Blocks, or use Find & Replace Graphics to remove all invisible objects. Choose Edit › Find & Replace › Graphics, and click the Find & Replace tab. Choose Remove from the Attribute pop-up, choose Invisible objects from the Remove pop-up, and click Find.

Using the Text Editor

The Text Editor provides another environment for reviewing and editing text. Use it when text is difficult to edit on screen or when editing invisible characters.
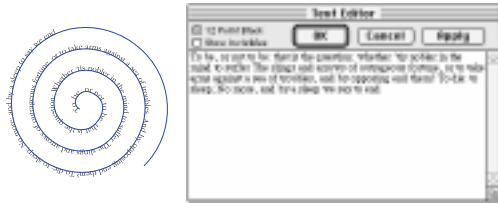
To edit existing text in the Text Editor:

1 Select the text block and choose Text > Editor or use Command-Shift-E (Macintosh) or Control-Shift-E (Windows) to display the Text Editor.

2 Edit the text in the Text Editor.

Check the 12 Point Black checkbox in the Text Editor to ignore formatting attributes and display text in 12-point black type. This option does not affect the actual text in a document.

3 Click OK, Cancel, or Apply.

◆ Click OK to apply changes to the text and close the Text Editor.

◆ Click Cancel to close the Text Editor without applying changes.

◆ Click Apply to apply changes to the text without leaving the Text Editor.

Here are other ways to display the Text Editor.

◆ To create a new text block and open the Text Editor simultaneously, hold down Option (Macintosh) or Alt (Windows) when creating a text block.

◆ To simultaneously make the text active and display the Text Editor, hold down Option (Macintosh) or Alt (Windows), and double-click a text block with the Pointer tool.

◆ To always edit text in the Text Editor, check the Text › "Always use Text Editor" preference.

Note: In Windows, right-click a text block, and then choose Editor from the menu to display the Text Editor.

Showing non-printing text symbols

To show non-printing text symbols in the Text Editor, check Show invisibles. These symbols are only visible and editable in the Text Editor, except em dash and en dash, which are visible in all text.

Space ▪	Represents a single space.
Tab ▬	Represents a tab.
End of paragraph ¶	Represents a hard return at the end of a paragraph.
End of column ↳	Forces text following the symbol to start at the top of the next column or linked text block.
End of line ↵	Forces text following the symbol to start on the next line.
Non-breaking space ␣	Inserts a space that prevents text on either side of it from breaking at the end of a line.
Em space □	Inserts a space equal to the width of a typeface's point size.
En Space ▯	Inserts a space equal to half an em space.
Thin space │	Inserts a space equal to one-fifth of an en space.
Em dash —	Visible in all text. Inserts a dash the width of an em space.
En dash –	Visible in all text. Inserts a dash the width of an en space.
Discretionary hyphen ⌐	Inserts an invisible hyphen indicating where text should break at the end of a line.

Note: Use a discretionary hyphen to hyphenate without checking Hyphenate in the Text Paragraph Inspector.

To insert a text symbol in text, whether in the Text Editor or in a text block, place the text cursor in the appropriate place in text, choose Text › Special Characters, and then choose the appropriate symbol. Space, tab, and end-of-paragraph symbols are inserted using the spacebar, Tab key, and Return key, respectively.

Tools to format text

Use the Text Inspector, the Text menu, or the Text toolbar to apply precise type specifications to characters, lines of text, paragraphs, and entire text blocks.

Text Inspector

Choose Window › Inspectors › Text to display the Text Inspector. Apply frequently used type specifications and text formatting from one location.

Character

Paragraph

Spacing

Columns and Rows

Adjust Columns

| abc | ¶ | ↔ | ≣ | ≣ |
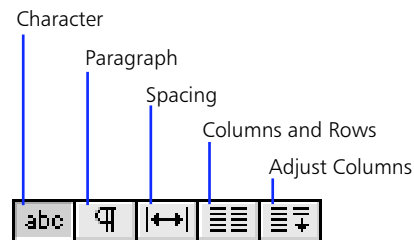
◆ Choose the Text Character Inspector to set the font, style, size, text alignment, leading, and kerning; shift the baseline; and apply text effects and paragraph styles.

◆ Choose the Text Paragraph Inspector to set paragraph spacing, indentation, and hyphenation; apply hanging punctuation to paragraphs; and apply rules to paragraphs.

◆ Choose the Text Spacing Inspector to scale characters horizontally; set word and letter spacing; and keep words and lines of text together to prevent awkward breaks at the ends of lines and columns.

◆ Choose the Text Columns and Rows Inspector to create columns and rows and to adjust text flow.

◆ Choose the Text Adjust Columns Inspector to copyfit text precisely.

Text menu

Set the font, point size, style, text alignment, leading, and case; apply text effects; and choose special characters.

Text toolbar

Use the buttons and entry fields to set the font, type size, type style, leading, and text alignment and perform advanced functions. Use Command-Option-T (Macintosh) or Control-Alt-T (Windows) to show or hide the toolbars.

In Windows, the Text toolbar includes a paragraph style pop-up and buttons for Bold and Italic character styles. Click both Bold and Italic buttons to apply a font's BoldItalic character style, when available. An icon next to the font name indicates whether the font is a TrueType or a device font. Absence of an icon indicates a system font or an unidentifiable font.
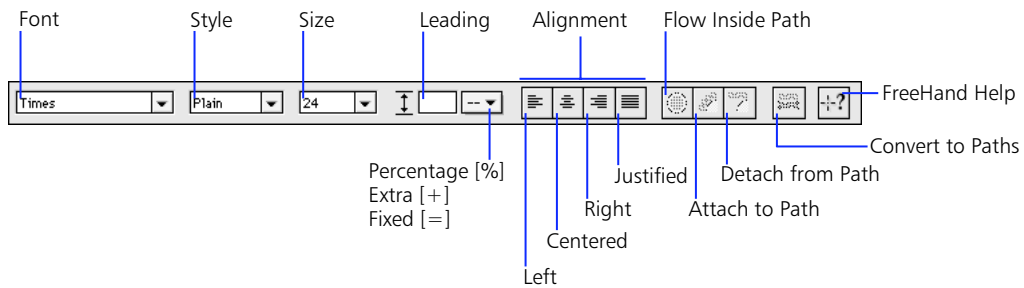
Text toolbar (Macintosh)
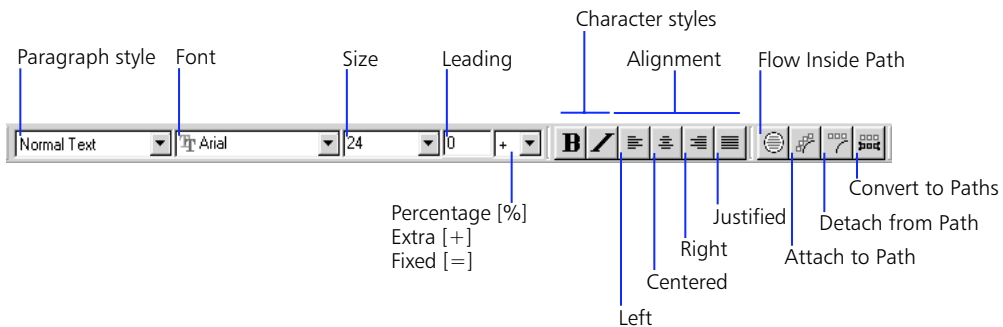
Text toolbar (Windows)

Selecting text with the right mouse button (Windows)

Many choices available in the Text menu, Text toolbar, and the Text Inspectors also appear in the Text shortcut menu. To display text options, right-click one or more text blocks. Right-click a path to choose Flow Inside Path or Attach to Path.

Text shortcut menu

Choosing shortcut commands for text

Choose	To
Edit	Display the Edit menu showing commands applicable to the text block.
Font, Size, Type Style, Effect, Align, or Leading	Specify a font, a font size, a style, a text effect, an alignment, or a leading value.
Editor	Display the Text Editor.
Detach From Path	Separate text from its attached path.
Remove Transforms	Restore a text block to its status before any transformations.
Convert To Paths	Convert text to paths.
Select	Specify a selection domain.
View	Choose a magnification view for the active page.
Arrange	Move the text block by choosing: Bring to Front, Move Forward, Move Backward, or Send to Back.
Lock or Unlock	Lock or unlock the text block's position. Locked text blocks cannot be transformed, cut, copied, or deleted.
Group or Ungroup	Group or ungroup objects.
Properties	Display the Text Character Inspector to view text options.

Setting precise type specifications

Applying character and paragraph attributes to text

Assign font, type style, type size, and justification to text.

Enter precise values for leading, range kerning, and baseline shift.

Apply an effect to selected text.

Apply a paragraph style to selected text.
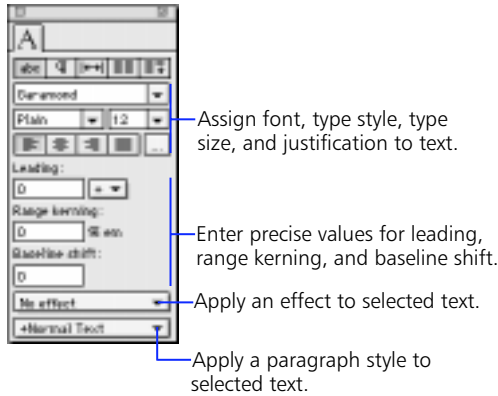
Text Character Inspector

Use the Text Character Inspector to apply attributes to selected characters, a range of text, or an entire text block. To apply text formatting to all text in a series of linked text blocks, place an insertion point, and choose Edit › Select › All. Then assign attributes.

Choose a paragraph style from the pop-up on the Text Character Inspector. Save frequently used attributes in paragraph styles, and quickly drag and drop formatting from the Styles panel onto paragraphs. For more information about creating and working with paragraph styles, see "Managing styles" on page 100.

Common text attributes

To specify	Do this
Font	Choose a font from the Text > Font menu, from the pop-up in the Text Character Inspector, or the Text toolbar.
Style	Choose a style from the Text > Style menu, from the pop-up in the Text Character Inspector, or the Text toolbar (Windows).
Point size	Choose a point size from the Text > Size menu, from the pop-up in the Text Character Inspector, or the Text toolbar.
	To specify a point size not in the list, choose Text > Size > Other, enter a value in the Size field, and click OK; or type a value in the point size entry field in the Text Character Inspector or the Text toolbar, and press Return.
Paragraph alignment	Choose from the Text > Align menu, click one of the alignment buttons in the Text Character Inspector, or the Text toolbar.
Capitalization	Choose a capitalization option from the Text > Convert Case menu.

Clicking a font name in the Font pop-up in the Text Character Inspector previews selected text in the chosen font. With no text selected, clicking a font name previews "AaBbCcDd" (Macintosh) or the name of the font (Windows). In Windows, an icon next to the font name indicates whether the font is a TrueType or a device font. Absence of an icon indicates a system font or an unidentifiable font.

Text style keyboard shortcuts

To apply	Use
Bold	Command-Option-B (Macintosh) or Control-Alt-B (Windows)
Italic	Command-Option-I (Macintosh) or Control-Alt-I (Windows)
Bold Italic	Command-Shift-Option-O (Macintosh) or Control-Shift-Alt-O (Windows)
Plain	Command-Shift-Option-P (Macintosh) or Control-Shift-Alt-P (Windows)

Note: The text style keyboard shortcuts function only when the corresponding font variation is available.

Text alignment keyboard shortcuts

To align	Use
Center	Command-Shift-Option-M (Macintosh) or Control-Shift-Alt-M (Windows)
Left	Command-Shift-Option-L (Macintosh) or Control-Shift-Alt-L (Windows)
Right	Command-Shift-Option-R (Macintosh) or Control-Shift-Alt-R (Windows)
Justified	Command-Shift-Option-J (Macintosh) or Control-Shift-Alt-J (Windows)

Converting case

Case is the condition of a letter pertaining to whether it is uppercase (capital letters) or lowercase (small letters). Choose from five options for applying to selected text a case format from the Text › Convert Case menu. Letters entered after a case format is applied do not conform to the format.

◆ **Uppercase**—Converts to uppercase all letters in a selected text block.

◆ **Lowercase**—Converts to lowercase all letters in a selected text block.

◆ **Small Caps**—Converts to uppercase all letters in a selected text block, then reduces the point size specified in the Text › Convert Case › Settings dialog box.
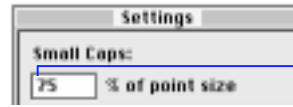
Set reduction as a percentage of uppercase letters.

◆ **Title**—Converts to uppercase the first letter of each word in a selected text block.

◆ **Sentence**—Converts to an uppercase letter only the first letter of each sentence in a selected block of text.

Designating exceptions to capitalization options

Checking a Convert Case option under Use Exceptions for protects all words in the list of exceptions when the checked option is applied.
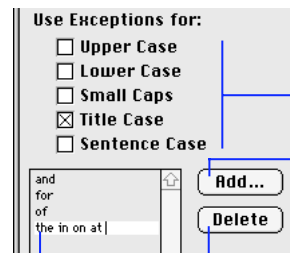
Check options that are to ignore all exceptions.

Display an entry field to add one or more exceptions.

Delete a highlighted exception.

Enter one or more exceptions in the entry field. If entering more than one, separate each with a space.

Adjusting leading

Leading in FreeHand is calculated from the baseline of one line of text to the baseline of the next. When assigning leading from the Text menu, choose Solid to set leading equal to the type size of the text and choose Auto to set the leading to 120% of the type size of the text. Choose Text › Leading › Other to display the Leading dialog box. Three options appear in this dialog box, in the Leading pop-up in the Text Character Inspector, and in the Text toolbar:

◆ **Extra**—This option increases the standard leading, measured in points. The total leading equals the point size of the type plus the extra leading specified. Choose + from the Leading pop-up in the Text Character Inspector or the Text toolbar.

◆ **Fixed**—This option sets the leading to the exact point size specified. Choose = from the Leading pop-up in the Text Character Inspector or the Text toolbar.

◆ **Percentage**—This option measures a percentage of the point size of the type. Standard leading is 120%. For example, using 10-point type and entering 120 as the percentage yields a leading of 12 points. Choose % from the Leading pop-up in the Text Character Inspector or the Text toolbar.

Adjusting kerning and range kerning

Kerning refers to the space between two letters. Range kerning refers to the letter spacing across a range of characters. To kern precisely, select text and enter values in the entry fields in the Text Character Inspector. Each kind of kerning value is a percentage of an em space, which is the space equal to the width of a typeface's point size. Positive values increase spacing; negative values decrease spacing.

To adjust space between two characters:

1 Click between two characters with the Text tool.

2 Enter a percentage value in the Kerning entry field in the Text Character Inspector and press Return.
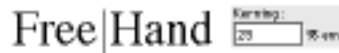
To adjust space between a range of characters (range kerning):

1 Select a range of characters with the Text tool.

2 Do one of the following to apply range kerning:

◆ Enter a percentage value in the Range kerning entry field in the Text Character Inspector and press Return.

◆ Hold down Option (Macintosh) or Control-Alt (Windows) and press the right or left cursor key to increase or decrease kerning by one percent of an em.

◆ Hold down Option-Shift (Macintosh) or Control-Alt-Shift (Windows) and press the right or left cursor key to increase or decrease kerning by 10 percent of an em.

Shifting the baseline

Use the Baseline shift entry field in the Text Character Inspector to shift text upward (superscript) or downward (subscript) in relation to the baseline of the text. Special characters like ® and © usually appear shifted above the rest of the text.

To shift the baseline:

1 Select text with the Text tool.

2 Enter a value in the Baseline shift entry field in the Text Character Inspector and press Return.

   Enter a positive number to shift the baseline of the text upward or enter a negative number to shift it downward.

   Alternatively, use Option (Macintosh) or Control-Alt (Windows) and press the up or down cursor keys to apply a baseline shift.


Note: To create footnotes and superscript special characters like © and ™, select shifted text and reduce the size.

Using the text rulers to set tabs and indents

A text block selected with the Text tool displays the text ruler at the top. Text rulers display tab and indent markers above selected text blocks. To show or hide text rulers, choose View › Text Rulers or use Command-/ (Macintosh) or Control-Shift-Alt-T (Windows).

Default tabs left-align at half-inch intervals, regardless of the unit of measurement for the document. To add custom tabs to a document, choose from the five kinds of tabs available on the text ruler: left, right, center, decimal, and wrapping.
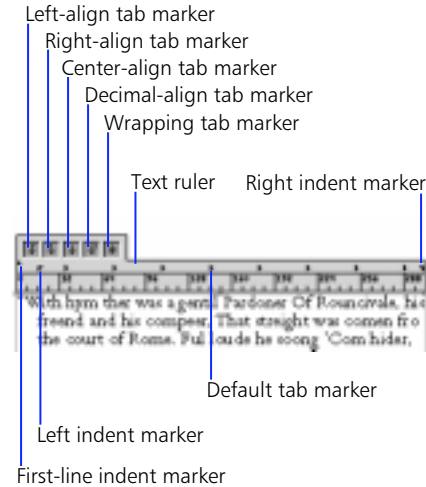
When a page is scrolled so that the top of the text block is beyond the top of the document window, the text ruler floats (remains visible) just below the title bar. The text ruler also floats when the text block is rotated 90° and the page is scrolled to the left or the right so that the top of the text block is out of view.
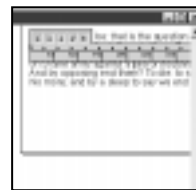
Text ruler floating above text block

Setting tabs

Set a tab for a single paragraph or a range of paragraphs. With paragraphs containing different tab and indent settings selected, only the first paragraph's tab and indent settings appear on the text ruler and the tab area is dimmed. Changes made to these settings affect all selected paragraphs. Drag and drop tab markers to set tabs manually. 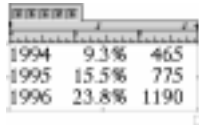To move a tab, drag and drop the tab marker to a new location. To remove a tab, drag the tab marker off of the text ruler. Double-click the text ruler to display the Edit Tab dialog box for setting tabs using precise values.

Use	To
Default tabs	Align the left edge of text at half-inch intervals.
Left-align tab	Align the left edge of text to the tab marker.
Right-align tab	Align the right edge of text to the tab marker.
Center-align tab	Align text to the center of the tab marker.
Decimal-align tab	Align text at the decimal point. If the text does not contain a decimal point, the tab right-aligns the text.
Wrapping tab	Flow multiple lines of text between two tab markers.

To define a space between two columns created with wrapping tabs, place a wrapping tab on each side of a column, and then place another one at the beginning of the next column.
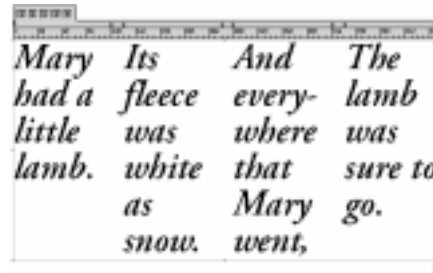
Wrapping tabs

To set tabs by dragging and dropping markers:

1   Place an insertion point or select a range of paragraphs.

2   Drag and drop a tab marker onto the text ruler to specify text alignment.

All default tabs to the left of the new tab disappear.

3   Place an insertion point and press Tab to align text to the new tab setting.

To set tabs using precise values:

1   Place an insertion point or select a range of paragraphs.

2   Double-click the text ruler to display the Edit Tab dialog box.

Double-clicking a tab marker displays the Edit Tab dialog box and its specific tab settings.

3   Enter a value in the Position entry field to set the distance from the left edge of the column or text block to the new tab.

4   Choose from the Alignment and Leader pop-ups to define the tab and click OK.

All default tabs to the left of the new tab disappear.

5 Place an insertion point and press Tab to align text to the new tab setting.
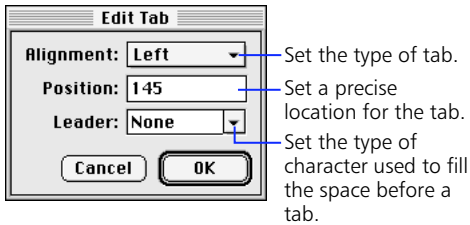
Edit Tab dialog box

Using tab leaders

Tab leaders fill the space occupied by a tab with characters—add them to any type of tab except wrapping tabs. Choose from several types of leaders in the Edit Tab dialog box or create a custom leader.

To add a tab leader:
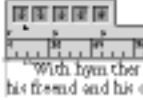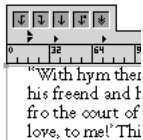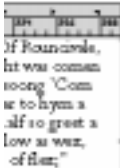
1 Double-click an existing tab marker or the text ruler to display the Edit Tab dialog box.

2 Choose a tab leader from the Leader pop-up. To enter a custom leader, highlight the entry field, enter a character, and click OK.
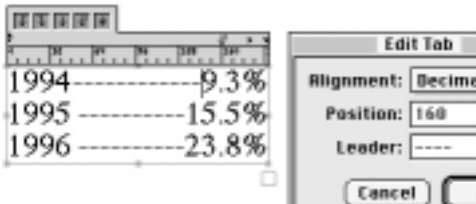
Note: Tabs and tab leaders cannot be used in text on a path.

Setting indents

To set a paragraph indent, place an insertion point or select a range of paragraphs. Drag an indent marker to set the desired margin or indent.

Use	To
First-line indent marker	Set the indent of the first line independently of the rest of the paragraph.
Left indent marker	Set the left paragraph margin.
Right indent marker	Set the right paragraph margin.

To set a hanging indent:

1 Place an insertion point or select a range of paragraphs.

2 Drag the left indent marker to the right to set the paragraph indent, and drag the first-line indent to the left to set a negative first-line indent.

Using the Indents entry fields in the Text Paragraph Inspector, enter a positive value in the Left entry field to set the paragraph indent, enter a negative value in the First entry field to set the first-line indent, and press Return. Text lines up to the hanging indent.
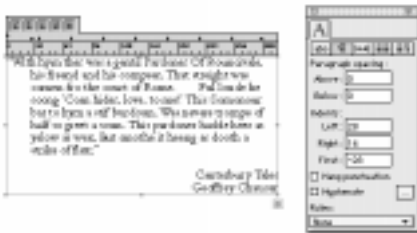
Setting margins with the Object Inspector

To apply margins to text within a text block or to text flowing inside a path:

1 Select a text block with the Pointer tool.

2 Enter values for left, right, top, and bottom in the Inset entry fields in the Object Inspector and press Return.
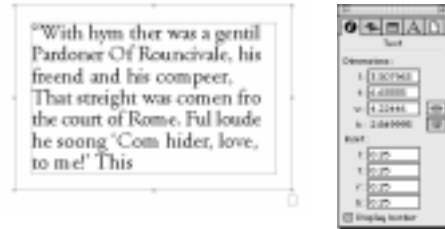
Entering 0 (zero) as the Inset value positions text against the text block border. Positive values position text inside the text block border, and negative values position text outside the text block border.

Working with text as objects

Text blocks behave like other FreeHand objects—precisely position or scale them by entering values in the Object Inspector, duplicate them, group them, send them to different layers, and transform them. In regard to rotating, scaling, skewing, and reflecting, select Text › Remove Transforms to remove all transformations applied to a text block. Transforming a grouped text block transforms the text as well as the text block.

Coloring text and text blocks

Apply color to text blocks as with other objects. All text blocks have two parts—the text and the container. Apply strokes and fills to each part independently.

Applying color to text

To	Do this
Apply a stroke to text characters	Select text with the Text tool and drop a color chip onto the color well in the Basic Stroke Inspector or onto the Stroke selector in the Color List.
Apply a fill to text characters	Select text with the Text tool and drop a color chip onto the selected text, the color well in the Fill Inspector, the Fill selector in the Color List, or drop a color chip onto the text to apply the color to all characters in the text block.
Remove a color stroke or fill from text characters	Select text with the Text tool and choose None from the Stroke or Fill Inspector, or drop the None color chip onto the Stroke or Fill selector in the Color List.

FreeHand

Stroked and filled text

Applying color to text blocks

To	Do this
Apply a stroke to a text block	Select a text block and drop a color chip onto the color well in the Stroke Inspector. With text selected, check the Display border option in the Object Inspector to view the stroked outline.
Apply a fill to a text block	Select a text block and drop a color chip onto an empty area in the text block or onto the color well in the Fill Inspector.
Remove color from a text block	Select the text block and choose None from the Stroke or Fill Inspector, or drop the None color chip onto the Stroke or Fill selector on the Color List.

The Colors › "Color List shows" preference determines how the Color List selectors behave with selected text blocks. When the preference setting is "Container color," the selectors display the stroke and fill attributes of selected text blocks. Dragging and dropping a color chip onto one of the selectors changes the color of the text block, not the text. When the preference setting is "Text color," the selectors display the stroke and fill attributes of selected text.

Note: With text blocks selected and the Both selector active, selecting colors in the Color List only affects the text fill color. The Both selector is in the indeterminate state. To learn more about the Color List selectors, see "Using the Color List selectors" on page 157

▣ Converting text to paths

Convert text to paths to change the shape of individual characters, use text as a clipping path, or apply complicated strokes and fills to the shape of a group of characters. Apply Text › Convert to Paths to text in any PostScript Type 1, PostScript Type 3 font created with Fontographer, or any TrueType font installed on your computer. Text in linked text blocks cannot be converted to paths.

To convert text to paths:

1 Select a text block with the Pointer tool.

2 Choose Text > Convert to Paths, use Command-Shift-P (Macintosh) or Control-Shift-P (Windows), or click the Convert to Paths button on the Text toolbar.

A text block converts to a group, which no longer is editable as text. Choose Modify › Ungroup, use Command-U (Macintosh) or Control-U (Windows), or click the Ungroup button on the Main toolbar to ungroup the converted text to yield individual characters. Each letter in the text becomes an editable path.

◆ Letters with more than one component, such as the letter i, convert to composite paths.

◆ Letters with enclosed areas, such as B and O, convert to composite paths with transparent holes.

◆ All other letters, such as L and Z, convert to a single path.

Select a word or phrase and choose Modify › Join. Once joined, the selected text behaves as a single object. For more information about composite paths, see "Composite paths" on page 127.

FreeHand *Before Joining*

FreeHand *After Joining*

Converting text to paths may degrade the on-screen appearance of text characters because your system's type-handling utility, such as Adobe Type Manager (ATM), no longer maintains the images of the text outlines. Converting text to paths may also reduce the print quality of text, especially at sizes 12 points and less.

Basic text and path formatting

 Attaching text to paths

To place text on a path:

1 Select a text block and a path.

2 Choose Text > Attach to Path, use Command-Shift-Y (Macintosh) or Control-Shift-Y (Windows), or click the Attach to Path button on the Text toolbar.

