

Detailer's Magic

Fractal Design Detailer is the amazing 3D paint program. With Detailer, you can paint directly on 3D models, adding color, texture, shine, and reflection effects. It's the closest thing to actually holding an object in your hand and painting on it.

Detailer is easy to use. It allows you to create intricate, realistic surface maps while bypassing much of the technical gauntlet that makes most 3D programs seem difficult.

Detailer for 2D and 3D

Detailer is an incredible bridge between 2D and 3D. It complements both 2D paint programs and 3D modeling programs.

If you're a 2D artist, Detailer helps you create depth shading and oblique views of your subject. After creating a Detailer rendering, you can create a 2D collage right in Detailer. You may also take renderings into Fractal Design Painter or any other 2D art program and composite them with other images. Detailer renderings include an 8-bit mask, so compositing is smooth and easy.

If you're a 3D artist, Detailer is a one-stop shop for creating texture, bump and other surface maps on your 3D models. Detailer provides a direct-manipulation environment for detailing 3D surfaces. There's no more bouncing your surface maps back and forth between your image-editing and 3D rendering applications.

Importing/Exporting Models

Detailer can import a model created in another 3D program. After you've detailed the surface of the model, you can export it. If the correct format is used, all of the surface maps and settings are saved with the exported model. When you add the model to your 3D scene, all of the work you did in Detailer will be intact.

Detailer includes a set of 3D primitive objects and has the ability to import models in several 3D formats. You can assign texture, bump, reflection, highlight, and glow maps to any object in the model. These maps may be at any resolution and come from a range of sources—imported paintings and photographs, Detailer's own Patterns and Textures, or images painted from scratch within Detailer.

Detailer can import and export 3D models in Detailer-native, QuickDraw 3D[®] (3DMF), 3D Studio[®] (Windows version only) and DXF formats. Included extensions for Ray Dream Designer[®] and Ray Dream Studio[®] import and export models in Detailer format, so you can use Detailer with models you create in these programs.

Developing Maps

When you're developing your maps, you can paint directly on the object or work in the 2D view of the map image. Paint where it's convenient for you. Detailer automatically updates the brush stroke to the other window. This means that if you paint on the model object, the stroke will also appear in the associated map image window, and vice versa.

Detailer provides an arsenal of painting tools. Paint directly on the model using the wonderful Natural-Media brushes Fractal Design Painter is famous for. And if that's not enough, you can customize and create your own specialty brushes.

Detailer supports multiple floating selections or "floaters," so imported Painter or Photoshop[®] files maintain independent floaters and layers. You can export your models with their maps and incorporate them in your 3D scenes and animations. You may also render your model right in Detailer, then use the mask to aid in compositing with other images.

Detailer's Multiple Undo feature allows you to step back through your actions up to 32 times!

Detailer can also open and save map image files in a variety of formats, including RIFF, PICT, TIFF, BMP, JPEG, Photoshop 2.x, and Photoshop 3 (complete with layers).

Mapping on Models

A Detailer model may be comprised of a number of objects, and each object may have its own set of maps. As many as five maps can be active and displayed on each object. Each map type controls one characteristic of the object's appearance:

- Texture Maps give the model its color.
- Bump Maps give relief to the surfaces.
- Highlight Mask control which areas are shiny or matte.
- Reflection Mask indicate which areas reflect their surroundings. Environment maps that you import define the reflection image.
- Glow Maps add diffuse color after texture and lighting have been applied.

Detailer supports multiple mapping methods: cylindrical, spherical, cubical, pass-thru, and UV (implicit). Each map can have its own mapping method, which you can change at any time.

Detailer provides flexible mapping controls, including the ability to resize and resample maps, adjust mapping scale, and move the map seam and origin.

Detailer's Lighting Controls

Detailer provides control over the lighting environment. You can illuminate models with up to ten colored lights and set their brightness and concentration. With the Light tool, you can click on the model to create a light shining there.

High-resolution Rendering

Detailer can render 3D models at any resolution, complete with anti-aliasing and mask information. Composite renderings directly in Detailer, or use a paint or image-editing program like Fractal Design Painter.

About this User Guide

This Detailer User Guide assumes you're familiar with your computer's operating system and basics like clicking and dragging.

See also:

[Organization](#)

[Section I Introduction](#)

[Section II Models, Maps and Light](#)

[Section III Imagery](#)

[Section IV Advanced Techniques](#)

[Reference](#)

[Conventions](#)

Organization

This Help System is organized into five sections, comprised of several chapters each.

The sections divide 3D information from 2D information and separate primary features from those that are more advanced.

Section I Introduction

This section describes the Detailer interface and gives the basics of working in Detailer. Full tutorials are included in the Fractal Design Detailer User Guide.

See also:

[Getting Acquainted with Detailer](#)

[Detailer Basics](#)

Section II Models, Maps and Light

This section covers Detailer's 3D features. The first chapter of this section covers model features—acquiring, manipulating, saving and exporting. The second chapter covers surface maps, including the methods and features for applying and controlling them. The third chapter of this section covers the features for applying light to the model.

See also:

[Working with Models](#)

[Using Maps](#)

[Using Lights](#)

Section III Imagery

This section covers the basics of developing images for use as maps. Starting with the features of image windows, the chapters proceed through image materials, painting, and advanced painting.

See also:

[Working with Images](#)

[Image Materials](#)

[Painting](#)

[Customizing Detailers Brushes](#)

Section IV Advanced Techniques

This section covers some of the more powerful features and techniques for creating and manipulating imagery:

- Selections and masks increase your control for developing imagery.
- Floating selections or “Floaters” let you move and manipulate imagery within a document.
- The Image Hose lets you paint with images.
- Special effects offer practical and creative ways to create and modify imagery.
- The Printing chapter describes how to set up and use Detailer’s print features.

See also:

[Selections and Masks](#)

[Floaters](#)

[Using the Image Hose](#)

[Applying Effects](#)

[Printing](#)

Reference

The Fractal Design Detailer User Guide includes a Reference section. This section includes the appendices, glossary, index and software licensing agreement. Appendix A, “Designing Maps,” provides technical information on designing surface maps. Appendix B, “Using Detailer with Other Programs,” provides information about using Detailer with other programs, including features for exporting and importing Detailer models in Ray Dream Designer or Studio. Appendix C, “Optimizing Memory Usage,” describes memory considerations and offers tips on getting the most out of Detailer.

Conventions

Detailer is available for Macintosh and Windows. Program functionality is identical on the two platforms. Only keyboard commands and the appearance of document windows, palettes and dialogs differ.

This user guide describes Detailer for both platforms. The keyboard commands for both platforms are given. For example: “To save the file, press Command-S (Macintosh) or Ctrl+S (Windows).”

Screen captures of the palettes and dialogs are divided between the two platforms. Some sections use Windows captures, others use Macintosh.

Many Detailer features are available on menus. Some menu items offer sub-menus. This user guide describes selecting these features as follows: In a distinctive font, the menu is identified, followed by an arrow and the feature name. For example: File menu> Save.

If the feature is on a sub-menu (pull-right menu), an additional arrow and item appear. For example: Edit menu> Paste> Into New Image.

Some palettes contain menus. In this case, the palette is identified, then the standard menu notation is used. For example:

Materials palette: Object menu>
Set Object Color.

The Controls palette is a special palette whose content changes based on which tool is selected. This palette is referred to as the Controls palette: Tool Name—for example, Controls palette: Floater Adjuster tool.

Getting Help

Detailer offers help information from within the application. This help is an abbreviated version of text from this manual. Refer to your Quick Start guide for more information on getting help.

The Detailer Quick Start Guide contains information about how to install Detailer, set application memory, access the Help system and use the Detailer CD.

Technical Support

You will find the answers to most of your questions within the pages of this User Guide. If you need further assistance, you may contact Fractal Design's Technical Support in any of the following ways:

www: <http://www.fractal.com/>
See the technical support on-line guide for answers to frequently asked questions.

Phone: 408 430-4200 between the hours of 8am and 5pm, Pacific Standard Time.

FAX: 408 438-9672
Please fax a copy of the Troubleshooting worksheet found in the back of this User Guide.

Internet: mac_support@fractal.com
win_support@fractal.com
Fill out and e-mail the form at
<http://www.fractal.com/support/tech/contact.html>

Mail: Technical Support
c/o Fractal Design Corporation
P.O. Box 66959
Scotts Valley, CA 95067

For More Information

For more information about Fractal Design products, see our World Wide Web site on the Internet:

www: <http://www.fractal.com/>

To exchange tips and techniques with other users, see the following online forums:

AOL: Keyword "Fractal"

CompuServe: "GO GUGPRA"

Getting Acquainted with Detailer

See also:

[An Overview of Detailer](#)

[The Tools Palette](#)

[Palettes and Drawers](#)

[Libraries and Movers](#)

[About Plug-Ins](#)

[Setting up Ray Dream Designer to Export Detailer Models](#)

[Setting Detailer's Preferences](#)

[Setting Pressure Sensitivity](#)

[Customizing the Interface](#)

[Setting Multiple Undo Levels](#)

[Preferences for Windows](#)

An Overview of Detailer

In Detailer, you'll create surfaces on models by wrapping them with images.

The model you're working on appears in the Model Window. Images appear in image windows. Detailer supports these two document types.

Some of Detailer's features are for working in 3D on the model. Some features are for creating and working with images; and some features are for applying those images to the model, a process called mapping.

Detailer has a wealth of features. They're organized (according to function) in pull-down menus and palettes.

Palettes are windows containing tools, options, and materials that float over your document windows.

Detailer has four main palettes—Tools, Controls, Brushes and Materials.

You can control the display of these palettes using the Window menu.

The Tools Palette

In the Tools palette, you will find tools for viewing and navigation, adding light, painting, filling with color, and creating selections. If the Tools palette is not displayed on your screen, you can display it by choosing Window menu> Tools.

The Controls palette contains options for the current selected tool. The Controls palette updates as you select different tools to reveal the selected tool's options. If the Controls palette is not displayed on your screen, you can display it by choosing Window menu> Controls.

See also:

[The Object Selection Tool](#)

[The Virtual Trackball Tool](#)

[Magnifier Tool](#)

[Grabber Tool](#)

[The Dropper Tool](#)

[The Brush Tool](#)

[The Paint Bucket Tool](#)

[The Text Tool](#)

[The Light Tool](#)

[The Selection Tools](#)

[The Lasso Tool](#)

[The Floater Adjuster Tool](#)

2D and 3D Tools

Some tools are exclusively for working in the Model Window. Some tools are only for working in 2D image windows. Several tools may be used in both windows.

The Tools palette will change, depending on whether the Model Window or an image window is activated. Detailer dims the icons of tools that are not available for the current window.

The Object Selection Tool

The Object Selection tool lets you identify which object (in a model comprised of several) you want to detail. The Controls palette shows technical information on the selected object.

The Object Selection tool works only in the Model Window.

The Virtual Trackball Tool

The Virtual Trackball tool lets you rotate your view of the model in the Model Window. The Controls palette offers sliders for controlled rotation on each of the three axes.

The Virtual Trackball tool rotates the view of the model in the Model Window; it does not rotate the model. Lights remain fixed in relation to the surfaces of the model. When you use the Virtual Trackball tool to rotate, you view the model from different angles. For more information about using the Virtual Trackball tool, see [“Working in the Model Window”](#)

In an image window, the Virtual Trackball tool functions as the Rotate Page tool from Fractal Design Painter. Rotate Page lets you rotate the image canvas to an angle that’s comfortable to your drawing style.

Using the Virtual Trackball tool, drag (in the image window) to rotate your page. When you want to set the image back to its natural orientation, click in the window.

The keyboard shortcuts for this tool work regardless of the window type. Use Option-Spacebar for Macintosh or Spacebar+Alt for Windows.

Magnifier Tool

The Magnifier tool allows you to magnify areas of an image when you are performing detailed work or zoom-out to get an overall view of an image. Click once to zoom in. To zoom out, hold down the Option key for Macintosh, Alt for Windows and click.

Click and drag to zoom in on a given rectangular area of an image. You can also use the Controls palette to set the zoom level in image windows.

The Magnifier works in both the Model Window and image windows.

You can access the Magnifier tool while any other tool is selected. For Macintosh, hold down Command-Spacebar and click to zoom in or Command-Option-Spacebar and click to zoom out. For Windows, use Spacebar+Ctrl to zoom in and Spacebar+Ctrl+Alt to zoom out.

Grabber Tool

The Grabber tool gives you a quick way to scroll the image or the model. You may also set the zoom level on the Controls palette for an image window when the Grabber tool is selected.

The Grabber works in both the Model Window and image windows.

You can access the Grabber tool from any tool by holding down the Spacebar.

The Dropper Tool

The Dropper tool lets you pick up a color for use elsewhere. The Controls palette shows you values for the color. When you select a color with the Dropper tool, that color becomes the current color on the Materials: Color palette.

The Dropper works in both the Model Window and image windows.

You can access the Dropper tool from any color related tool by holding down Command for Macintosh, and Ctrl for Windows. These tools include the Brush, Paint Bucket, Rectangular and Oval Selection tools and the Floater Adjuster.

When used on a model, the Dropper picks up the color of an object without calculating the color of a light on the surface.

The Brush Tool

The Brush tool lets you paint strokes directly on the model, on images or on a floater. You can set Opacity, Grain, and Draw Style (Freehand or Straight Lines) in the Controls palette.

The Brush tool represents a category of marking tools. Within the Brush category are pencils, crayons, pens, chalk, airbrushes, the remarkable Image Hose, and more. The Brushes palette lets you choose between these tools and gives you access to controls that let you customize the brushes.

See also:

[Painting](#)

[Advanced Painting](#)

The Brush tool works in both the Model Window and image windows.

You can use the Brush tool to paint on a floater.

A floater is an image element or layer that hovers over the canvas or background.

The Paint Bucket Tool

The Paint Bucket tool lets you fill an area. The Controls palette shows choices for what area to fill and what to fill it with.

The Paint Bucket works in both the Model Window and image windows.

The Text Tool

The Text tool lets you create text floaters. Use the Controls palette to choose a font, point size, and set tracking.

The Text tool works in both the Model Window and image windows.

The Light Tool

The Light tool lets you click on the model to create a light that shines there. The Controls palette gives you sliders to adjust the light you create.

The Light tool works only in the Model Window.

The Selection Tools

The Selection tools select an oval or rectangular area. When you create a selection, its coordinates are displayed on the Controls palette.

These tools share a space on the Tools palette. Only one will appear at a time. To select the other tool, hold down on the icon and when the icon for the other tool “pops-up” select it. You may also switch between the tools on the Controls palette.

The Selection tools work only in image windows.

Rectangular Selection Tool

The Rectangular Selection tool allows you to create square or rectangular selections.

Oval Selection Tool

The Oval Selection tool allows you to create circular or oval selections.

The Lasso Tool

The Lasso tool lets you create a freehand selection area. The selection automatically snaps closed when you let up on your mouse or stylus. On the Controls palette, you can choose to add or subtract from an existing selection.

The Lasso tool works only in image windows.

The Floater Adjuster Tool

The Floater Adjuster tool allows you to select and adjust floaters. Click once to select one floater, or shift-click to select additional floaters.

Floaters are image elements that float above the background image. The Controls palette lets you change opacity, feathering, composite methods and floater layer order. It also allows you to group and drop floaters.

The Floater Adjuster works in both the Model Window and image windows; however, not all functions are available in the Model Window. The following functions of the Floater Adjuster are restricted to image windows:

- Selecting floaters by dragging a marquee.
- Adjusting a reference floater by dragging its handles.

Palettes and Drawers

See also:

[Using Palettes](#)

[Rearranging Palettes](#)

[Viewing and Hiding Palettes](#)

[Viewing Additional Palette Controls](#)

[Using Items in Palettes](#)

[Using Palette Drawers](#)

[Locking Items on the Drawer](#) Front

[Tearing Off Palettes](#)

[Cleaning-up Palettes](#)

Using Palettes

Detailer's controls are organized into palettes. The Tools and Controls palettes are main palettes with every function visible (no drawer mechanism). The Brushes palette is a main palette with pull down menu options and a drawer containing brushes. The Materials palette is a main palette that holds several subpalettes. The main palette pull down menus with additional options for each subpalette.

- The Tools palette determines your current activity. For example, you use this palette to tell Detailer whether you want to draw, zoom in on a document, or select part of an image.
- The Controls palette changes to reflect options for the selected tool in the Tools palette, and to give you instant access to the tool's main functions. For example, when you have selected the Brush tool, the Controls palette shows your Draw Style options.
- The Brushes palette is where you choose from Detailer's wealth of drawing, painting and image editing brushes. Brushes can be moved from inside the palette drawer to the drawer front.

The Materials palette is where you select your materials—from the basics, like a color for your pencil, to unusual patterns, textures, lighting for the model, and the five map types you'll apply to the model. The subpalettes of the Materials palette are Color, Texture, Object, Pattern and Light.

See also:

[Palette Tips](#)

Palette Tips:

- Arrange your palettes so you can find and identify controls more effectively. Make sure that open palettes don't overlap each other. Palettes hidden in this way can be hard to find.
 - Lock your favorite brushes to the Brushes Palette drawer front for quick access.
 - If you have two monitors, use one to display the palettes, and use the other monitor to work in the document window.
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Rearranging Palettes

You can drag a palette to any location that's convenient for your work. You can also stack palettes together to save space. When palettes are moved in close proximity, they will snap together.

Detailer saves your palette arrangement, including locked items, so that it appears as you left it, the next time you start the program.

Viewing and Hiding Palettes

You can hide a single palette by clicking its close box. You can display a palette by choosing its name from the Window menu or using the key combination shown on the Window menu.

To hide all of the palettes, choose Window menu> Hide Palettes or press Command-H (Macintosh) or Ctrl+H (Windows). Choose Window menu> Show Palettes again to display the palettes.

Viewing Additional Palette Controls

Many of Detailer's palettes have additional controls that can be displayed or hidden, depending on the task at hand. If you have opened a subpalette, you can expand it by clicking its grow box. For example, the Materials: Color palette can be expanded to show the Color Variability sliders. Click the grow box again to hide them.

Using Items in Palettes

To select an item from the front of a palette:

- Click the item's icon.

A red outline appears around the icon you have selected. If you have clicked on an icon representing a subpalette, the palette displays the options for that subpalette.

For example, when you click the Texture icon on the Materials palette, the palette appears along with a drawer containing a collection of different textures. You can collapse this subpalette by clicking its icon again.

To select a menu item from the front of a palette:

- Choose it from a menu above an icon.

Some menu items open other palettes. For example, you can open the Floater List palette by choosing Floater List from the Materials palette: Object menu.

When you've finished using the Floater List, you can close the palette by clicking its close box.

Using Palette Drawers

You can open the drawer of a main palette or subpalette to see the other items inside the drawer. The pushbar indicates which palettes or subpalettes have drawers.

Storing items in closed drawers gives you more screen space. You will keep items on the drawer front that you use most often and retrieve other items when you need them. For example, you would keep the most often used textures on the front of the Texture subpalette. You would open the texture drawer to retrieve a texture you use less often.

To retrieve items from inside a drawer, open the drawer by clicking the pushbar. A down arrow on the pushbar means the drawer can be opened. You can click anywhere on the pushbar to open and close a drawer. There are three methods for retrieving items from drawers:

- by clicking the icon
- dragging the icon
- by selecting the item's name from the pop-up menu.

In some drawers, you'll see a **Library** button. You can click it to reload the drawer with a new set of materials.

See also:

[Libraries and Movers](#)

You can access any palette drawer while in the effects dialogs. Your new selection updates in the preview window. For more information about effects, see [Applying Effects](#).

To take items out of a drawer by clicking:

Open the drawer and click the icon for the item you want.

The item will move to the front of the drawer, and it will be outlined in red to show that it is selected. Detailer automatically replaces the least recently used item.

Items that are already on the front of the drawer are ghosted inside the drawer. When you put an item away, it goes back to the same location so that you can always find it easily.

To take items out of a drawer by dragging:

Once the drawer is open, you can drag items out of the drawer to a specific position on the drawer front.

If you want to rearrange an icon's position on the drawer front, first it will have to be replaced by an icon from the drawer. Then you can drag the icon from inside the drawer onto the desired position on the drawer front.

To use the pop-up menu to take items out of a drawer:

- 1 To select an item by name, click the pop-up menu to display a list of all the items in the drawer.
- 2 Highlight the item you want and let up on your mouse or stylus to confirm your selection. The item's name appears on the pop-up and its icon appears on the drawer front outlined in red.
- 3 Click the pushbar to close the drawer.

Locking Items on the Drawer Front

You can arrange the items you use most frequently on the drawer front and lock them in place. When an item is locked, Detailer will not put another item in its place. You will want to lock your favorite tools to the front of the drawer so they are always there when you need them.

To lock items in place:

1 Drag each item out of the drawer to where you want it on the drawer front.

2 For each item you want to lock, click its icon and hold it down until a tiny green light goes on under the icon. When you let go, the light stays on to show that the item is locked.

The item stays locked until you unlock it by pressing down on the icon again until the green light goes off. Detailer lets you lock all but one item on any drawer front. One item must remain unlocked to allow a space for any new item you might select.

Tearing Off Palettes

There are times when you'll want to work with two palettes that usually aren't available at the same time. For example, you might want to work simultaneously with the Texture and Color subpalettes.

If you want to work with two subpalettes side-by-side, you can "tear off" one of them to display it separately. Just drag its icon off the main palette. The torn off palette appears where you drop it.

When you no longer need the palette you've torn off, just click its close box.

Remember that one subpalette must remain displayed in the main palette. The selected palette will remain, so you must drag one of the other palettes. If you want to tear off the current, selected palette, select a different palette first.

Cleaning-up Palettes

You can choose Window menu] > [Clean Up palettes] to stack palettes in their collapsed state along the edge of the screen.

Libraries and Movers

See also:

[What are Libraries?](#)

[Adding tools or materials to the Current Library](#)

[Loading Alternate Libraries](#)

[Customizing Libraries](#)

[Creating a New Library](#)

[Accessing the Movers](#)

[Moving Items between Libraries](#)

[Modifying a Library](#)

[Default Libraries](#)

What are Libraries?

A library is a saved collection of similar tools that can be loaded into a palette. For example, Detailer's built-in brushes (and their variants) are contained in the default brush library (Detailer Brushes), which is loaded when you launch Detailer. As you customize brushes and other materials, you can save them into your own libraries.

Libraries are available for textures, patterns, gradations, brushes, nozzles, floaters and lighting. You may have any number of libraries, but only one (of each type) will be open at a time. When you want other tools, you can load the alternate libraries.

Libraries allow you to extend Detailer's tools and materials, without overloading the palette drawers.

The methods for working with all libraries are the same. You can create new libraries, add tools or materials, and move items between libraries.

It's a good idea to limit the number of tools or materials in a library. This makes it easier to find a particular tool and helps Detailer manage memory.

Brushes are loaded into memory when you launch Detailer, so adding brushes to the default brush library increases Detailer's need for RAM. If you are working close to the memory threshold, you'll want to organize new brushes into secondary libraries. When you want a different brush set, switch libraries. This will help Detailer be more efficient with memory.

Adding tools or materials to the Current Library

As you work with Detailer and create new tools or materials, you can save them to the current library. The command for adding an item depends on its type. In some cases, you click a Save button. In others, you choose a menu command. And in the case of floaters, you drag them from the image into the library palette.

The method of adding a particular resource to the library is described in the section on customizing that resource.

Loading Alternate Libraries

When you want to use the items in a different library, you can load that library.

When you save tools or materials, Detailer puts them in the current library. If this is not where you want them, you must switch libraries before saving.

To switch libraries:

- 1 Open the palette drawer for the tools or materials you want to work with, for example, Brushes.
- 2 Click Library. Detailer displays a directory window.
- 3 Select a library, then click Open or OK. Detailer loads the items from that library into the palette.

Customizing Libraries

The controls for creating libraries and managing their contents are contained in the Movers. A Mover is provided for each category supported by libraries—textures, patterns, gradations, brushes, nozzles, floaters and 2D lights.

Accessing the Movers

Each kind of mover is accessed from a different location.

Texture

To open the Texture Mover, choose
Materials palette: Texture menu> Texture Mover.

Pattern

To open the Pattern Mover, choose
Materials palette: Pattern menu> Pattern Mover.

Lighting (applied lighting, 2D effect)

To open the Lighting Mover, choose
Command-Shift-L (Macintosh) or Ctrl+Shift+L (Windows).

Floater

To open the Floater Mover, choose
Materials palette: Object menu> Floater Mover.

Brush Mover

To open the Brush Mover, choose
Brushes palette: Brushes menu> Brush Mover.

Nozzle

To open the Nozzle Mover, choose Brushes palette: Nozzle menu>
Nozzle Mover.

Gradations

To open the Gradation Mover, choose Materials palette: Color menu>
Grad Mover.

The features of working with Movers are described below. When you have finished working in the mover, click Quit.

Creating a New Library

Create a new library first, then copy or save items to the library.

To create a new library:

- 1 Open the Mover for the library you want.
- 2 Click New. Detailer prompts you to name the new Library.
- 3 Enter a descriptive name and click Save or OK.

It's a good idea to save libraries in the same directory. This makes them easy to locate and load when you want them.

The new library's name appears on the right-hand side of the Mover window. The area above the name is blank because this new library is empty. To put things in it, you can move them from other libraries.

Moving Items between Libraries

Movers copy items from the library open on one side of the dialog to the library open on the other side.

When you open a Mover, the resources of the current library are listed on the left. Often, this is the library you'll want to move from. If not, you can open a different library as the source. Click Close to close this library. Then click Open and select a different library file.

The destination library must be open on the other side. If you just created a new library, it will be open. If not, you may open an existing library. Click Open and select a library file.

When the source library is open on one side and the destination library is open on the other, you are ready to move resources.

To copy an item between libraries:

- 1** Make sure the source library is on the left of the mover and the destination library is on the right.
- 2** Select the item you want to move. The Preview shows an icon of that item. In the case of brushes, the Preview shows the icon associated with each brush.
- 3** Click Copy. Detailer copies that item to the other library.

Modifying a Library

If you want to delete a resource from a library, you may—but be careful. If you remove one of Detailer's default brushes by mistake, the only way to retrieve it is to reinstall Detailer. When you reinstall Detailer, you'll lose any of the custom resources you've created, unless you save them into other libraries.

See also:

[Deleting Items](#)

[Renaming Items](#)

[Changing Brush Icons](#)

[Deleting a Library](#)

Deleting Items

To delete an item from a library:

- 1 From within the mover, Select the item you want to delete.
- 2 Click Remove.

Renaming Items

To change the name of an item:

- 1 Select an item.
- 2 Click Change Name. Detailer displays a dialog.
- 3 Enter the new name and click OK. When Detailer asks if you're sure you want to change the name, click Yes.

Changing Brush Icons

Working with brushes, you have the additional option of replacing the icon used on the Brushes palette.

Before you open the Brush Mover, use the Rectangular Selection tool to select part of a 2D image you want as the brush icon.

- 1** Open the Brush Mover by choosing Brushes palette: Brushes menu > Brush Mover.
- 2** Select the brush whose picture you want to change.
- 3** Click Change Picture. Detailer displays the change that you are proposing.
- 4** If you're sure you want to change the picture, click OK.

Deleting a Library

To delete an entire library on a Macintosh, go to the finder and drag the library to the trash. On Windows, you may delete the file from the Windows[®] 95 Explorer. You may also drag the file to the Recycle Bin.

Be careful not to delete one of Detailer's default libraries. If Detailer can't find the libraries it needs, you will have to reinstall Detailer.

Default Libraries

When you launch Detailer, the program loads the default libraries. If you would prefer to load other libraries on launch, you can change the defaults.

Default libraries must be located in the directory with the Detailer application program.

To specify default libraries choose Edit menu> Preferences> General.

In the Libraries portion of the General Preferences dialog, enter the exact file names for the libraries you want Detailer to load as default.

About Plug-Ins

Detailer supports third-party Photoshop-compatible plug-ins such as Kai's Power Tools. There are three kinds of plug-ins: Filter plug-ins, Import plug-ins and Export plug-ins. Plug-in modules are available from Detailer menus. However, the actual operation of these plug-ins is determined by the plug-in developer. You should refer to the documentation that came with your plug-in modules for instructions on how they work.

If you are interested in developing plug-in modules, please contact Adobe Systems for Developer kit information.

See also:

[Filter Plug-ins](#)

[Import Plug-ins](#)

[Export Plug-ins](#)

[Making Plug-Ins Available to](#) Detailer

Filter Plug-ins

Filter plug-ins appear after Detailer's built-in effects, in the Effects menu. These Filter plug-ins are usually comprised of special image-editing effects. Plug-in filters operate the same way that Detailer's Effects operate. If you have an active selection, the filter is applied to the selection. If you have no selection, the filter is applied to the entire image. Once the effect is applied to a map image, that has been associated with a model, the view updates in the Model Window.

Since, Detailer and Photoshop were developed by different companies, there may be filters that will run in one program, but not another. Fractal Design has made a conscientious effort to maintain compatibility with as many third party filters as possible. Check with the filter developer to find out whether there are any compatibility problems between their product and Detailer. Please note that since Detailer is an RGB-based program, it cannot run filters that are specific to CMYK or Grayscale modes.

Import Plug-ins

Import plug-ins are accessed through the File> Import submenu. The Import interface is generally used to support file formats that are not built-into Detailer.

Export Plug-ins

Export modules are used to export models. Export modules are available through the File> Export submenu.

Check our web site at www.fractal.com for new information and availability of import and export plug-ins for different 3D file formats.

Making Plug-Ins Available to Detailer

When Detailer launches, it searches for plug-ins in two locations. Detailer first looks in the Detailer application folder and in directories below it. The second place that Detailer looks is the folder specified by the “Other Raster Plug-Ins” preference.

Before Detailer can display your plug-ins in the Effects menu, you must indicate where your plug-ins are located on your hard drive. Detailer will load plug-ins from the selected directory and its sub-directories.

To locate the plug-ins folder in Windows95:

Choose Edit menu> Preferences> Other Raster Plug-ins. Browse to select the directory containing your plug-ins. Click OK. Restart Detailer to have this change take effect.

To locate the plug-ins folder in Macintosh:

1 Choose Edit menu> Preferences> Other Raster Plug-Ins. You will see an Open File dialog box. Use the dialog to specify the directory that contains your plug-ins.

2 Click the Select Plug-ins button.

3 You will have to quit Detailer and then restart the program to load these plug-ins.

When Detailer starts-up it quickly displays the names of all available plug-ins on the start-up screen.

To use third-party 2D plug-ins from within Detailer:

Choose the Effects menu. You see a list of available plug-ins at the bottom of the menu. You can use them to edit your image.

Plug-ins that are designed for grayscale or CMYK images may not work properly in Detailer.

Setting up Ray Dream Designer to Export Detailer Models

Detailer lets you work with models you've created in Ray Dream Designer. To do this, you'll export from Ray Dream Designer 4.1.2 or later in the Detailer file format. You can then open the exported file in Detailer.

Ray Dream Designer may be used independently or as a component of Ray Dream Studio. The export setup and method is the same in both products.

Exporting from Ray Dream Designer is handled as an extension.

- 1 You must have Ray Dream Designer 4.1.2, or later, installed.
- 2 Look in the Detailer folder on your hard disk. Locate the folder "For Ray Dream Designer." Open this folder.
- 3 Copy the two files in this folder to the Ray Dream Extensions folder.

The next time you launch Ray Dream Designer, the File> Export dialog will offer Detailer as a file type option. You have several options for the export. See Fractal Design Detailer User Guide: Appendix B, "Using Detailer with Other Programs," for more information.

Setting Detailer's Preferences

Detailer has several preference dialogs: General, Brush Tracking, Interface, Other Raster Plug-ins, Undo, Model and Windows.

See also:

[General Preferences](#)

[Model Preferences](#)

General Preferences

To display the general Detailer preferences dialog box, choose Edit menu> Preferences> General.

See also:

[Cursor Setup](#)

[Setting the Default Libraries](#)

[Choosing aDefault Scratch Disk](#)

[Floater Pre-Feather](#)

[Draw Zoomed-out Views Using Area-averaging](#)

[Display Warning When Drawing Outside Selection](#)

Cursor Setup

Detailer gives you several choices for the appearance of your cursor. To choose whether the cursor will be a triangle or a single pixel, check the radio button next to **Cursor Type**. To determine the direction the cursor will point (depending on your design and whether you're left- or right-handed), click the appropriate button in the circle above **Orientation**. To select a cursor color that will contrast with your working area and will therefore be clearly visible, click the appropriate rectangle above **Color**.

Setting the Default Libraries

Detailer provides several libraries that contain many different brushes, textures, floaters, lights and color sets, and you can create your own. By typing a file name in the text box next to **Brushes, Textures, Floaters, and Color Set**, you can designate which libraries will appear in drawers when you open Detailer.

Choosing a Default Scratch Disk

To select the disk volume that Detailer will write its temporary file on, choose the volume name from the Temp File Volume pop-up menu.