You can also draw a path, choose Text › Attach to Path, and type directly on the path.

For a closed path, text flows along the top of the path and center-aligns by default. For an open path, only characters up to the first carriage return or tab are displayed. A dot may appear in the link box indicating overflow if the path is shorter than the text.
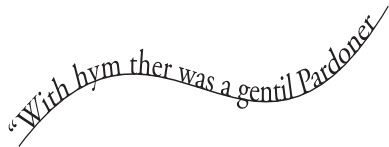
Type specifications of text attached to a path remain intact. Edit text directly on the path or use the Text Editor. To type text directly onto a path, select the path, choose Text › Attach to Path or click the Attach to Path button on the Text toolbar, and begin typing.

To remove text from a path, select the path with the Pointer tool and choose Text › Detach from Path, or click the Detach from Path button on the Text toolbar.

FreeHand 8 automatically adjusts spacing of left-aligned text on a path to avoid overlapping letters due to path curvature. FreeHand does not adjust text on a path in files created in earlier versions of FreeHand, unless you detach them from and re-attach them to the path. Conversely, left-aligned text attached to paths in FreeHand 8 retains the adjustment when opened in previous versions of FreeHand.
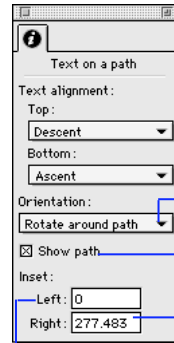
Specify which part of the text aligns to the top and bottom of a closed path. Choose from None, Baseline, Ascent, and Descent.

Specify text orientation with respect to the path.

Check to make the path visible.

Enter the distance from the right edge of the path to the right edge of right-aligned text.

Enter the distance from the beginning of the path to the left edge of left-aligned and justified text.

Object Inspector: Text on a path

To place text on the top and bottom of an ellipse:

1 Insert a carriage return at the point where the text should split.

2 Select the text block and an ellipse.

3 Choose Text > Attach to Path.

If text disappears after choosing Attach to Path, review the Text alignment pop-ups in the Object Inspector. Text does not appear on a path with None chosen for both Top and Bottom alignment.
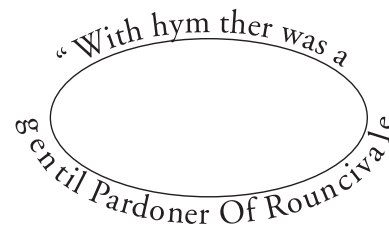
**Applying alignment and orientation to text
on a path**

Use this orientation	To yield		
Rotate around path	*Text on path* Baseline	*Text on path* Ascent	*Text on path* Descent
Vertical	*Text on path* Baseline	*Text on path* Ascent	*Text on path* Descent
Skew horizontal	*Text on path* Baseline	*Text on path* Ascent	*Text on path* Descent
Skew vertical	*Text on path* Baseline	*Text on path* Ascent	*Text on path* Descent
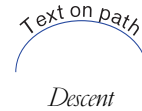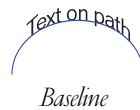
Text flows in the direction of the path. Path direction is from left to right (clockwise) or from right to left (counterclockwise). To reverse the direction of the text, reverse the direction of the path.

To reverse the direction of text on a path:

1 Hold down Option (Macintosh) or Alt (Windows) and subselect the path.

When a path is not visible on screen, check Show path in the Object Inspector or view the path in Keyline mode.

2 Choose Modify > Alter Path > Reverse Direction.

The path direction and the direction of the text flow reverse.

To move text on a path manually:

1 Place an insertion point in the text or subselect the path with the Pointer tool.

A triangular text handle appears to the left, center, or right of the text, depending on the text alignment. To display text while it moves along the path, hold down Option (Macintosh) or Alt (Windows) while dragging the text handle.

2 Drag the triangular handle to move the text along the path.

The position of the text updates the values in the Left and Right Inset entry fields in the Object Inspector.

To move text on a path a precise distance:

1 Place an insertion point in the text or subselect the path with the Pointer tool.

2 Enter a value in the Left or Right Inset entry field in the Object Inspector, and press Return.

Flowing text inside a path

FreeHand text can flow inside any open or closed path. To type text directly inside a path, select a path, choose Text › Flow Inside Path, and begin typing.

To flow existing text inside a path and apply an inset:

1 Select both a text block and a closed path with the Pointer tool.

2 Choose Text > Flow Inside Path, use Command-Shift-U (Macintosh) or Control-Shift-U (Windows), or click the button on the Text toolbar.

The path now acts like a text block. Edit the text by double-clicking the path with the Pointer tool, or by placing an insertion point with the Text tool.
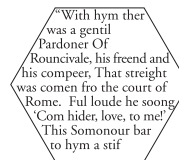
3 To apply an inset, display the Object Inspector. Enter values in the Inset entry fields.
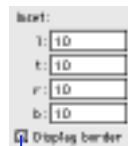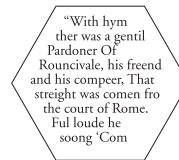
Enter values to define the margins between the text and the path.

Check to make the path visible.

Object Inspector: Text in a path

Note: To remove text from a path, choose Text > Detach from Path.

Wrapping text around objects

Click to remove text wrap from a selected object.

Click to assign text wrap to an object.

Enter values to set the distance between a selected object and text. Positive numbers begin text flow outside the selected object. Negative numbers keep text within the selected object.

To display the Run Around Selection dialog box, choose Text › Run Around Selection or use Command-Option-W (Macintosh) or Control-Alt-W (Windows). Use Run Around Selection to wrap text around a single object, including imported graphics and composite paths. Apply Run Around Selection to objects, not to text blocks. Once assigned, all text automatically wraps around that object.

Before applying Run Around Selection, make sure that the object is on top of the text. Select the object. Then, to place the object in front of the text, choose Modify › Arra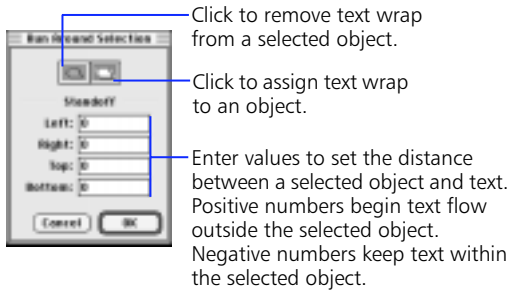nge › Bring to Front, use Command-F (Macintosh) or Control-F (Windows), or move one layer in front of another. For more about using the Layers panel, see "Simplifying a complex illustration using layers" on page 92

"With hym ther was a gentil Pardoner Of Rouncivale, his freend and his compeer, That streight was comen fro the court of Rome. Ful loude he soong 'Com hider, love, to me!' This Somonour bar to hym a stif burdoun, Was nevere trompe of half so greet a soun. This pardoner hadde heer as

Before

"With hym ther was a gentil Pardoner Of Rouncivale, his freend and his compeer, That streight was comen fro the court of Rome. Ful loude he soong 'Com hider, love, to me!' This Somonour bar to hym a stif burdoun, Was nevere

After

To wrap text around an object:

1 Select the object and choose Text > Run Around Selection.

Make sure the object is in front of the text before applying Run Around Selection. Select the object and choose Modify › Arrange › Move Forward or Bring to Front.

2 Click the text wrap button, enter Standoff values, and click OK.

Text wraps around the graphic's bounding box.

To wrap text around a complex object:

1 Draw a closed path around the object and apply a stroke and fill of None.

Apply the text wrap to the newly created closed path.

2 With the path selected, choose Text > Run Around Selection.

Make sure the object is in front of the text before applying Run Around Selection. Select the object and choose Modify › Arrange › Move Forward or Bring to Front.

3 Click the text wrap button, enter Standoff values, and click OK.

Use this technique to create the callout text used by magazines. Create a text block with a border stroke and an inset value. With this text block on top of the main body of text, select the text wrap button in the Run Around Selection dialog box to place the text block inside a column of text or between columns.

Working with inline graphics

An inline graphic is any object pasted into a text block. The inline graphic becomes a text character, responding to text flow and modification like standard text. It has a point size equal to its original height. FreeHand frames the inline graphic with a bounding box, which acts as the border between the graphic and the text.

To place an inline graphic, first cut or copy an object. Place an insertion point in an existing text block and paste the object. To remove an inline graphic, highlight the inline graphic with the Text tool, and cut or delete it. With an inline graphic selected, Graphic element appears in the Effects pop-up in the Text Character Inspector.

Inline graphics retain their original graphic attributes when placed in a text block. Operations altering strokes and fills do not affect inline graphics. For example, when applying a color to text, the text displays the new color but the inline graphic remains unchanged.

To use text blocks or text attached to paths as inline graphics, group them before copying and pasting them in the destination text block. Otherwise, the text appears as individual characters when pasted.

“With hym ther was a gentil Pardoner Of Rouncivale, his freend and his compeer, That streight was comen fro the court of Rome. Ful loude he soong ‘Com hider, love, to me!’ This Somonour bar to hym a stif burdoun, Was nevere trompe of half so greet

Create drop caps using inline graphics.
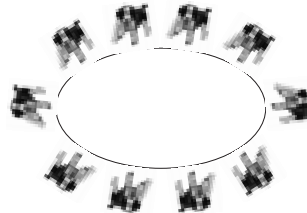
Positioning inline graphics

After selecting an inline graphic and the surrounding text, use the Text menu, Text Inspectors, or Text toolbar to adjust the leading, horizontal scale, range kerning, and baseline shift.

◆ **Leading—**By default, FreeHand places the bottom of an inline graphic even with the baseline of text and adjusts the leading at the insertion point to accommodate the graphic's height.

◆ **Kerning—**An inline graphic joins the text character immediately following it. Applying a negative kerning value moves text closer to the graphic. Applying a positive value moves text farther away from the graphic.

◆ **Baseline shift—**Applying a negative baseline shift moves the inline graphic below the baseline of the surrounding text; applying a positive baseline shift moves it above the baseline of the surrounding text.

◆ **Text wrap—**Text wraps flush with the graphic's left edge, leaving a slight space at the right edge, in respect to the inline graphic's bounding box.

To modify text wrap, apply Standoff values to the inline graphic. To apply Standoff values with the graphic in the text block, select the inline graphic and choose Edit from the Effects pop-up in the Text Character Inspector to display the Run Around Selection dialog box. Enter values.

◆ **Graphic along a path—**To flow a graphic along a path, paste an object at the insertion point of text on a path.


These graphics flow along a path.

Transforming inline graphics

Applying a Transform function—Move, Rotate, Scale, Skew, or Reflect—to an inline graphic affects the entire text block. Transform the inline graphic before pasting it in the text block for the graphic to retain its assigned attributes. An inline graphic pasted into a transformed text block assumes the text's transformation.

Editing text and text attributes

An inline graphic appears in the Text Editor as a black dot. The black dot acts only as a placeholder when editing text.
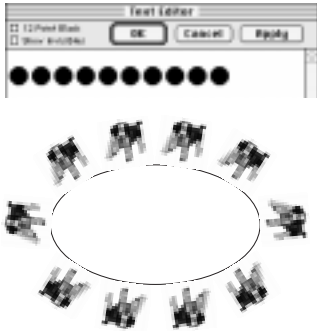
A black dot represents each inline graphic in the Text Editor.

The following are editable attributes of an inline graphic: point size, paragraph spacing, word and letter spacing, baseline shift, alignment, leading, and horizontal scale. Changing the font or type style or applying a text effect does not affect the inline graphic.

When adding an inline graphic to a paragraph, a plus (+) sign appears next to the name of the assigned paragraph style in the Styles panel to indicate an override. Removing this override reduces or enlarges the inline graphic proportionally to match the font size specified in the style. After applying the style, changing the font size of the graphic only approximates its original size.

To edit a paragraph style without altering inline graphics:

1 Deselect all objects. Select a style name on the Styles panel.

2 Choose Edit from the Options pop-up in the Styles panel to display the Edit Style dialog box, change the settings, and click OK.

The new settings apply to the text in the text block, but not to the inline graphic.

To learn more about how to create and edit paragraph styles, see "Managing styles" on page 100.

Applying text effects

To apply a text effect, place an insertion point with the Text tool or select text blocks with the Pointer tool. Choose one of the six available effects from Text › Effect or the Effects pop-up in the Text Character Inspector.

To apply an effect using the default settings, choose an effect from the Effects pop-up. To edit the settings, choose Edit from the Effects pop-up to display the Effect dialog box. To display a dialog box and edit settings before applying an effect, choose from the Text › Effect menu commands. The Shadow effect has no settings.

Text effects

Effect	Displays
Highlight	FreeHand
Inline	FreeHand
Shadow	FreeHand
Strikethrough	FreeHand
Underline	FreeHand
Zoom	FreeHand

To speed printing, use the Zoom effect sparingly. It takes longer to print.

Note: The Graphic element effect is used for inline graphics only. For a full description of options available in each Effect dialog box, see FreeHand Help.

If text effects do not display on screen, check the Redraw › "Display text effects" preference. To speed redraw, assign effects after typing text, or work in Keyline mode.

To find and select text with effects:

1 Choose Edit > Find & Replace > Graphics to display the Find & Replace Graphics panel. Display the Select panel and choose Text effect from the Attribute pop-up.

2 From the Effects pop-up, choose an effect to find a specific effect or choose Any effect to locate all effects.

3 Choose Selection, Page, or Document from the Change in pop-up to define the scope of the search.

4 Click Find to select text with the specified effect applied.

This function supports selection of the text effect, but not editing the settings of the applied effect or replacing one effect with another.

Advanced text handling

Spacing and aligning words and characters

Enter values to change the width of characters in proportion to the type size.
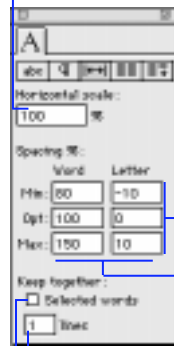
Min, Opt, and Max values are the allowable deviation from the spacing of the font in use—as defined by the size of the font's space character.

Enter values to define spacing between words and characters.

Enter values to prevent widows.

Check to prevent selected words from breaking at the end of a line.

Text Spacing Inspector

Note: A widow is a word or part of a word that occupies the last line of a paragraph. An orphan is the last word or part of a word in a paragraph that occupies the first line of a column.

Scaling text horizontally

Adjust the horizontal scale of selected text to make the text wider or narrower without changing the text's height. Scaling modifies the character shapes but not the character spacing.
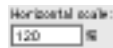
To scale characters horizontally:

1 Select text or a text block.

2 Enter a percentage value in the Horizontal scale entry field in the Text Spacing Inspector and press Return.

FreeHand
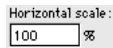
FreeHand

Spacing

Spacing % in the Text Spacing Inspector is the percentage of spacing between words and characters. The values entered in the Opt entry fields specify a percentage of the optimum spacing values for words and characters determined by a font's design. As text reaches the end of a line, Min and Max values define the range of allowable deviation of spacing between words or characters as measured from the entered Opt values. To apply only Opt values, enter the same value in the Min and Max entry fields.

To adjust the amount of space between words, enter positive values in the Word entry fields. To adjust the amount of space between letters in text, enter positive or negative values in the Letter entry fields.

Adjusting word spacing changes the amount of space between words in a text block without affecting range kerning. Apply character-level spacing attributes by kerning or range kerning.

Note: Entering minimum letter or word values that are less than the optimum values automatically adjusts the spacing for right-justified text down to the minimum. As a result, right-justified text could have tighter spacing than intended.

One Two Three

One Two Three

One Two Three
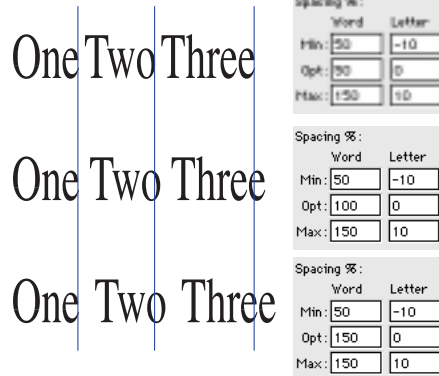
Adjusting Word spacing

Keeping words together

Use the Keep together options in the Text Spacing Inspector to prevent text from breaking in undesirable ways when it reaches the end of a line, column, or text block.

To keep selected words together, select text and check the Selected words option to prevent text from breaking at the end of a line and creating a widow, a word appearing alone in the last line of a paragraph.

My hero is P. T. Barnum

My hero is P. T. Barnum

To achieve the same effect, choose Text › Special Characters › Nonbreaking Space to insert an invisible character that prevents words from separating at the end of a line.
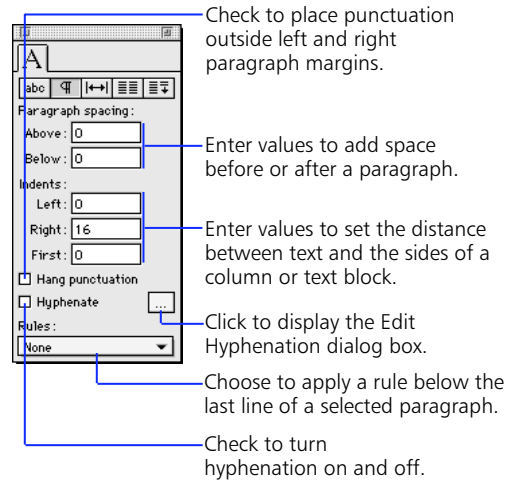
Keeping lines together

To keep a specified number of lines together, place an insertion point, enter a number in the Lines entry field in the Text Spacing Inspector, and press Return to keep text from breaking at the end of a paragraph or at the end of a text block in a group of linked text blocks.

Enter a value of at least 2 to prevent the first or last line of a paragraph from breaking and leaving a single line at the bottom or at the top of a column.

Spacing and aligning paragraphs

Check to place punctuation outside left and right paragraph margins.

Enter values to add space before or after a paragraph.

Enter values to set the distance between text and the sides of a column or text block.

Click to display the Edit Hyphenation dialog box.

Choose to apply a rule below the last line of a selected paragraph.

Check to turn hyphenation on and off.

Text Paragraph Inspector

Setting paragraph spacing and adding rules

To enhance page layout, use space or page ornaments to create visual breaks between paragraphs.

◆ Insert paragraph spacing to add space above or below paragraphs.

◆ Apply indents to create margins between text and the left or right edges of a column or a text block.

◆ Apply paragraph rules or lines below paragraphs for a stronger visual break.

To add spacing above and below a paragraph:

1 Place an insertion point and display the Text Paragraph Inspector.

2 Enter values in the Above and Below entry fields.

The larger the value entered, the greater the amount of space between the paragraph and the one above or below it.

To create paragraph margins:

1 Place an insertion point.

2 Enter values in the Left and Right entry fields in the Text Paragraph Inspector.

Positive numbers place text inside the column or text block, and negative numbers place text outside the column or text block.
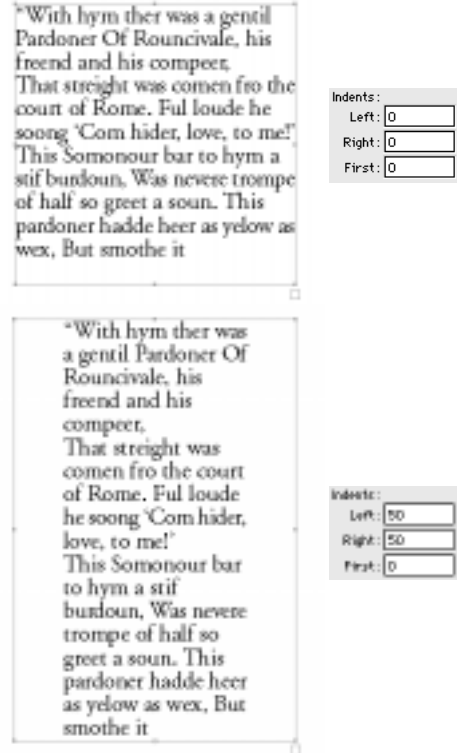
Enter a value in the First entry field to set the distance between the first line of text and the left margin of the paragraph. The values in the Indents entry fields reflect the unit of measurement for the document.

To apply and edit paragraph rules:

1   Place an insertion point.

2   Choose from the Rules pop-up in the Text Paragraph Inspector.

◆ Choosing Centered places a rule that is centered in the column or text block.

◆ Choosing Paragraph applies a rule of the same alignment as the paragraph above it.

3   Choose Edit from the Rules pop-up to display the Paragraph Rule Width dialog box.
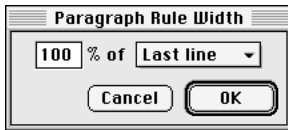
4   Enter a percentage value and choose an option from the pop-up.

◆ Choosing Last line sizes the rule to fit a percentage of the last line in a paragraph.

◆ Choosing Column sizes the rule to fit a percentage of the width of the column.

"With hym ther was a gentil
Pardoner Of Rouncivale, his
<u>freend and his compeer,</u>
That streight was comen fro the
<u>court of Rome.</u>
Ful loude he soong 'Com hider,
<u>love, to me!'</u>
This Somonour bar to hym a
stif burdoun, Was nevere trompe
of half so greet a soun. This
pardoner hadde heer as yelow as
<u>wex, But smothe it</u>

Paragraph rule 100% of last line

5   Select the text block.

6   Apply a stroke using the Stroke Inspector to display the paragraph rules and uncheck Display border in the Object Inspector.

A paragraph rule flows with its paragraph, and it is centered vertically in the space below the paragraph.

Setting paragraph alignment

To precisely control how paragraphs align and to fine-tune the length of lines of justified text, use the following: hanging punctuation, ragged width, and flush zone.

◆ Check Hang punctuation to vertically align text to text rather than text to punctuation marks.

◆ Ragged width specifies the minimum distance non-justified text spreads over a column and is expressed as a percentage of the column's width.

◆ Flush zone is a special type of ragged width—it specifies the justification of the last line of a paragraph. As with ragged width, the flush zone value is a percentage of the column's width.

To apply hanging punctuation:

1   Select text or text blocks.

2   Check Hang punctuation in the Text Paragraph Inspector to position punctuation marks outside the text block margins.

Text now aligns independently of the following punctuation marks:

Hyphenation

Click the Hyphenate Edit button in the Text Paragraph Inspector to display a dialog box of variables used when hyphenating paragraphs. On the Macintosh, choose the current dictionary from a pop-up listing the installed language dictionaries. In Windows, the pop-up shows only one language at time. With Hyphenate checked, FreeHand applies hyphenation according to the selected dictionary.


To set the limit for consecutive hyphens within a paragraph, enter a number in the Consecutive hyphens entry field. Check Skip capitalized words to prevent hyphenation of capitalized words. To override hyphenation in selected text, check Inhibit hyphens in selection. To prohibit hyphenation altogether, uncheck Hyphenate.

To set hyphenation points manually, choose Text › Special Characters › Discretionary Hyphen, or use Command-[hyphen] (Macintosh) or Control-Shift-[hyphen] (Windows). With selected paragraphs, check Hyphenate to turn on hyphenation on a per-paragraph basis.

To adjust ragged width:

1   Select text or text blocks.

2   Click the Edit button in the Text Character Inspector to display the Edit Alignment dialog box.

—Edit button

3   Enter a percentage value in the Ragged width entry field and click OK.
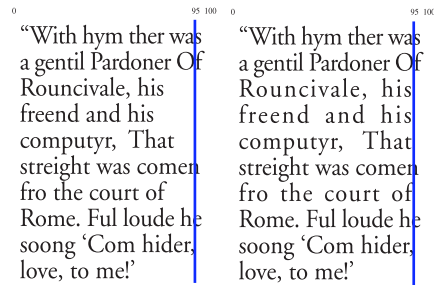
Ragged width of 0   *Ragged width of 95*

Entering a value of 95 forces a line of non-justified text to fill 95% of the column's width when the line's original width is less than 95%. The last line of a paragraph and lines that already meet or exceed 95% of the column's width remain unchanged.

Entering a value of 100 creates text that aligns at both the left and right margins of the column or text block.

To adjust flush zone for justified text:

1 Select text or text blocks.

2 Click the Edit button in the Text Character Inspector to display the Edit Alignment dialog box.

3 Enter a percentage value in the Flush zone entry field and click OK.

0   50   100   *Flush zone set to 100*

"With hym ther was a gentil Pardoner Of Rouncivale, his freend and his computyr,

That streight was comen fro the court of Rome. Ful loude he soong 'Com hider, love, to me!'

0   50   100   *Flush zone set to 50*

"With hym ther was a gentil Pardoner Of Rouncivale, his freend and h i s   c o m p u t y r,

That streight was comen fro the court of Rome. Ful loude he soong 'Com hider, love, to me!'

For example, if justified text has a flush zone value of 50, then the last line of that paragraph justifies to the ragged width distance only if the last line's length meets or exceeds 50% of the column's width.

To force the last line of a paragraph to justify or match the ragged width setting no matter how short it is, set the flush zone value to 0 (zero).

Aligning auto-expanding text blocks

Entering additional text into an auto-expanding text block causes the container to expand while typing. With justified as the alignment, FreeHand uses the width of the longest line in the text block to determine the width of the entire text block. When typing, each line of text fully justifies to fill the width of the longest line of text in the container.

Adjust ragged width and flush zone values of auto-expanding text blocks as for standard text blocks. Width and justification for any line of text in an auto-expanding text block depend upon the width of the longest line of text.

Working with columns and rows

Text Columns and Rows Inspector

Set the number and height of columns and the space between columns.

Set the rule between columns.

Set the number and width of rows and the space between rows.

Set the rule between rows.

Click to direct the flow of text across columns and rows from top to bottom or from left to right.
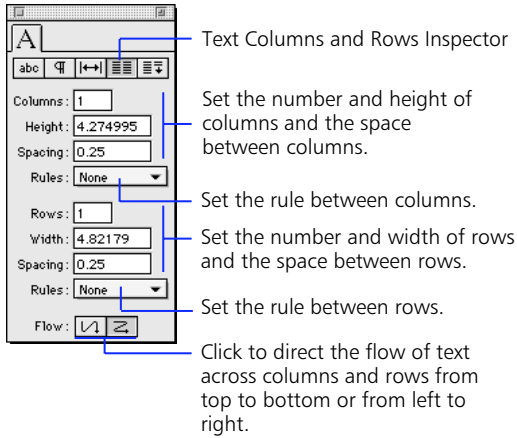
To create columns:

1 Place an insertion point or select a text block.

2 Enter the number of columns in the Columns entry field in the Columns and Rows Inspector.

3 Enter precise values in the Height and Spacing entry fields.

4 Press Return to apply column settings.
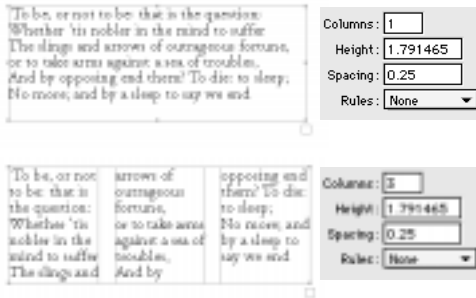
Note: When entering text, choose Text > Special Characters > End of Column to insert a character that automatically moves text to the top of the next column.