Floater Pre-Feather

The Floater pre-feather box determines how much you can feather a floater. The default setting is 16 pixels, making this the maximum setting allowed for the Feather slider in the Controls palette: Floater Adjuster tool. You can change this default to any number up to 50. The change takes effect immediately.

Draw Zoomed-out Views Using Area-averaging

When looking at an image at less than 100% view, screen re-draw is faster if you leave this option disabled. Drawing is slower but more accurate if this option is enabled.

Display Warning When Drawing Outside Selection

Enabling this option activates the warning that appears when you draw outside a selection. The warning will not appear if this option is disabled.

Model Preferences

Choose Edit menu> Preferences> Model. Detailer displays the Model Preferences dialog.

See also:

[Model Display During Movement](#)

[Wire Frame](#)

[Wire Frame with Depth Cueing](#)

[Anti-aliased Wire Frame](#)

[Anti-aliased Wire Frame with Depth Cueing](#)

[Fully Textured Rendering](#)

[Shaded Non-Textured Rendering](#)

[New Model Rounding Factor](#)

[Background Color](#)

[Mesh Color](#)

[Ray Dream Compatible](#)

Model Display During Movement

Detailer lets you set an option for the model display during tracking. The model display option is only visible when changing the view of a model.

To change the model display during movement, choose the setting you want from the pop-up menu.

Wire Frame

The model appears as a framework of wires.

Wire Frame with Depth Cueing

The model appears as a framework of wires. Wires that are distant appear fainter than those that are close.

Anti-aliased Wire Frame

The model appears as a framework of anti-aliased wires.

Anti-aliased Wire Frame with Depth Cueing

The model appears as a framework of anti-aliased wires. Wires that are distant appear fainter than those that are close.

Fully Textured Rendering

The model appears rendered with all surface maps. This is a computation-intensive display mode. Updating and tracking will be slower. Some systems might not be fast enough to work comfortably in this mode.

Shaded Non-Textured Rendering

The model appears with solid surfaces, but no surface maps.

New Model Rounding Factor

The rounding factor lets you add a degree of convexity or concavity to flat faces of the Detailer primitives you create.

The valid range for rounding is -1 to 1. When the rounding factor is zero, models have perfectly flat faces.

Negative values make the flat faces appear slightly concave.

Positive values make the faces appear convex.

Background Color

The color of the Model Window Background is displayed on screen and in the final rendering. Sometimes a light-colored object is easier to view on a dark background and vice-versa.

To change the window background color:

- 1 Click the Background Color swatch. Detailer opens the system color picker
- 2 Choose a color for the window background. Model renderings will use this background color.

Mesh Color

The mesh is an optional overlay of mapping vertices on image files. The mesh makes it easier to paint on map image files. Its color should contrast the colors in the map image, so the mesh is easier to see.

To change the mesh color:

- 1** Click the Mesh Color swatch. Detailer opens the system color picker.
- 2** Choose a color for the mesh.

Ray Dream Compatible

Detailer allows you to use a different mapping mode for each map type; however, this is rarely practical. Usually, you'll want all maps applied to an object to use the same mapping mode. This is a requirement for detailed models you intend to export to Ray Dream Designer.

If you want all maps to use the same mapping mode, enable the Ray Dream Designer Compatible option.

When Ray Dream Compatible is enabled, you'll set mapping options for the first map you apply to a model. Detailer will automatically assign this mapping mode to all subsequent maps.

If you then change the mapping mode for one map, Detailer will update all maps to the new mode.

If you intend to export your Detailer model to Ray Dream Designer or Studio, enable the Ray Dream Compatible preference before applying the second and successive maps. When exporting a model avoid saving your image map files in RIFF format. We recommend you save your files in TIFF format.

Setting Pressure Sensitivity

When you draw with Natural-Media, the amount of pressure you use with a tool determines how dense and how wide your strokes are. Using a pressure-sensitive stylus with Detailer gives you this same kind of flexibility. Each artist bears down on a drawing or painting tool differently. In Detailer, you can program the computer to react to your individual touch just by dragging in the Brush Tracking dialog box.

To display the Brush Tracking dialog box, choose Edit menu> Preferences> Brush Tracking.

To set how sensitive the stylus will be to your hand pressure and speed, move the stylus across the scratch pad area at a normal speed and with a normal amount of pressure.

Just as your signature varies, so will the way you work with the stylus at any given time, so you'll set up Brush Tracking each time you start Detailer. When you exit Detailer, the Brush Tracking sliders go back to their default settings.

Customizing the Interface

Fractal Design has chosen colors and textures for Detailer's interface that we think are aesthetically pleasing and very legible. However, you may want to experiment with your own interface colors and textures.

To change Detailer's interface, choose Edit menu> Preferences> Interface. The Interface Preferences dialog box appears.

To change the icon selection color:

- 1 Using the Materials: Color palette or the Dropper tool, choose the color you wish to use.
- 2 Click the Use Current Color button under Icon Selection Color. The selection box changes to the currently selected color. This color is used until you change it again.

To change the shadows under palette icons:

- 1 Enter new values in the boxes under Rectangular Shadows.
The X-Offset moves the shadow horizontally, and the Y-Offset moves the shadow vertically. Softness refers to the amount of feathering the shadow has.
- 2 After entering the values, click Done. Watch an icon as its shadow changes. Repeat the procedure with different values if you aren't happy with the changes.

To change the rectangular pillowing:

- 1 Enter new values in the boxes under Rectangular Pillowing.
Rectangular pillowing refers to the shadows beneath sliders and rectangular items in palettes other than icons. The X-Offset moves the shadow horizontally, and the Y-Offset moves the shadow vertically. Softness refers to the amount of feathering the shadowing has.
- 2 After entering the values, click Done. Watch the palette shadows change. Repeat the procedure with different values if you aren't happy with the changes.

To change the palette background texture:

- 1 Choose the texture you wish to use in the Texture palette.
- 2 Choose Edit menu> Preferences> Interface. In the Interface Preferences dialog box, under Palette Background Texture, click in grayscale if you wish the texture to be rendered in grayscale; click in current colors if you wish the texture to be rendered in the current primary and secondary colors.
- 3 Click the Use Current Texture button.
- 4 Click Done. Your palette background texture changes.

To use the current pattern as the palette background texture:

- 1 Choose one of the default patterns or use the Rectangular Selection tool to select part of an image to capture as a pattern. Choose Materials palette: Patterns menu> Capture Pattern.
- 2 Return to the preferences dialog and click the Use Current Pattern button. The palettes will update so you can preview your choice.
- 3 Click Done. Your palette background texture changes to the current pattern.

To change the drawer bottom texture, follow the steps above, but use the buttons under Drawer Bottom Texture.

To change the window background color:

- 1 Set the current color using the Materials: Colors palette or Dropper tool.
- 2 Click the Use Current Color button under Window Background Color. The background is filled with the current color.

When in current colors is selected in the Interface Preferences, Detailer uses the primary and secondary colors from the Materials: Color palette to customize interface elements. Experiment with two colors for

interesting effects.

You may save your interface preferences by clicking the Save button in the bottom right of the Interface Preferences dialog box. A standard save dialog appears asking you to name the interface setting. Give it a descriptive name and click Save.

To load a saved interface set:

- 1 Click the Load button.
 - 2 Choose the interface set from the directory box that appears.
 - 3 Click Open to load the interface set.
-

To return to Detailer's default interface:

- 1 Click the Use Defaults button at the bottom of the palette.
- 2 Click Done. Detailer reverts to the default interface.

Setting Multiple Undo Levels

Multiple Undo allows you to undo and redo up to 32 levels of changes. The number of undo levels is set in Undo Preferences, found under Edit menu> Preferences> Undo. Five levels are set as a default.

Undo levels apply across open documents. With five levels set, if you have two documents open and you have “undone” three operations on the first document, you can only undo two operations on the second.

Multiple Undo can use a significant amount of disk space. If you perform multiple operations on the entire image, the whole image must be saved for each undo step. So be careful with the number of Undo levels you choose to save.

Preferences for Windows

Choose Edit menu> Preferences> Windows to display memory and printing options.

See also:

[Physical Memory Usage](#)

[Printing Options](#)

[Display Option](#)

Physical Memory Usage

For best performance, choose Maximum Memory for Detailer and run Detailer with no other programs running in the background. Choosing Half Memory for Detailer will allow Detailer to run more efficiently with other Windows applications running at the same time.

Printing Options

Free Memory for Printing will increase printing speed by writing the active image to disk, increasing the amount of memory available for the print manager and the printer driver.

No Print Banding disables print banding for devices that support it. Disabling print banding may help some PostScript printers, but will hurt the performance of some bitmap printers, such as the Hewlett-Packard DeskJet printers. Most dot matrix printers will be faster with No Print Banding left unchecked in the dialog box. If you experience problems printing in landscape orientation, you may have to turn off banding by checking the radio button in the dialog box.

Display Option

If your video display driver is set to 32,000 colors, you may experience some color irregularities on your screen when using Detailer. Checking No Device Dependent Bitmaps will correct this problem with most 32,000-color video displays. If you are not using 32,000 colors, this checkbox will have no effect on your system.

Detailer Basics

See also:

[How Detailer Works](#)

[Working in the Model Window](#)

[Objects and Maps](#)

[Rendering an Image](#)

[Saving and Quitting](#)

How Detailer Works

Detailer takes two-dimensional images and wraps them onto the model in a process called mapping. The images develop the surface of the model. Depending on the images and settings you use, the model can become wood, metal, stone, plastic, even skin.

When you work in Detailer, you'll open a model, select an object, and apply images as surface maps. You'll set lights, and ultimately create a rendering of the finished model. You may export your finished model for use in another 3D program.

See also:

[Models](#)

[Objects](#)

[Maps](#)

[Map Image Files](#)

[Mapping Methods](#)

[Lighting](#)

[Rendering](#)

Models

You have several options for generating and importing models, including creating primitives in Detailer and opening 3D files created in Fractal Design Ray Dream Designer.

When you open a model, Detailer displays the 3D View of it in the Model Window. You can rotate your view of the model, zoom in, and move the model in the window.

Objects

Models may be comprised of up to 240 separate objects. Each object may have completely different colors and surface characteristics.

When your model has several objects in it, you'll select the object you want to detail.

If you want to apply maps to more than one object simultaneously, you will have to combine the objects into one with a modeling application like Fractal Design Ray Dream Designer.

Maps

When you've selected an object, you'll apply one or more two-dimensional images to its surface. Detailer maps these 2D images onto the 3D object to give it color, surface relief, and control the interaction with light.

For each object in the model, you may load one image for each of five map types, or leave any channel empty. The five map types are as follows:

Texture Map

The Texture Map adds color.

Bump Map

The Bump Map creates surface relief (physical texture).

Highlight Mask

The Highlight Mask controls the highlight in different areas. Dark areas of the mask reduce the highlight. Using black and white, and shades of gray, you can specify which areas on a surface are shiny or matte.

Reflection Mask

The Reflection Mask controls the reflection in different areas. Dark areas of the mask reduce the reflection.

Glow Map

The Glow Map applies additional color after the other maps have been applied. The glow map is useful for describing objects that emit light such as lamps or LEDs.

Map Image Files

When you apply a map, Detailer opens the map image in a window. You can see the 2D map image file and work in this window. When you save the model, you'll save all of these image files along with it.

The effect of the maps you apply appear immediately on the surface of the object in the Model Window. That is, when you apply a texture map, the imagery in the map appears immediately on the 3D object. Any changes you make in the map image file, like painting brush strokes, appear immediately on the object.

You may develop imagery working in the 2D image window, or you may paint directly on the object. In either case, only one map image file is active for editing at a time. You must specify which map you want to "paint into" to make changes. You do this on the Materials: Object palette or by activating the image's window.

Mapping Methods

Detailer offers several methods for mapping the 2D image onto the 3D object. Each method is suited for objects of different shape. The mapping mode you choose, and how you design the imagery, makes a huge difference in how the map appears on the object.

Lighting

Several of the surface effects depend on light. Detailer's Light tool and the Materials: Light palette makes it easy to shine lights on your model. You can color or dim the lights to light the object just how you want it.

Rendering

When you're satisfied with the maps you've applied, the light and other settings, you can render the image at higher resolution. The rendering can be a larger, anti-aliased version of what you see in the Model Window. The rendering includes a mask of the model, so compositing with other images is clean and easy. You can composite images directly in Detailer or in a 2D application like Fractal Design Painter.

Working in the Model Window

The Model Window shows a 3D view of the model you are working on. When you're adding detail to a model, you'll want to keep the area you're painting centered in the window, at a reasonable scale, and square to your view.

Detailer provides three navigation tools that make it easy to view and paint on any surface of the model—the Virtual Trackball, the Magnifier and the Grabber.

Key shortcuts let you temporarily switch to the navigation tools.

To switch to Virtual Trackball, choose Option-Spacebar for Macintosh, Spacebar+Alt for Windows.

To zoom-in: Command-Spacebar for Macintosh, Spacebar+Ctrl for Windows.

To zoom-out: Command-Option-Spacebar for Macintosh, Spacebar+Ctrl+Alt for Windows.

To switch to the Grabber, hold down the Spacebar.

Note: The Macintosh System has a keyboard option for cycling through different keyboard layouts. You'll want to make sure this is disabled before zooming out—otherwise your keyboard might start acting funny. Choose Apple menu> Control Panels> Keyboard. In the dialog, make sure the Command-Option-Spacebar feature is disabled.

See also:

[Using the Virtual Trackball](#)

[Rotation on Axis](#)

[Controlled Rotation](#)

[Magnifying your Subject](#)

[Magnification Pop-up Menu](#)

[Using the Grabber tool to Pan the Model Window](#)

[Changing the Size of the Model Window](#)

[Setting the Model Window Background Color](#)

[Importing a Background Image](#)

[Clearing and Showing the Background Image](#)

Using the Virtual Trackball

You can view the model from any angle by rotating your view. Viewing from a particular angle helps when you're painting. It's much easier to work when you're facing the surface you're painting. Trying to paint oblique surfaces (on the side or edge of an object) can be difficult.

To change the 3D view:

1 Choose the Virtual Trackball tool.

2 In the Model Window, drag to rotate your view of the model.

In the model space, the model doesn't move. The model is fixed with respect to the lights. When you use the Virtual Trackball, you're changing your view of the model. That is, the model stays in one place and you move around it. You may want to adjust lighting after rotating your view.

With the model starting in this position, the following diagrams show the path you would drag to rotate the view as shown.

Rotation on Axis

Rotation on the X Axis

Drag down from the center of the window to view from above.

Rotation on the Y Axis

Drag left or right from the center of the window to view from the other side.

Rotation on the Z Axis

Drag in a circle from a corner of the window to change which side is up.

Rotation on Several Axes

Drag at an angle to compound rotation.

If you move around the model, you might find an area that is dark. This is because there is no light shining from that side. You could add a light to shine there, you could increase ambient light, or enable the Flat Lighting option in the Materials: Light palette.

See also:

[Using Light](#)

Controlled Rotation

When the Virtual Trackball is selected, the Controls palette provides sliders for rotating the view on the X, Y and Z axes. The x axis runs horizontally. The y axis runs vertically. The z axis runs perpendicular to the plane of your monitor screen.

Drag the slider for the direction you want to rotate the view.

The direct view of the north pole, in the model space, is $0j, 0j, 0j$. A direct view of the front would be $90j, 0j, 0j$.

Magnifying your Subject

The Magnifier works in image windows and in the Model Window.

To zoom in:

- 1 Choose the Magnifier tool.
 - 2 Click on the area you want to view closer. You can also drag a marquee around the area you want to magnify. Detailer zooms to the highest level that will display the full area of the marquee.
-

To move back and get a larger view:

- 1 Hold down the Option key for Macintosh or Alt for Windows.
- 2 Click in the window.

Magnification Pop-up Menu

When in an image window, the Controls palette: Magnifier tool provides a pop-up with a set of magnification factors. Select the level you want and Detailer immediately sets the magnification to that level.

Using the Grabber tool to Pan the Model Window

Use the Grabber tool to center the area you're working on in the window. The Grabber works in the Model Window and in image windows.

To pan the Model Window:

- 1 Choose the Grabber tool.
- 2 Drag the model (or image) to view the area you want.

Changing the Size of the Model Window

You can change the size of the Model Window at any time.

To change the size of the Model Window:

1 Choose Window menu> Set **3D** View Size. Detailer displays a dialog that allows you to set the size of the Model Window.

2 Enter width and height values (in pixels) for the size Model Window you want.

The dialog shows how much RAM is required for the window specified. A larger window may be more comfortable to work in, but requires more RAM. The bigger the window, the longer it takes to display. A large window might not be possible on your system.