To create rows:

1 Place an insertion point or select a text block.

2 Display the Columns and Rows Inspector and enter the number of rows in the Rows entry field.

3 Enter precise values in the Width and Spacing entry fields.

4 Press Return to apply row settings.
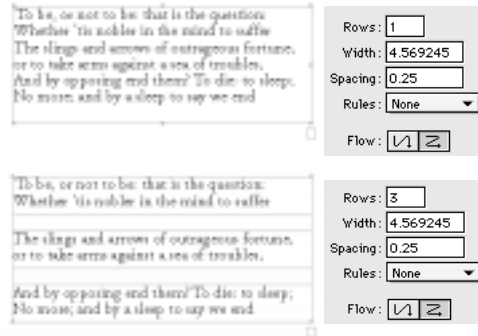
To add rules between columns and rows:

1 Place an insertion point or select a text block.

2 Choose from the Rules pop-up in the Text Columns and Rows Inspector.

When choosing Inset, the rules end at the edge of the space set between columns and rows. When specifying a text block inset in the Object Inspector, rules end when they reach those margins.

3 To make the rules and the text block border appear, use the Stroke Inspector to apply a stroke to the text block.

Uncheck Display border in the Object Inspector to hide the border of the text block.

4 Press Return to apply rules settings.

Full width

Inset

Click a Flow button in the Text Columns and Rows Inspector to specify how text flows across columns and rows.

Copyfitting text

Use the Text Adjust Columns Inspector to copyfit text to fill columns:

◆ Balance text evenly among columns.

◆ Modify leading to fill columns with text.

◆ Alter text size and leading proportionally to fit the selected text block.

◆ Make text inside an irregular object exactly fit that object.
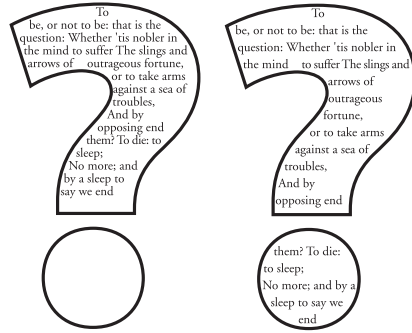
Check to evenly distribute lines of text among columns in a selected text block.

Check to add leading to fill a column.

Set the percentage a column must fill before modified leading is applied.

Alter type size and leading proportionally to fit a text block.

Specify the distance from the top of the text block to the baseline of the first line of text.

Text Adjust Columns Inspector

To balance lines of text evenly among columns:

1 Place an insertion point or select a text block.

2 Check Balance in the Text Adjust Columns Inspector to distribute lines of text among columns.

An odd number of lines results in one fewer line in the last column.

To modify leading so text fills the column from top to bottom:

1 Place an insertion point or select a text block.

2 Check Modify leading in the Text Adjust Columns Inspector.

3 Enter a value in the Threshold % entry field to ignore column heights less than a certain percentage.

For example, entering a leading of 50 does not change in columns less than 50% full. This prevents a large amount of leading being applied to only a few lines.

To alter text size and leading with Copyfit %:

1 Place an insertion point or select a text block.

2 Enter minimum and maximum limits for text sizing in the Copyfit % category in the Text Adjust Columns Inspector.

Text and leading reduce or enlarge as much as—but no more than—the values set. A value of 100 does not change text.


Creating tables and forms

To create a table, choose a method based on the size of the cells in the table.

◆ **Columns and rows**—Use when all cells in the table are uniform height and width.

◆ **Tabs and paragraph rules**—Use when table cells have different heights and widths.

To create a table using columns and rows:

1 Create a text block.

2 Specify coordinates for the text block's width and height in the Dimensions entry fields in the Object Inspector, check Display border, and press Return.
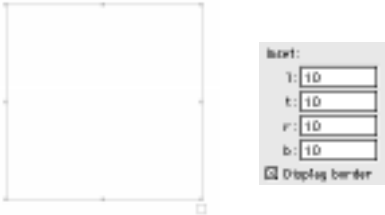
3 With the text block selected, specify the number of columns and rows and the space between them in the Text Columns and Rows Inspector, and press Return.

Entering values in the entry fields for column height and row width may scale the text block.

4 Choose Full height from the column Rules pop-up and choose Full width from the row Rules pop-up.

5 To make the rules and the text block border appear, use the Stroke Inspector to apply a stroke to the text block.

Uncheck Display border in the Object Inspector to hide the border of the text block.

6 With the Text tool, place an insertion point in the first cell in the table and type text.

Choose Text › Special Characters › End of Column to move to the next cell if the cell is empty.

To direct text flow, click a Flow button in the Text Adjust Columns Inspector.
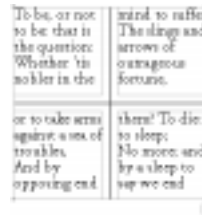
To create a table using tabs and paragraph rules:

1 Drag with the Text tool to create a text block the size of the table.

2 Drag and drop tabs to set the beginning and end of columns and enter text.

Drag and drop left-aligned tabs to define the left edge of each column. Place an insertion point at the column's beginning and press Tab. Apply wrapping tabs at the left and right edges of columns that contain more than one line of text.

3 To change the distance between rows, select text and enter values for Paragraph spacing in the Above and Below entry fields in the Text Paragraph Inspector.

4 Choose from the Rules pop-ups in the Text Columns and Rows Inspector to add lines below rows or columns.

5 To make the rules and the text block border appear, apply a stroke to the text block with the Stroke Inspector, and check Display border in the Object Inspector.

6 To begin a new column, insert a tab on the text ruler to define the edge of the column. To begin a new row, press Return.

Note: To create a form, follow the procedures for creating a table, but leave spaces blank.

FreeHand text utilities

Checking spelling

Place an insertion point, select text or text blocks, display the Spelling panel, and click Start to begin. The Spelling panel checks the selection. With no text selected, the spelling is checked in the entire document.

The word entry field displays suggested alternatives. Enter a replacement word when the correct word is not in the Suggestion list.
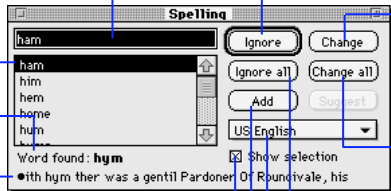
Click Start to begin checking spelling. The button label changes to Ignore. Click to ignore the current occurrence of a suspect word and continue checking.

The suggestion list displays a list of possible replacements for the suspect word.

View the suspect word and, if applicable, the type of error.

View the suspect word within the surrounding text.

Check to scroll the document view to display the found text.

Click to add the word displayed in the word entry field to the current user dictionary.

Click Change to replace the suspect word with an entry in the word entry field. The button label changes to Delete when the suspect word is a duplicate.

Click to replace all occurrences of the suspect word.

Click to ignore all occurrences of a suspect word. The list of words to ignore remains active until quitting FreeHand.

Choose an installed spelling dictionary from this pop-up.

Choose Text › Spelling or use Command-Shift-G (Macintosh) or Control-Alt-S (Windows) to display the Spelling panel. FreeHand's Spelling panel finds and corrects spelling, capitalization, and duplicate word errors.

To add words such as company names or technical terms to the spelling dictionary in use, type the word or name in the Word entry field and click Add. If necessary, enter discretionary hyphens when typing the word. Check spelling in foreign languages by installing the appropriate dictionary.

Choose File › Preferences › Spelling to display the spelling preferences.

◆ Uncheck Find capitalization errors to ignore capitalization during spelling checks.

◆ Uncheck Find duplicate words to ignore duplicate words during spelling checks.

◆ Choose Exactly as typed so that clicking Add on the Spelling panel places selected words in the user dictionary exactly as they are capitalized in the Word entry field.

Inserting special characters

Choose from a variety of non-text characters in the Text › Special Characters menu to force returns and insert spacing in text. See "Showing non-printing text symbols" on page 185.

Note: In the Text Editor, check Show invisibles to display any text symbols inserted among the text.

Using smart quotes

Check the Text › "Smart Quotes" preference to type curly quotation marks with the straight quotation marks key. Choose from the predefined smart quotation marks in the Define quotes pop-up.

Smart Quotes options

Quotes	Usage
" "	American English standard smart quotes are commonly used in Dutch, English, Italian, and Spanish.
„ "	This style is commonly used in Danish, Finnish, and Swedish.
„ "	Low-high quotation marks are commonly used in Czech and German.
„ "	This low-high pair is standard in Hungarian and Polish to mark a quotation within a quotation.
« »	Chevron quotation marks appear as an alternative to smart quotes in French, Greek, Italian, Norwegian, Russian, and Spanish.
» «	Reverse chevron quotation marks are used most often to indicate quotes within a quote in Danish, German, and Hungarian.

The smart single quote for each style is a single character version of the double quote. To enter the single quote version of the selected smart quote, press the apostrophe key. For example, with « » chosen in the Define quotes pop-up, typing ' (apostrophe) results in ‹ ›.

Note: To use more than one style of international smart quotes in a document, change the selection in the Define quotes pop-up before typing a new quote.

Open quotes versus closed quotes

FreeHand opens and closes smart quotes as follows:

◆ When a quote is preceded by white space or another open quote, pressing the straight quotes or apostrophe key types an open quote.

◆ When the quote is preceded by a text character, pressing the straight quotes or apostrophe key types a closed quote.

Overriding Smart Quotes

To type a straight apostrophe or quote without changing the preference for the entire document, hold down Control and press the apostrophe or quotation mark key. Use this to include feet and inch marks for example, 5' 6" in a document with smart quotes.

Note: On some international keyboards, pressing the Control key does not override the Smart Quotes preference.

Finding and replacing text

Choose Edit › Find & Replace › Text or use Command-Shift-F (Macintosh) or Control-Alt-Z (Windows) to display the Find Text panel. The Find Text panel locates and replaces or deletes any character, word, phrase, or special character anywhere in the document. Find and replace a phrase up to 255 characters long. For example, change all occurrences of "Monday afternoon" to "Tuesday morning." Convert a special character such as a white space in imported documents to tabs, or replace all double hyphens with em dashes.

The Find Text panel finds and replaces words according to the selection. With nothing selected, FreeHand searches the entire document.

Note: When Change all completes, a message appears at the lower-left corner of the Find Text panel indicating the number of occurrences changed.
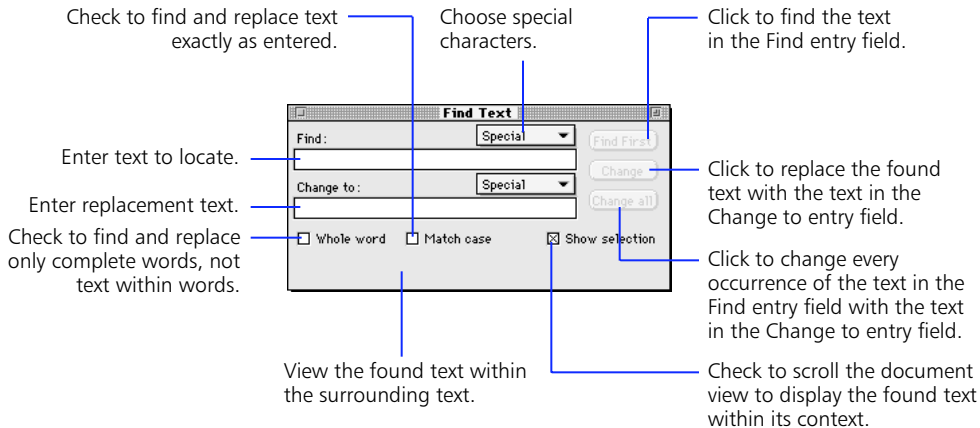
To find and replace text:

1   Select text or text blocks and display the Find Text panel.

2   Enter text in the Find entry field and in the Change to entry field, or choose from the Special character pop-ups for each field.

3   Check the appropriate checkboxes.

4   Click the Find button and click Change to review individual occurrences of text or click Change all to find and replace all occurrences of text in the selection or the document.

To find and delete text, leave the Change to entry field empty. Clicking Change deletes the found text.

To place a special character in the Find or Change to entry fields, choose its name from the Special pop-up list or type its code directly into the entry field.

Note: In the Text Editor, check Show invisibles to display any text symbols inserted among the text. See "Showing non-printing text symbols" on page 185.

Check to find and replace text exactly as entered.

Choose special characters.

Click to find the text in the Find entry field.

Enter text to locate.

Enter replacement text.

Check to find and replace only complete words, not text within words.

Click to replace the found text with the text in the Change to entry field.

Click to change every occurrence of the text in the Find entry field with the text in the Change to entry field.

View the found text within the surrounding text.

Check to scroll the document view to display the found text within its context.

Special character codes

Choose	Code	To find or replace
Tab	^t	Tab characters
Paragraph	^p	Paragraph marks
End of Column	^d	End of column markers
End of Line	^n	End of line markers
Non-Breaking Space	^S	Non-breaking spaces
Em Space	^M	Em spaces
En Space	^N	En spaces
Thin Space	^T	Thin spaces
Em Dash	Option-Shift-[hyphen]	Em dashes
En Dash	Option-[hyphen]	En dashes
Discretionary Hyphen	^[hyphen]	Discretionary hyphens
Caret	^^	Caret "^" characters
Any single character	^@	Any single letter, number, special character, or space. For example, enter "^@bc" to find "abc", "1bc", or "&bc".
Any single letter	^*	Any single letter of the alphabet. For example, enter "c^*t" to find "cat" or "cot".

Choose	Code	To find or replace
Any single number	^#	Any single number. For example, enter "12^#" to find any number between 120 and 129.
White space	^w	Any combination of white space other than a single space character, including: tabs, non-breaking spaces, em spaces, en spaces, and thin spaces. For example, enter "^w" to find white space separating columns of numbers in an imported text file. Then replace it with a single tab character (^t).

Finding and replacing fonts

Use Find & Replace Graphics to locate and replace font, style, and point size. Choose Edit › Find & Replace › Graphics, use Command-Option-E (Macintosh) or Control-Alt-E (Windows), or click the Find & Replace Graphics button on the Main toolbar.

To select or replace text:

1   Display the Find & Replace panel and choose Font from the Attribute pop-up.

To find text with a particular font, style, or point size without replacing those attributes, click the Select tab to display the Select panel and choose Font from the Attribute pop-up.

2   Choose Selection, Page, or Document from the Change in pop-up to define the scope of the search.

On the Select panel, choosing Selection changes the Add to selection option label to Remove from selection. Use Remove from selection to deselect text blocks containing a particular font from currently selected objects.

3   Choose the fonts and styles to find and replace using the From and To pop-ups.

To ignore the font and find and replace the style and size only, choose Any font from the From pop-up and No change from the To pop-up.

4 Enter values in the Min or Max entry fields to find or select a specific type size or a range of type sizes.

To find or select a specific point size, use the Min entry field. To find or select a range of sizes, enter values in both the Min and Max entry fields. To ignore size, leave these entry fields blank.

5 Click Change on the Find & Replace panel or Find on the Select panel to replace or select text attributes.

The number of objects changed or selected appears in the lower-left corner of the panel.

For more information about options available in the Find & Replace Graphics panel, see "Find & Replace Graphics" on page 144.

CHAPTER 8
Printing

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Printing in FreeHand

Printing from FreeHand is straightforward even when you require high-resolution, professional quality output. Powerful, prepress capabilities include the following:

◆ **PPD (PostScript printer description) files—**
   Associate the optimized print settings for a specific PostScript printer with a document.

◆ **UserPrep files—**Work around the limitations of particular professional-quality output devices.

◆ **Print preview—**View and adjust how a document will print.

◆ **Print settings—**Customize print setup configurations.

◆ **Output options—**Determine how the final document will export or print to a PostScript output device.

◆ **Printing PostScript files to disk—**Generate PostScript files to give to your service provider.

◆ **Overprinting—**Overprint the background instead of knocking out.

◆ **Document report—**Generate a detailed description of the document.

◆ **Collect for Output—**Gather all the external images and fonts necessary for printing your document and place them in a common location.

◆ **Scaling—**Change horizontal and vertical scaling of your document when printing, leaving the original document unchanged.

◆ **DCS 2.0 support**

Choosing an output device

Before sending your document to print, determine the type of output device to use based on your project requirements. Ask the following three questions:

◆ What is your final output device?

   If you require high-quality or accurate color reproduction, use a high-resolution PostScript output device available through a service bureau, commercial printer, or other service provider.

◆ What are your budget limitations?

   If you are working with a limited budget, choose output devices available at your workplace.

◆ What is your project schedule?

   An external service provider requires additional coordination.

Print to	To
A 300 to 800 dpi desktop printer	Print initial black-and-white or color proofs of your illustrations.
An imagesetter	Print high-resolution, camera-ready art or color separations on either paper or film.
Dye sublimation or high-resolution proofing device (such as 3M's Matchprint)	Print high-resolution color proofs.
A film recorder	Create 35mm slides of your illustrations.

Page description languages

An output device uses a page description language to create an image on a medium such as paper. When you print, printer-driver software translates your document into the page description language your output device understands. Three common page description languages are PostScript, Printer Control Language (PCL), and QuickDraw.

PostScript

The PostScript language, created by Adobe Systems to meet the requirements of graphic artists, is the standard for desktop publishing. Because PostScript is resolution- and device-independent, the same PostScript language commands can be printed on different devices at various resolutions. Many FreeHand features use PostScript capabilities, including overprinting, Custom strokes and fills, PostScript strokes and fills, Textured fills, and halftone screens.

PostScript has three versions, Level 1, Level 2, and Level 3. Your FreeHand document will print with either Level 1, Level 2, or Level 3, but will print more accurately when both the printer output device and the installed printer-driver software support PostScript Level 2. PostScript Level 2 includes support for more complex graphics than Level 1 as well as faster printing of bitmap graphics, patterns, and halftones.
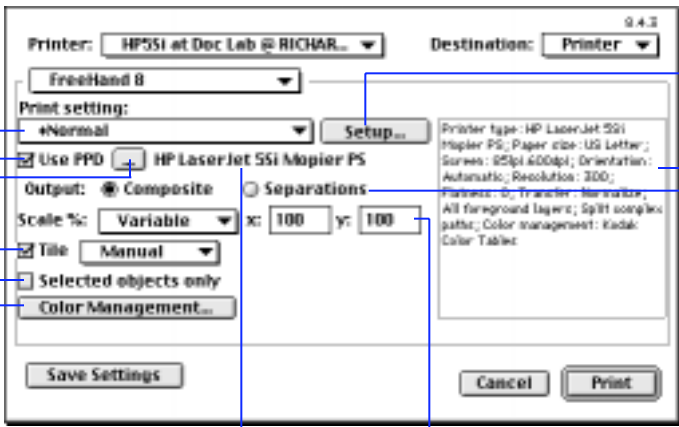
PCL and QuickDraw

PCL, developed for MS-DOS compatible computers by Hewlett Packard, and QuickDraw, developed for the Macintosh by Apple Computer, are general-purpose page description languages. Despite wide use, PCL and QuickDraw lack support for many features required by professional graphic artists.

Effects available only through the PostScript language, such as PostScript strokes and fills or EPS files, will not print to a non-PostScript output device. A general rule is a non-PostScript output device prints only what you see on your monitor.

Setting up to print (Macintosh)

The printer driver software you select determines the options you see in the Print dialog box. FreeHand supports printing with LaserWriter driver 7.1 or later. Choose File › Print, use Command-P, or click the Print button on the Main toolbar to display the Print dialog box.

Select preset or custom print setup configurations.

Check to use a PPD or uncheck to use the defaults.

Click to display and select available PPDs.

Check to print a large illustration in one-page sections. Choose Manual or Automatic tiling.

Check to print only the currently selected objects.

Display the Color Management Preference dialog box.

Click to display the Print Setup dialog box.

View the current Printer, Setup, and Color Management settings.

Choose Separations to print each spot and process color ink on a separate page. Choose Composite to print all objects on a single page.

View the name of the selected PPD.

Choose Uniform and enter a scale percentage value to print an illustration larger or smaller than actual size. Choose Variable and enter a separate scale percentage value for horizontal (x) and vertical (y) dimensions to print an illustration larger or smaller than actual size. Choose Fit on paper to scale each page to fit into the printable area.

This dialog box appears when using the PostScript LaserWriter driver version 8.4.3.

To further customize your printing and output settings, display the following dialog boxes from the main Print dialog box:

◆ **Print Setup**—Preview your document before printing and choose paper sizes, ink settings, and other prepress options.

◆ **Print Options**—Options in this system-level dialog box vary depending upon the printer selected in the Chooser. Some options may include generating a cover page, switching between color or grayscale, and choosing how PostScript errors are reported.

◆ **Color Management Preferences**—Any changes made in this dialog box are reflected in the Colors panel of the Preferences dialog box. Color Management preferences are not saved as part of the Print setting.

For more information see Chapter 9, "Color Management."

Printing to a non-PostScript printer

When you select a non-PostScript printer in the Chooser, the options vary depending upon the printer you choose.

Choose File › Print, use Command-P, or click the Print button on the Main toolbar to display the Print dialog box. Choose File › Page Setup to display the Page Setup dialog box and customize your printing options.
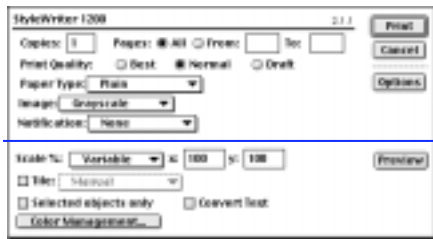
The options above the line are determined by the printer driver. The options below the line are FreeHand specific.

Common non-PostScript printer options

Use	To
Quality	Determine the quality of output.
Pages	Print the entire document or a specific page range.
Copies	Specify the number of printed copies.
Print Back to Front	Determine the order in which to print your document pages.
Print in Grayscale	Print a color document in grayscale.
Scale (FreeHand specific)	Print an illustration larger or smaller than actual size (Uniform); print an illustration with horizontal (x) and vertical (y) dimensions that are larger or smaller than actual size (Variable); scale each page to fit into the printable area (Fit on paper).
Tile (FreeHand specific)	Print a large illustration in one-page sections. Choose from Manual or Automatic tiling.
Selected objects only (FreeHand specific)	Print only the currently selected objects.
Color Management (FreeHand specific)	Display the Color Management Preferences dialog box.
Preview (FreeHand specific)	Display the Print Preview dialog box.

Setting up to print (Windows)

The printer driver software you select determines the options you see in the Print dialog box. Choose File › Print, use Control-P, or click the Print button on the Main toolbar to display the Print dialog box.

Print the entire document, the current page, a specific page range, or only selected objects.

Choose preset or custom print setup configurations.

Click to display and choose from available PPDs.

Check to use a PPD or uncheck to use defaults.

View the name of the selected PPD when Use PPD is checked.

Display the Color Management Preference dialog box.

Choose Uniform and enter a scale percentage value to print an illustration larger or smaller than actual size. Choose Variable and enter a separate scale percentage value for horizontal (x) and vertical (y) dimensions to print an illustration larger or smaller than actual size. Choose Fit on paper to scale each page to fit into the printable area.

Specify the number of printed copies.

Choose Separations to print each spot and process color ink on a separate page. Choose Composite to print all objects on a single page.

Click to display the Print Setup dialog.

Check Print to file to create a PCL file.

View the current settings chosen in the Print Setup, Output Options, and Color Management dialog boxes.

Check to print a large illustration in one-page sections. Choose Manual or Automatic tiling.

Click to display FreeHand Help.

To further customize your printing and output settings, display the following dialog boxes from the main Print dialog box:

◆ **Printer Properties**—Options in this system-level dialog box vary depending upon the printer selected. The most common options are changing orientation and paper size.

◆ **Print Setup**—Preview your document before printing and choose paper sizes, ink settings, and other prepress options.

◆ **Color Management Preferences**—Any changes made in this dialog box are reflected in the Colors panel of the Preferences dialog box. Color Management Preferences options are not saved as part of the Print setting. For more information, see Chapter 9, "Color Management."

Printing to a non-PostScript printer

Choose a non-PostScript printer in one of the following locations:

◆ From the available Printer pop-up in the Print dialog box

◆ From the File › Printer Setup dialog box

◆ From the Windows operating system

Note: For more about choosing a printer, please consult your operating system help.

Choose File › Print, use Control-P, or click the Print button on the Main toolbar to display the Print dialog box.

Print the entire document, the current page, a specific page range, or only selected objects.

View the current system printer. Choose from available printers. FreeHand saves the choice within the document or template.

Display printer properties for the current printer.

Specify the number of printed copies.

Check Convert Text to convert text from Type 1 into TrueType.

Display the Print Preview dialog box.

Display the Color Management Preference dialog box.

Choose Uniform and enter a scale percentage value to print an illustration larger or smaller than actual size. Choose Variable and enter a separate scale percentage value for horizontal (x) and vertical (y) dimensions to print an illustration larger or smaller than actual size. Choose Fit on paper to scale each page to fit into the printable area.

Check Print to file to create an output file.

Click to display the FreeHand Help.

Check to print a large illustration in one-page sections. Choose Manual or Automatic tiling.

Using print preview

Use print preview to see and adjust how your document will print with the current print settings on the paper you have selected. Choose File › Print or use Command-P (Macintosh) or Control-P (Windows). For PostScript printers, click the Print Setup button to display the Print Setup dialog box.

For non-PostScript printers, click Preview to display the Print Preview dialog box. Check Automatic Orientation to print both portrait (tall) and landscape (wide) pages in the same document.

With Automatic tiling checked in the main Print dialog box, a text banner reading Automatic tiling appears below the preview window. Manual tiling displays your document in the print preview. Print preview shows the zero point and as much as will print above it and to the right.

FreeHand matches print preview to your output choices. For example, if you choose Fit on paper in the Scale pop-up in the main Print dialog box, print preview scales the selected page and displays it on screen at the correct size.

Crop marks are available for PostScript printers only.

Registration marks are available for PostScript printers only.

The printable area is defined in the selected PPD or Printer Driver and limited by the document page. A non-printing boundary shows what will print on the selected paper.

Bleed area only appears if bleed is greater than 0 (zero).

The printer paper area shows the selected paper size.