3 Click OK, Detailer sets the Model Window to the new size.

Don't set a Model Window that requires more RAM than your system has available. Between 200 and 300 pixels square is a good size for most systems.

Setting the Model Window Background Color

You can choose a color for the background of the Model Window. You might want to use a dark background with a light colored image and vice-versa.

If you are creating a 2D collage of several renderings, you will want to set the background color accordingly.

To change the background color:

1 Choose Edit menu> Preferences> Model. Detailer displays the Model Preferences dialog.

The other model preferences are described at the end of [Getting Acquainted with Detailer](#).

2 Click the swatch for Background Color. Detailer opens the system color picker so you can choose a color for the window background.

Importing a Background Image

Detailer lets you import an image as the background of the Model Window. You can use the image in the rendering of the finished model. This enables you to adjust the surface maps, lighting, and view of your model to match the imagery in the scene.

When you render the 3D view, the background is included in the image.

To import a background:

1 Open the model you are working on.

2 Choose File menu> Import> Background. Detailer displays a dialog that allows you to locate and open the file you want to use.

The file may be in certain image formats that Detailer supports: RIFF, TIFF, PICT, Photoshop 2.0 and 3.0, BMP, PCX, TARGA, and JPEG.

The background will appear in the Model Window, aligned at the top, left corner.

If the background image is larger than the Model Window, only the upper left region will be visible. If this does not work out for you, create a new image that is either scaled or cropped to the region you want.

If the background image is smaller than the Model Window, the image will be repeated (tiled) to cover the area.

The background image file cannot be edited while it is associated with the model. If you need to edit the background image, you'll need to import it again.

If you need to edit the background image, it can be opened in Detailer as a 2D image. You can apply paint and effects, save it and close it. Then it may be imported as a background again.

Clearing and Showing the Background Image

You might want to temporarily remove the background image. Perhaps you find the image a distraction to your painting or you want to render without it.

To clear the background image:

- 1 Bring the Model Window to the front.
- 2 Choose Window menu> Clear Background. Detailer sets the window to display the background color.

To show the background image:

- 1 Bring the Model Window to the front.
- 2 Choose Window menu> Show Background. Detailer sets the window to display the background image.

Objects and Maps

A Detailer model may be constructed of up to 240 separate objects. Each object may have a unique set of maps applied to it. When you work with a multi-object model, you need to select which object you want to detail.

To select an object:

- 1 Choose the Object Selection tool.
 - 2 In the Model Window, click on the object you want. The selected object appears outlined in the 3D view. In a model comprised of a single object, like Detailer's own primitives, that object is automatically selected.
-

The Object Palette

All of the features for applying and controlling maps are found on the Map menu and on the Materials: Object palette. The features appear in both places to give you a choice of how to work.

[Using Maps](#) describes all of the features for applying maps to objects.

The Object palette lists the five map types that may be applied to the object: Texture, Bump, Highlight, Reflection, and Glow.

When you select an object, the Object palette updates to show the settings and maps (if maps are loaded for this object).

In each map type listing, you will see two icons to the left of the map type, and the name of the map file to the right. The “X X” beside a map type listing indicates that this object does not have a map of this type loaded.

The Eye and Pencil icons indicate that this object does have a map of this type. The map file name appears on the right of the listing.

The Eye icon controls whether this map is displayed on the object. When the Eye is open, the map is rendered to the object in the Model Window. When the Eye is shut, this map is not applied. You can click the Eye to open and close it.

The Pencil icon controls which map is active for editing. Only one map can be edited at a time. The Pencil icon for the active map is clear—the other Pencil icons have a red slash over them.

Clicking once on the Pencil icon (next to the map type in the Objects palette) brings the map to the front so you can paint in it.

This has the same function as choosing Map menu> Paint Into> and selecting the map you want to work on.

Rendering an Image

You can render the 3D view of your model to a separate image at any time. The rendering you create will be a high resolution version of what you see in the Model Window. The rendering includes a mask, which makes it easy to composite it with other images.

Detailer's rendering camera does not create perspective views of the model. If you want a true perspective effect, you can export your Detailer model to Fractal Design Ray Dream Designer or another 3D program.

See also:

[Render to Image](#)

[Using Renderings in Detailer](#)

Render to Image

Rendering settings are found in the Render to Image dialog.

To render the 3D view:

1 Before rendering, use the Virtual Trackball, Magnifier, and Grabber to set the view of the model. Set the lights how you want them.

2 Choose File menu> Render to Image. Detailer displays a dialog that lets you set rendering options.

3 Enter width and height values (in pixels) for the rendering resolution you want.

The values you enter should conform to the aspect ratio of the Model Window. Values that describe a different aspect can lead to unexpected results in the rendering.

4 Set your anti-aliasing options.

If you intend to composite the model with other images, you want to use the Anti-alias Mask option and not the Anti-alias Image option.

Anti-alias Image: when this option is enabled, pixels at the edge of the model are faded to the background color. Anti-aliasing the image creates a softer edge.

Use this option if you intend to use the rendering as a complete image.

Anti-aliased images take significantly longer to render.

Anti-alias Mask: when this option is enabled, mask pixels at the edge of the model's shape are given intermediate density values.

Use this option (and disable Anti-alias Image) if you intend to composite the model with other images.

In Fractal Design Detailer, when you convert the masked area to a selection and float it, the image pixels at the edge of the object will be semi-transparent. Their level of opacity is directly proportional to the density of the corresponding mask pixels.

When you move this floater over other imagery, some portion of the background colors will be visible through the semi-transparent pixels at the edge of the floater. This gives the floating image a nice, soft edge for compositing.

If you will be using your rendering as a finished image, choose to anti-alias the image but not the mask. If you are going to turn your rendering into a floater or layer, choose the anti-alias the mask, but not the image.

5 When you click OK, Detailer renders the image. Rendering can take some time, depending on the resolution you requested and the speed of your system. When the rendering is ready, Detailer opens it in a new image window.

If you like the results, save the image file. If the rendering isn't what you expected, close the window without saving changes. Adjust your model, maps, or lights and render again.

Not all formats maintain the mask information. Save in RIFF, TIFF or Photoshop formats to maintain the mask information.

Look in Appendix B, "Using Detailer with Other Programs," for tips on compositing your rendering with other images in Fractal Design Painter.

Using Renderings in Detailer

Often you'll want to composite the image of the rendered model with other imagery. The mask Detailer creates in the rendering makes compositing easy.

To composite your renderings in Detailer:

1 Open the saved rendering in Detailer.

The rendering must be saved in a format that retains the mask (RIFF, TIFF, or Photoshop formats).

2 Set the Visibility mode to Show Selection. The selection marquee appears around the model shape.

3 Choose Edit menu > Copy.

4 You can now move to another file and paste the selection. The selection is pasted as a floater.

See also:

[Floaters](#)

Saving and Quitting

A model that you have detailed may have up to five maps for each object. If the model is comprised of a number of objects, there may be quite a few image files used for this one model. You'll need to save all these image files with the model.

When you select the Save command, Detailer applies it to the foremost window.

When an image window is active, Detailer saves that image.

When the Model Window is in front, Detailer saves the model. If any map images have not been saved, Detailer requires you to save them before saving the model file. When you save the model, Detailer prompts you to save any unsaved maps associated with the model.

Map image windows must remain open while you are working with the model. If you close a map image window, that map becomes dissociated from the model.

Working with Models

See also:

[Obtaining Models](#)

[The Model in Detailer](#)

Obtaining Models

Detailer lets you paint and develop surfaces on three-dimensional models. To do this, you'll need to create a model in Detailer. You may also open or import a saved model file.

A Detailer model is a file comprised of one or more 3D objects. The model may have up to 240 objects, and each object may have a different set of surface maps and properties. For example, a wooden handle, corkscrew, and the cork it's stuck in are three separate objects, but may be grouped as a single model.

Detailer has an engine for creating primitive objects. Detailer also comes with a catalog of interesting models you can work with. Some artists will import models they've created in a 3D modeling program, like Fractal Design Ray Dream Designer.

See also:

[Creating a Detailer Primitive](#)

[Opening Saved Models](#)

[Importing Models](#)

Creating a Detailer Primitive

Detailer primitive models are single objects.

To create a primitive:

- 1 Choose File menu > New Model. Detailer displays a dialog that lets you choose the model type.
- 2 Use the pop-up to choose the model you want: Box, Cylinder, Cone, Sphere, or Cup.
- 3 After choosing a primitive, click OK. Detailer prompts you to select options for the selected primitive model.

Dimensions. Enter dimensions that describe the size of the model you want. The dimensions required depend on the model type.

Tolerance: Detailer models are constructed of triangular faces. The Tolerance setting allows you to control the number of triangles used to approximate curved surfaces in the model.

- The Coarse setting creates the fewest triangles. You may see irregularities in renderings.
- The Medium setting creates more triangles than the Coarse setting, but not as many as Fine.
- The Fine setting creates the most triangles, which assures a clean image.

More triangles increase memory demands and may slow down some operations. See Appendix C, "Optimizing Memory Usage," for information about dealing with memory limitations.

- 4 After exploring the options, click OK to confirm the model settings. Detailer prompts you to choose a size for the 3D View or Model Window.

- 5 Enter width and height values for the size Model Window you want. You can get closer to the model by zooming in with the Magnifier tool, so a large window may not be necessary.

The dialog shows how much RAM is required for the window specified. The 3D view or Model Window requires 52 bytes per pixel. A larger window may be more comfortable to work in, but requires more RAM. Larger model windows update slower on screen. A large window might not be possible on your system.

Don't set a Model Window that requires more RAM than your system has available. See Appendix C, "Optimizing Memory Usage," for information on optimizing Detailer for the level of RAM in your system. See your Detailer Quickstart Guide for information about setting the application memory.

- 6 Click OK to set the Model Window size. Detailer opens the model in the 3D View or Model Window.

Opening Saved Models

Models you save in Detailer will be in Detailer format. The catalog of models on the Detailer CD are all in Detailer format. You can also export models you create in Ray Dream Designer in Detailer format.

To open a Detailer model:

1 Choose File menu> Open. Detailer displays a dialog asking you to choose between Model and Image files.

2 Choose Model and click OK. Detailer displays a dialog that asks you to locate and select a saved Detailer model.

3 If you are opening an Detailer model exported from Ray Dream Designer, for the first time, Detailer prompts you to choose a size for the 3D View or Model Window. Enter width and height values for the size Model Window you want.

Detailer will open all maps and images associated with this model. However, if a file has been moved or renamed, Detailer won't be able to load it. In this case, Detailer displays a dialog giving you a chance to locate the missing file. If you cancel the dialog without selecting an image, Detailer opens the model without a map, background, or reflection environment.

See also:

[Opening Models Created in Ray Dream Designer](#)

Opening Models Created in Ray Dream Designer

You can create your own models in Ray Dream Designer or Ray Dream Studio and open them in Detailer. Before you can open them, you must export them from Ray Dream Designer or Studio in Detailer format. The export feature is a program extension for Ray Dream Designer 4.1.2, or later.

This extension is a pair of files (“Detailer” and “DETAILER.DTA”) that are part of the Detailer installation in a folder called “For Ray Dream Designer.” You’ll need to copy these files to the Ray Dream Designer Extensions folder.

To export a model from Ray Dream Designer in Detailer format:

1 In Ray Dream Designer 4.1.2, select the object or object group you want.

You may select the Universe group to export the entire scene (lights and cameras are not exported).

A group may have no more than approximately 80 objects in it.

Because end caps on extruded geometries are individually treated as separate objects, a group may have no more than approximately 80 objects in it. With two end caps each, that would amount to approximately 240 objects in Detailer. Some objects may have no end caps and others may have multiple caps on each end (depending on the geometry), that’s why these numbers are approximations.

2 Choose File menu> Export. The program displays a dialog that lets you select the export type, file name, and save location.

3 Choose Detailer from the Format pop-up. Enter a file name and select a folder on your disk.

Note: If “Detailer” does not appear in the list, you haven’t copied the export extensions to the correct folder.

See also:

[Setting up Ray Dream Designer to Export Detailer Models](#)

4 If you want to change your export options, click **Options**.

The options give you control over several model characteristics, including the number of objects created. Your mapping capabilities (and your ability to import the work you do in Detailer back into Designer) may depend on your export option choices. You’ll find complete descriptions of the Export Options in Appendix B, “Using Detailer with Other Programs.”

5 After closing the Options dialog, click OK. The program creates the Detailer model file.

You can now open the model in Detailer.

Importing Models

Detailer lets you import models saved in 3DMF (Macintosh version only) and 3D Studio (Windows version only).

To import a model:

1 Choose File menu> Import and select the format of the file you want to import.

2 Use the import dialog to locate and select the file. Click OK.

Once imported, the model appears as any Detailer model. When you save the model in Detailer, you will be saving it in the Detailer format. If you want to move the file back to your 3D modeling and rendering program, you'll need to export it from Detailer.

The Model in Detailer

See also:[Selecting an Object within a Multi-object Model](#)

[Getting Technical Information](#)

[Setting Object Base Color](#)

[Setting Object Properties](#)

[Saving a Detailer Model](#)

[Closing a Model](#)

[Exporting Models](#)

Selecting an Object within a Multi-object Model

A Detailer model may be constructed of up to approximately 240 separate objects. Each object may have a unique set of maps applied to it.

When you work with a multi-object model, you need to select which object you want to work on.

When a model is comprised of a single object, like Detailer's own primitives, that object is automatically selected.

If you try and paint on an object that isn't selected, Detailer will ask you if you want to select it. If you click Yes, and you have already applied maps to the object, Detailer will ask you if you want to paint in the first map it finds. If you click Yes and you do not have any maps applied to the object, Detailer will ask you if you would like to create a Blank map or one based on a pattern or texture.

To select an object:

1 Choose the Object Selection tool.

2 In the Model Window, click on the object you want. The selected object appears outlined in the Model Window.

When you select an object, the Materials: Objects palette updates to show the settings and maps, if any are loaded for this object.

The Controls palette: Object Selection tool displays technical information describing the selected object.

The minX, minY, and minZ and maxX, maxY, and maxZ describe the dimensions of the bounding box of this object. The bounding box is the smallest box that will enclose the object completely.

The Controls palette also gives the number of triangles in the surface mesh.

See also:

Getting Technical Information

You can get technical information for points on the object.

To obtain 3D information:

1 Choose the Object Selection tool.

2 Hold down the Control key (Macintosh), Shift+Ctrl keys (Windows), and click on a point of interest on the model.

Detailer displays an Object Report, describing that point on the model, its normal vector, and correlation to the texture map. Some 3D artists might find this information useful.

Setting Object Base Color

You may color an object without applying a texture map.

Setting a base color doesn't make sense if you intend to apply a texture map. The texture map hides the base color completely. However, if you want the object to have a single, flat color, you can set its base color. This is useful when you have a multi-object model and you only want to create texture maps for a few objects.

To give the model a base color:

- 1 Select the object you want to color.
- 2 Display the Materials palette.
- 3 Choose Materials palette: Object menu> Set Object Color.

Detailer displays the system color picker. Select a color for the object and click **OK**.

To set the base color of an object using the Dropper tool:

- 1 Use the Materials: Color palette to choose a color.
- 2 Select the Dropper tool.
- 3 Hold down the Option key (Macintosh), Alt key (Windows), and click the object you want to color.

To give all objects in a multi-object model the same color:

- 1 Choose Materials palette: Object menu> Set All Objects Colors. Detailer displays the system color picker.
- 2 Select a color and click OK. Detailer will apply the color you select to all objects in the model.

Setting Object Properties

The Object palette provides controls for an object's basic shading properties. These properties control how the object appears under the lights. Particular settings help describe the object's substance—whether it is glass, metal, cork, skin, or whatever.

Select the object whose properties you want to adjust. Drag the Diffuse, Specular, and Reflection sliders to set levels appropriate to your object's surface.

See also:

[Diffuse](#)

[Specular](#)

[Reflection](#)

Diffuse

The Diffuse slider controls how much base color the object shows.

Specular

The Specular slider controls the object's tendency to show highlights. Highlights are the bright spots and streaks that appear on an object where light is reflected directly.

You can control specularity in regions of the object with the highlight mask.

Reflection

The Reflection slider controls the object's tendency to reflect its environment. Moving the Reflection slider to the right allows more of the environment image to appear reflected in the object.

You can control reflection in regions of the object with the reflection mask.

Reflection is useful when a good reflection map is loaded as the environment. If you do not have an image, Detailer will use the current pattern.