Changes you make in the Separations, Imaging, and Paper Setup tabbed panels in the Print Setup dialog box will update the preview. For example, switching from emulsion up to emulsion down causes the image in the print preview area to flip horizontally, indicating that the emulsion is now on the bottom. The negative image does not preview.
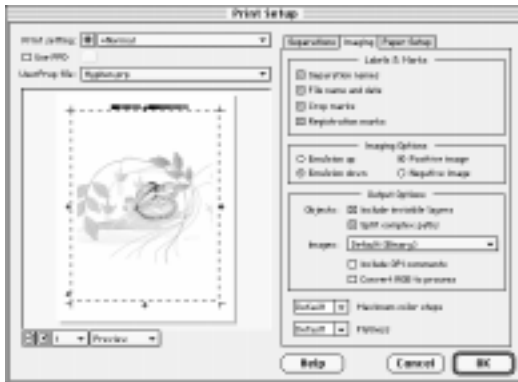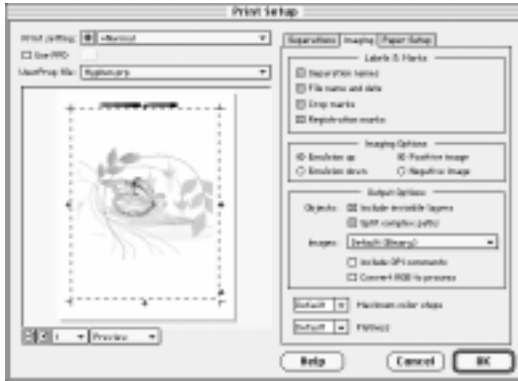
Checking the Emulsion down option changes the image in the preview area.

Repositioning your document

Moving the document in the print preview area affects where the image prints on the paper only during a given print session. The saved document is not affected.

When you point to the print preview area, the cursor becomes a grabber hand. Use it to reposition objects on the paper for printing.

The Reset arrow is displayed when you point to the gray area of the print preview pasteboard. Click with the Reset arrow to restore the original location.

Changing viewing modes

You have three choices for viewing your document in the print preview area:

◆ **X-Box—**Displays the page with an X and the bleed. Choose X-Box to speed the opening of the Print Setup dialog box.

◆ **Keyline—**Displays the objects on the page in Keyline view.

◆ **Preview—**Displays the objects on your page as they will print.

Setting up PostScript prepress options

Click Setup in the main Print dialog box to display the Print Setup dialog box. Choose from preset configurations or create custom print settings and save them.

Click to save your custom settings.

Choose from preset or custom settings files.

Switch between a PPD or the default settings.

Select options for printing separations.

Click to select a PPD.

When a PPD is selected, select paper size and orientation.

View the name of the selected PPD.

Select a UserPrep file.

Set output options for printing and exporting.

View a preview of the document as it will print.

Select the page to view.

Choose from X-Box, Keyline, or Preview to determine the level of detail displayed in the print preview area.

Click to display FreeHand Help.

Choosing a PPD

PostScript Printer Description files (PPDs) contain optimized print settings for specific PostScript printers. Remedy unexpected printing behavior by choosing the correct PPD for your output device. Printing results are best when you use PPD information.

Using the correct PPD allows FreeHand to support the full range of features supported by your specific output device. Custom or Transverse paper sizes and other predefined paper sizes are accessible. The PPD files contain optimized screen information for related printers: screen ruling settings and screen angles customized for each process ink and for spot color inks. These optimized screens produce the best possible results when printing color separations on PostScript imagesetters. Specific values in PPDs vary.

To use a PPD, check Use PPD in either the main Print dialog box or the Print Setup dialog box. Click the edit button to choose from available PPDs. The name of the selected PPD appears to the right of the edit button. With Use PPD unchecked, FreeHand uses the selected printer defaults, which limit your choice of paper sizes.

Choosing a PPD associates that PPD with your document until you uncheck Use PPD or select a different PPD file. FreeHand will use the PPD information when you print.

On the Macintosh, when you use LaserWriter 8.0 or later, leaving Use PPD unchecked uses the default information from the PPD selected in the Chooser.

Working with UserPrep files

Included with FreeHand are several UserPrep files designed to help customize FreeHand for high-end printing to specific output devices.

Choose from the list of installed files containing PostScript code in the UserPrep file pop-up in the Print Setup dialog box to modify printing to PostScript printers. Choose None to print without a UserPrep file. You do not need a UserPrep file when printing to most desktop printers.

On the Macintosh, these files are located in the UserPrep folder in the FreeHand application folder. In Windows, UserPrep files (PRP) reside in the FreeHand 8\English\Userprep folder.

For complete information on available UserPrep files and how and when to use them, see the UserPrep ReadMe in the application folder. The ReadMe includes a summary of each UserPrep file.

Setting up printing configurations

Choose a print setting file from the pop-up or click the plus (+) button to save your custom settings. Save your file in the Settings \ PrintSet folder in the same folder with the FreeHand application to have them appear in the Print setting pop-up.

If you have modified a print setting file by making changes in the Print Setup dialog box, a plus (+) symbol precedes the file name in the Print setting pop-up. To restore the unmodified print setting, choose that setting from the pop-up. If the unmodified print setting does not restore, the PPD has moved or is unavailable. Each print setting is a separate file stored in the PrintSet folder. To remove a print setting file, delete it.

Changes to settings in the main Print dialog box and in the Separations (ink) section of the Separations panel are not saved as part of your print setting files.

Choose from the prepress options available on the three panels in the Print Setup dialog box:

◆ **Separations**—Select options for printing separations.

◆ **Imaging**—Set output options for printing and exporting files.

◆ **Paper Setup**—Select paper size and orientation.

The Separations panel
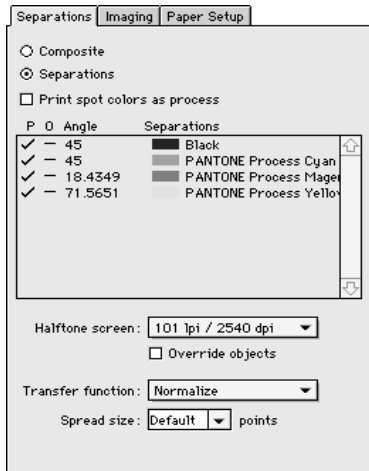
Use	To
Composite or Separations	Determine whether each ink will print on one page or separate pages. Use Composite to print all on one. Use Separations to print each spot and process color ink on a separate page.
Print spot colors as process	Convert all spot colors to their closest CMYK equivalent at print time. This does not affect the document.
The P column in the Separations ink list	Indicate a separation will print for that ink. When a check mark appears in this column, the ink will print. A dash indicates that the ink will not print.
The O column in the Separations ink list	Indicate an ink will overprint. A check mark indicates overprinting and a dash indicates knocking out. Object-level overrides are not reflected. A diamond indicates that an overprinting threshold has been set for a specific ink. Click to change the status.
The Angle column in the Separations ink list	Display the screen angle for an ink. Click to change the angle.

Use	To
Halftone screen	Display optimized screen ruling (lpi) and resolution (dpi) settings from the selected PPD file. Some devices support custom values for screen ruling and resolution. Choose Other to enter custom settings.
Override objects	Override object-level halftone settings for the current print session.
Transfer function	List available transfer functions. Use these functions to modify halftone dot values. The options are based on the information in the selected PPD.
Spread size	Enlarge the boundaries of all Basic strokes and fills to compensate for slight misregistration.

Screen ruling

Screen ruling, measured in lines per inch (lpi), is the number of lines or rows of halftone dots printed per inch on the page. A high screen ruling prints the dots close together, creating sharp, distinct colors and images. A low screen ruling prints the dots farther apart, creating a coarser effect.

Because different types of paper absorb inks differently, the characteristics of your paper and the press, in conjunction with design choices, determine the screen ruling you should use.

Guidelines for specifying screen rulings

Screen ruling (lpi)	Type of printing
65 to 85	Newspapers or point of purchase displays on absorbent, uncoated stock
90 to 133	Business publications, freestanding inserts, or newspaper coupons on coated stock
133 to 150	Menus, travel publications, or yearbooks on medium- to high-quality coated stocks
Above 150	Coffee table books, museum-quality prints, fine art reproductions, automobile promotional brochures, or annual reports on high-quality coated stock running on highly accurate presses

Screen rulings for grayscale images

As you increase the screen ruling for a given printer resolution, the maximum available number of grays decreases. The maximum number of grays you can produce in an image using PostScript level 1 is 256. The maximum number of grays that can be used in Gradient fills or blends depends on the capability of your final output device and the maximum steps value.

At resolution (dpi)	Use screen ruling (lpi)	To print this many grays
300	53 to 60	26 to 33
600	71 to 85	51 to 72
1200 or 1270	65 to 128	89 to 256
2400 or 2540	90 to 150	256
3386 or 3600	150 to 300	128 to 256

Object-level halftones

To apply object-level screen angles and rulings, select an object, choose Window › Panels › Halftones, enter a screen angle and a screen frequency, and press Return. The values you enter in the Halftones panel override ink-level settings for that object. It is important to remember that a screen frequency less than 20 lpi can cause PostScript errors.

In addition to setting object-level screen angle and frequency, you can apply special halftone dot shapes. The options are Default, Round dot, Line, and Ellipse. Although you can adjust object-level screen angles and rulings for full-color images, each separation of the image prints with the angle and ruling specified. This can cause moiré patterns when printed on a commercial press.
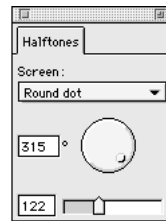
When printing on an imagesetter that uses a proprietary screening solution, such as Agfa's Balanced Screening Technology, values you enter may be overridden by ink-level settings or may cause PostScript errors.

To restore the default settings for halftone angle and frequency, backspace to clear the entry fields and press Return.

Note: If you are having printing problems, use Find & Replace Graphics to search for object-level halftones.

The Imaging panel

The Paper Setup panel
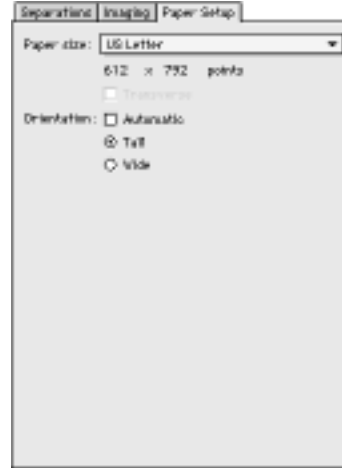
Use	To
Labels & Marks	Add separation names, file name and date, crop marks, and registration marks to output according to the options checked. Choose a paper size large enough to accommodate these marks, which print outside the border of the document page.
Emulsion up and Emulsion down	Control whether the emulsion is on the top or the bottom when looking at the right-reading side of your film.
Positive image and Negative image	Control whether the document prints as a positive or negative image on film.
Output Options, Maximum color steps, and Flatness	Adjust output options. This section appears duplicated in the Output Options dialog box displayed when you choose File > Output Options. For complete details about these prepress options, see "Choosing output options" on page 242.

Use	To
Paper size	List available paper sizes for the selected PPD. This pop-up is unavailable when no PPD is selected. The height and width of the paper chosen display below the pop-up.
Transverse	Rotate your entire document (including crop marks, halftone screen angles, etc.) by 90˚ on the imagesetter paper or film at print time. Transverse is available when printing to an imagesetter that supports custom page sizes.
Orientation	Control whether the document prints on the selected paper size in portrait (tall) or landscape (wide) orientation. Check Automatic when you have pages in your document with different page sizes and orientations.

Choosing the right paper size

The Paper size list displays paper sizes defined in the selected PPD file. If the selected printer type supports custom paper sizes, Custom in the paper size pop-up and the Transverse checkbox are available. Most imagesetters define regular paper sizes and Transverse paper sizes, which are paper sizes rotated 90°. When a document prints parallel to the paper path, a substantial amount of imagesetter film or paper normally is wasted on the sides of the image. Transverse pages print perpendicular to the paper path. More transverse pages fit on a given length of paper or film, wasting less media on the sides of the image.

Note: Make sure your page fits completely on the imagesetter media when transversed.

Letter   *Letter*

Custom   *Custom*

Custom transverse   *Custom transverse*
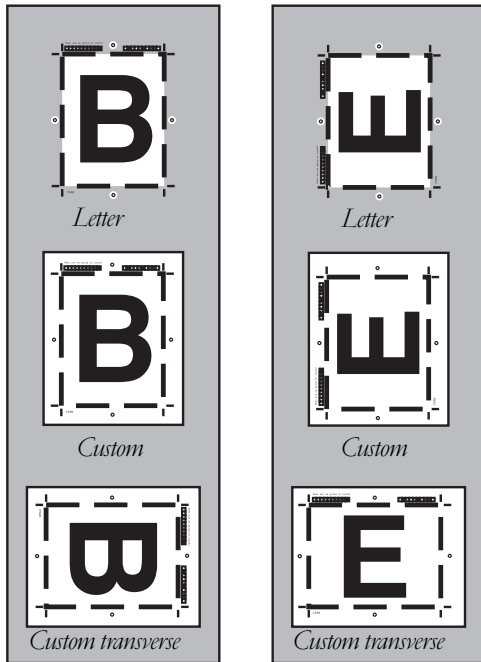
Tall orientation   *Wide orientation*
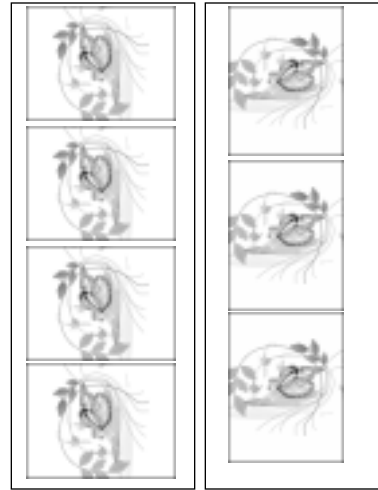
Transverse checked   *Transverse unchecked*

In general, print on a paper size that matches your largest page size. However, when printing separations, you may want to print bleeds, the file name, the separation name, and crop marks—which means you must use a paper size that is larger than your page size.

Calculating the paper size

To print	Increase paper size by
Bleed objects	Twice the bleed size for both height and width
Crop marks	36 points or 0.5 inch or 12.7 mm for both height and width
Separation names	9 points or 0.125 inch or 3.2 mm for height
File name and date	9 points or 0.125 inch or 3.2 mm for height

Printing an object to the edge of the printed page requires creating a bleed. Bleeds ensure that when the printed paper is trimmed, the ink coverage extends to the edge of the paper.

Overprinting

When one colored object overlaps another, unless overprinting is turned on, the top object will cut out the overlapped portion when printing separations. This knockout may cause a small white border between overlapping objects when printed, which is the result of misregistration. To easily identify overprinting objects on screen, check the Redraw › "Display overprinting objects" preference. O's will appear on screen for overprinting objects. Use Find & Replace Graphics to locate objects set to overprint, and to turn off overprinting for those objects.

If you want your EPS to overprint in another application, check Overprint when exporting an object with a spot color as an EPS. Otherwise the EPS will knock out the background upon placement in the new application.

Trapping is another way to compensate for misregistration. Talk to your service provider before getting started for advice on whether to overprint or trap, and which settings to use. See "Trapping" on page 238.

In general, use overprinting when you want to print a spot color directly on top of an underlying object or background color. You can also use overprinting to inexpensively add a third spot color to a two-color document. For example, overprinting a red spot color on a yellow background gives you orange in that area, without affecting the red and yellow used elsewhere. Overprinting works best when you overprint a dark color on top of a light-colored object or background.

Knockout   *Overprint*

FreeHand supports overprinting the following object types:

Object	Overprinting default status	Check the Overprint checkbox in
Text in text blocks	Black ink set to overprint	The Fill Inspector
Fills in text blocks	Off	The Fill Inspector
Basic stroke	Off	The Stroke Inspector
Basic or Gradient fill	Off	The Fill Inspector
TIFFs, LRGs, and PNGs	Off	The Fill Inspector

You cannot set an imported EPS to overprint inside FreeHand. Whether or not an EPS overprints is controlled by objects in the original EPS file.

Overprinting TIFFs

All bitmap images except LRGs and PNGs are converted to TIFFs upon import. Set images to overprint by selecting them and checking the Overprint checkbox in the Fill Inspector. A color TIFF, LRG, or PNG will appear on the process plates containing its specific color values and will overprint all spot plates. A grayscale or transparent grayscale TIFF, LRG, or PNG to which a spot color or CMYK value has been assigned will also overprint.

Overprinting works best for spot colors. Overprinting using process colors may give unexpected results. While FreeHand will allow you to overprint a grayscale TIFF, LRG, or PNG to which a process color has been applied, it is generally a bad idea.

What you see on your monitor screen can differ greatly from the final results that emerge from your printer. See Chapter 9, "Color Management."

In the following examples, the image on the left shows a process TIFF overprinted on a process background. The image on the right shows a spot TIFF overprinted on a process background.
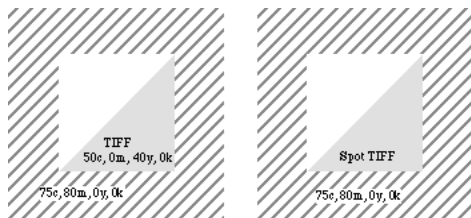
On the computer monitor, the two overprinted TIFFs look identical.
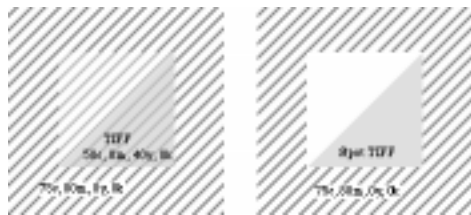
When printed, the results are very different.

Overprinting Gradient fills

Just like any other object, overprinting Gradient fills may overcome trapping problems by allowing a filled object to overprint on the correct color plates. Do not overprint indiscriminately—unless you are familiar with overprinting, it can result in a third color in the overprinted area that is not what you expected.

Check the Overprint checkbox in the Fill Inspector to set any Basic or Gradient fill to overprint. The results of overprinting vary greatly depending upon the colors used in the fill and the background. You will get the best results overprinting an object with a Gradient fill on a spot color background. The filled object will overprint on the spot plate, eliminating trapping problems.

If you overprint an object with a Gradient fill on a process background, the results will vary based on the CMYK values in the background and the CMYK values used in the Gradient fill.

For more detailed information about Gradient fills, see Chapter 6, "Color, Strokes, and Fills."

Overprinting inks

To set overprinting document-wide for specific spot or process colors, set the desired inks to overprint in the Separations panel in the Print Setup dialog box by clicking in the Overprint column. Set inks to overprint for a single print session or save the overprint status as part of your document. Inks with a check mark in the O column will overprint. Inks with a dash will knock out. Inks with a diamond have an assigned ink overprint threshold.

We recommend setting inks to overprint on a document level only if you have a thorough understanding of working with separations and overprinting.

Set an overprint threshold to specify a limit for shades of an ink to be overprinted. For example, set an overprint threshold of 90% for the black ink when you want all objects that contain 90% or more of black to overprint. Objects containing less than 90% black will knock out. To set the overprint threshold, click in the O column in the Separations panel to display the Overprint Ink dialog box. Enter a value in the percentage entry field. Grayscale TIFFs, LRGs, or PNGs containing inks with an overprint threshold will always knock out.

Trapping

When the inks used for adjacent objects print out of register, unsightly gaps or color shifts appear between the objects. Trapping compensates for misregistration by expanding a lighter object to slightly overlap a darker one.

Traditionally, trapping is a prepress task handled by a commercial printer. FreeHand's drawing tools can be used by designers and production artists to create traps. However, you may want to leave this task to prepress professionals.

Spread size is a printing option that can be used as a substitute for trapping all objects with Basic strokes and fills. As a general rule, use either manual trapping or spread size.

When considering how to trap your documents, begin by talking to your commercial printer about what needs to be trapped, who is responsible for trapping, and how traps will be created.

However trapping is accomplished, your printer should determine the trap width, which is the amount of overlap for each trap. Differences in paper characteristics, sheet size, screen rulings, and press conditions require different trap widths. The following guidelines illustrate commonly used trap widths for printing on an offset sheet-fed or web press. If you resize a document, traps you specify may be the wrong size.

Trap size guidelines

Screen ruling	Trapping values*	
lines per inch	inches	points
65	0.0077 to 0.0308	0.55 to 2.20
100	0.0050 to 0.0200	0.36 to 1.44
133	0.0038 to 0.0152	0.27 to 1.08
150	0.0033 to 0.0132	0.24 to 0.96
200	0.0025 to 0.0100	0.18 to 0.72

Note: *The lower value assumes excellent press registration when the press is off by no more than half the distance between a row of halftone dots. The higher value assumes less exact press registration when the press is off by a full row of halftone dots.

Chokes and spreads

When two colors meet, the darker color defines the visual edge and determines the direction of the trap. You can minimize the visual impact of traps by creating a choke to trap a dark foreground object to a light background or by creating a spread to trap a light foreground object to a dark background.
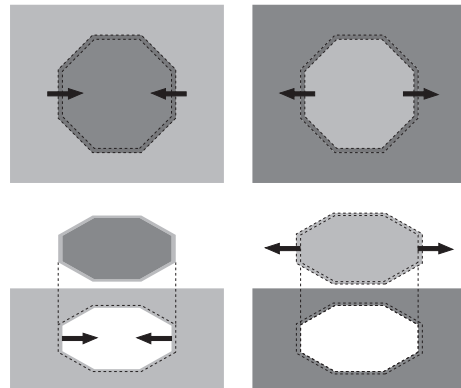
To create a choke:
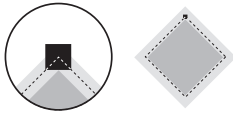
1 Select the dark foreground object.

2 Apply a Basic stroke with a width equal to twice the size of the trap and use the light background color as the stroke color.

3 Check Overprint in the Stroke Inspector and uncheck it in the Fill Inspector.

To create a spread:
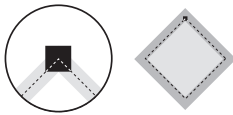
1 Select the light foreground object.

2 Apply a Basic stroke with a width equal to twice the size of the trap and use the light foreground fill color as the stroke color.

3 Check Overprint in the Stroke Inspector and uncheck it in the Fill Inspector.

To trap a foreground object to a dark background object:
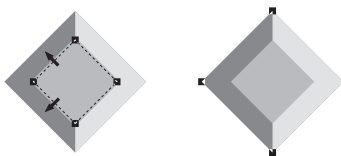
1 Select the foreground object and choose Edit > Clone.

2 Apply a Basic stroke with a width equal to twice the size of the trap and use the foreground object's fill color as the stroke color. Check Overprint in the Stroke Inspector for the stroke.

3 Choose Edit > Cut.

4 Select the dark background object and choose Edit > Paste Inside.

To trap a foreground object to a light background object:
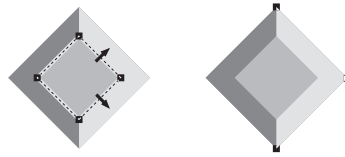
1 Select the foreground object and choose Edit > Clone.

2 Apply a Basic stroke with a width equal to twice the size of the trap and use the light background color as the stroke color. Check Overprint in the Stroke Inspector for the stroke.

3 Choose Edit > Cut.

4 Select the background object and choose Edit > Paste Inside.

For information on using the Trap Xtra to create traps, see FreeHand Help.

Printing sections of a document

Most desktop printers only print standard paper sizes such as A4, US Letter, and US Legal. If your illustration is larger than the largest paper size your printer can accommodate, use one of these techniques to print your document:

◆ Select Fit on paper or scale a page down in the main Print dialog box to fit on the printable area of the selected paper size.

◆ Use the Manual or Automatic tile options in the main Print dialog box to print portions of a page at full scale.

◆ Print only some of the objects in your document by printing only visible layers.

Scaling for print

Choose from three scaling options for printing—Uniform, Variable, or Fit on paper. The document retains the Scale selection, but the settings do not affect the scale of the original document. Print preview shows the effect of the current Scale settings.

Uniform—Uniformly scale a document's dimensions for print. Selecting Uniform displays an entry field in the Print dialog box. Enter a percentage from 10% to 1000%, accurate to four decimal places.

Variable—Independently scale horizontal (x) and vertical (y) dimensions of a document. Selecting Variable displays entry fields for x and y dimensions in the Print dialog box. Enter percentages from 10% to 1000%, accurate to four decimal places.

Fit on paper—Reduce or enlarge artwork, crop marks, and bleeds for print to fit the selected printer paper size.

Using tiling

To use Manual tiling to print a portion of an illustration:

1 For each page you want to print, drag the ruler's zero point to the lower-left corner of the portion of the page you want to print.
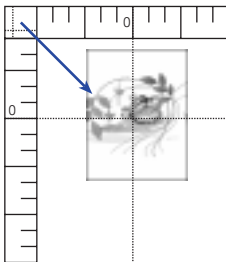
2 Choose File > Print to display the Print dialog box and enter the desired page number in the page range entry field.

3 Check the Tile checkbox to turn on tiling, choose Manual from the pop-up, and choose a paper size on which the page fits.

In the print preview window, use the grabber hand to adjust the position of the tile.

To use Manual tiling to print multiple pages of a document on a single page:

Use this technique to print all pages of a document containing small custom pages such as business cards on a single sheet of paper or strip of imagesetter film.

1 With the rulers displayed, select the upper-right page in your document to make it the active page.
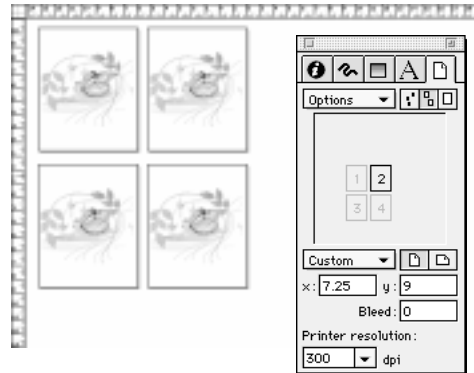
2 Drag the ruler's zero point to the lower-left corner of the lower-left page in the document.
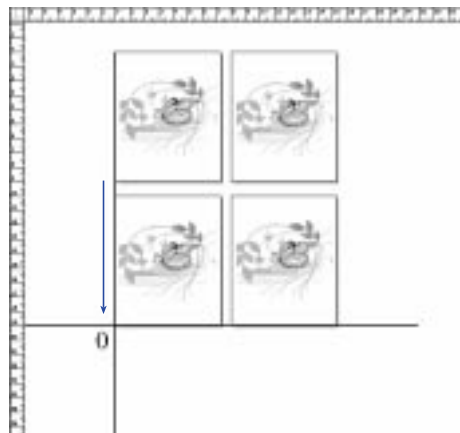
3 Choose File > Print to display the Print dialog box and enter the page number of the upper-right page in the page range entry field.

4 Check the Tile checkbox to turn on tiling, choose Manual from the pop-up, and choose a paper size in the Paper Setup panel large enough to contain all the pages.

Check Print Preview to make sure that all of the pages you want to print display in the printable area for the upper-right page. Use the grabber hand to adjust the position of the tile.

To use Automatic tiling:

1 Choose File > Print, use Command-P (Macintosh) or Control-P (Windows), or click the Print button on the Main toolbar to display the main Print dialog box.

2 Check the Tile checkbox to turn on tiling and choose Automatic from the pop-up.

The overlap value determines how much of the illustration will be duplicated on adjacent tiles.

Printing only some objects in a document

You have several choices when you want to print only some of the objects in your document during a specific print session:

◆ Check Selected objects only in the Print dialog box to print the currently selected objects.

◆ In the Imaging panel in the Print Setup dialog box, uncheck the Include invisible layers option and uncheck layers on the Layers panel to make them invisible and prevent them from printing.

◆ Move layers you do not want to print below the separator line on the Layers panel.

◆ In Windows, right-click a selected object and choose Print Object from the shortcut menu.

Printing PostScript files to disk

To create a PostScript file, choose File › Print and choose File as the destination (Macintosh) or choose File › Print and check Print to file (Windows).

When preparing a PostScript file for a prepress service provider, ask them which settings are best for their system before you begin.

If the PostScript file will be printed directly to an output device, make sure the selected PPD matches the output device and make sure Use PPD is checked. For prepress applications, choose File › Export to use an EPS format.

When fonts in your document are not installed on the final output device

On the Macintosh, the LaserWriter 8.1.1 and later drivers support including PostScript or TrueType fonts in a PostScript file. To avoid PostScript errors, use this option when fonts in your FreeHand document are not installed on the final output device.

From the Font inclusion pop-up in the Create File dialog box, you have the options None, All, and All But Standard 13 to specify which fonts to include in the PostScript file. Choosing None will not include any fonts in your document, resulting in a smaller file that downloads faster. However, font substitution may occur unless all of the fonts used are resident in the printer. Choosing All eliminates font substitution, but results in the slowest download time. Choosing All But Standard 13 downloads all fonts except the standard fonts included in virtually all printers and imagesetters. Font substitution will only occur if the printer uses a non-standard version of these fonts, or if one of them is missing entirely.

Choosing output options

Output options affect a document when you print to a PostScript output device or export from FreeHand to EPS by choosing File › Export.

Choose File › Output Options to display the Output Options dialog box. The same options for output appear duplicated for convenience in the Imaging panel in the Print Setup dialog box.

Output Options

Objects: ☒ Include invisible layers
☒ Split complex paths

Images: Binary

☒ Include OPI comments
☒ Convert RGB to process

Default ▼ Maximum color steps
Default ▼ Flatness

Cancel   OK
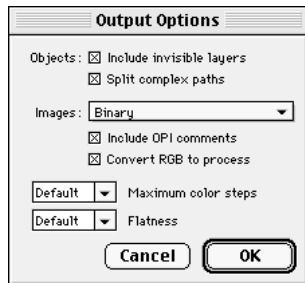
◆ **Include invisible layers**—Check to print and export objects on all foreground layers.

◆ **Split complex paths**—Check to split paths into smaller sections as they are printed and exported, reducing the likelihood of memory-related PostScript errors—particularly when printing to PostScript Level 1 printers. Paths split based on the printer resolution.

◆ **Images**—Choose from this pop-up to determine how bitmap image data is sent to the printer or included in an exported file.

Use	To
None	Include OPI comments rather than image data. This is frequently used with Include OPI comments.
ASCII	Encode image data as ASCII characters. This option is readable by either platform, but creates a larger file and prints slower than other options.
Binary	Encode images as binary data for use on the Macintosh. Files with binary encoded data are smaller and print faster on the Macintosh, but cause PostScript errors when printed from Windows.
Binary (Cross Platform)	Encode images as binary data for either Macintosh or Windows. This option is the best solution for speed and print reliability when working in a cross-platform environment.

◆ **Include OPI comments**——Check to include OPI comments with the document when printing or exporting.

◆ **Convert RGB to process**—Check to convert RGB images to process colors upon output when creating an EPS or a composite. Check Convert RGB to process if you plan to print a bitmap image file to a printer that does not color separate RGB images.

◆ **Maximum color steps**—Use to limit the number of colors in graduated and radial fills when you have trouble converting an EPS file to a color electronic prepress system such as Crosfield, Linotype-Hell, or Scitex. The available choices are Default, 126, and 256. If an EPS file generates more than the maximum number of colors in the prepress system's line-work format, enter a number smaller than 256 until the file converts successfully. Adjust values with caution—reducing the number of colors may also reduce the smoothness of color transitions.

◆ **Flatness**—Enter values above zero to speed printing of curved path segments and reduce memory-related PostScript errors. The flatness value controls how smoothly curves print. Values between zero and three are barely discernible to the eye. Values above ten may result in visibly flattened curves, especially at low resolutions.

Flatness = 3   *Flatness = 100*
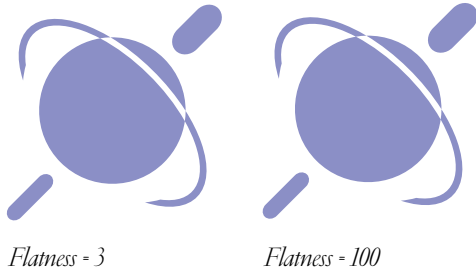
How fonts affect printing

Choosing the type of font is the first step in making sure the type on your pages displays and prints correctly. For production work, it is critical to use either PostScript or TrueType fonts exclusively. If you are working with a prepress service provider or service bureau, ask for a recommendation on font formats before beginning.

Use a type manager to improve on-screen text display and font management. Adobe Type Manager (ATM) is the only type-management utility that supports all of the text effects available in FreeHand. ATM requires PostScript (Type 1) fonts, but does not require output to a PostScript printer.

Working with PostScript fonts

PostScript fonts are the best choice if your final output device is a PostScript printer or imagesetter, or if you want to export your document as an EPS file. All text effects and transformations are available for PostScript fonts.

PostScript fonts have three components:

◆ The screen or bitmap font for a specific point size (Macintosh)

◆ The printer or outline font

◆ Font metrics—the information used to compose the font—including kerning and spacing data.

On the Macintosh, a PostScript font is available when the screen font is properly installed in the system. The Macintosh does not require a separate font metrics file because font metric information is stored in the screen font. Store PostScript screen and printer fonts in the Fonts folder within the System folder. Drag a font file to the System folder to store the file in the appropriate location automatically. Alternatively, use a font management utility such as Symantec Suitcase or Alsoft Master Juggler.

In Windows, a PostScript font is available if the font is installed using a font management utility such as ATM (Windows 95 or NT) or using Start › Settings › Control Panel › Fonts (Windows NT).

Working with TrueType fonts

TrueType fonts are best if your final output device is a desktop printer, especially a non-PostScript printer. TrueType fonts retain quality when scaled, but text effects and transformations may not display or print to a PostScript printer as effectively as a PostScript font with ATM.

Bitmap fonts such as PCL (Windows) are often included with non-PostScript printers. PCL fonts generally provide a limited, non-scalable set of sizes, cannot be transformed, and do not support special text effects.

Avoid using TrueType fonts when you plan to print to a PostScript printer. If there are duplicate fonts in both TrueType and Type 1 format, conflicts are likely, and you may get unexpected results. Because identically named PostScript and TrueType fonts usually contain subtle design and metric differences, a font name conflict can result in unexpected output, such as a different line length.

Unlike PostScript fonts, all the information needed to print or display any point size is included in a single TrueType font file.

On the Macintosh, TrueType fonts are located in the Fonts folder within the System folder.

In Windows, TrueType fonts are installed through the program in the Fonts Control Panel and normally reside in the Windows System folder.

Handling missing fonts

When you open or import a graphic or text file containing fonts that are not installed in your system, the Missing Fonts dialog box appears.

The Missing Fonts dialog box lists all fonts used in the document not available in your system. Click Replace to choose a replacement font from among the installed fonts in your system. Choose a style from the Text style pop-up. Any missing fonts you do not replace will display and print in the default replacement font— Courier (Macintosh) or Arial (Windows). The font remains intact in your document.

The Missing Fonts dialog box will not appear if you use ATM's font substitution feature. Instead, a temporary font substitution occurs automatically upon open or import. When you import an EPS, the Missing Fonts dialog box alerts you to missing fonts, but will not replace them.

For more information about the Missing Fonts dialog box, see "Handling font substitution" on page 271.

Using Document Report

Use Document Report to compile documentation for your own prepress review, or as a guide to fill out documentation required by your service bureau. Choose from among the options available to generate a detailed description of your document in a report format. Service providers can print out the report before running your job to determine the file's exact contents and avoid costly mistakes.

Choose File › Report to display the Document Report dialog box, which has nine categories:

◆ **Document—**Includes document-level options, such as the file name, location, and size.

◆ **Pages—**Includes options describing the dimensions and orientation of each page.

◆ **Objects—**Includes object-level options, such as assigned names and notes, halftone settings, and status of imported images.

◆ **Fonts—**Includes specifications for each font in the document.

◆ **Text blocks—**Includes options for reporting the font, color, location of the bounding box, line and paragraph count, and first line of text for each text block.

◆ **Layers—**Includes options describing each layer's status and position.

◆ **Styles—**Includes a description of each object style and paragraph style assigned.

◆ **Colors—**Includes options for color name, value, and separation status for each color. With Color Management turned on, your settings in the Color Management preferences appear in the report.

◆ **Output options—**Describes the output options chosen in the Output Options dialog box.

For a complete listing of the options available in each category of the Document Report, see FreeHand Help.

To use Document Report to generate a printed or on-screen report:

1 Choose File > Report to display the Document Report dialog box.
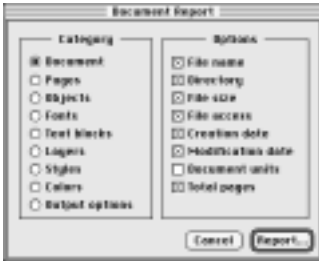
2 Click each category to display the available options.

3 Customize your report by checking and unchecking options in each category to meet your needs, or the needs of your service provider.

Hold down Option (Macintosh) or Control (Windows) and click any of the Options checkboxes to turn all displayed options on or off in a selected category.

4 Click Report to display your report on screen.

The Document Report Viewer appears, including your detailed report by category.

Collecting components for output

The Collect for Output command gathers components needed to print the current document and copies those components to a common location. Use Collect for Output when preparing a document to send to a service bureau. Collect for Output saves a copy of the following components:

◆ The original FreeHand document

◆ Each linked graphic

◆ A FreeHand document report

◆ All fonts in the document except fonts embedded in EPS files

◆ The print set file chosen in the Print Setup dialog box at the time of collection

◆ The PPD chosen in the Print Setup dialog box at the time of collection

To use Collect for Output:

1 Choose File > Collect for Output.

If you have not saved the FreeHand document, a dialog box will prompt you to do so. Canceling this dialog box stops the Collect for Output process.

2 In the Document Report dialog box, choose items you want in the document report, and click Report (Macintosh) or OK (Windows).

For more information on Document Report, see "Choosing output options" on page 242.

3 In the Save dialog box, type the name of the report file, choose a destination for the collected materials, and click OK.

All collected materials, including the newly generated document report, are copied to the location you choose.

Note: License agreements vary from font to font. Before distributing any font, make certain that the font's license agreement gives you the right to do so.

9

CHAPTER 9
Color Management

Managing colors in FreeHand

Color management is the process of maintaining color consistency throughout a workflow, from your monitor to the final product. As you design color illustrations in FreeHand, naturally you want the colors of your final product to match the colors you see on your monitor.

However, monitors display colors using additive RGB color, while printing presses recreate colors using subtractive CMYK color. Because the RGB gamut, or range of colors, is much larger than the CMYK gamut, some colors projected on a monitor can only be approximated in print.

- Human eye gamut
- Photographic film gamut
- RGB monitor gamut
- Process printing gamut
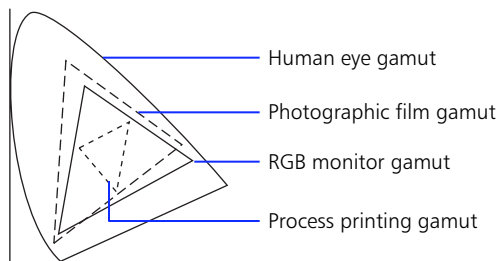
For more information about colors, see Chapter 6, "Color, Strokes, and Fills," and the Show Me movie "Using Color" in FreeHand Help.

Illustrations typically pass through one or more electronic devices or software applications on the way to final output. Printing a FreeHand document to a local printer, for example, involves FreeHand, your computer's monitor and operating system, and the printer. Color interpretation from one device or application to another can vary. Even colors in artwork created strictly for the Internet can vary from monitor to monitor.

Furthermore, some elements of a FreeHand illustration may come from another electronic device or another software application. One device or application's interpretation of colors may differ from that of another device or application. Even between devices or applications of the same type—or even the same brand—color interpretation may vary due to age, wear, current settings, and other factors.

This chapter describes each option for managing colors in FreeHand. To use color management, choose a Colors › "Color Management" preference option. Clicking on Color Management in the Print dialog box also displays the color management options. If you do not want to use color management, choose None from the pop-up.

Choose from four color management options.

Adjust Display Colors—Adjust color values visually to match colors from a color swatch book or printed samples, or use specific numeric values.

Kodak Color Tables—Use FreeHand's RGB-to-CMYK and CMYK-to-RGB color conversion tables to manage colors without Kodak Digital Science (KDS) extensions installed on your computer. The conversion tables use selected data from KDS extensions and interpolate color values during conversion.

Kodak Digital Science—Use the Kodak Digital Science (KDS) monitor profiles, separation-printer profiles, and composite printer profiles information to include FreeHand in your color management strategy.

Choose	When
Adjust Display Colors	Precise color matching is unnecessary but you want to calibrate monitor colors to approximate colors from a swatchbook or printed samples.
Kodak Color Tables	You want to use limited color management based on KDS data, when, for example, the KDS extensions are not installed.
Kodak Digital Science (KDS)	FreeHand is part of a strategy to manage color throughout your workflow, and you need full color management.
None	Final output is RGB, web safe colors, or 35mm slide, or color management is unnecessary.

Using Adjust Display Colors

Use Adjust Display Colors to calibrate monitor colors visually to match sample output colors or numerically to match specific color values. For example, use colors from a swatchbook as sample colors. To match monitor colors with a printer's output, print sample colors on the printer and compare the printed output with the screen colors. This color management option is simpler than Kodak Digital Science, but much less accurate.

Note: FreeHand 8's Adjust Display Colors option is the same as the Adjust Display Colors option in FreeHand 4, 5, and 5.5.

To calibrate your monitor using Adjust Display Colors:

1 Choose a set of test colors to which you want to calibrate your monitor.

Use a color swatchbook or print sample colors from the target printer.

2 Choose Adjust Display Colors in the Colors > "Color Management Type" preference.

The Calibrate button appears under the pop-up.

3 Click Calibrate to display the Display Color Setup dialog box.

Click to display the Display Color Setup dialog box.

Click a color to adjust the color's values.
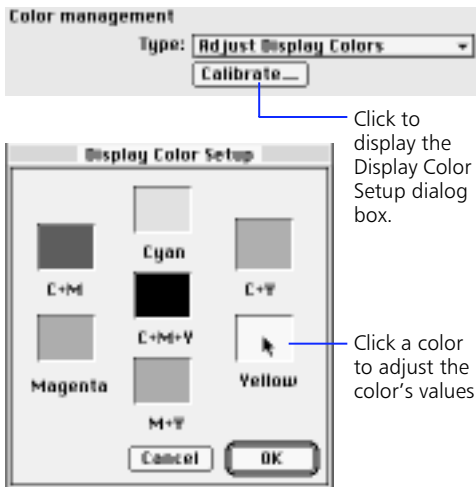
4 Click any color in the dialog box to display an Apple Color Picker or Windows Color dialog box.
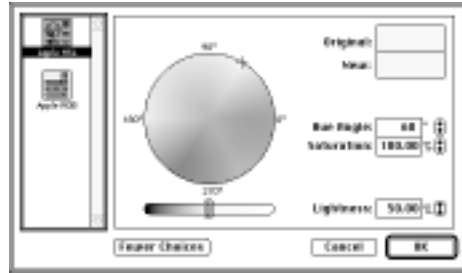
Apple Color Picker
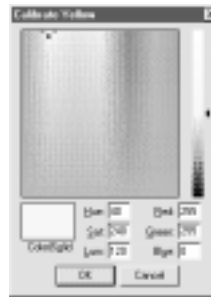
Windows Color dialog box

5 Hold color samples from the output device or color swatchbook next to the color on the screen to compare and adjust the on-screen color to match the sample.

Using profiles and color conversion to manage colors

Generally, a thorough color management strategy has seven steps:

1 Specify colors you want to use.

2 Calibrate your monitor.

3 Measure colors you want to use.

4 Build or specify profiles for each device in the workflow.

5 Convert RGB colors to CMYK colors.

6 Print proofs to the output device.

7 Print the final output.

A color management system such as Kodak Digital Science or Apple ColorSync ties these steps together for effective color management.

Using a color management system requires an understanding of color management that exceeds the scope of this chapter. If your task requires color management and the concept is new to you, we recommend researching the topic before using the Kodak Digital Science option.

Building or specifying profiles

A profile describes a device's behavior regarding colors. It is created by measuring the output range of a particular color device under controlled conditions.

When a document requires extremely accurate color reproduction, sophisticated measuring instruments, such as spectrophotometers or colorimeters, and special software are used to create custom profiles for the actual devices used to produce the document. These profiles precisely map the color gamut and other characteristics of each device.

While custom profiles are the ideal approach, building them requires a thorough knowledge of color management and color management tools.

The Kodak Digital Science color system helps you manage color in FreeHand using standard profiles approved by the International Color Consortium (ICC). Manufacturers furnish model-specific, ICC-compatible profiles that appear on FreeHand's Color Management pop-ups when the "Kodak Digital Science" preference is chosen. Available custom profiles also appear.

FreeHand reads all ICC-compatible profiles. Additional manufacturer profiles are available on the Internet at www.colorsync.com.

Simply stated, to calibrate is to adjust the device colors to match the device profile. Whether the profiles are custom or vendor-supplied, each device in the workflow must be calibrated to its profile for effective color management. Consult the device's documentation for each device to learn how to calibrate it.

Note: The Kodak Color Tables option is described on page 252.

Using Kodak Digital Science profiles to manage colors

Use Kodak Digital Science (KDS) to integrate FreeHand with your overall color management strategy. Choose from a variety of ICC-compatible manufacturer profiles, as well as any available custom profiles.
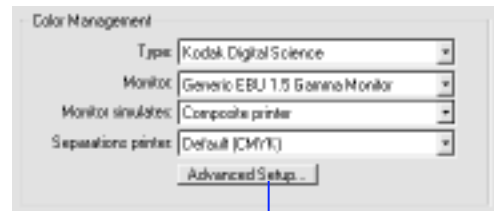
Click to display Composite printer and RGB image default profile options and the Composite simulates.

Note: System-level color-related features, such as Gamma Control, may conflict with FreeHand's color management systems.

The Kodak Digital Science is unavailable when the KDS extensions are not in your computer's System folder (Macintosh) or FreeHand 8 folder (Windows). To restore the extensions, drag and drop a copy of the Kodak extensions from the FreeHand CD-ROM onto your closed System folder (Macintosh) or copy them into your FreeHand 8 folder (Windows). If KDS is still unavailable, search for extension conflicts with other color management extensions.

Setting the monitor profile

Choose an ICC-compatible monitor profile from the Monitor pop-up. This option refers to the monitor you use to create illustrations.

Setting the monitor to simulate final output

In the Monitor simulates preference pop-up, choose from three options: None, Composite printer, and Separations printer. Base your choice on the final output device so that your monitor displays within the color gamut of that device.

For example, an artist designing graphics for on-screen display may opt for the brighter RGB colors by choosing None from Color management Type pop-up, choosing Adjust Display Colors, or choosing None in the Monitor simulates pop-up.

Note: The web safe color library is recommended for artwork designed exclusively for on-screen display. See Chapter 6, "Color, Strokes, and Fills," for more information.

Choosing None in the Monitor simulates pop-up affects neither the monitor display nor the printer profiles. As you view your document on screen, the monitor displays colors according to the monitor profile and the CMYK colors are displayed as CMYK according to the printer profile.

The monitor displays RGB colors based on the monitor profile. However, if the Monitor simulates setting is either Composite printer or Separations printer, then FreeHand uses the appropriate printer profile to adjust the RGB colors.

To set the monitor display to the composite printer profile, choose Composite printer in the Monitor simulates pop-up when your final output device is a composite printer.

To set the monitor display to the separations printer profile, choose Separations printer in the Monitor simulates pop-up when your final output device is a separations printer. The monitor bases on-screen display on the separations printer profile. This is known as soft-proofing.

Setting printer profiles

When printing a document for separations output, choose the appropriate profile from the Separations printer pop-up. The Separations printer options show ICC-compatible CMYK and Hexachrome printer profiles.
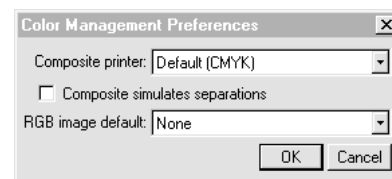
Click Advanced Setup in the Color Management preference to choose composite printer and RGB image default options.

When printing a document for composite output, click the Advanced Setup button. Choose the appropriate profile from the Composite printer pop-up. The Composite printer settings show ICC-compatible CMYK and RGB printer profiles. Choose the correct profile for your composite printer.

Leaving either the Composite printer pop-up or the Separations printer pop-up set to Default (CMYK) provides reasonable results for most printers. On the Macintosh, these defaults are built into FreeHand. In Windows, the defaults are stored with the default monitor profile. However, for best results, use custom profiles.

Using the Composite simulates separations option

With Composite simulates separations checked, choose Separations printer in the Monitor simulates pop-up so the monitor displays colors that match the output of the separations printer. The Composite simulates separations option bases composite printing on the separations printer profile; it prints simulated separation proofs on a composite printer.

When designing a four-color brochure, for example, print preliminary drafts to an in-house composite printer. To better view how the colors of the final brochure will look using your composite printer, check the Composite simulates separations option.

Note: When printing as a composite using a device that performs in-RIP separations, as some Scitex systems do, uncheck Composite simulates separations.

Printing separations using a Hexachrome printer profile

In addition to Default (CMYK), a generic Hexachrome profile is available for six-color (CMYKOG) output when a more suitable profile is not available. Choose a Hexachrome profile to separate to six-color output. When the printer profile is a Hexachrome printer profile, the monitor displays Hexachrome colors as if the Monitor simulates setting is None, and it displays CMYK colors as if the printer profile is Default (CMYK). Colors print as follows:

◆ **Hexachrome colors—**Hexachrome color library process colors remain unchanged and print using the defined Hexachrome values.

◆ **RGB color—**RGB process colors and RGB TIFFs separate into Hexachrome.

◆ **CMYK colors—**CMYK process colors and CMYK TIFFs remain unchanged when printing as Hexachrome. CMYK colors do not appear on the orange plate or the green plate.

◆ **Spot colors—**Any color defined as a spot color (CMYK or RGB) prints on its own spot plate unless Print spot colors as process is checked in the Separations tabbed panel of the Print Setup dialog box, in which case the colors separate to CMYK values.

Naming color profiles for cross-platform use

To use color profiles between Macintosh and Windows, add a period and the three-letter extension ICM to the profile name. Avoid special characters such as a slash (/) and parentheses. When sharing files between Macintosh and Windows operating systems, name the profiles with no more than 27 characters followed by a period and the ICM extension. This naming convention is important when assigning RGB images with device profiles.

In the FreeHand folder for either Macintosh or Windows, store profiles either in the ICM folder or in the System\Preferences\ColorSync™ Profiles folder (Macintosh) or Windows\System\Color folder (Windows).

Using Kodak Color Tables

Use Kodak Color Tables for limited color management without Kodak Digital Science extensions installed on your computer. This option manages only CMYK display and RGB conversion. TIFFs cannot be profiled.

The conversion tables use the Kodak extensions to create color averages from profiles and interpolate color values during conversion. When FreeHand is installed, two files named CMYKtoRGBtable and RGBtoCMYKtable are placed in the System folder (Macintosh) or two files named RGB2CMYK and CMYK2RGB are placed in the FreeHand 8 folder (Windows). These files initially contain default data for the Kodak Color Tables option to use. When profiles are chosen within Kodak Digital Science, these two files are updated.
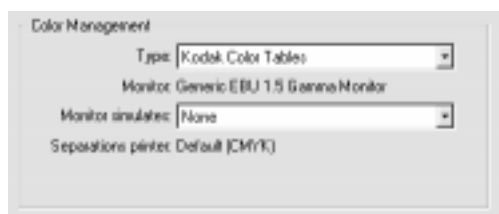
When Kodak Color Tables is chosen, the Monitor and Separations printer option choices are displayed without a pop-up. Kodak Digital Science Advanced Color Options are not available when Kodak Color Tables is chosen. However, the options None and Separations printer are available in the Monitor simulates pop-up.

The Kodak Color Tables option is available when the Kodak Digital Science attachments are not installed, but the profiles cannot be changed.

To change Monitor, Separations printer, or Advanced options when using Kodak Color Tables:

1 Choose the Color > Color Management > "Kodak Digital Science" preference.

If the Kodak Digital Science option is unavailable, drag a copy of the Kodak extensions from the FreeHand CD-ROM onto your closed System folder (Macintosh) or FreeHand 8 folder (Windows).

2 Choose one or more different KDS options.

3 Choose the Color > Color Management > "Kodak Color Tables" preference.

The newly chosen options are displayed in the Color Management area of the Color preferences dialog box.

Color management of RGB images

To improve the display and output of a selected RGB image, assign a device profile based on how the image was created. For example, if you scanned an image, assign the appropriate scanner profile using the RGB image default pop-up in the Colors › "Color management" preference. The device profile contains the source of the image's color creation and is otherwise referred to as the image source. The RGB default pop-up displays both monitor and scanner profiles.

The profile determines the colors that the image displays and prints within that profile's color gamut. The default setting of None displays and prints RGB images according to the Monitor profile.
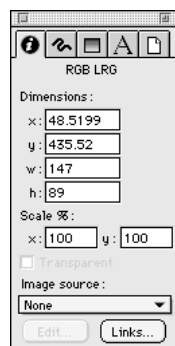
When you select an RGB image, the Object Inspector shows the type of RGB image, as well as its source.