See also: [Using an Environment Map for Reflection](#)

The settings below offer recipes for achieving different surfaces:

<i>Material</i>	<i>Diffuse</i>	<i>Specular</i>	<i>Reflection</i>
Chalk	100%	0%	0%
Obsidian	0%	100%	0%
Mirror	100%	100%	100%
Plastic	60%	40%	0%

Saving a Detailer Model

After developing the surface of your model, save your work. You'll be able to open the model later and continue working. Saved models include settings for object properties, lights, and all references to applied maps, the background, and environment.

A finished Detailer model consists of several files—the 3D model itself and each image file used as a map, environment, or background. For the sake of organization, it's a good idea to keep your model with its image files in a new directory/folder.

To save a Detailer model:

1 Bring the Model Window to the front. You can click in the window or select its listing from the Window menu. Model Windows appear at the bottom of the menu.

2 Choose File menu > Save.

If your model has maps associated with it that have not been saved, Detailer requires you to save them now. Detailer will display a Save Image dialog for each image that has not already been saved.

Stay organized! Create a directory/folder named appropriately for this model and save all images associated with the model to this folder.

3 Save the map files to the same location. Name each file accordingly.

If you use floaters in your image and want to preserve them as independent floating objects, you must save in either the RIFF or Photoshop 3 file formats. To keep file size to a minimum, use the RIFF file format. If you intend to export your model, use the TIFF file format.

4 When all images have been saved, Detailer opens a Save dialog for the model. In the Save dialog, enter a name for your model and click OK.

Closing a Model

The windows of the map images must remain open to stay connected with the model. This means you should close the Model Window first. Then Detailer can close the image files.

To close a Detailer model:

1 Bring the Model Window to the front.

2 Click the window's close box, or choose File menu> Close. If you haven't saved the model, Detailer will alert you and give you a chance to do so. Detailer will close each map file as well, alerting you to save if necessary.

Exporting Models

Detailer is a powerful tool for developing surfaces on 3D models. Detailer lets you render a model, but many artists will want to move their finished models to a full featured 3D program, like Fractal Design Ray Dream Designer, for assembling in a 3D scene and rendering.

Ray Dream Designer/Studio offers features that Detailer doesn't, including:

- You can create a scene with numerous models.
- You can develop sophisticated lighting and rendering effects, like shadows, luminous objects, and translucence.
- You can achieve different perspective effects with an adjustable camera.
- You can create animations in Studio.

These are only a few of the benefits you get from moving your Detailer models to a scene-building and rendering program like Ray Dream Designer or Studio.

Ray Dream Designer and Studio can import models saved in Detailer format. The model retains its surface properties and all of the maps applied to it. When you import the model in Ray Dream Designer, all of your details, including the alignment of the maps, will be intact.

For models created in Ray Dream Designer, you have the option of importing just the maps and shading from Detailer. Designer automatically applies the maps to the existing model objects.

See Appendix B, "Using Detailer with Other Programs," for more information on importing Detailer models in Designer. Additional information may be in the ReadMe file in the Detailer folder and at our web site, www.fractal.com.

Several aspects of the Detailer model might not apply when you move to a separate 3D program. The background image, reflection environment, and the lights are discarded. You'll want to develop these aspects of the scene in your 3D scene-building program.

Detailer can export models in several formats.

- QuickDraw 3D, also known as 3DMF (Macintosh only)
- 3D Studio (Windows only)

To export a Detailer model:

- 1 Open the model you want to export.
- 2 Choose File menu> Export and select the format you want to use.
- 3 The program displays a dialog that lets you name the file and choose a save location.
- 4 Click OK. The program creates the exported model file.

You can now import the model to your other 3D program.

Fractal Design Detailer has an extensible architecture for 3D file formats. Plug-ins for import/export in other 3D formats may become available. Visit www.fractal.com for updated information.

See also:

[Using the Text File for Exporting](#)

Using the Text File for Exporting

The File menu > Export > Text feature creates a text file describing the properties, maps, and adjustments you've made to the maps in Detailer.

In a program that doesn't open the exported model file correctly, you might be able to enter the settings from the text file to reconstruct your Detailer surfaces on the model.

Detailer can also import this text file. You might be able to edit properties numerically in a word processing program, then import the edited text file. For example, you may want to edit the center of projection for an object's map.

Using Maps

See also:

[Creating Surfaces on the Model](#)

[Applying Maps](#)

[Working in the Maps and Painting on the Model](#)

[Using an Environment Map for Reflection](#)

Creating Surfaces on the Model

A model is a 3D file made up of one or more objects, and each object may have different shading. The combination of applied maps give an object its overall shading. Shading is the set of characteristics that give an object its appearance—color, surface texture (bump), shininess, and so on. Shading is apparent when the object is rendered.

For example, a model of a cork screw and cork might be constructed of three objects—the cork, the screw, and the cork screw handle. Each of these objects will have a different set of maps and surface properties that describe its material—cork, chrome, and wood, respectively.

See also:

[About the Five Maps](#)

[About Imagery in the Different Maps](#)

About the Five Maps

In Detailer you'll color and texture objects by wrapping them with two-dimensional images, called maps. You'll create up to five maps for each object to describe its surface attributes.

You'll apply a single 2D image for each of the five map channels. Of course, you may leave one or more channels empty.

The Materials: Object palette lists the maps for the selected object.

See also:

[Texture Map](#)

[Bump Map](#)

[Highlight Mask](#)

[Reflection Mask](#)

[Glow Map](#)

Texture Map

The texture map gives the object color. For example, a pattern of red bricks mapped onto a box-shaped object turns the box into a chimney.

The texture map adds color, not physical texture. This might be confusing at first, but it's the standard 3D graphics term for this map type.

Bump Map

The bump map creates surface relief, like the rough terrain of tree bark. The bump map may be a grayscale image. When the program renders the object, the bump map deflects the light (in the model space) according to its imagery (light and dark features). Bright areas of the bump map appear recessed in the rendering and dark areas appear raised.

You can invert the map with the **Negative Polarity** option on the Object palette.

It is important to note that the actual shape of the object doesn't change—only the appearance of the rendered surface. The silhouette edges of the object will not be affected by the bump map.

The bump effect is created by the interaction of light and the bump map. Different lighting conditions change the appearance of the bump.

See also:

[Light Reveals the Third Dimension](#)

Continuing the chimney example: With the same brick image in the bump map, you can create the appearance of recessed mortar lines between the bricks.

In the model of a face, you can use the bump map to add wrinkles, crinkles, moles, dimples and scars.

After loading a Bump Map, you can adjust the level of bump.

At the bottom of the Object palette, the **Bump Map Adjustment: Amount** slider lets you control the height and depth of the bump features.

Dragging the slider to the right increases bump depth.

Enabling **Negative Polarity** inverts the bump map.

Detailer renders the new bump settings to the Model Window, so you'll get immediate feedback on your depth adjustment.

Highlight Mask

The highlight mask controls the amount of specularity (shininess) for different areas of the object. Highlights are the bright spots on an object where the light is reflected directly.

The object has an overall highlight amount, set with the Specular slider on the Materials: Object palette. The highlight mask lets you control the highlight amount (reduce the setting) for specific areas on the object.

For example, you're developing a model of a wine bottle. The texture map places a rectangular label on the bottle. The object will have strong highlight on the glass, but much less on the paper label. In the highlight mask image, a dark rectangle that matches the size and position of the label in the texture map will reduce the highlight on the paper label.

Reflection Mask

The reflection mask controls the amount of reflection for different areas of the object. Reflectivity is only interesting when the environment (the object's surroundings) appears in the reflection. In Detailer, you'll load a separate image to be reflected as the environment.

The object has an overall reflection amount, set with the Reflection slider on the Materials: Object palette. The reflection mask lets you control the amount of reflection (reduce the setting) for specific areas on the object.

Continuing the wine bottle example: The glass bottle should be reflective, but not the paper label. In the reflection mask image, a black rectangle that matches the size and position of the color label will eliminate reflection in the area covered by the paper label.

Glow Map

The glow map applies additional color on top of the other shader effects. Glow is a special effect you might find useful, particularly for objects like light bulbs, LEDs and CRTs which actually produce light. For example, a red LED on a control panel looks red, even when there are no other lights in the scene. A little airbrushing of color in the right spot of the glow map would help you create this effect—without interfering with your texture map.

Detailer applies the glow map after the other maps. This means that an area darkened by other shading effects will receive uniform color from the glow map.

The glow map applies color to the object. It does not create a light source within the object. If you want an object to actually cast light onto other objects, you'll need to work with it in Fractal Design Ray Dream Designer or another 3D rendering program.

About Imagery in the Different Maps

In Detailer, you'll create images for the five map types using the brushes, effects and other image development features.

Throughout this section, "painting on the model" refers to developing imagery in any of the five map channels. Remember that the effect of an image on the model depends on which map it's in. In the texture map, a colored brush stroke puts color on the model. That same stroke in the bump map might cut a notch in the model.

See also:

[Grayscale Images](#)

Grayscale Images

One thing to keep in mind as you develop imagery for a given map is what Detailer does with the image. For the bump map, reflection mask and highlight mask, Detailer uses only the pixel luminance values to control shading. Hue and saturation are ignored.

The bump map and mask images may be grayscale, which gives 256 value settings. Black is the lowest value, white is the highest.

The bump map image may describe up to 256 levels of bump elevation.

The highlight or reflection mask images may describe up to 256 levels of mask density. The darker the pixels in the image, the greater the masking effect on the object.

Applying Maps

After setting an object's properties, you'll apply one or more images for the surface maps.

Display the Materials: Objects palette. This palette holds the central controls for working on maps.

You might want to tear off this palette and drag it to a convenient area of your screen.

Remember that you can't tear off the current sub-palette. Select a different sub-palette before dragging the Object icon away from the Materials palette.

You can apply any of the five map types.

To apply a map to an object:

1 If necessary, select the object you want to work with.

2 Choose Map menu> Load> and select the map type you want (Texture, Bump, Highlight, Reflection or Glow). Detailer displays the Apply Map dialog, which gives you options for choosing the source of the map image.

The dimensions of the image you map onto the object can be critical in avoiding distortion. You'll need to use an image with an aspect ratio appropriate to the selected mapping mode and object scale. See Appendix A, "Designing Maps," for important information on designing surface maps.

You may also use the Object palette to open the Apply Map dialog for any map type:

See also:

[Copy Image](#)

[Open Image](#)

[Make New Image Using...](#)

[Blank](#)

[Current Texture or Pattern](#)

To use the Object palette to apply a map:

Click once to select the map type you want, then click the Load button.

You may also double-click the listing for the map type you want.

If you choose the Brush or Paint Bucket tool and start to paint on an object that doesn't have a map, Detailer will alert you that this is not possible and give you a chance to create a texture map.

See also:

[Mapping Options](#)

[Replacing or Removing a Map](#)

[Changing Mapping on a Current Map](#)

[Adjusting a Map](#)

Copy Image

The Copy image pop-up lets you create a new document for this map by copying any open image file. Use the pop-up to select the name of the file you want to copy.

If the document you select contains floaters, they will be dropped (merged with the canvas) in the copy.

Copying an open image is often quite useful. For example, if you have a texture map applied, you'll want to create bumps that enhance the imagery in the texture map. By copying the texture map, you have the perfect starting point for developing the bump map.

Likewise, copying the texture map will help in developing a highlight or reflection mask. You'll be able to see which areas need to be masked, and you can edit the image appropriately.

Open Image

The Open image option lets you open a saved image file. Select the Open Image option, then click OK. Detailer displays an Open File dialog. Use it to locate and select the file you want.

Detailer opens a great number of popular image formats. When you open a RIFF file (Painter and Detailer's native format), the floaters remain floating. You'll be able to move, scale, distort, and rotate these floating images.

If you open a Photoshop 3 file, the layers are converted to floaters. Photoshop files have some technical considerations. See Appendix B, "Using Detailer with Other Programs," for more information.

Make New Image Using...

The **Make new image using...** options let you create a new, blank image or an image based on the current Texture or Pattern.

Avoid creating excessively large maps. The map image files must remain open while you are detailing the model. Larger images increase the demand for RAM.

Larger (higher resolution) images increase detail on the model; however, the rendering process limits the detail that appears in the final image. This means that there's a point beyond which increasing map resolution does not lead to higher detail in the final rendering. However, if you are planning for high resolution rendering, you should use a texture map of at least the planned rendering resolution.

Blank

If you want to start with a blank canvas, select **Blank**. Detailer displays text fields that let you set the number of rows and columns (in pixels) for the new image. Enter the dimensions you want, then click OK.

Current Texture or Pattern

If you want to use a Texture or Pattern, you may use the Materials palette to choose a Texture or Pattern and set options for it.

Detailer allows you to select your Texture or Pattern from the Materials palette while the Apply map dialog is open.

Textures and Patterns “tile” over the image area. Tiling describes how a rectangular image repeats to cover a larger area, like squares of linoleum covering a kitchen floor.

When you select one of these options, Detailer displays text fields that let you set the number of horizontal and vertical repeats—how many tiles in each direction.

By default, Detailer suggests 1 x 1, which means that one tile image will be used in the map. The image size will equal the Texture or Pattern dimensions. Enter values to describe how many tiles to use horizontally and vertically.

To avoid distortion when Detailer maps the image onto the object, you’ll want to use a specific number of repeats in each direction. See Appendix A, “Designing Maps,” for more information.

When you’ve specified your map source, Detailer displays the Set Mapping Options dialog.

If you are using the Ray Dream Compatible option as your model preference, the Set Mapping Options dialog will appear only for the first map you apply to an object. All subsequent maps automatically inherit the mode setting of the first map.

See also:

[Ray Dream Compatible](#)

Mapping Options

See also:

[Mapping Modes](#)

[Orientation](#)

[Scale and Origin](#)

Mapping Modes

The word “mapping” refers to the method Detailer uses to transfer the two-dimensional image to the surface of the 3D model. Detailer offers five mapping modes. Each mode has benefits for certain types of models and map images.

The mapping mode you use and the dimensions of the object will determine the optimum aspect ratio for the map image. Using the correct aspect ratio minimizes distortion. See Appendix A, “Designing Maps,” for more information.

See also:

[Mapping Options: Cylindrical](#)

[Mapping Options: Spherical](#)

[Mapping Options: Cubical](#)[Mapping Options: Pass-thru](#)

[Mapping Options: Implicit](#)

Mapping Options: Cylindrical

Cylindrical mapping wraps the image around the object horizontally. This projective mapping is ideal for lathe-type objects, like cans, cups, cones, and vases.

See Appendix A, “Designing Maps,” for information on determining the optimum aspect ratio for images used in cylindrical mapping.

Mapping Options: Spherical

Spherical mapping wraps the image around the object horizontally and vertically. This projective mapping is useful for spheres, ellipsoids, eggs, and other rounded objects.

Images used in spherical mapping should be twice as wide as they are tall. This will help minimize distortion.

See Appendix A, “Designing Maps,” for more information on spherical mapping.

Mapping Options: Cubical

Cubical mapping folds the image to cover each box face. This projective mapping is used for boxes.

To take full advantage of cubical mapping, you'll need to create a map in the correct aspect ratio for the dimensions of your box and know which regions of the image are folded (mapped) onto which faces of the box.

See Appendix A, "Designing Maps," for information on determining the optimum aspect ratio for images used in cubical mapping. This appendix also explains which map regions correspond to which box faces.

Mapping Options: Pass-thru

Pass-thru mapping passes the map through the object, leaving imagery on the surfaces. Pass-thru is a projective mapping, useful for flat objects, like walls, and for creating wood grain. This is similar to what happens when you shine a slide projector on an object. Pass-thru mapping is directional. The angle the projector shines is the angle of pass-thru.

In pass-thru mapping, the image appears on the distant side (from the angle of pass-thru) as well. On the distant side, the image is the mirror of what appears in front—like looking at the window of a shop from the inside.

If the object is closed, there will be someplace on the surface where the map stretches and doubles back.

See Appendix A, “Designing Maps,” for information on determining the optimum aspect ratio for images used in pass-thru mapping.

Mapping Options: Implicit

Implicit mapping assigns points on the map to points on the object and tightly wraps the image onto the model by lining up these points.

The object must have implicit UV coordinates defined in its geometry to use implicit mapping. Ray Dream Designer models exported in Detailer format have implicit UV coordinates. Some Quickdraw 3D (3DMF) models have implicit UV coordinates. All of Detailer's own primitives have implicit UV coordinates.

In some cases, text used in an implicit map may appear in mirror image. This is a result of the object's construction and UV coordinate system. You can correct the text by flipping it horizontally.

Implicit is not a projective mapping. It usually provides the best results when it's available (on objects with UV coordinates). Implicit mapping is most useful for an object with a hole in it or one that bends

See Appendix A, "Designing Maps," for information on determining the optimum aspect ratio for images used in implicit mapping.

See Appendix B, "Using Detailer with Other Programs," for information on using implicit mapping on Ray Dream Designer models.

Orientation

The Orientation options let you choose where the map begins on the object. You can adjust the map later.

See also:

[Align with Coordinate Axes](#)

[Align with Current View](#)

[Align in Register with](#)

Align with Coordinate Axes

Detailer orients the map according to the object's construction axes. You can get information on the object by selecting it with the Object Selection tool and looking in the Controls palette.

Align with Current View

Detailer orients the map according to the view in the Model Window. For example, if you choose this option with Pass-thru mapping, the image will be “projected” onto the object from your current vantage point.

Align in Register with

Detailer aligns this map with the one you select in the pop-up. Corresponding regions of the two images will map to the same area on the model.

This setting is quite useful. For example, you use the texture map to put a label on a bottle. You want the highlight mask to cover the paper label, reducing its specularly from the glass surface. With the color label in the texture map and the dark area of the highlight mask occupying the same region of their respective images, aligning the one with the other ensures that the two features will map to the same area on the model.

Scale and Origin

Scale and Origin values provide further technical information on this mapping. These values change, depending on the selected mapping mode.

When you click OK, Detailer closes the Set Mapping Options dialog, opens the map in an image window, and applies it to the model.

Each map applied to a model appears in an image document window. Map image windows must remain open while you are working with the model. Closing a map image window removes the map from its object. If you try to close an image that is being used as a map, Detailer will warn you that it will be dissociated from the model.

If you are on a Macintosh, you might want to use the WindowShade feature to minimize the space occupied by the several image windows. Choose Apple menu> Control Panels> WindowShade to set options for this Macintosh system 7.5+ feature. If you are using Windows, you can minimize image windows to get a similar space savings.

Replacing or Removing a Map

At some point, you'll want to replace a map image with a different one. You might even want to remove the map completely.

To replace a map, simply apply a different one. Detailer will alert you that you are about to dissociate the map from the model, then give you a chance to save the map.

To remove a map (and leave that map channel empty), open the Apply Map dialog for the Map you want to remove. Select the Remove current map option and click OK.

You may also close the map's image window.

You may only have one map of a type on an object. If you want to use two mapping modes for one map type, you'll need to use two objects. For example, cylindrical mapping does a great job on the circumference, but distorts the image on the top and bottom. If you want to apply a map on the top of a cylinder as well, you should place an appropriately sized disk (a separate object) on the end of the cylinder and map it with pass-thru mapping.

You may also use Implicit mapping on an object that supports it.

Changing Mapping on a Current Map

After applying a map, you might realize that a different mapping mode or alignment might be better. You can easily change the settings.

When you open the Set Mapping Options dialog, Detailer “auto-ranges” to determine the optimum values. You can use the Adjust features to change scale, origin, and orientation (adjustments available depend on mapping mode), but if you later decide to change mapping options, auto-ranging and the orientation setting in the Set Mapping Options dialog will effectively wipe out your adjustments.

To change mapping:

1 With the Object Selection tool, select the object you want to work with.

2 Choose Map menu> Mapping Options> Map Type. Detailer opens the Set Mapping Options dialog for the selected map.

Refer to [Mapping Options](#) .

You may also use the Objects palette to open the Set Mapping Options dialog. Click the listing for the map you want to change, then click Mapping.

If you're using the [Ray Dream Compatible](#) preference, Detailer will update all maps on this object to the new mapping.

See also:

[Model Preferences](#)

Adjusting a Map

After applying a map, you might want to adjust its position on the object. You can drag the map image across the object surface, change its scale, and set its orientation.

The adjustments available depend on the mapping mode of this map.

To adjust a map:

1 Choose Map menu> Adjust Mapping> and select the map you want to adjust.

You may also select the map you want to adjust by clicking it in the Materials: Object palette. The selected map will be highlighted. Then click the Adjust button.

Detailer displays the Adjust Mapping tools. This dialog must remain open while you are adjusting the map.

The tools provided and their adjustment effect depend on the mapping mode.

See:

[Cylindrical](#)

[Spherical](#)

[Pass-thru](#)

[Cubical](#)

[Implicit](#)

Cylindrical

The Grabber lets you drag the map image on the surface of the object. This doesn't move the position of the map seam. It uses the Pattern feature "wrap-around seams" to move the entire map, including the seam, to different locations in the image.

If you want to move only a portion of the map, work in the 2D image to select and float the region. Then you can move it.

The Plus Magnifier reduces the number of repeats in the Y dimension by a factor of two and then magnifies the single tile.

The Minus Magnifier doubles the number of repeats of the image in the Y dimension, making the map half of its former size. Scale in the X dimension does not change.

Spherical

The Grabber lets you drag the map image on the surface of the object. This doesn't move the position of the map seam. It uses the Pattern feature "wrap-around seams" to move the entire map, including the seam, to different locations in the image.

Pass-thru

The Grabber lets you drag the map image on the surface of the object. This doesn't move the position of the map seam. It uses the Pattern feature "wrap-around seams" to move the entire map, including the seam, to different locations in the image.

The Plus Magnifier reduces the number of repeats by a factor of two, and then magnifies the single tile.

The Minus Magnifier doubles the number of repeats of the image, making the map half of its former size.

The Seam Adjuster lets you set the angle of pass-thru. Click on the object. Detailer projects the map onto the object perpendicular to the surface at the click point.

Cubical

The Adjust Mapping tools are not valid in cubical mapping. If you design your map properly, adjustment is not necessary. For more information, see Appendix A: “Designing Maps.”

Implicit

The Adjust Mapping tools are not valid in implicit mapping. Because of the variety in the topology of objects there's no way to know which areas of the map image correspond to which surfaces on the model. Showing the mesh might help in some cases, but you'll probably need to start painting on the model to make sense of it.

Working in the Maps and Painting on the Model

Detailer allows you to work on the map images while they are applied to the object. You can paint new imagery, apply image effects, create floaters and move them around in the image. Floaters are an excellent way to place details on the model.

See:

[Saving Map Images](#)

See also:

[Controlling Applied Maps](#)

[Working in either the Image Window or Model Window](#)

[The Mesh](#)

[Wrap-around Colors and Seamless Maps](#)

Saving Map Images

As you develop imagery in a map, you'll want to save your work. File menu> Save and Save As commands are available to write your work to disk.

For better organization, save all map images in a directory/folder with the model.

Use the RIFF file format for best results. This is Detailer's native format for images. This format retains the mask and all floaters. Other formats might not retain this information, which can limit your options for editing the image later. If you intend to export the model to another 3D program, use the TIFF file format.

See also:

[Working with Images](#)

Controlling Applied Maps

See also:

[Making a Map Active](#)

[Hiding a Map](#)

Making a Map Active

When you have several maps applied to an object, you'll need to identify which one you want to work in. Only the active map is available for painting, applying effects, and editing.

To make a map active:

Use any of these three methods:

- Choose Map menu > Paint Into > Map.
- Choose the image window of the map you want. Click in the window or select its listing from the Window menu.

In the Materials: Object palette, click the Pencil icon beside the map you want. The one Pencil icon that appears clear (no slash through it) identifies the active map.

The foremost image window (displayed above all other image windows) is active for painting. Regardless of which method you use to select the map, its window will come forward.

Hiding a Map

You might want to hide a map temporarily. This makes the effect of the map disappear from the Model Window and can speed up the display. Perhaps you're working in the bump map and the texture map makes it difficult to see the result of your changes.

To hide any map:

- 1 Click the Eye icon beside its listing in the Object palette. The Eye winks shut and the map disappears from the 3D view of the object.
- 2 To bring back the map, click the Eye icon again to open it.
- 3 The Map menu > Show submenu also lets you hide and show the maps. The submenu has a listing for each applied map. Checked items are currently displayed on the model. Select an item to toggle its display state.

Working in either the Image Window or Model Window

After making a map active, you can paint into it, apply effects, or use any of the other tools to develop and change the imagery. You may work in either the image window or directly on the model. In either case, your brush strokes and effects appear almost immediately in the other window.

Some tools and features require you to work only in the 2D window.

In the Model Window, you can paint on the object with the Brush tool, fill with the Paint Bucket tool, sample color with the Dropper tool, create Text with the Text tool, and drag floaters with the Floater Adjuster tool.

In the Model Window, you cannot create selections with the Lasso or Rectangular, Oval Selection tools. You cannot drag handles of a reference floater for resizing, rotating, or skewing. You cannot use the Effects menu > Orientation > features on the model. You can select a floater by clicking on it, but not by dragging a marquee.

You can create a mask (or selection) in the 2D image and set the Drawing Mode to Masked Inside (or Masked Outside). When you paint on the model, the brush will respect the Drawing Mode setting and the canvas mask.

When a floater is selected, your brush strokes and effects apply only to the floater—the canvas will not be touched. This is true whether you're working in the image window or painting right on the model.

The Mesh

Detailer uses a mesh for the mapping correspondence between the 2D image and 3D surface. The mesh type depends on the mapping mode selected for this map. Viewing the mesh might help you see correspondence between the 2D image and 3D surface. In some cases, this information might be helpful in developing images.

To show the mesh:

- 1 Select the image window for the map whose mesh you want to view.
- 2 Choose Canvas menu> Display Mesh. You may also click the mesh icon in the top, right of the image window.

To hide the mesh:

- 1 Choose Canvas menu> Display Mesh again. You may also click the mesh icon in the top, right of the image window.

Wrap-around Colors and Seamless Maps

See:

[Wrap-around Colors](#)

[Seamless Maps](#)

Wrap-around Colors

Early sailors thought the world was flat. They feared that if they sailed too close to the edge, their ship would fall into nothingness.

Now, imagine your cursor as that ancient sailing ship on the sea of a 2D image.... Dragging a brush stroke beyond the edge of the image would send it into nothingness.

Innovative thinkers and explorers proved the world was round. Magellan demonstrated that by sailing in one direction, you'll eventually return to your starting point.

This is how the Brush tool behaves in a Detailer Pattern image. Drag it off the right edge of the image and the stroke continues on the left. This behavior is called "wrap-around colors."

Detailer wraps the map image onto the model. But there must be an edge where the two sides of the map meet (this is where you'd place a piece of tape on a gift wrapped package). The wrap-around colors feature enables you to paint right across this seam. This is a huge advantage when painting directly on the model.

All surface maps applied to a model have the Pattern wrap-around seams attribute.

An image you create with the File menu> New Image command won't have wrap-around colors. You can enable this feature for an image if you like. Choose Materials palette: Pattern menu> Define Pattern. Once the image is defined as a pattern, all features will wrap around.

Seamless Maps

Normally, the right edge of a Pattern tile meets the left edge of the next tile. With the map wrapped in 3D, the right edge of the map meets its own left edge. In a sense, the map is a Pattern tile that “meets itself.”

The seam where the edges of the map meet should be invisible. The imagery should flow together as though it was continuous. This will be the case for map images created from Detailer’s Patterns and Textures.

However, if the colors on the left edge of the map contrast the colors on the right edge, the seam will be visible. You can use the Adjust feature to move the map and seam to the other side of the model, or you can modify the imagery to make it seamless.

If you need more information on developing seamless maps, look at the section on developing seamless Pattern tiles in [Image Materials](#). Features and techniques described for creating seamless Patterns apply equally to developing seamless maps.

Using an Environment Map for Reflection

If you're in a museum and you look closely at a 18th century porcelain vase, you might see your own face reflected on the surface. It's a subtle detail, but reflection adds visual interest and realism to your models. Detailer lets you develop this kind of detail with reflection mapping.

Reflection mapping has four steps:

1 Create an image for the environment.

2 Import the environment image for the model.

If you don't import an environment, Detailer uses the current Pattern.

3 Select each object in the model and use the Objects palette: Reflection slider to set its degree of reflection.

4 If a single object has areas with different reflectivity, you'll want to apply a Reflection Mask to describe the areas with limited reflectivity.

See also:

[Creating an Environment Image](#)

[Importing the Environment](#)

[Setting Reflection for an Object](#)

[Using a Reflection Mask](#)

Creating an Environment Image

The environment is the image that appears in the reflection.

Curved objects, like a porcelain vase, warp the image across the curve of their surface. In Detailer, you may need to warp the image before loading it as the environment. This will depend on the topology of the object. The rounder the object, the more likely you'll need to warp the image before loading it as an environment.

To warp an image:

- 1 Before proceeding, make sure all floaters are dropped.
- 2 Choose Effects menu > Surface Control > Quick Warp.
- 3 In the Quick Warp dialog, use the default settings (sphere) and click OK.
- 4 When you've finished developing the environment image, save it to disk and close the file.

For more information on Quick Warp options, see [Applying Effects](#).

Importing the Environment

1 Open a model.

2 Choose File menu> Import> Environment. Detailer displays an Open dialog so you can locate and select the environment image you saved.

You can't edit the environment image file while it is associated with the model. If you need to edit the image, you'll need to import it again.

Setting Reflection for an Object

The Object palette: Reflection slider controls the object's overall reflection.

Select each object and drag the slider to describe its basic reflection amount.

Using a Reflection Mask

You can mask areas of the object to inhibit reflection by applying a reflection mask.

Refer to [“Applying Maps,”](#) earlier in this chapter, for more information.

White areas of the reflection mask allow the full Reflection slider setting. Black areas in the reflection mask block reflection completely. A shade of gray in the mask inhibits reflection at a level that’s the inverse of its luminance value. The darker the gray, the more it inhibits reflection, and vice versa.

Using Light

See also:

[Lighting the Model](#)

[Colored Lights on the Model](#)

[Light Reveals the Third Dimension](#)

[Using Detailer's Light Palette](#)

[Adding Lights with the Light Tool](#)

[Light Libraries](#)

Lighting the Model

In Detailer, as in other 3D programs, light illuminates the model for the rendering camera. The rendering camera's view is displayed in the Model Window. Without light, all you would see in the Model Window is black. If you're going to render the model in Detailer, you'll want to set the lighting with care. Lighting directly determines the 3D appearance of the model.

If you're going to export your model to a 3D scene-building program, like Fractal Design Ray Dream Designer, you don't need to pay much attention to Detailer's lighting. You will set final lighting in your 3D program. In Detailer you will use light to see how your surface maps will look; this helps you to create them.

Colored Lights on the Model

Detailer lets you use colored lights. The color of the lights you use influences the colors on the surface of your model. For example, if your model has a cyan texture map and you shine yellow light on it, the model surface will appear green.

Use white lights to illuminate your model without adding tints to its surfaces.

When you've finished adding surface detail to your models, you might want to export them to Ray Dream Designer or another 3D program. Ray Dream Designer's rendering engine uses ray tracing. Ray tracing offers light effects that Detailer doesn't. If you want objects that cast shadows and render with translucence and refraction, you'll need to export your models to a 3D program.

Light Reveals the Third Dimension

Lighting the model creates two effects that contribute to its three-dimensional appearance: highlights and depth shading.

See also:

[Highlights](#)

[Depth Shading](#)

[Lighting and the Bump map](#)

Highlights

Specular highlights are the bright spots and streaks where light reflects directly.

You can control an object's tendency to produce highlights with the Materials: Object palette: Specular slider and with the Highlight Mask.

Depth Shading

Depth shading describes the dark areas that develop on surfaces away from the light source. Depth shading is only apparent when ambient light is low.

Lighting and the Bump Map

Different lighting conditions change the appearance of the bump texture.

Lights that shine from a low angle create greater contrast in the bump texture.

- Ambient light shines from everywhere, so it minimizes the relief developed by the bump map. To see more bump texture, reduce the Ambient light.
- Lighting a bump area from opposite directions creates a canceling effect on the bump features. To reveal more texture, light the model primarily from one side.

The bump effect responds to lighting changes just as you'd expect in nature. Shine a flashlight straight into a sidewalk crack, and you'll see into it. The sidewalk surface and the crack will be much the same color. But if you put the flashlight on the ground so that the light shines across the crack, the sidewalk will be lit, but the crack will be dark and its detail will be hidden.

Using Detailer's Light Palette

Detailer opens new models with a single light shining on the front of the model. You can move this light and create others. Each light may have different color, brightness, and concentration settings.

Detailer's lights are distant lights. They shine on the model like the Sun shines on the Earth. You'll set lights for the model, not for individual objects within the model.

Most of the features for working with light appear in the Materials: Light palette.

If you want more sophisticated lighting, for example spot lighting, you will need to import your Detailer model into a 3D rendering program like Fractal Design Ray Dream Designer.

See also:

[Light Palette Preview](#)

[Light Icons](#)

[Display Slider](#)

[Show Icons](#)

[Controlling Individual Lights](#)

[Controlling Model Lighting](#)

Light Palette: Preview

The lighting preview sphere represents the model space. Imagine your model just inside the sphere. The lights shine on the preview sphere just as they shine on your model.