Use the Image source pop-up in the Object Inspector to individually assign images with device profiles without changing the default profile in the Color preferences. The Image source pop-up is not affected by the Object › "Changing options changes defaults" preference. It is available only with the Kodak Digital Science Color Management option.

The Image source pop-up is useful when importing several images from different sources. For example, one image may have been adjusted to the monitor in Adobe Photoshop and another image to a scanner.

Tracking device profiles of relocated RGB images

Before moving a document with profiled images to another computer, install the necessary profiles on the new computer. When the profiles are not available, the following dialog box appears when opening the document:

The Missing image sources dialog box lists the missing device profiles needed to support your RGB images.

◆ When the document is reopened after installing the original profiles, the profile assignments of the RGB images remain intact.

◆ When the document is first opened without the original device profiles, the RGB image default device profile is temporarily assigned to the RGB images.

◆ When the document is opened without the original device profiles and you choose a new device profile to replace the temporary default, the new device profile is assigned to the RGB images.

Color conversion of RGB images when exporting an EPS file

◆ With the Convert RGB to Process option unchecked in the Output Options dialog box, FreeHand exports RGB image colors as RGB colors. These EPS files are intended for composite printing and will not reliably separate to CMYK.

◆ With the Convert RGB to Process option checked, RGB colors export as CMYK colors according to the separations printer profile. If there are Hexachrome colors in the document when exporting, a warning displays stating Hexachrome colors will export as CMYK process colors.

Note: With a Hexachrome profile chosen as the separations printer profile, RGB colors separate into Hexachrome when printing, but not when exporting.

Color conversion of RGB images for printing

◆ With the Convert RGB to Process option unchecked in the Output Options dialog box, FreeHand prints RGB image colors as RGB colors. These EPS files are intended for composite printing and will not reliably separate to CMYK.

◆ When printing separations, the RGB colors convert to CMYK or CMYKOG colors.

CHAPTER 10
Working with Other Applications

File types

Vector graphics

Vector graphics describe shapes mathematically. Lines and shapes drawn in FreeHand are vector graphics. Vector graphics retain smooth edges and fills at high magnifications.

Bitmap images

Bitmap images describe shapes using an array of pixels. Macromedia xRes and Adobe Photoshop are examples of applications used to create bitmap images.

Bitmap images often appear more photorealistic than vector graphics. However, bitmap images become pixelated and rough-edged when magnified. Bitmap image files are often larger in file size than vector graphics, especially at greater dimensions or higher resolutions.

FreeHand can import and transform bitmap images, but cannot edit them. Use Macromedia xRes for detailed editing of bitmap images.
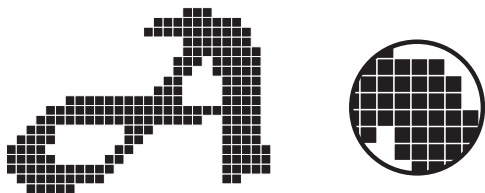
Bringing files into FreeHand

Use one of the following actions to import graphics or text:

◆ Import

◆ Paste

◆ Drag and drop

◆ Subscribe To (Macintosh)

The import method you choose affects how you manage and store your illustrations and imported objects.

Import

To import a file:

1 Choose File > Import or use Command-R (Macintosh) or Control-R (Windows).

2 Select a file and click Open.

If the file selected for import contains a preview, it displays when the file is selected.

Importing HPGL and DXF (Windows) opens an additional dialog box to set format-specific import options. See FreeHand Help for further details about these options.

3 Position the import cursor where you want to place the upper-left corner of the graphic or text block.

4 Click the mouse button to place the graphic at its actual size. Hold down Shift and drag a corner handle to scale the graphic.

Imported vector graphics are converted to FreeHand format and are stored in the current FreeHand document. The EPS file format is an exception. By default, an EPS graphic is linked to the FreeHand document, not embedded.

Bitmap formats other than TIFF, LRG, and PNG are converted to TIFF and embedded in the FreeHand document. By default, TIFF, LRG, and PNG are linked to the FreeHand document, not embedded.

A preview of a linked graphic is placed into your document. Storing a preview (linking) rather than the entire imported file (embedding) makes your document smaller.

To force EPS, TIFF, LRG, and PNG files to embed, check the Import › "Embed images and EPS upon import/export" preference.

Choosing a format

Most applications save or export files in several formats. Choose a graphic or text file format based on one of the following:

◆ The file formats supported by the exporting application

◆ The file formats imported by FreeHand

◆ Your final output device and production requirements

◆ Specific attributes you want to import

To import from	Do this
xRes	Save as LRG,TIFF, or PNG
Adobe Acrobat	Open directly in FreeHand
Adobe Illustrator	Open directly in FreeHand
Adobe Photoshop	Open directly in FreeHand
Adobe PageMaker	Export text as RTF Export a single page by printing to disk as EPS
CorelDRAW	Open version 7 directly in FreeHand on Macintosh; open versions 3, 5, 6, and 7 in FreeHand on Windows
QuarkXPress	Export text as RTF Export a single page as EPS
Word processors (Word, WordPerfect)	Save text as RTF
3D modeling applications	Save as AutoCAD DXF or bitmap

Note: To import from Adobe Photoshop 3 or 4, check Photoshop's 2.5 compatibility preference.

Copy and paste

Pasting is another way to import and embed a graphic. It is most efficient for transferring objects from one FreeHand document to another. Pasting is also a good way to transfer graphics or text from an application that cannot export in a file format supported by FreeHand's other import methods.

Graphics copied from a source application and pasted into the active FreeHand document appear in the center of the screen.

Different applications support varying formats, so an application may copy more than one format to the Clipboard. The format that provides the most information about the object is placed. FreeHand pastes a vector graphic, if available, or a TIFF, if unavailable.

Drag and drop

Drag and drop objects into FreeHand from applications that support Apple's Drag Manager (Macintosh) or OLE Drag and Drop (Windows). Some of these applications include Photoshop, Illustrator, and Netscape Navigator (Macintosh). Drag and drop objects from one FreeHand document to another.

To drag and drop graphics:

1 Select a graphic in an application and drag it over an open FreeHand document.

2 Position the cursor where you want to drop the selection and release the mouse button.

Subscribe (Macintosh)

FreeHand supports the Macintosh feature of Publish and Subscribe, which allows FreeHand to import a file that has been published as an edition file. This edition file can contain graphics or text. FreeHand only subscribes to edition files that have been published as a PICT or as an EPS. See FreeHand Help for details.

Results of importing

Imported file format	Windows extension	Imported as
Adobe Illustrator 1.1 through 7.0	AI	Editable paths
Adobe Photoshop 3.0 through 4.0	PSD	TIFF
AutoCAD DXF	DXF	Editable paths
Computer Graphics Metafile	CGM	Editable paths
CorelDRAW 3 through 7	CDR	Editable paths
Encapsulated PostScript (EPS)	EPS	EPS
FreeHand 2.0 through 7.0.2	FH3, FH4, FH5, FH7	Editable paths
GIF	GIF	TIFF
HPGL Graphics	PLT	Editable paths
JPEG	JPG	TIFF
Macintosh Picture (PICT and PICT2)		TIFF
Micrografx Designer 3.x	DRW	Editable paths
Portable Network Graphic (PNG)	PNG	PNG
Targa	TGA	TIFF
Tagged Image File Format (TIFF)	TIF	TIFF
Windows Metafile (WMF)	WMF	Editable paths
Windows Enhanced Metafile (EMF)	EMF	Editable paths
Windows Bitmap (BMP)	BMP	TIFF
xRes 2 and 3	LRG	LRG

Note: CGM, DRW, DXF, EMF, PLT, WMF, and CorelDRAW CDR versions 3, 5, and 6 can be imported only into FreeHand on Windows.

Importing and Exporting DCS EPS files

Use DCS EPS (Desktop Color Separation Encapsulated PostScript) files to increase the speed of printing high-resolution EPS files. Each DCS 1.0 EPS is split into five files: one low-resolution composite preview file and one file for each of the four process colors. The DCS 2.0 format is a single file containing all of the data within the five DCS 1.0 files. FreeHand can import DCS 1.0 and DCS 2.0 files and export DCS 2.0 files.

To use a DCS 1.0 EPS, import the low-resolution file from the DCS separations. When FreeHand creates process color separations, it automatically gathers information from the four other component files of the DCS EPS and outputs them to the appropriate plates.

To use a DCS 2.0 EPS, import the single DCS file. FreeHand automatically uses the low-resolution data for display and the high-resolution data for output to the appropriate plates.

To export a FreeHand object or illustration as a DCS EPS, choose File › Export › EPS DCS2. FreeHand exports a single DCS 2.0 EPS file containing a color preview.

Import a DCS as a linked image—do not embed it. For more information about linking and embedding, see "Linking and embedding" on page 266.

Colors

Colors in imported vector or editable EPS files are not always added to the Color List automatically. To add colors to the Color List when importing an editable EPS created in Adobe Illustrator, check the Import/ Export › "Convert editable EPS when imported" preference.

Other ways to add colors to the Color List from imported graphics include:

◆ Choosing File › Open instead of importing.

◆ Choosing Xtras › Colors › Name All Colors. This adds colors from imported vector graphics by their CMYK process color or RGB color name.

◆ Using the Eyedropper tool on the Xtra Tools panel to add colors from a TIFF, LRG, PNG, or bitmap preview of an EPS.

Sending information to other applications

FreeHand transfers graphics and text to other applications through these methods:

◆ Export

◆ Publish (Macintosh)

◆ OLE 2.0 (Windows)

◆ Copy and paste

◆ Drag and drop

Export

Exporting converts an illustration into one of several standard file formats that are compatible with many applications on the Macintosh and in Windows. When choosing an export method, consider the FreeHand export formats in the following table.

FreeHand export formats

Macintosh	Windows
Adobe Illustrator 1.1 through 7.0	Adobe Illustrator 1.1 through 7.0
ASCII Text	ASCII Text
Windows Bitmap (BMP)	Windows Bitmap (BMP)
Desktop Color Separations 2.0 (DCS2 EPS)	Desktop Color Separations 2.0 (DCS2 EPS)
Shockwave Flash 2 Movie (SWF)	Shockwave Flash 2 Movie (SWF)
FreeHand 3.1 through 7.x	FreeHand 3.1 through 7.x
FreeHand 3.1 text editable	FreeHand 3.1 text editable
Generic EPS	Encapsulated PostScript
GIF	GIF
JPEG	JPEG

Macintosh	Windows
Macintosh EPS	EPS with TIFF Preview
MS-DOS EPS	EPS with TIFF Preview
Acrobat PDF	Acrobat PDF
Photoshop EPS (CMYK)	Photoshop EPS (CMYK)
Photoshop RGB EPS	Photoshop RGB EPS
PICT	
PICT (paths)	
PICT2 (paths)	
Portable Network Graphic (PNG)	Portable Network Graphic (PNG)
QuarkXPress EPS	QuarkXPress EPS
RTF Text	RTF Text
TIFF	TIFF
xRes paths	xRes paths
xRes LRG	xRes LRG
Targa (TGA)	Targa (TGA)
	Windows Metafile (WMF)
	Windows Enhanced Metafile (EMF)

When exporting an EPS or PDF file to another application, optimize color consistency by converting the colors to CMYK, RGB, or both. The Export EPS and PDF Export dialog boxes have this option.

To choose a color conversion option before dragging and dropping and copying and pasting colors from FreeHand to another application, use the Import/Export › "Convert colors to" preference.

To export:

1 Choose File > Export or use Command-Shift-R (Macintosh) or Control-Shift-R (Windows) to display the Export Document dialog box.
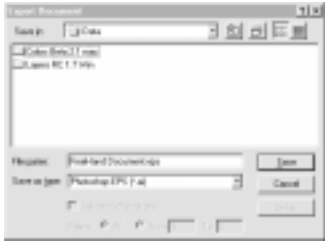
2 Choose the file format from the Format pop-up.

3 Type a file name and select the destination.

Check Selected objects only to export only selected objects, not the entire FreeHand document.

4 Click Export.

Choose File › Export Again to update the most recent exported document. Export and Export Again are similar to Save As and Save, in that both Export and Save As require a new document name, while both Export Again and Save update an already-named document.

If you choose Export Again, the Export dialog box appears if the document you are updating is not a version of the most recently exported document. When Selected objects only is checked, Export Again continues to export selected objects only.

Choosing an export format based on output device

To output to	Use
Low-resolution PostScript printer	Any compatible file format. An EPS or TIFF image prints most consistently, however.
Non-PostScript printer	Any compatible file format except EPS and DCS. Avoid effects that require a PostScript printer, such as Textured or Custom strokes and fills.
High-resolution printer or imagesetter	EPS for vector graphics and DCS EPS, CMYK TIFF, or CMYK LRG for color bitmaps.
Slide recorder	An EPS format if your slide recorder supports PostScript, or use a bitmap image format without PostScript effects.
Plotter, vinyl cutter, or sign-making machine	A graphic saved in a compatible vector graphics format.
World Wide Web	Shockwave Flash format (SWF) to display FreeHand illustrations exported to the Flash movie format. A compressible bitmap format such as GIF, JPEG, or PNG created at screen resolution also works.
Multimedia	A bitmap format such as PICT, BMP, or TIFF at screen resolution.

Choosing an export file format

To	Export as
Preserve prepress-ready color	Any CMYK EPS format
Print to a non-PostScript printer	PICT or PICT2 (Macintosh)
	Windows Metafile, Enhanced Metafile, or TIFF (Windows)
Open in FreeHand 3.x	FreeHand 3.x document
Open in FreeHand 4.x or 5.x	FreeHand 4.x/5.x document
Open in FreeHand 7.x	FreeHand 7.x document
Preview EPS on a Macintosh	Macintosh EPS (Macintosh)
	EPS with TIFF preview (Windows)
Preview EPS in Windows	MS-DOS EPS (Macintosh)
	EPS with TIFF preview (Windows)
Export editable text with formatting	RTF text
Export editable text without formatting	ASCII text
Edit in a non-PostScript drawing application	PICT or PICT2 (Macintosh)
	Windows Metafile or Windows Enhanced Metafile (Windows)
Edit in Photoshop	Photoshop EPS or TIFF
Edit in Illustrator	Adobe Illustrator
Create a cross-platform EPS file for use in QuarkXPress	QuarkXPress EPS
Use an EPS file on a non-Macintosh or non-Windows system	Generic EPS
Create a bitmap image of the document	TIFF, LRG, JPEG, GIF, PNG, BMP, or Targa

To	Export as
Create graphics for reduced-color and pre-built custom palettes	GIF
Create a color-separated EPS for use through OPI or other client-server software	DCS 2.0 EPS

Note: When converting FreeHand graphics to bitmap images, consider choosing Modify > Rasterize, which automatically converts each selected object into an embedded TIFF (page 266).

Exporting an EPS

Exporting an EPS file is the best way to preserve prepress-ready color. When saving as an EPS, consider the following items:

◆ **Multiple pages**—When you choose an EPS format, each page exports to a separate EPS file. Specify the page range to export.

◆ **Editable EPS**—Editable EPS is a special EPS format that can be opened and edited in FreeHand, then saved as an EPS without having to export. To save documents in this format, choose Editable EPS as the format in the File › Save As dialog box. This option is only available for documents with one page. Editable EPS always saves with a preview (Macintosh).

◆ **Fonts (Windows)**—If the PostScript Type 1 or TrueType fonts used are not installed in the final PostScript output device, include fonts in the EPS file. Click the Setup button in the Export Document dialog box and check Include fonts in EPS.

◆ **DCS 2.0 EPS**—When exporting an EPS for use through OPI or other client-server software, consider exporting the EPS as a DCS 2.0 EPS. The single DCS 2.0 EPS file contains a low-resolution color preview as well as color-separation data.

◆ **Output Options**—Output options affect export to EPS as well as printing. Choose File › Output Options to include invisible layers or choose from data formats including Binary (Macintosh) and Binary (Cross Platform). See "Choosing output options" on page 242.

To maintain color consistency among applications when exporting an EPS, use the "Convert Colors to" option in the Export dialog box to convert colors to CMYK, RGB, or both upon export.

Choose	To
CMYK	Produce standard CMYK output.
RGB	Rasterize (convert) in xRes 3 or Photoshop 4 or later.
CMYK and RGB	Transfer documents to an application with a PostScript RIP, such as Illustrator 7, Photoshop 4, or xRes 3.

Note: The RGB option and the CMYK and RGB option are not recommended for separations output.

Importing and exporting text

Use the same methods to import and export text as those used to import and export graphics. FreeHand supports two text formats: RTF (Rich Text Format) and ASCII (plain text). RTF text files retain text formatting of the original document while ASCII text files do not.

To import text files:

1 Choose File > Import to display the Import Document dialog box.

2 Select a file and click Open.

3 Click or click and drag in the document to place the imported text.

Click to place the text file at its original size. Click and drag to set the position and the size of the text block. Once imported, edit as any other text.

Note: FreeHand English does not support double-byte vertical text, which is typical in some Asian languages. When importing such text, FreeHand English simulates vertical alignment by rotating the text block; however, the character orientation defaults to vertical.

To export text files:

1 Choose File > Export to display the Export Document dialog box. Name the text file and choose a location for it.

2 Choose RTF text or ASCII text from the Format (Macintosh) or Save as type (Windows) pop-up, and click Export.

Only text (no graphics) exports from the FreeHand document. Linked text blocks export in the order that they are linked. Unlinked text blocks export in their stacking order from back to front, first page to last page.

You can drag and drop text to import it and export it from FreeHand. The destination application must support dragging and dropping text. To import or export small amounts of text, use the Clipboard.

Rich Text Format (RTF)

FreeHand preserves these attributes when importing or exporting an RTF file:

◆ Font

◆ Size

◆ Style—Plain, Bold, Italic, and BoldItalic

◆ Effect—Shadow, Strikethrough, and Underline (import and export); Outline, Subscript, and Superscript (import only)

◆ Color

◆ Margins

◆ Tabs—left, right, center, and decimal

◆ Tab leaders—line, dotted line, and dashed line (the default presets)

◆ Indents

◆ Alignment—left, right, center, and justified

◆ Baseline shift

- ◆ Letter spacing
- ◆ Linked text
- ◆ Horizontally scaled text

Restrictions include the following: Custom tab leaders default to dashed tab leaders. Custom Strikethrough effects default to the effect's default setting. The Underline effect supports single, dotted, dashed, dot-dash, and dot-dot-dash underlines. All other custom Underline effects default to single underline.

Replacing missing fonts upon import

When importing an RTF file containing fonts and text styles not installed on your computer, the Missing Fonts dialog box prompts the selection of installed fonts and text styles to replace the missing ones. For more information about options available in the Missing Fonts dialog box, see "Handling font substitution" on page 271.

Exporting text with inline graphics

Adhere to these guidelines to successfully export text containing inline graphics from FreeHand for use with other applications:

- ◆ FreeHand supports exporting text with inline graphics to FreeHand 7 export format.

- ◆ FreeHand supports exporting text with inline graphics to versions prior to FreeHand 7 only when saving the file in FreeHand's anti-aliased PICT image format (Macintosh), in any EPS export format (except Photoshop EPS format), or in any bitmap format (BMP, GIF, JPEG, PNG, Targa, LRG, and TIFF).

  When exporting a file containing text with inline graphics to a file format that does not support them, black dots replace the inline graphics in the exported file.

- ◆ To save a file in Adobe Illustrator, Photoshop EPS, or FreeHand 3.x, 4.x, or 5.0 export formats, convert the text with inline graphics to paths before exporting.

Exporting a GIF

The improved GIF Xtra offers greater control over mapping when exporting from FreeHand to the GIF file format. The GIF Xtra supports reduced-color and pre-built custom palettes, including Netscape Navigator, Internet Explorer, system palettes, transparency, and dithering options.

Publish (Macintosh)

When using the Publish command, FreeHand exports a version of the graphic as an edition file. That edition file can be subscribed to by other documents or other applications that support Publish and Subscribe. See FreeHand Help for details.

Object Linking and Embedding (Windows)

OLE is a Windows standard for sharing information between applications. One application acts as an OLE client, or "container," maintaining the other application's objects, while the other application acts as a server, providing objects as well as editing its own objects.

FreeHand supports OLE 2.0 only as an OLE server application. Choose Insert Object from any Windows application supporting OLE 2.0. Selecting FreeHand 8 launches FreeHand and creates a new file. After updating and exiting, double-click FreeHand to launch the application and open the file.

Copy and paste

Graphics and text can be exported by copying them to the Clipboard. They can then be pasted into other applications that can read the exported format.

Set the formats that FreeHand exports to the Clipboard in the Import/Export preferences.

To maintain color consistency among applications when exporting an EPS, use the "Convert Colors to" option on the Export dialog box to convert colors to CMYK, RGB, or both.

Choose	When
CMYK	Using CMYK colors exclusively, or when pasting to an application that does not support RGB PostScript, such as Photoshop 3.
RGB	Using RGB colors exclusively, or when pasting to an application that supports RGB PostScript, such as xRes 3 or Photoshop 4.
CMYK and RGB	Using both types of colors, or when pasting to an application that supports both color models in a single document, such as Illustrator 7. This setting forces the target application to convert the colors.

Note: The RGB option and the CMYK and RGB option are not recommended for separations output.

To copy and paste into Photoshop, check the Export › Clipboard output formats "Adobe Illustrator™" preference (Macintosh).

Drag and drop

Move objects from FreeHand to other applications that support Apple's Drag Manager (Macintosh) or OLE Drag and Drop (Windows). Some of these applications include Photoshop, Illustrator, and Netscape Navigator (Macintosh). Drag and drop objects between FreeHand documents.

The color conversion preference options described in the previous section, "Copy and paste," apply to drag and drop export as well.

To drag and drop graphics:

1   Select a graphic in FreeHand and drag it over an open document in another application.

2   Position the cursor where you want to drop the selection and release the mouse button.

Rasterize in FreeHand

When FreeHand graphics require conversion to bitmap images, rasterize them directly in FreeHand. The rasterized objects become an embedded TIFF file residing in the FreeHand document.

If a graphic is too large to rasterize directly in FreeHand, an error message appears. For more complex graphics, use the FreeHand export option. Macintosh users may opt to increase the memory allocation for FreeHand.

To rasterize one or more objects in FreeHand:

1 Select one or more objects.

2 Choose Modify > Rasterize or use Option-Command-Shift-Z (Macintosh) or Alt-Control-Shift-Z (Windows).

The Rasterize dialog box appears.

3 Type or choose a resolution, choose an anti-aliasing setting, and click OK.

The original vector objects are deleted and are replaced with a bitmap image.

Linking and embedding

Creating a link to an EPS, TIFF, LRG, or PNG graphic displays a preview. When printing or exporting, FreeHand uses the high-resolution source graphic, not the preview. Every time a document containing a link is opened, FreeHand checks the link. If the source graphic cannot be found, the graphic is not displayed or printed.

Creating an embedded graphic copies the source graphic and stores it in the FreeHand document. The same graphic now exists both externally as the source graphic and internally as an embedded graphic. FreeHand no longer requires the external graphic for display or printing.

To always embed graphics, check the Import/Export › "Embed images and EPS upon import" preference.

Note: DCS EPS files cannot be embedded in a FreeHand document.

Linking conserves disk storage space since it creates a reference to a graphic rather than making a second copy of the graphic. Linking requires less RAM because a low-resolution preview of the graphic is displayed. Updating changed graphics is easier when graphics are linked because the graphic updates automatically when the document opens.

A disadvantage of linking is the possibility of breaking links to your graphics by moving or renaming them. Graphics with broken links do not display or print until the link is re-established.

When graphics are embedded, you do not have to have the original graphic files in order to print or view the illustration. The embedded graphic is part of the document. Embedding is useful when you want to transport the illustration without having to worry about breaking links, although the illustration file is larger with the graphics embedded instead of linked.

A disadvantage of embedding is that it increases the amount of RAM necessary to display the document. Also, twice as much disk storage space is used, since the embedded documents exist in the FreeHand document as well as in their original location.

Managing links

When linking or embedding a graphic, FreeHand records the graphic's file name and disk location. When you open, export, or print the illustration containing a link, FreeHand looks for the linked graphic by its file name. If the source graphic is not in its original folder, FreeHand looks for it in the same folder as the FreeHand document.

When moving a document to another computer or to a storage device for transport, save imported graphics in the same folder as the document or embed all the external graphics in the document.

Use the Collect for Output command to gather all components, including linked graphic files, needed when preparing a document to send to a service bureau. See "Collecting components for output" on page 245.

Links dialog box

Choose Edit › Links to display the Links dialog box, or select a linked or embedded graphic and click the Links button in the Object Inspector.

Broken links

A link to an imported graphic breaks when one of the following occurs:

◆ The graphic is moved out of the folder or disk from which it was originally imported, and it is not in the same folder as the illustration in which it was placed.

◆ The file name of the graphic changes.

◆ The graphic is relinked to another file.

◆ If the file's path changes, including a server name change.

View the file size.

View the file name.　　View the image.

View the page number of the document on which the upper-left corner of the image appears.

Click to extract an embedded graphic to a file and create a link to the new file.

Click to open the Change dialog box and re-establish a broken link or change the link.

Click to embed the image.

View the full path location.

View the name, location, size, type, and modification date as well as a thumbnail of the image.

Re-establishing a broken link

When opening a document with a broken link, a dialog box asks you for the new location of the graphic.

After locating the graphic, save the link to the graphic's new location by saving the document. Choosing an updated or different graphic updates the preview. Clicking Cancel prevents the link from re-establishing. FreeHand displays a placeholder and the graphic does not print or export. FreeHand asks for the location of the graphic each time the document is opened until you re-establish the link or delete the graphic.

The Links dialog box lists files with broken links in italic with "????" listed under Size. To re-establish the link, choose the unlinked file from the list and click the Change button. Navigate to the renamed or moved file to relink it to your FreeHand document.

Searching for missing links (Macintosh)

Check the Document › "Search for missing links" preference to automatically search a specified folder and its subfolder for missing links. Click the Edit button to designate the folder to search.

Updating a link

Update a link by saving a more recent version of an imported graphic using the same file name and location. The preview automatically updates.

Working with imported bitmap images

FreeHand supports TIFF, JPEG, PNG, LRG, Targa, BMP, and Photoshop formats. To set default export options for bitmap images, click the Import/Export › "Bitmap export" preference button, or choose File › Export › Options (Macintosh) or Setup (Windows) to display the Bitmap Export Defaults dialog box.