Light Icons

The small circles on the sphere are icons representing the individual lights. The light's color appears inside the circle.

Display Slider

The Display slider controls the brightness of the lighting on the preview sphere. The Display slider changes the appearance of the preview. It has no effect on the lighting of your model.

Show Icons

When Show Icons is enabled, the light icons appear on the preview sphere. You might want to disable this option to hide the icons and see the preview without their distraction.

You can hide the icons by disabling the Show Icons check box at the bottom of the palette.

Controlling Individual Lights

To add a new light:

- Click on the preview sphere where you want it. Detailer creates a new light using the settings of the current, selected light.
-

To move a light:

- Drag the light's circle icon. By moving the lights on the sphere, you move them around your model.
-

To select a light:

- Click inside the light's icon. The icon for the selected light appears in "bold."

When you've selected a light, you can change the settings for its color, brightness, and concentration.

To change the selected light's color:

1 Click the Color button. Detailer displays the system color picker so you can choose a color. You may also choose Materials palette: Light menu> Set Color.

2 Choose a color from the color picker and click OK. You will see your color change take effect after you dismiss the dialog.

To change the selected light's brightness:

- Drag the Brightness slider to the right to increase the selected light's intensity. Drag the Brightness slider to the left to decrease the selected light's intensity.
-

To change the selected light's concentration:

- Drag the Concentration slider to control the spread of the selected light. Increasing concentration (dragging the slider to the right) creates a smaller patch of light on the model. Decreasing concentration (dragging the slider to the left) spreads light across the model.
-

To delete the selected light:

- Click the Delete button.

You may also choose Materials palette: Light menu> Delete.

Controlling Model Lighting

The following controls apply to the model in general.

[Exposure Slider](#)

[Ambient Slider](#)

[Flat Lighting](#)

Exposure Slider

The Exposure slider controls how much light enters the rendering camera. It works just like the exposure setting on a regular camera. Increasing exposure (dragging the slider to the right) allows more light into the camera, so everything gets brighter.

Ambient Slider

Ambient light is general—it illuminates the model from all directions. To get a stronger 3D effect from the specific lights you set, keep ambient light low.

Flat Lighting

Flat Lighting puts a lot of light on all surfaces. Flat Lighting is equivalent to maximum ambient light. When you're painting in the texture map, you might want to use Flat Lighting to see all areas clearly. You'll want to disable this option to see depth shading, highlight, and bump effects.

Adding Lights with the Light Tool

Sometimes, you'll want to add a light without going to the **Materials: Light** palette.

The **Light** tool allows you to add a light by clicking directly on the model in the **Model Window**.

To add a light using the Light tool:

- 1 Select the **Light** tool from the **Tools** palette.
- 2 Click on the model at the spot where you want the light to shine. **Detailer** adds the light. You will see the effect on the model immediately.
- 3 Use the **Controls palette: Light tool** to adjust the light's **Brightness** and **Concentration**. These are the same sliders provided on the **Materials: Light** palette.

Light Libraries

When you've created a set of lights that you like, you can save them to a retrievable setting. You can load the saved lights for any model you work with.

To save light settings:

- 1 Set the lighting you want. The settings for position, color, and all of the sliders will be saved.
- 2 In the Materials: Light palette, click the Save button. Detailer prompts you to name the light set.

You may also choose Materials palette: Light menu > Save.

- 3 Enter a descriptive name and click OK.

Access saved light sets with the Load button on the Light palette. 3D light sets do not have libraries or movers.

To load saved light settings:

- 1 In the Materials: Light palette, click the Load button. Detailer displays a dialog list of the saved light sets.

You may also choose Materials palette: Light menu > Load.

- 2 Click the listing you want. Detailer displays a preview of the light set.

- 3 Click OK. Detailer closes the dialog and loads the light setting for the model.

You can remove unwanted sets by selecting them, then clicking the Delete button.

Working with Images

See also:

[Developing Images](#)

[Learning About Detailer Map Image Files](#)

[Creating a New Image File](#)

[Image Size Information](#)

[Navigating Your Document](#)

[Rulers](#)

[Guides](#)

[Using the Grid Overlay](#)

[Using the Mesh](#)

[Opening and Saving Images](#)

[Un-doing Operations](#)

Developing Images

Applying maps to your models is just one aspect of Detailer. The major portion of your work will be creating imagery in the map image files.

You may create images and, later, apply them as maps; or you may apply a map, then develop imagery in it. Detailer lets you work either way.

One of the advantages to applying the map first is that you can then paint directly on the model. This is often the best way to get the imagery you want, in just the location you want it.

In the sections that follow, the text refers to “working in the image.” It makes no difference whether an image file is currently applied as a map or not—it’s still just an image. Detailer’s image development features are as well suited for putting the finishing touches on a rendering as they are for developing map imagery.

Learning About Detailer Map Image Files

Detailer has its own file format called RIFF. RIFF files have special properties. A RIFF will maintain floating objects so you can return to the file to rearrange floaters. When you work in Detailer, you should always work in RIFF format to preserve editability. For compatibility with other programs, you can save finished work in other formats. If you intend to export your model to Ray Dream Designer or another 3D program, you should save all of your maps as TIFF files.

Creating a New Image File

When you create a new image file, you set the image's width and height, resolution and, paper color.

Create a new image by choosing File menu> New Image. The New Image dialog box appears.

See also:

[Canvas Size](#)

[Width and Height](#)

[Paper Color](#)

Canvas Size

The Canvas Size describes the file size. Next to the Canvas Size is how much memory (RAM) the document requires. RIFF is a lossless compressed file format. When saved in RIFF, the saved size of the document is roughly one-half to one-fourth of this number, depending on how many colors are present in the document. A document with fewer colors or more white space can compress in RIFF format more than a document filled with many different colors.

Width and Height

When you create a new image, the Width field is highlighted in the dialog box. You can use the Tab key to move from field to field.

See also:

[Choosing a Unit of Measurement](#)

[Setting Resolution](#)

Choosing a Unit of Measurement

The default settings are in pixels. You can change the measuring units by using the pop-up menus. Choose from pixels, inches, centimeters, points, picas and columns. Columns are two-inch columns, and you can indicate how many columns wide and tall you'd like your image to be.

To set the width and height for a new document, enter a value for Width and a value for Height in the dialog box.

Setting Resolution

In Detailer, resolution refers to the number of pixels per inch (ppi) that make up an image. When you enter a value for Resolution, you will need to consider the intended output or use for your project:

- If you intend to display the final rendering on a monitor, for example on a World Wide Web site, set your file to the monitor's resolution, measured in pixels. Detailer is preset to 72 pixels per inch. The resolution of your monitor may be different.
- If you intend to make a large, high quality rendering, the resolution of the map should match the intended render size and resolution. If you try to make a high resolution rendering with a low resolution map, the map will appear softened on the model.
- If you are creating a 2D collage or a rendering intended for print, you will need to consider the output device's resolution, measured in dpi, and, in the case of halftones, lines per inch (lpi). Output-device resolutions vary depending on the press and paper you're printing on. Generally, a photograph to be printed on glossy magazine stock will be output at a crisp 150 lpi, and at 85 lpi for more porous, and therefore more forgiving, newspaper stock.

In the New Image dialog box, setting the document's pixels per inch is the same as setting its dpi. Using the default resolution setting of 72 pixels per inch means that your document's dpi will also be 72. On most printers, 72 dpi renders a coarse image, so you may want to choose a higher resolution value.

If you are printing a 2D collage or rendering, using a personal laser printer, set your size in inches, centimeters, points or picas at the dpi specific to your printer.

If you are using a commercial printer or a more sophisticated output device, the dimensions should always be set to the actual size it will appear in the printed piece. For the resolution, a good rule of thumb is to set your document's pixels per inch to twice the desired lpi. So when lpi is 150, the pixels per inch should be twice that, or 300; if the lpi is 85, the pixels per inch should be 170. It's a good idea to check with your service bureau if you have questions about output device resolution.

Paper Color

You can choose the background paper color. This color will fill the image as the background color when the image opens. The Paper Color swatch shows the current paper color.

To set paper color, click the Paper Color swatch. Detailer displays the system color picker so you can choose a color.

To change an existing paper color:

1 Use the Materials: Color palette to select the color you want.

2 Choose Canvas menu> Set Paper Color. The paper is set to the current primary color.

To see the change, you will need to delete areas of the image or use the eraser brush to erase areas (do not use a bleach variant, bleach variants erase to white). To see the paper color change on an image, simply choose Edit menu> Select All and press the **Delete** or Backspace key.

Image Size Information

You can use the *i* (the international symbol for information) near the bottom left-hand corner of the image window to check image size.

To check image size and orientation:

1 Move the pointer to the *i* and hold down the mouse button.

You see the Width, Height, and Resolution.

When a printer is defined, the window also shows how your image fits on the page. Page size and orientation (landscape or portrait) are based on those designated in the Page Setup dialog box. The non-printing area around the edge of the page is grayed.

If you change your image's resolution or dimensions by choosing Canvas menu > Resize, you can use the window to see how the changes affect the way the image fits on the page. In Windows, this is not applicable if Size to Fit Page is enabled in Postscript Setup.

2 Release the mouse button to close the image information window.

Navigating Your Document

You can navigate through an image by changing the level of magnification (zooming in or out), scrolling to a different part of the image, or rotating the page. By navigation, we mean moving around a document, changing views, or moving the page.

See also:

[Zoom to Fit Screen](#)

[Zooming In and Out](#)

[Using the Grabber Tool](#)

[Rotating an Image Window](#)

Zoom to Fit Screen

By default Detailer opens an image file at 100% view, but you can change the view to suit your needs. Choose Window menu> Zoom to Fit Screen and Detailer will generate a view of the entire image to fit the size of your monitor.

Zooming In and Out

Zoom in by clicking with the Magnifier tool. Zoom in to a given rectangle of the image by dragging with the Magnifier.

Zoom out by holding down the Option key (Macintosh) or Alt (Windows) and clicking.

In an image file, you may also choose a zoom level from the pop-up on the Controls palette: Magnifier tool. The zoom factors range from 8.3% to 1200%.

You can access the Magnifier tool while almost any other tool is selected. For Macintosh, hold down Command-Spacebar and click to zoom in and Command-Option-Spacebar to zoom out. For Windows, use Spacebar+Ctrl to zoom in and Spacebar+Ctrl+Alt to zoom out.

To magnify a specific area:

- Use the Magnifier to drag a marquee around the area you want to magnify.

The area inside the rectangle is magnified to the closest magnification level that fills the screen.

The Magnifier tool works the same way in the Model Window and image windows with one exception. The zoom level pop-up in the Controls palette applies only to image windows.

Double-click the Magnifier tool in the Tools palette to return the image to 100% magnification.

Using the Grabber Tool

The Grabber tool gives you a quick way to scroll an image.

Drag the Grabber inside the window to pan or move your image.

Shortcuts:

To center an image with the Grabber tool, click once in the image window.

If you double-click the Grabber tool in the Tools palette, Detailer fits the entire image to the largest size window your monitor will permit. This feature is also available by choosing Window menu> Zoom to Fit Screen.

To use the Grabber tool while almost any other tool is selected, hold down the Spacebar.

The Grabber tool works the same way in the Model Window and image windows.

Rotating an Image Window

You can rotate an image on the screen to accommodate the way your arm, wrist, and hand draw naturally. This feature doesn't rotate the image data—only your view of it.

To rotate an image window to suit your drawing style:

- 1** Choose the Virtual Trackball tool or with almost any other tool selected, hold down Option-Spacebar (Macintosh) or Spacebar+Alt (Windows).
- 2** Press down on your stylus or mouse and drag, and a rectangle with an arrow pointing at the top of the screen appears.
- 3** Drag the rectangle or the arrow to the angle you want. To constrain page rotation to 90° angles, hold down the Shift key while rotating the page.

To use the key combinations, press the Shift key first, before choosing Option-Spacebar (Macintosh) or Spacebar+Alt (Windows).

To return the image window to its normal position:

- 1** Choose the Virtual Trackball tool or hold down Option-Spacebar (Macintosh) or Spacebar+Alt (Windows).
- 2** Click once in the image window.

Rulers

For assistance in laying out your images, Detailer provides rulers and guides.

To display the rulers: choose Canvas menu> Rulers> Show Rulers.

To hide the rulers: choose Canvas menu> Rulers> Hide Rulers.

See also:

[Ruler Options](#)

[Snap to Ruler Ticks](#)

[Changing the Origin](#)

Ruler Options

To set the ruler units: Choose Canvas menu> Rulers> Ruler Options. You may also hold down the **Option** key (Macintosh) or **Alt** key (Windows) and click in the ruler to bring up the Ruler Options dialog.

Use the pop-up to choose the units you want: Pixels, Inches, Centimeters, Points, or Picas.

Snap to Ruler Ticks

Each mark in the ruler is called a tick. If you want the guides you create to land precisely on the tick marks, choose Canvas menu > Rulers > Snap to Ruler Ticks.

Changing the Origin

Normally, the origin (0, 0) is in the top left corner. Sometimes you might want to choose a different origin to assist in measuring between points.

To change the origin

1 Drag from the box where the horizontal and vertical rulers meet to the point in the document you want as the origin.

2 When you release the mouse button, the ruler will update to describe this point as the zero.

This applies to the ruler only—not to floater placement or other location features.

To restore the top, left corner as the origin:

Double-click the box where the horizontal and vertical rulers meet.

Guides

Guides are non-printing lines that help you align objects, like floaters.

To create guides:

1 Show the rulers. You must display the rulers to create guides.

2 Click once in either the horizontal or vertical ruler to create a guide at that point. If you drag, instead of clicking, you can move the guide to any point on the ruler.

If a guide doesn't appear, Detailer may be set to Hide Guides. To show guides, choose Canvas menu > Guides > Show Guides.

After creating a guide, you can drag it (by its triangular marker) to any point on the ruler.

To remove a guide, drag its marker off the edge of the document.

See also:

[Guide Options](#)

[Hiding and Showing Guides](#)

[Snap to Guides](#)

Guide Options

Each guide has an options dialog that lets you move it to a particular point and change its color.

Double-click a guide marker. If you haven't created a guide, double-click anywhere in the ruler. Detailer displays the Guide Options dialog.

The Guide Position value shows the current position of this guide. You can set the guide to a specific position by entering a value in the Guide Position field. The units are specified in the Ruler Options dialog.

By default, guides are created in black. You can change the guide's color by clicking the color chip and using the system color picker to choose a color.

If you want all guides to be the same color, the Same Color For All Guides option should be enabled. Choosing this option will make all existing guides the current color. If this option is off, you can create guides of different colors. This might help if you have several guides near each other and want a reminder for which is which.

If you want to lock this guide, enable the Locked Guide option. This makes the guide "un-draggable." You'll need to open the guide's options dialog again to unlock it.

You can clear all guides by clicking the Delete All Guides button.

Hiding and Showing Guides

To display the guides: choose Canvas menu> Guides> Show Guides.

To hide the guides: choose Canvas menu> Guides> Hide Guides.

Snap to Guides

If you want, drag and click operations to snap to the guides, choose Canvas menu> Guides> Snap to Guides.

This feature is enabled when the menu item has a check beside it. Choose it again to disable the feature.

The “snapping” occurs when the cursor (or edge) is within 6 pixels of the guide.

The following operations respect Snap to Guides:

- Dragging with the Rectangle and Oval Selection tools.
- Drawing straight lines with the Brush tool.
- Clicking and dragging with the Paint Bucket tool and Magnifier tool.
- Dragging floaters. The edges of the floater rectangle snap to the guides. The cursor—wherever it might be in the floater—also snaps to the guide.
- Dragging the handles of reference floaters to scale or slant (skew) them.
- Dragging with the Floater Adjuster tool to create a selection marquee.

Using the Grid Overlay

Detailer has a grid layer to help guide you when laying down brush strokes or creating compositions. To activate the grid, choose Canvas menu> Grid> Show Grid, or click the Show Grid button on the right side of your image window.

The Grid Overlay is a special kind of guide. It's not part of the imagery. If you want a grid in the image itself, use the Effects menu> Esoterica> Grid Paper feature.

When you paint or draw with the grid turned on, you'll see your brush strokes at 50% opacity. When you turn off the grid, the strokes will be at 100% opacity. To have 100% opacity when the grid is turned on, enable the Transparent Background option in the Grid options dialog.

See also:

[Grid Options](#)

Grid Options

You can set up the grid to suit your working style by choosing Canvas menu> Grid> Grid Options.