Check to include an alpha channel.

Set the default resolution.

Choose the amount of anti-aliasing.

Click to set format-specific options.

Check to use all objects on background layers to define the alpha channel.
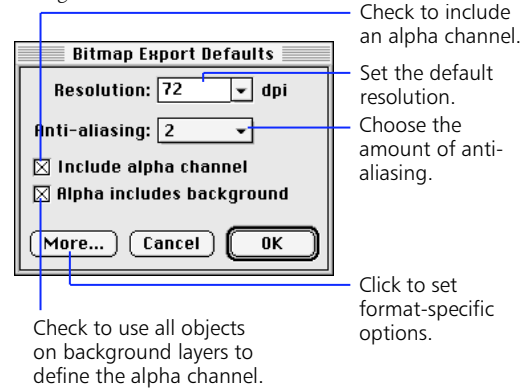
For detailed descriptions of format-specific options, see FreeHand Help.

RAM

Higher resolution and higher anti-aliasing settings in the Bitmap Export Defaults dialog box may require larger amounts of RAM when rasterizing vector images.

If insufficient RAM is available, a dialog box appears informing you that FreeHand does not have enough RAM to complete the operation. If this dialog box appears, use lower resolution or anti-aliasing settings and re-export.

On the Macintosh, allocate more memory to the FreeHand application by quitting FreeHand, selecting the FreeHand application file, choosing File › Get Info in the Finder, and changing the Preferred Size under Memory Requirements. In Windows, close other open applications to increase the amount of memory available to FreeHand.

Working with alpha channels

By using alpha channels, FreeHand can export bitmap images with complex masking and transparency for use in image editing applications. An alpha channel is a layer of a graphic that defines which areas of the graphic are transparent and which areas of the graphic are opaque.

Use alpha channels to quickly define an outline or edge of an object. This is useful when creating a graphic for a web page, or in multimedia or video when you want to see a background graphic through areas of the image you are creating. FreeHand does not support alpha channels upon import.

FreeHand supports alpha channels when exporting in these formats:

◆ LRG

◆ TIFF

◆ Targa

◆ PNG

◆ BMP

Creating an alpha channel

When exporting a bitmap format that supports alpha channels, check Include alpha channel in the Bitmap Export Defaults dialog box to automatically create an alpha channel on export. The formats must be exported as 32-bit to support alpha channels. Click the More button in the Bitmap Export Defaults dialog box to choose 32-bit with Alpha.

The alpha channel is a mask or outline of all the objects on your page. When opening the image in an application that supports alpha channels, the edges of objects in the image can be easily defined.
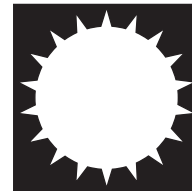
Original graphic   *Alpha channel that FreeHand exports*

Transparency

Use a background layer to define custom areas of transparency on graphics exported as bitmap images with alpha channels.

Note: The Lens fill's Transparency option is a simple way to apply a transparency effect. See "Lens fills" on page 172.

To define a custom transparency:

1 Create a graphic.

2 On a background layer, draw the desired mask.

Use only black, white, or grays for masking. White areas in the background layer appear opaque in the resulting bitmap, while black areas appear transparent. Grays or Gradient fills appear transparent with lighter grays appearing more opaque and darker grays appearing more transparent. Because a background layer does not print, defining an alpha channel this way does not affect printing of the document.
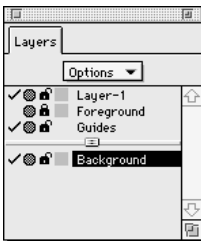
3 Choose File > Export and select a format that supports alpha channels.

The LRG, TIFF, Targa, PNG, and BMP formats support alpha channels.

4 Click Options (Macintosh) or Setup (Windows). In the Bitmap Export Defaults dialog box, set the resolution and anti-aliasing. Check Include alpha channel and Alpha includes background.

5 Click the More button, select the 32-bit format, and click OK.

Resizing bitmap images

Resize an imported bitmap image by dragging its corner handles. Hold down Shift as you drag to constrain the proportions of the image as you resize it.

To resize the image in specific increments based upon the printer resolution, hold down Option (Macintosh) or Alt (Windows) as you drag to resize the image.

Scanning (Macintosh)

Using a scanner and the corresponding Photoshop acquisition plug-in, FreeHand can receive data directly from scanners. Consult the documentation for the scanner you are using for specific instructions on settings and options. When you use an acquisition plug-in to scan data into FreeHand, the resulting image is an embedded TIFF image.

See "Working with imported bitmap images" on page 268.

Launch and edit

Select an external application that launches from within FreeHand for editing imported TIFF, LRG, or PNG images.

To set the external editor:

1 Choose a format from the External Editors: Object pop-up in the Object preferences.

2 Click the […] button, choose an editor from the Choose External Editor dialog box, and click Open (Macintosh) or OK (Windows).

To use an external editor:

1   Select an image.

2   Choose Edit > External Editor or hold down Option (Macintosh) or Alt (Windows) and double-click the image.

With the Object › "Warn before launch and edit" preference checked, a dialog box is displayed to confirm that the launch and edit command is intentional. Click OK to launch the application.

If enough RAM is available, the application chosen as the external editor launches with the selected image opened. An Editing in Progress dialog box appears in FreeHand when the external application opens.

3   After editing and saving your image in the external editor, click Done in the Editing in Progress dialog box.

Any changes made to the image automatically update the placed image.

Working with PNG images

Portable Network Graphic (PNG) is an extensible bitmap image format that features lossless, well compressed storage of bitmap images.

In most cases, PNGs behave in FreeHand exactly as TIFF images behave. Use the Links dialog box to embed, extract, or change links to PNG files.

Because PNG is an extensible format, extra data may be appended to a PNG file by other applications. Since that data is specific to the application in which the PNG was created, FreeHand will ignore, but not delete, any such data.

Also, FreeHand can apply Photoshop plug-ins to PNG files. However, once a PNG image has been modified with a plug-in, it is converted to a TIFF and is embedded in the FreeHand document. After applying a plug-in to a PNG image, choose Edit › Links to extract the embedded image to an external TIFF file.

Handling font substitution

Replacing missing fonts

The Missing Fonts dialog box appears when FreeHand opens or imports a graphic containing fonts that are not installed in the system. From this dialog box, replace a missing font with a font installed in your system. When fonts are replaced, the text of the replaced font loses all the manual kerning data that was applied. Although most fonts exist for both Macintosh and Windows, fonts may need to be respecified when you transfer the illustration.

Choose	To
Replace	Replace missing fonts originally contained in the document but not currently installed. The Replace Font dialog box opens, letting you select a replacement font and style.
Select all	Select all of the missing fonts in the Missing Fonts dialog box and replace all missing fonts at once.
Cancel	Cancel the opening of the document.
OK	Allow the document to be opened without replacing fonts. The missing fonts are temporarily displayed and printed in system default fonts.

Automatic font substitution

The Missing Fonts dialog box does not appear if you use Adobe Type Manager's (ATM) font substitution feature. Instead, a temporary substitution occurs when the illustration is opened. ATM automatically applies each missing font's metrics and weight to a multiple master font, and marks the font name with a diamond in the font menu. Line breaks and word spacing are preserved, but the subtleties of the letter forms are lost. If you are concerned about typography, open the ATM control panel and uncheck Enable Font Substitution.

Xtras

Using the PDF Import and Export Xtras

FreeHand can open documents saved in the Portable Document Format (PDF), the standard developed for Adobe Acrobat. Choose File › Open, select a PDF file in the Open Document dialog box, and click Open. You can also choose File › Import, select the file in the Import Document dialog box, and click Open. Multipage PDF documents open as multipage illustrations. Each page has the same size and orientation as the original PDF document.

Managing text conversion upon import

The PDF Import Xtra does not provide automatic font substitution. When fonts specified in the PDF file are not present on your computer, the Missing Fonts dialog box appears and provides the option to select replacement fonts. As is always the case when substituting fonts, the appearance of the converted document may differ from the original.

The PDF Import Xtra supports all font formats allowed by PDF. These include PostScript Type 1, PostScript Type 3, and TrueType fonts.

Some PDF documents contain a large number of individual text blocks. This is a normal occurrence resulting from the manner in which the PDF creation tool structured the original PDF document. Consolidate the text blocks using FreeHand's text manipulation methods.

Managing graphic conversion upon import

PDF supports RGB, grayscale, and monochrome bitmap images. RGB colors are not converted to CMYK upon import. Modify these images just like any placed or imported bitmap image. EPS objects in a PDF document open as editable objects.

Depending on the structure of the original PDF document, an entire page may appear as a single object with the graphic objects pasted inside. Select the objects and choose Edit › Cut Contents to release them.

Exporting PDFs

PDF Export Options

Use	To
Pages	Specify pages for export.
Image Compression	Compress the bitmap image using JPEG compression.
Convert Colors to	Determine the color conversion: CMYK only, RGB only, or both.
Compatibility	Determine PDF type for export: Acrobat 1.0, Acrobat 2.x, or Acrobat 3.x.

To export a PDF file:

1 Choose File > Export to display the Export Document dialog box, and choose PDF from the Format (Macintosh) or Save as type (Windows) pop-up to display the Export Document dialog box.

2 Click Options (Macintosh) or Setup (Windows) to display the PDF Export dialog box. Set options and click OK.

Specify the number of pages, image compression, color conversion, and Acrobat compatibility.

3 Name the file, and click Export in the Export Document dialog box.

Image compression

The compression level of your bitmap images affects the PDF file's size and quality of printing. Higher compression levels yield smaller file sizes but result in printed bitmap images of a lower quality. Little or no compression yields larger documents that print with higher quality.

When designing a PDF document for print, choose little or no compression. When designing a PDF document for on-screen display, choose higher levels of compression.

Color conversion

Choose a setting in the Convert Colors to pop-up to export a PDF document with a color gamut suited for on-screen or print media.

Choose	To
RGB	Force document colors to convert to RGB for on-screen viewing. For example, use a bitmap editing application to edit images in a FreeHand PDF file for output to the Internet.
CMYK	Force document colors to convert to CMYK for printing color separations. For example, import a FreeHand PDF file into QuarkXPress for four-color output.
CMYK and RGB	Maintain the integrity of both RGB and CMYK colors for on-screen output or for import into other applications. For example, import a FreeHand PDF file into Adobe Illustrator.

Acrobat compatibility

The Acrobat-compatible format determines which options are available: Compress text and graphics, ASCII format, or Editable text format.

◆ Acrobat 3 supports compressed text and graphics, the ASCII text format, and the Editable format.

◆ Acrobat 2 supports ASCII format and Editable text format.

◆ Acrobat 1 imposes the ASCII format. Other options are not available.

With ASCII format checked, documents are exported as 7-bit. With ASCII unchecked, documents are exported as 8-bit. Check this option if problems occur when sharing PDF files on older networks and e-mail systems.

In general, leave Editable text format unchecked for read-only output, whether on screen or in print. Check this option only when you plan to edit the document in FreeHand or Adobe Illustrator after exporting it to PDF. Checking this option yields a larger PDF document.

For export limitations, see FreeHand Help.

Exporting Flash animations

The Flash Export Xtra exports a FreeHand document as an animated movie in the Shockwave Flash SWF format. Import the SWF file into Macromedia Flash 2, view it with the Shockwave Flash 2 player, or view it in a web browser (Netscape Navigator or Microsoft Internet Explorer) with the Shockwave Flash plug-in. Download Shockwave plug-ins for free from www. macromedia.com.

To export a FreeHand file to the Flash 2 SWF format, choose File › Export. In the Export Document dialog box, choose Flash 2 SWF from the Format pop-up (Macintosh) or the Save as type pop-up (Windows). Click Options to display settings for path compression, image compression, text, number of pages to export, method of animation (layers, pages, or both), and frame rate.

Path compression

This option affects graphic quality by controlling the precision used to convert FreeHand paths to Flash paths. More precision specifies more points on a path; less precision specifies fewer points on a path. Options range from None (highest quality, no compression, most points) to Maximum (lowest quality, greatest compression, fewest points).

Image compression

Bitmap images convert to JPEG format upon export. This option controls the image quality and the compression of color JPEG files. Options range from None (highest quality, lowest compression) to Maximum (lowest quality, highest compression).

Text

◆ Choose Maintain blocks to keep all the text together in a FreeHand text block for editing in Flash 2.

◆ Choose Convert to Paths to convert text to vector paths, so the text is no longer editable as text. Text attached to a path or text flowing inside a path is automatically converted to paths and therefore is not editable in Flash.

◆ Choose None to omit all text from the exported file.

Pages

This option specifies all pages or a range of pages. Each frame is the same size as the first page exported.

Animation

Choose any combination of the Animation options to export layer-based frames, page-based frames, or both:

◆ If neither Animate layers nor Animate pages is checked, each page of the FreeHand file is exported as a separate SWF file. The layers of each page make up a still image for that page.

◆ If only Animate pages is checked, each page is exported as a Flash frame, saving all pages into one SWF file. The layers of each page make up the image for that page (frame).

◆ If only Animate layers is checked, each layer is exported as a Flash frame. FreeHand exports each page as a separate SWF file, with numbered file names to denote the sequence. The layers (frames) for each page are included in the file for that page. Frames of animation are sequenced from the bottom layer to the top layer. The Guides layer and hidden layers (layers that are turned off) are not exported.

◆ If both Animate layers and Animate pages are checked, only one SWF file is exported. All layers of the first page are exported as a sequence of frames, followed by all layers of the second page, and so on. Each page can be used as a scene.

Frame rate

This option specifies the frame rate of the Flash movie in frames per second (fps). As in Flash, choose a frame rate from 0.01 fps to 120 fps, in increments of 0.01. For smooth animations use 12 fps.

Supported features

These FreeHand features are supported in the Flash SWF format:

◆ Basic strokes and fills

◆ Gradient fills

◆ Indexed or RGB TIFFs, LRGs, and embedded images (JPEG, GIF, PNG)

◆ Blended paths

◆ Composite paths, including text converted to paths

◆ Objects pasted inside clipping paths (clipping paths are ignored)

◆ Text blocks

For export limitations, see FreeHand Help.

Reducing SWF file size

Use Flash 2 to significantly reduce the size of an SWF movie exported from FreeHand.

To reduce the file size:

1 Open or import the SWF movie file in Flash 2.

2 Choose Modify > Movie.

The Movie Properties dialog box is displayed.

3 Click Match Contents and then click OK to set the dimensions.

4 Choose File > Export Movie, name the file, and click Save.

Placing objects on layers for animation

The Release to Layers Xtra ungroups blends or objects attached to a path and assigns each ungrouped object to a layer in consecutive order. The Xtra places the first object on the original layer and the last object on the last newly created layer. For best results, design the frames of your movie to animate upwards from the bottom layer to the top layer.

Release to Layers affects the following objects:

◆ Blends and blends on a path

◆ Text blocks

◆ Text on or in a path

◆ Inline graphics on or in a path

Note: Applying the Release to Layers command to text blocks converts the text to paths.

To ungroup the blend steps to layers, one step to each layer, select the blend and choose Xtras › Animate › Release to Layers. Always select objects before choosing Release to Layers. When a blend is released to layers, the first object in the blend remains on the original layer by default. The subsequent blend steps are placed on layers named New Layer, New Layer-1, New Layer-2, and so on. Display the Layers panel to see how the layers are created and named.

Importing from CorelDRAW 7

Using the CorelDRAW 7 Import Xtra, FreeHand on both Macintosh and Windows can open files saved in the uncompressed CorelDRAW 7 for Windows file format. FreeHand on Windows can open files in CorelDRAW versions 3, 5, and 6.

Requirements for opening CorelDRAW 7 files

◆ Files must be saved in uncompressed CorelDRAW 7 for Windows format.

   CorelDRAW files using either Graphics or Bitmap compression will not import properly.

◆ When opening CorelDRAW files using FreeHand for Macintosh, the CorelDRAW files must have names containing fewer than 32 characters and must have Corel's CDR extension.

For import limitations, see FreeHand Help.

Working with earlier versions of FreeHand

Because FreeHand's features change between versions, some illustration attributes may change or be omitted from a converted illustration. After converting a document to or from an earlier version, be sure it displays and prints properly before deleting the original document.

Converting files from earlier versions

To convert a file from an earlier version, simply open it in FreeHand 8. The converted file's name becomes "‹file name› (converted)" (Macintosh) or "‹file name›.FH8" (Windows).

FreeHand 4.x and 5.x files appear in FreeHand 8 much as they did in the earlier versions. However, some minor changes occur.

Converting attributes from version 3.x

Attribute	Converts as
Miter limit angle	Proportionally measured value
Letter spacing	Range kerning
Vertical text alignment	Left alignment
Oblique text effect	No text effect
Heavy, Outline, Stroke, and Fill text effects	Values in the Stroke Inspector and Fill Inspector

To convert a FreeHand 8 document to FreeHand 3.x, choose File › Export and choose the FreeHand 3.1 format.

Converting attributes to version 4.x and 5.x

These	Change to
Blends and blends along paths	Groups
Spot-to-spot blends and Gradient fills	Process colors
Charts	Groups
Envelopes	Paths that lose envelope settings
Multi-color Gradient fills	Paste insides that cannot be edited with FreeHand 5.x's Multi-Color Fill Xtra
Notes	Notes Only FreeHand 3.x can read notes. FreeHand 5.x can read the notes and names if the Set Note Xtra is placed in the FreeHand 5.x Xtras folder.
LRG files	Not exported to earlier versions
PNG files	Not exported to earlier versions
Paths with more than 1,000 points	Split paths placed next to each other to retain original shape
Inline graphics	A bullet in all versions except 5.5 where the graphic displays
Filled, open paths	Unfilled, open paths with fill data retained.
Lens fills	Basic fills

To convert a FreeHand 8 document to FreeHand 4.x or 5.x, choose File › Export and choose the FreeHand 4.x/5.x format.

Converting attributes to version 7.x

These	Change to
PNG files	Not exported to earlier versions
Lens fills	Paste insides

To convert a FreeHand 8 document to FreeHand 7.x choose File › Export and choose the FreeHand 7 format.

Pasteboard

In FreeHand 3.x the printable area is 40 inches by 40 inches, which is much smaller than the current 222-inch by 222-inch pasteboard. Before converting a version 8 document to version 3.x, all objects in the document must fit within a 40-inch by 40-inch area measured outward from the center of the FreeHand 8 pasteboard, regardless of the number of pages in the document.

FreeHand 4's pasteboard is 54 inches by 54 inches. When exporting from version 8 to 4.x, any objects outside the version 4.x pasteboard are not visible.

To see the FreeHand 4.x pasteboard area in FreeHand 8, check the Document › "FreeHand 4 page placement" preference to view the FreeHand 4 pasteboard area as a box in the lower-left corner of the Document Inspector's pasteboard window. If you move the pages of your document into this area and then save the document, you can see them when you open the document in version 4.x.

Multiple pages

Version 3.x does not support multiple pages. When you convert a multipage document to version 3.x, all pages convert to a single large page. Objects retain the same relative positions on the pasteboard as in the version 8 document.

Text on a path

FreeHand 8 automatically adjusts spacing of left-aligned text on a path to avoid overlapping letters due to path curvature. Text on a path in files created in earlier versions of FreeHand are only adjusted if removed from and re-attached to a path. Conversely, text attached to paths in FreeHand 8 retain the adjustment when opened in previous versions of FreeHand.

Filled open paths

When opening documents from earlier versions of FreeHand that contain filled, open paths, the fill attributes are present in the Fill Inspector; however, the fills do not display. To display the fills, ensure that the Object › "Show fill for new open paths" preference is checked, select the object, and reapply the fill.

CHAPTER 11
Xtras

Xtras at a glance

Xtras are plug-in software extensions that expand FreeHand's capabilities. Add or remove Xtra features to meet your specific needs.

With FreeHand's open architecture, many third-party companies develop a wide variety of Xtras to customize your work environment. The following table lists the Xtras currently shipping with FreeHand.

Use Xtra	Location	To
3D Rotation	Xtra Tools panel	Apply three-dimensional rotations to two-dimensional objects.
Add Points	Xtras > Distort and Operations panel	Add points halfway between each pair of points on a path.
Arc	Xtra Tools panel	Create an open or closed, concave or convex path.
Bend	Xtra Tools panel	Create a pinched or bloated look.
Blend	Xtras > Create, Modify > Combine, and Operations panel	Create a smooth transition between two or more paths with respect to shape, stroke, and fill.
Chart	Xtras > Chart and Xtra Tools panel	Create charts or pictographs.
Color Control	Xtras > Colors	Adjust the CMYK, RGB, or HLS colors of selected objects.
Correct Direction	Xtras > Cleanup, Modify > Alter Path, and Operations panel	Alternate the direction of paths in a composite path.
Crop	Xtras > Path Operations, Modify > Combine, and Operations panel	Remove portions of selected, closed paths outside the area of the top closed path.
Darken Colors	Xtras > Colors	Reduce the Lightness color setting by 5%.
Delete Empty Text Blocks	Xtras > Delete	Remove empty text blocks.

Use Xtra	Location	To
Delete Unused Named Colors	Xtras > Delete	Remove unused, named colors from the Color List.
Desaturate Colors	Xtras > Colors	Reduce the Saturation color setting by 5%.
Divide	Xtras > Path Operations, Modify > Combine, and Operations panel	Cut selected paths into sections defined by areas of overlap.
Emboss	Xtras > Create and Operations panel	Create a raised or impressed effect.
Envelope	Xtras > Distort and Operations panel	Distort an object by altering an outer boundary.
Expand Stroke	Xtras > Path Operations, Modify > Alter Path, and Operations panel	Convert an open path to a closed path.
Eyedropper	Xtra Tools panel	Extract a color sample from an object—including TIFFs, LRGs, and PNGs—and apply it to another object.
Fisheye Lens	Xtra Tools panel	Create a concave or convex lens effect.
Fractalize	Xtras > Distort and Operations panel	Apply orderly, geometrical transformations to a path.
Graphic Hose	Xtra Tools panel	Spray or scatter objects in a specified pattern.
Import RGB Color Table	Xtras > Colors	Load an imported document's colors onto FreeHand's Color List.
Inset Path	Xtras > Path Operations, Modify > Alter Path, and Operations panel	Create a second path inset from or outlining the original path with the same contours. Positive values yield paths inset from the original; negative values yield paths outlining the original.

Use Xtra	Location	To
Intersect	Xtras > Path Operations, Modify > Combine, and Operations panel	Create a path enclosing the area common to all selected, closed paths.
Lighten Colors	Xtras > Colors	Increase the Lightness color setting by 5%.
Mirror	Xtra Tools panel	Create a reflection of an object (Vertical, Horizontal), a 2x2 matrix of reflections of an object (Vertical and Horizontal), a radial group of duplicate objects and their reflections (Multiple with Reflect), or a radial group of duplicate objects (Multiple with Rotate).
Name All Colors	Xtras > Colors	Name all unnamed colors and place them in the Color List.
PDF Export	Export dialog box	Export a FreeHand document in PDF format.
PDF Import	Open and Import dialog boxes	Import a document in PDF format.
Photoshop™ Acquisition Plug-ins	Xtras > Acquire	Run Photoshop Acquisition Plug-ins within FreeHand.
Photoshop™ Plug-ins	Various Xtras menus	Run Photoshop Plug-ins within FreeHand.
PICT image (Macintosh only)	Xtras > Create and Operations panel	Convert vector graphics into a bitmap PICT format. Set the number of colors, the image resolution, whether dithering is used, and the extent of anti-aliasing.
Punch	Xtras > Path Operations, Modify > Combine, and Operations panel	Remove portions of selected, closed paths below the top closed path.
Randomize Named Colors	Xtras > Colors	Reassign colors for the entire document.
Release to Layers	Xtras > Animate and Operations panel	Ungroup a blend and place each blend object on its own layer.
Remove Overlap	Xtras > Cleanup, Modify > Alter Path, and Operations panel	Remove overlapping portions of a closed path that crosses over itself.
Reverse Direction	Xtras > Cleanup, Modify > Alter Path, and Operations panel	Switch the direction of any path.

Use Xtra	Location	To
Roughen	Xtra Tools panel	Create a hand-drawn look or jagged effect.
Saturate Colors	Xtras > Colors	Increase the Saturation color setting by 5%.
Set Note	Xtras > Other and Operations panel	Attach a non-printing label to an object.
Shadow	Xtra Tools panel	Apply drop shadows to vector objects.
Simplify	Xtras > Cleanup, Modify > Alter Path, and Operations panel	Reduce the number of points in a path.
Smudge	Xtra Tools panel	Create a variety of effects, including softened edges or drop shadows.
Sort Color List by Name	Xtras > Colors	Sort colors in alphanumeric order.
Spiral	Xtra Tools panel	Create an open, spiral-shaped path.
Transparency	Xtras > Path Operations, Modify > Combine, and Operations panel	Create a new path from the area common to two or more closed paths containing Basic fills.
Trap	Xtras > Create and Operations panel	Create spreads and chokes to compensate for misregistration when printing.
Union	Xtras > Path Operations, Modify > Combine, and Operations panel	Combine two or more closed paths into a single path enclosing the entire area of the original paths.

Managing Xtras

To customize the Xtras menus, turn off Xtras you do not intend to use. Turning off some or all Xtras increases the speed of the application.

Choose Xtras › Xtras Manager to display a list of all Xtras that are installed in the FreeHand Xtras folder. Checked Xtras are turned on. They appear in the Xtras menu and panels.

To turn on an entire submenu, check the submenu name. To turn off an entire submenu, uncheck the submenu name. To turn on or turn off all Xtras, choose All on or All off from the Options pop-up. Another way to turn on or turn off all Xtras is to hold down Option and click anywhere in the Xtras list (Macintosh) or right-click anywhere in the Xtras list (Windows). Click OK to confirm the changes.

To launch FreeHand without loading Xtras, hold down the Shift key when launching the application. To load Xtras after such a launch, choose Xtras › Xtras Manager and click OK.

After performing an Xtra operation, choose Xtras › Repeat [Xtra name] or choose Command-Shift-= (Macintosh) or Control-Alt-Shift-X (Windows) to apply the last performed Xtra operation again.

Installing and removing Xtras

To install an Xtra, drag and drop an Xtra file into the FreeHand 8 Xtras folder and restart FreeHand.

To remove an Xtra, drag the Xtra file out of the Xtras folder and restart FreeHand.

Xtras submenus

Xtras with similar features are grouped in submenus. A third-party Xtra may appear in the Xtras menu, the Xtra Tools panel, the Operations panel, or in a custom panel, depending on its design.

Submenu	Contains Xtras for
Animate	Using Flash
Chart	Manipulating charts and pictographs
Cleanup	Streamlining path manipulation
Colors	Modifying colors in a document
Create	Forming new objects
Delete	Removing objects
Distort	Altering paths
Export	Exporting files
Import	Importing files
Other	Miscellaneous uses
Path Operations	Manipulating paths

Xtras panels

The Xtra Tools and Operations panels provide convenient access to some Xtras. Choose Window › Xtras › Xtra Tools or Operations to display these panels. Choose from the Options pop-up on either panel to customize the panel display.
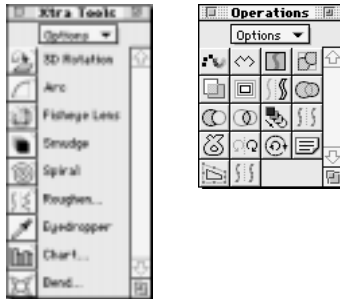
Select objects before applying Xtras in the Operations panel. To use any Xtra tool, except the Chart Xtra, choose the tool, and then click and drag to apply the Xtra. The Chart Xtra, which appears in both the Xtras menu and the Xtra Tools panel, has additional steps.

Some Xtras have dialog boxes that display various options. If a bracket appears in the upper-right corner of a button on the Operations panel, click it to display the dialog box for that operation. On the Xtra Tools panel, double-click a button with a bracket to display the dialog box for that Xtra.

Additional information about Xtras

For details about each Xtra that ships with FreeHand—including uses, option settings, and examples—see FreeHand Help.

APPENDIX
Moving to FreeHand from Illustrator or CorelDRAW

Every day, more and more artists and designers are moving from other drawing applications to Macromedia FreeHand. This section is intended as a quick guide to some of the most obvious differences between FreeHand and some of the other well-known drawing applications. While we encourage all readers to read the entire manual, we realize many accomplished digital artists already understand how drawing software works, and may get up to speed more quickly by simply learning the major differences when switching to FreeHand. So while this material is duplicated in other parts of the documentation, we hope this section will prove useful in making a smooth and easy transition to Macromedia FreeHand.

Points and basic manipulation

The basic unit of path manipulation is the point, which is very similar to points in Illustrator or nodes from CorelDRAW. Most FreeHand users change path shapes by adjusting either the points themselves or their handles.

Selected points are hollow, while non-selected points are filled—exactly opposite of Illustrator and CorelDRAW.
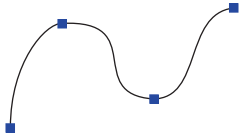
Only the path is selected.
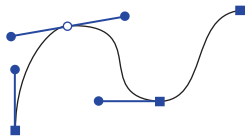
The second point is selected, showing its two handles plus the incoming handles from the neighboring two points.
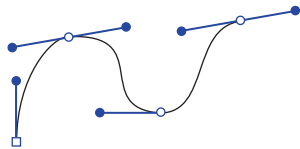
Every point on the path is selected.

If you were an Illustrator user, you are probably looking for the different selection tools. All selection and point manipulation is done with FreeHand's single but powerful Pointer tool.

Using the Pointer tool

◆ Select an unselected path by simply clicking it.

◆ Select any individual point by clicking the point. Hold down Shift and select to choose multiple points.

◆ Select any object that is part of a group, mask, or composite path by holding down Option (Macintosh) or Alt (Windows) and clicking it.

◆ To select several objects, drag a selection area with the Pointer tool. Objects have to be entirely marqueed to become selected. Sometimes particular points are selected in addition to the paths. To easily deselect those points but keep the path selected, press the Tilde key. This also works to select a group when you have an object in that group subselected.

◆ Move a path by clicking somewhere on the path where there are no points and dragging it around.

◆ Change the shape of the path by holding down Option (Macintosh) or Alt (Windows) and clicking the path. This results in Illustrator's default behavior of modifying the path directly.

In FreeHand you do not need special tools for adding points to paths or for deleting points. To add a point to a selected path, simply click with the Pen tool anywhere on the path and a point appears where you clicked. To delete points, select them with the Pointer tool and press Delete or Backspace.

The Pointer tool can also be used to resize basic objects like rectangles, ellipses, groups, and text. For instance, to resize a rectangle, select it with the Pointer tool, then drag any corner. Holding the Shift key resizes proportionally. To move the rectangle rather than resize it, make sure to click somewhere on the rectangle, but not on a corner point.

While dragging shapes or points, you may notice there is no snapping going on. This is because Snap to Point is off when you first install FreeHand. Choose View › Snap to Point to turn it on. FreeHand has a grid system you might want to take advantage of, as well as a complete guides environment.

Colors

CorelDRAW users, upon first launching FreeHand, are likely to wonder where all of the colors are. FreeHand defaults to an empty Color List, assuming most artists will begin a drawing by first creating the colors they need for that particular job. However, if you want to begin with a lot of colors, you can easily import as many as you like. In the Color List, there is a pop-up menu labeled Options. Use that menu to choose any number of predefined color libraries. Use FreeHand templates to have every new document open with a particular set of colors automatically.
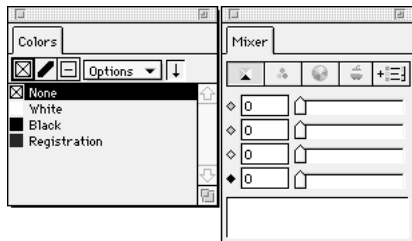
The Color List and the Color Mixer together form one of the central areas of FreeHand. Typically, most FreeHand artists start by mixing colors in the Color Mixer and dragging them over to the Color List, where they are automatically named. Rename a color at any time by double-clicking the color name and typing in a new one.

Dropping colors into the Color List is optional—you can simply use them directly from the Color Mixer. There are many advantages to naming frequently used colors. For instance, colors have to be named in order to appear in the pop-up menus that appear next to most color wells in the application. If you have a lot of unnamed colors, you can give them names automatically by choosing Xtras › Colors › Name All Colors.

FreeHand colors can be mixed in a variety of color spaces. Illustrator users who are working with Photoshop or Internet publishing should note that you can use RGB colors natively in FreeHand as well as CMYK colors.

To color an object, simply drag a color chip from the Color List or from any color well and drop it on the object you wish to color. Note that you can color unselected objects as well as selected ones. Or if you do not like dragging, select an object and click a color's name in the Color List.

If you have a lot of colors, choose Hide names from the Options menu in the Color List. This will give you a similar look to the color lists of Illustrator or CorelDRAW.
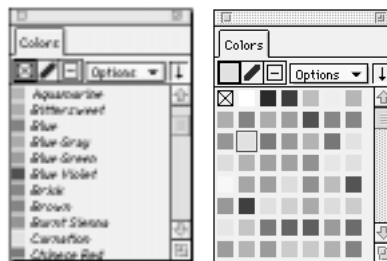
Some of your old Illustrator or CorelDRAW files may look like their colors have changed slightly when you import them into FreeHand. The primary cause of this is that FreeHand's color-matching system may be on by default, so FreeHand is probably showing you what those colors will look like when output as CMYK. If you are not interested in color matching, turn Color Management off by choosing None in the Colors › "Color management" preference.

Fills

Tapered fills in FreeHand are called Gradients. There are no special tools required to make a Gradient fill—select an object and specify the fill in the Fill Inspector.
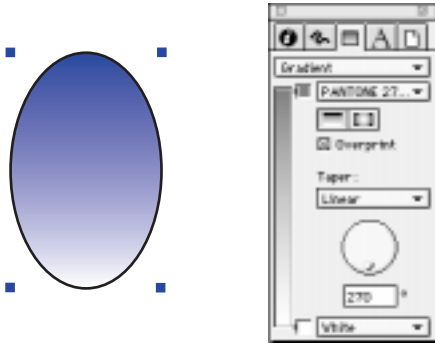
To change the colors of the fill, use the pop-up menu in the Fill Inspector or simply drag new colors directly onto the object. To change to a Radial fill, click the Radial button in the Fill Inspector.

To create multicolor fills, drag additional colors onto the color ramp.
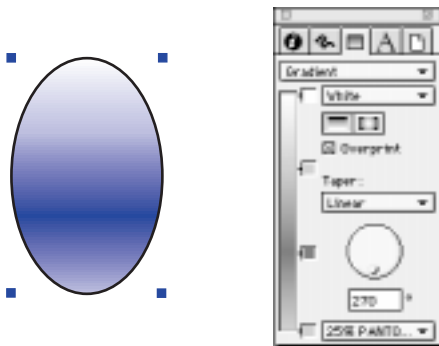
These fills can contain up to 32 colors, which can be dragged into different locations on the ramp. You may use either spot or process colors. To remove a color, drag it to the left of the ramp. To go back to a single-color fill, choose Basic from the pop-up in the Fill Inspector.

There are some shortcuts for creating these fills without having to use the Fill Inspector. If the object has a Basic fill, you can easily create Gradient fills by dropping a different color on an object with a modifier key. Press Option (Macintosh) or Alt (Windows) and drop a color chip to create a Radial fill. Hold down Control and drop a color chip to create a Graduated fill. Hold down Shift and drop a color chip to create a Basic fill. Use these shortcuts to create and edit Gradient fills faster than in any other application.

FreeHand's Pattern fills and Tiled fills can cause some confusion for users of other drawing applications. In FreeHand, Pattern fills are fixed-resolution bitmap fills which you can edit. These fills are not generally useful for high-end output. Tiled fills are the repeating fills created out of other FreeHand objects (what an Illustrator user would called Pattern fills). To create a Tiled fill, select the objects which are to be the tile, copy them, and paste them into the Fill Inspector.
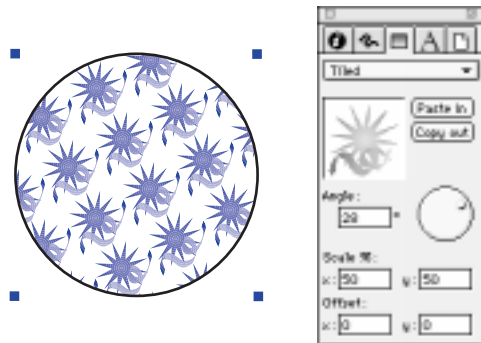
By changing the checkboxes in the Move portion of the Transform panel, you can control whether Tiled fills and the contents of masks move around with the filled path or not.
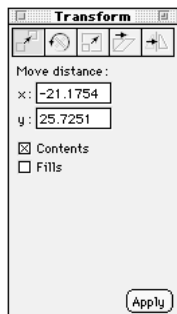
To get total control over strokes and fills, we highly recommend you check out FreeHand's object styles. Unique to FreeHand, these style sheets make global modifications extremely easy and natural—they are very similar to paragraph styles (which FreeHand also has). Also be sure to review the abilities of Find & Replace Graphics.

Blends

In FreeHand, blends are accomplished with a command rather than with a tool and can be altered at any time. If you are coming over from Illustrator, the concept of editable blends will be an extremely pleasant surprise.

Creating a blend is easy—select two or more shapes, and choose Modify › Combine › Blend.
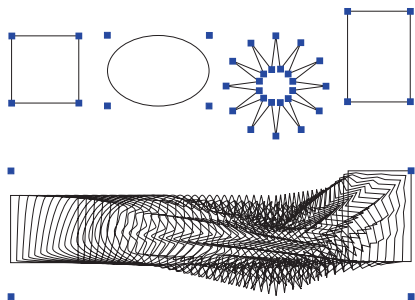
Everything about a blend is editable. To change the number of steps, type in a new number in the Object Inspector and press Return.
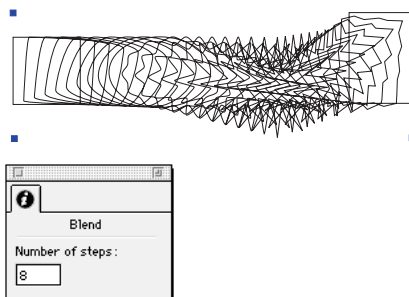
To move or change any of the original shapes, subselect with the Pointer tool one of the source shapes and change it; the blend will reflow automatically.
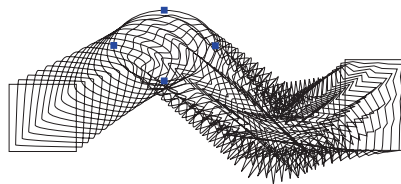
You can change colors, stroke widths, and fills. Here, we dropped four different colors on the strokes of the four source shapes.
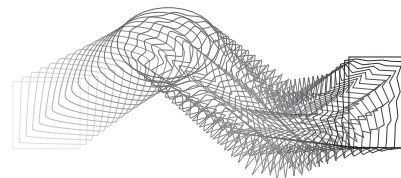
Then we created a simple path, and used the Modify › Combine › Join Blend to Path command to attach the blend to the path.
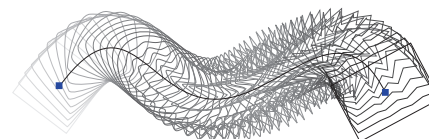
Everything is still editable. If you change the shape of the path, the blend will reflow itself to fit the new shape. In addition, you can still edit any of the source paths by subselecting them.

Another blend effect is to blend multicolor fills together. Here are two ovals, each with a different multicolor fill. Next is what they look like blended together.
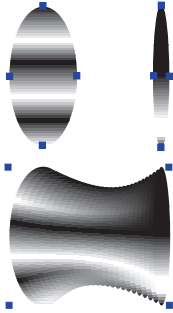
Since blends are always editable, we can select one of the two source shapes and change the angle of the fill for another neat effect.
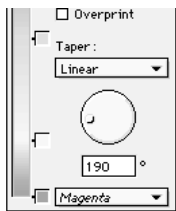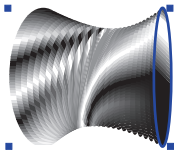
FreeHand even allows blending of spot colors.

FreeHand's blends have limitations. You can only blend strokes and fills which are somewhat alike. For example, you cannot blend an object without a stroke to an object that has a stroke. Similarly, you cannot blend an object with no fill to an object with a fill. Fills must have the same numbers of colors in them. So while you can blend together three objects which each have a 10-color fill, you cannot blend an object with a 9-color fill to an object with a 10-color fill. You also cannot blend an open path to a closed path.

Pen tool

FreeHand's Pen tool is probably very similar to what you are already used to. However, there is one very important feature of the Pen tool of which you should be aware. While you are placing points with the Pen tool, if you hold down Command (Macintosh) or Control (Windows) while you are dragging a point's handles, you can move around the actual point itself, as long as Command (Macintosh) or Control (Windows) is held down. Try it a few times, and you will wonder how you ever got along without it.

While adjusting the handles of a placed curved point, hold down Option (Macintosh) or Alt (Windows) to move the control handles independently and create a corner point.

Imported graphics

FreeHand has by far the best support of bitmap graphics in the industry. Files from applications like xRes and Photoshop can be either linked to or embedded into FreeHand. If you are currently using Illustrator 6, you have probably learned to avoid placing many graphics into your artwork, because the file size increases and all graphics are embedded. FreeHand uses a linking metaphor which is very similar to PageMaker and QuarkXPress. When you import a graphic into FreeHand, a link is made to that external file. You can view all your imported graphics in the Edit › Links dialog box.
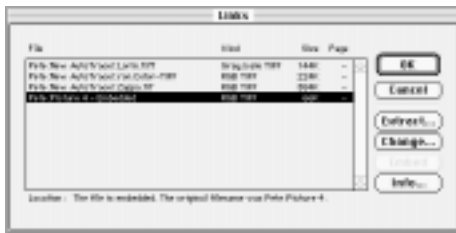
FreeHand allows you to embed linked files or extract embedded files.

To perform bitmap-style editing on an imported image, use Edit › External Editor to launch your favorite image editor, such as xRes or Photoshop, from within FreeHand.

In addition to importing graphics, you can also paste in all kinds of graphics from the Clipboard.

If you are a longtime user of other drawing applications, you have probably given up on the typical built-in trace tool. But do not let past disappointments stop you from trying the Trace tool in FreeHand. To see all the trace options, double-click the Trace tool, which is at the lower portion of the Toolbox.

To trace something, marquee what you want to trace with the Trace tool. Here are some examples which use the default settings. The actual TIFF is on the left, and the traced version is on the right.

Path operations

FreeHand has a complete set of path operations, which work like Illustrator's PathFinders. All of these commands are found in Xtras › Path Operations. For convenience, they also appear on the Xtras › Operations panel. Read the documentation because there are some interesting modifier-key options for them.

Locked objects

FreeHand allows you to lock and unlock individual objects. However, only the position of the object is locked. Strokes and fills can still be modified, so that global changes to colors or style sheets can work properly.

Masks

Creating a mask in FreeHand is accomplished with Edit › Paste Inside. Cut what you want masked, select the path you want to be the mask, and choose Paste Inside.

Knife tool

FreeHand's Knife tool is much more powerful than those in other applications. To begin exploring what it can do, double-click the Knife tool. Note that the Knife tool works only on selected objects.

Multipage layout

Sometimes it is easy to forget that FreeHand is much more than a drawing application. Next time you are thinking of doing a five- or ten-page document in a page layout application, consider using FreeHand. These days, more and more people are doing full-fledged page layout completely in FreeHand.

Changing layers

Changing the layer an object is on is extremely fast and easy. Simply select the objects you want to move and click the layer in the Layers panel where you want them to be. To change the current layer, make sure nothing is selected, and click a different layer in the panel.

Because selected objects move to the layers you click, new FreeHand users find themselves accidentally moving objects to new layers when all they wanted to do was to change the current layer or reorder layers. Unintentionally moving objects can be avoided if you remember to always press the Tab key to deselect everything before doing things in the Layers panel. Move layers by dragging the layer in the Layers panel.

FreeHand files versus EPS files

FreeHand's normal file format (which is what it creates when you Save) is not an EPS file. It is a FreeHand database file, which is fundamentally different from an EPS file. Illustrator users are used to having the Illustrator database file behave just like an EPS file when they place it into other applications; since Illustrator does not have to worry about complications like multiple pages and linked graphics, they can do that. However, if you want to place your FreeHand artwork into other applications, export it as an EPS file or some other format.

Some users like the convenience of having the database file also be an EPS file, and so we have added that option. In the Save dialog box, you can choose Editable EPS as the file format. This results in a file which is larger than a standard FreeHand database file, but it will also serve as an EPS file. Use this for single-page documents only.

Find & Replace Graphics

All new users of FreeHand are strongly encouraged to examine the Find & Replace Graphics feature. Although it has a lot of controls and might look a bit daunting at first, this is one of FreeHand's most exciting features.

Special effects

A lot of the fancier tools and effects are in the Xtra Tools panel, and in the Operations panel. They can both be found under Window › Xtras.

Interactive tools are in the Xtra Tools panel, while the items in the Operations panel work like buttons—press one and either something happens to the selection or a dialog box appears.

Text

You can do practically anything with text in FreeHand that you could do in a typical page layout application. And since FreeHand's text features are so much more powerful than what exists in other drawing applications, there are of course a few new things to learn. The best way to learn them is to read the Text chapter of the manual, but these few pointers might also help you get up to speed quickly.

Create text in FreeHand in two ways: by dragging a text block with the Text tool or by simply clicking the document with the Text tool. These two kinds of text blocks behave in slightly different ways with respect to how the block responds to the text you type. The theory is that if you have gone to the trouble of creating a text block of a specific size by dragging with the Text tool, you probably want FreeHand to maintain that block size and not automatically change the size of it. Conversely, if you just click with the Text tool, then FreeHand thinks you really do not want a specific block size, and it should automatically grow or shrink to exactly fit the text.

You can tell which kind of text block you are dealing with by looking at the block, which you can see by selecting the text block with the Pointer tool.
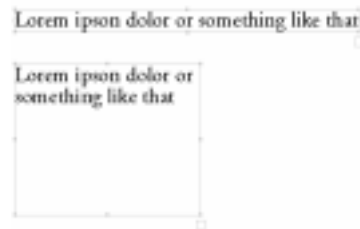
The top block was created by clicking with the Text tool and then typing: this is an auto-expanding text block, meaning that if you continue to type, the block will continue to grow to fit what you type. Notice that the block exactly fits the text. The bottom block is a text block which will not change its size as you type, unless you specifically force it to. Notice that it does not particularly fit the text. FreeHand retains the size of the text block until you change it.

Look closely at the middle handles on either side of the blocks and on the bottom. On the auto-expanding text block, they are hollow. This indicates that the text block can automatically adjust its size in the direction of a hollow handle.

Change from one type of block to the other by double-clicking a middle handle to make it hollow. For instance, if you double-click the lower, middle handle of the bottom block when it is solid, the block changes to auto-expand vertically. FreeHand now changes the vertical size of the text block but maintains the original width to fit the text vertically. The result looks like this:

Lorem ipson dolor or
something like that
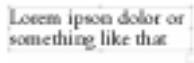
The bottom automatically snapped up to fit the text. If you type further, it will automatically expand the text block to fit your text. Here is what it looks like with some more text entered:

Lorem ipson dolor or
something like that is
what people type for
screenshots instead of
something interesting
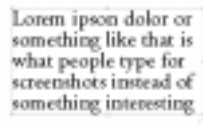
FreeHand keeps the width the same, but expands the bottom.

As an experiment, let us see what would happen if we entered the additional text without auto-expansion:

Lorem ipson dolor or
something like that is
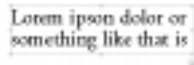
FreeHand maintained the exact original size of the block, even though there is now more text than will fit. Remember, to quickly make the text block grow to fit, just double-click the lower, middle handle to grow the box vertically. Of course, you can also drag one of the corner handles out with the Pointer tool to give the text block a completely new size. Note that the overflow indicator (which is the little box at the bottom, right corner) is now on, telling you that there is more text than what is showing.

At this point, you can do fun things like pour the additional text into some other block. For example, if you draw any closed shape, you can use the Pointer tool to simply drag from the overflow indicator and drop onto the new shape to put the overflow text inside it:

Lorem ipson dolor or
something like that is

what
people type for
screenshots

Note that the overflow indicator is still on, so you could drag more text into another shape, or into an empty text block, which is how you create linked text blocks in FreeHand. Simply drag and drop from the overflow indicator into a new text block, or you could even draw an open path, and drop the text onto it.

Lorem ipson dolor or
something like that is

what
people type for
screenshots

instead of something interesting

Note that this text is all still linked. If you entered more text into the first block, the existing text would automatically flow through all the linked blocks.

Like FreeHand's single unified Pointer tool, there is only one Text tool. To edit text on a path, use the Text tool. To edit text inside a path, use the Text tool. And to edit normal text—you guessed it—use the Text tool.

FreeHand has a text ruler, with five different kinds of drag and drop tabs—simply drag from a tab well and drop onto the ruler.

And the corner handles scale the text when you hold down Option (Macintosh) or Alt (Windows) while dragging:
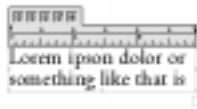
However, if you are doing lots of small text labels, the ruler can be overkill, so turn it off by choosing View › Text Rulers.

You can do a lot of text manipulation simply by dragging the various handles of a text block. The corner handles all resize the text block. The middle handles on either the top or the bottom adjust leading:
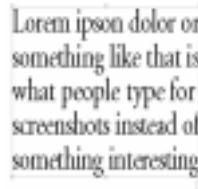
To select text blocks, use the Pointer tool and click anywhere in a block; you do not need to hunt for the baseline to click.

To create text on a path, first create the path, then with it selected, choose Text › Attach to Path, and begin to type. Or, if you have the text already created, select both the text block and the path, and choose Text › Attach to Path. Options for Text on a path are in the Object Inspector.

The middle handles on either side adjust tracking...

...but if you hold down Option (Macintosh) or Alt (Windows), they adjust word spacing:
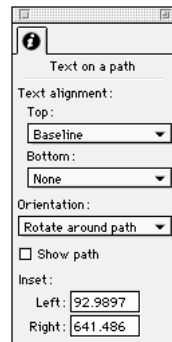
Creating text that is both on the top and bottom of a closed path is easy: type what you want to be on the top, press Return or Enter, then type what you want to have on the bottom. Select that two-line text block and a closed path, then choose Text › Attach to Path, and it is done automatically.

Wow, it's both fun and easy

If you have a lot of text, or if editing upside-down white 1.5 point text on a path is not your specialty, there is a separate text editing window in FreeHand. Select a text block, then choose Text › Editor.

Text Editor

☑ 12 Point Black
☐ Show Invisibles
OK **Cancel** **Apply**

Lorem ipsum dolor or something like that is what people type for screenshots instead of something interesting.
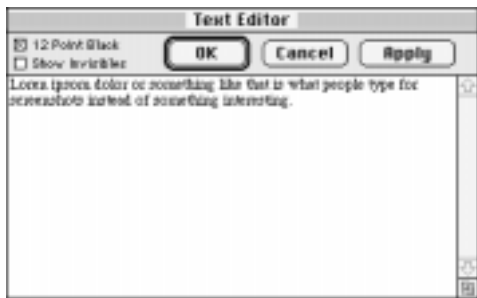
To have text avoid a shape or series of shapes, select the shapes and choose Text › Run Around Selection.

Run Around Selection

Standoff

Left: 0
Right: 0
Top: 0
Bottom: 0

Cancel **OK**

From that point on, all text will avoid those shapes.

Inline graphics are another feature that is unique to FreeHand. Inline graphics are a way to include any graphic in a text block. This is very useful for making fancy drop caps, or for inserting special symbols or dingbats. Copy your graphic into the Clipboard, position your text cursor in the text where you want the graphic to go, and choose Edit › Paste.

There once was a **dog** named George

There once was a named George
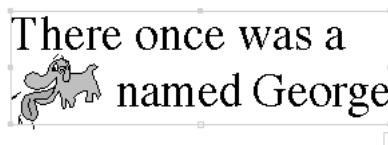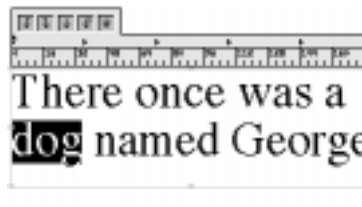
From that point on, the graphic behaves like a text character: you can select it, resize it, kern it, or baseline shift it just like it was a standard character.

You can even have inline graphics along a path.

Here, we pasted the same TIFF image onto a path a few times.

To stroke and fill text, simply treat it as any graphic. Drop colors onto the text to color it, and give it a stroke by pressing the stroke button in the Color List, then choosing a color.

Almost every text attribute can be controlled via keyboard shortcuts, including changing the point size, the tracking, the baseline shift, and the alignment. Consult your keyboard shortcut chart in FreeHand Help for the full list.

Most of the text controls appear duplicated in the Text menu, the Text toolbar, and the Text Inspector.

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