You can use the Tab key to move between the following fields:

[Grid Type](#)

[Horizontal Spacing](#)

[Vertical Spacing](#)

[Line Thickness](#)

[Grid Color](#)

[Background](#)

[Transparent Background](#)

Grid Type

Choose a command from the pop-up menu to determine whether your grid will be rectangular, have vertical or horizontal lines, or consist of small dots.

Horizontal Spacing

Determines the spacing between vertical lines. The unit of measure can be in pixels, inches, centimeters, points, picas, columns, or percent. Each column is equivalent to two-inches. Percent refers to the percentage of the image's width. For example, if the user chooses 10% for width and height in a 100 X 120 pixel image then grid lines will appear every 10 pixels going across (vertical lines) and every 12 pixels going down (horizontal).

Vertical Spacing

Determines the spacing between horizontal lines. Percent refers to the percentage of the image's height.

Line Thickness

Sets the width of grid lines.

Grid Color

Click the Grid Color swatch to change the color of the grid lines. Choose a color in the system color picker, then click **OK** or press **Return** or **Enter**. The default color is a light blue.

Background

Click the Background color square to change the grid's background color. Choose a color in the system color picker, then click **OK** or press **Return** or **Enter**. The default color is white.

Transparent Background

Click Transparent Background if you want the grid to be transparent so that your image will appear at 100% opacity when the grid is turned on.

Using the Mesh

Detailer uses a mesh for the mapping correspondence between the 2D image and 3D surface. The mesh type depends on the mapping mode selected for this map. Viewing the mesh will help you see correspondence between the 2D image and 3D surface; this information might be helpful in developing images.

Display the mesh by clicking the Mesh button in the upper-right corner of the window. You may also choose Canvas menu> Display Mesh.

Opening and Saving Images

See also:

[Opening Existing Images](#)

[Saving Images](#)

Opening Existing Images

Detailer will open files saved in any one of its compatible formats (except EPS). You can open documents from other graphics applications and use Detailer to add brush strokes, tints, or textures.

To open an existing image file:

1 Choose File menu > Open.

2 Detailer prompts you to choose between opening a model or an image. Choose Image and click OK.

3 Locate the file you wish to open. If it was saved in Detailer or Painter, the right-hand side of the dialog box shows a thumbnail of the document.

For every document, regardless of the program in which it was created, Detailer lists the file's dimensions, how much space it takes up in memory, and its file format.

Clicking the **Browse** button displays a dialog box that shows thumbnails, dimensions, and file types for all the supported documents in the folder.

4 From the Open dialog box or the Browse dialog box, open the document by double-clicking the file name, or selecting the file name and clicking **Open**. You may also select the file name and press **Return** or **Enter**.

Detailer doesn't open files saved in EPS format.

In Detailer you can have multiple images open at a time; however, each image has a requirement for RAM. Depending on the size and resolution, keeping multiple images open at a time may make Detailer run significantly slower.

Detailer can read files created with other programs only when they are saved in the RGB color or grayscale formats. Grayscale files are automatically converted to RGB on import. If you try to open a file that was saved in another format, for example CMYK, an alert dialog box tells you the file must be in RGB.

Saving Images

To name and save an image file, or rendering, choose File menu> Save As.

Use the file type pop-up menu to save your document in any of the formats Detailer supports: RIFF, TIFF, PICT, Photoshop (2.0 and 3.0), BMP, PCX, Targa, EPS, JPEG. Name your file and click Save.

You can create a 2D collage in Detailer with renderings and image files. This file can be saved in any image format Detailer supports.

See also:

[RIFF Format](#)

[TIFF Format](#)

[JPEG File Format](#)

[Adobe Photoshop 3.0 files](#)

RIFF Format

We recommend that you save working files (files “in-process”) in RIFF format.

RIFF lets you compress files and save disk space with a “lossless” compression method. This option is dimmed with other formats.

Select the RIFF format. The checkbox for **Uncompressed** should automatically be disabled.

RIFF also is the only format in which you can save the mask *and* keep floaters floating. Photoshop 3, TIFF and PICT formats can retain only the mask information.

RIFF is the best format for working in Detailer; however, if you intend to export your finished models or images, you will need to save your map images or renderings in a format supported by the other program. TIFF is a good choice in most cases.

TIFF Format

For compatibility with other programs, in general, TIFF is the best file format to use. If you intend to export your model or images to another program, save your map images or renderings in TIFF format.

JPEG File Format

Detailer supports the Joint-Photographic-Experts-Group (JPEG) file format. Because of its small file size and high quality, JPEG is commonly used to transmit files via modem.

You can assign URLs to floaters and placed images and then save in JPEG format. For more information see the last section in Chapter 11, "Floaters."

JPEG allows you to compress your file on a scale of Fair to Excellent, where quality is directly proportional to file size. These quality settings will let you achieve compression ratios of less than 10-to-1, to greater than 100-to-1.

JPEG is a "lossy" file format, meaning that a decompressed JPEG file will not be pixel-for-pixel identical to the original. However, because the JPEG algorithm takes into account the sensitivity of the eye to different colors, the higher quality settings should achieve visually satisfying results.

To save a file as a JPEG:

- 1 Choose File menu> Save As and select JPEG from the list of file types.
- 2 Click the **Save** button and the JPEG Encoding Quality dialog box appears.
- 3 Choose a quality option and click OK.

Excellent will compress the least but will retain the most data. Fair will compress the most but will lose the most data.

It is best not to de-compress and re-compress a file multiple times. Although JPEG can compress and discard data that is not visible or obvious, the degradation of the data can affect the condition of your file. When a file has lost a significant amount of data, blocky patterns may appear in areas of the image. If you use a JPEG as your bump map or if you try to use Detailer's Apply Surface Texture effect on a JPEG image, you may find it will accentuate the blocky patterns.

Adobe Photo shop 3.0 files

Detailer supports the reading and writing of images in the Photoshop 3 file format, including the conversion of Photoshop layers into Detailer floaters, and vice-versa.

See also:

[Layers](#)

[Masks & Channels](#)

Layers

When reading in an image file from Photoshop 3.0 with layers, each Photoshop layer is automatically trimmed and converted to a Detailer floater with the appropriate opacity. These layers become very efficient floaters, which can be moved and manipulated with Detailer's Floater Adjuster tool. All of Photoshop's layer blending modes are supported by Detailer. However, due to differences in the way Photoshop and Detailer deal with color conversions, a few blending modes will look slightly different in Detailer than in Photoshop.

Detailer's "Pseudocolor" compositing method is not supported in Photoshop. "Pseudocolor" is mapped to Photoshop's "Normal" compositing method. Note that in Detailer, "Normal" and "Default" methods are identical. "Normal" is included for compatibility with Photoshop.

Photoshop's user-defined layer masks are automatically consolidated in the mask layer for each floater within Detailer. When you bring images with layer masks back to Photoshop from Detailer, the layer masks will have been combined with the non-editable transparency mask for each layer. In addition, Photoshop's ability to clip layer data to the layer below is not supported by Detailer.

When saving Detailer images as Photoshop files, each Detailer floater is converted to a Photoshop layer. Opacity and composite methods are maintained whenever possible. Grouped floaters become separate Photoshop layers.

Masks & Channels

When reading a Photoshop 3.0 file with channels as an image for a map, Detailer will read in the fourth channel as a Detailer canvas mask. When saving a Detailer rendering with a mask as a Photoshop 3.0 file, the mask of the image will be saved as the fourth channel in the Photoshop file. Detailer does not support transparent images. Therefore, when you import a transparent Photoshop 3 file, Detailer will automatically create a blank background on which all of the layers will sit. For more information, see Appendix B, “Using Detailer with Other Programs.”

Un-doing Operations

See also:

[Multiple Undo](#)

[Fade](#)

Multiple Undo

Multiple Undo allows you to undo and redo up to 32 levels of changes you make in an image. By using the Multiple Undo feature, you can experiment freely with Detailer's brushes and effects without "committing" to every edit you make. The number of undos is set in the Undo Preferences dialog, found under Edit menu> Preferences> Undo. Five levels are set as a default.

To Undo an action, choose Edit menu> Undo. To Redo an "undone" operation, choose Edit menu> Redo. Redo is generally only available immediately after an Undo.

The Fade operation merges data from the image into the previous undo layer. An Undo of a faded operation will effectively take you back two Undo levels.

Undo applies to changes you make in Map Images. Changes to the view in the Model Window, including Lights, are not part of Undo.

Fade

Fade is used to partially undo effects and brush strokes. It is a form of undo, but only works on strokes and effects. The Fade command measures an undo as a percentage of your last effect or stroke. This is a great way to achieve just the right amount of an effect.

To see how fade works:

- 1 Draw a dark brush stroke or apply an effect.
- 2 Choose Edit menu > Fade. The Fade dialog appears.
- 3 Drag the Undo Amount slider and watch the brush stroke or effect fade in and out.
- 4 When the preview shows the weight of stroke you want, or the right effect, click OK.

Image Materials

See also:

[Introduction to Image Materials](#)

[Working with Color](#)

[Using Color Sets](#)

[Using Gradations](#)

[Using Textures](#)

[Working with Patterns](#)

[Creating Patterns](#)

[Applying Image Materials](#)

Introduction to Image Materials

Detailer's Materials palette holds the features for choosing and controlling colors, gradations, color sets, textures, and patterns.

Detailer's main materials are on sub-palettes of the Materials palette: Color, Texture, and Pattern palettes. The Grads palette is available from the Materials palette: Color menu.

The Object palette is used for applying and controlling maps; it's discussed in, "[Using Maps](#)."

Working with Color

In Detailer, you can add color to images by using brushes to make marks and you can fill an area by using the Paint Bucket tool or the Effects menu > Fill command.

You can use the Dropper tool to sample or “pick up” a color for use elsewhere.

You can set color variability. The color palettes contain sliders to adjust variability. Variability allows you to create brush strokes of several color levels. The best way to find out about color variability is to try it with different settings.

See also:

[Using the Color Palettes](#)

[Primary/Secondary Color Rectangles](#)

[Copying Colors](#)

[Setting Color Variability](#)

[Using Two Colors at Once](#)

Using the Color Palettes

The Color palette is the main way to select colors. Click the Color icon on the Materials palette and the Color palette appears.

Detailer provides three different types of Color palettes: Standard Colors, Compact Colors, and RGB Colors. You can choose between palette displays on the Materials palette: Color menu.

The Standard Color palette is shown and described below.

The Compact Colors palette straightens the hue ring into a single bar.

The RGB Colors palette provides RGB sliders for choosing color.

- Click the grow box in the upper right corner to expand the palette and display the variability sliders.

To select a hue and color from the Standard Color palette:

1 Drag the circle on the color ring to select the predominant hue. You can also select the hue by clicking once anywhere on the ring.

The triangle displays all the available colors within a predominant hue.

2 Select a color on the triangle by dragging or clicking on the color you want.

Within the triangle, the colors are organized by value and saturation.

Luminance values span the height of the triangle, with the highest value (white) at the top, and the lowest value (black) at the bottom.

Saturation levels increase from left to right. Dragging to the right gives the purest color within the predominant hue. Dragging to the left gives muddier or grayer colors.

To easily select black, click anywhere in the triangle, drag to the lowest point in the triangle, and let up on the mouse or stylus. To easily select white, drag up instead of down.

Primary/Secondary Color Rectangles

The color you select appears on the front rectangle in the pair of overlapping rectangles. The front rectangle shows the selected primary color. The back rectangle shows the selected secondary color. Whenever you start Detailer, black is the selected primary color and white is the selected secondary color.

Don't confuse the secondary color with what other graphics programs call "the background color." In Detailer, the background color is the paper color. When you remove areas of an image, you will reveal the paper color underneath. For more information about setting the paper color, see [Creating a New Image File](#).

Most of the time you'll work with the primary color. The secondary color is for multicolor brush strokes, two-point gradations, and Image Hose effects.

You can change the secondary color by clicking on the back rectangle, then picking a color.

After changing the secondary color, click the front rectangle again. This keeps the primary rectangle selected for the next time you pick a color.

Copying Colors

In addition to choosing colors from the **Materials: Color palette**, you can use the Dropper tool to pick up a color from an existing image and use the color elsewhere.

Using the Dropper Tool

The Dropper tool samples color from an image or from the active map right on the 3D object.

Shortcuts:

You can switch to the Dropper tool by pressing the “d” key. From most tools, you can temporarily switch to the Dropper by pressing the Command key (Macintosh) or the Ctrl key (Windows).

To use the Dropper tool:

- 1 Select the Dropper tool.
- 2 Click the front overlapping rectangle on the **Materials: Color palette** if you want to change the primary color. Click the back rectangle if you want to change the secondary color.
- 3 Move the cursor to the color you want to pick up. You may pick a color from the image window or from the object in the Model Window.
- 4 Click the color. The Color palette updates to display the chosen color.

Setting Color Variability

Use the Materials: Color palette to set up multiple colors for any of Detailer's brushes.

To display the Materials: Color palette, click the Color icon on the Materials palette and expand the palette if necessary.

The \pm HSV sliders control ranges of hues, saturations, and values. Moving the \pm Hue slider to the right increases the number of hues in the brush stroke. These colors are the ones adjacent to the selected color on the color ring.

Moving the \pm Saturation slider to the right increases the variability in the color intensity of the brush stroke.

Moving the \pm Value slider to the right increases the variability in the brightness of color in the brush stroke.

When you save a brush variant, the current color variability setting is saved with that variant.

You can try different \pm HSV slider settings with any of the brushes to get some interesting results. Moving these sliders to the right is most useful when you're working with the Van Gogh and Seurat variants of the Artists brush and other variants set for variability.

Using Two Colors at Once

Usually you work with only the primary color, the front rectangle of the two overlapping rectangles in the color palettes. Using one color produces a solid brush stroke.

By selecting a secondary color, you can determine the colors for multicolored brush strokes. Most brush variants are able to paint with a variable range of colors.

The settings for the brush on the Brushes palette: Controls menu > Sliders palette determine how Detailer decides when to use one color or the other. For information on this palette, see [“Advanced Painting.”](#)

To set up a two-color brush stroke:

- 1 Select the Graduated Brush variant or another mark-making brush variant.
- 2 Click the front rectangle on the Color palette to select it.
- 3 Select a color on the Color palette or from a color set. The front rectangle displays the new color.
- 4 Click the back rectangle and select a secondary color.
- 5 Click the front rectangle again to make it active. This keeps the primary rectangle selected for the next time you pick a color.
- 6 Make sure the Color Variability sliders are turned all the way down (to the left).
- 7 Before you make a stroke, choose Brushes palette: Controls menu > Sliders. Detailer displays the Sliders palette.
- 8 Set the Color slider to Direction.
- 9 In your document, paint an “X.” Notice that the primary color is used in one mark and the secondary color is used in the other. Draw some loops and circles to see the transitions.

You might want to try a different setting for the Color slider. If you have a stylus, try Pressure instead of Direction.

For more information, see the Sliders palette discussion in Chapter 9, “Advanced Painting.”

Using Color Sets

Color sets are used to organize groups of colors. Some color sets are organized both by name and color relationship.

You can customize your own color sets to control the colors in particular projects or create groups of your favorite painting colors. You might call one color set “shades of purple.” You might call another color set “crayon set” or “watercolor set.”

To display the current color set:

- Choose Materials palette: Color menu> Color Set. The Color Set appears on the screen.

To choose a color from a color set:

1 In the Color palette, click on the primary or secondary (front or back) rectangle to select the one you want to change.

2 In the Color Set, click the color you want.

To load a different color set:

1 Choose Materials palette: Color menu> Adjust Color Set.

2 Click **Library**. The standard open dialog box appears.

3 Select a color set from the directory and click **Open**. The new color set is loaded.

You can set a default color set in the Preferences dialog box. For more information, see [Setting Detailer's Preferences](#).

See also:

[Finding Colors](#)

[Creating Color Sets](#)

[Customizing Color Sets](#)

Finding Colors

There are two ways to find a color on a color set—by searching for the color name or by matching the current color.

To find a color:

- 1** On the Materials palette: Color menu > Adjust Color Set palette, click Find Color. The Find Color dialog appears.
- 2** Select a search method. You can find a color by name or find a color that's closest to the current color.
- 3** Click Search. If the name isn't found, the OK button is grayed out.
- 4** Click OK. If the color set is visible, Detailer surrounds the found color with the selection frame.

Creating Color Sets

You can make your own color sets. The colors can come from an existing color set, from the selected color on the Materials: Color palette, or from an image.

To create a color set:

1 Choose Materials: Color menu > Adjust Color Set palette.

2 Click **New Set**. A title bar appears with the name Color Set.

If you want to pick up colors from an image, open the image before you begin creating the color set. You can customize the swatch size, grid lines, and names as described in the previous section.

Sometimes when you create a new set, the title bar is hard to find on your screen. Once you add a color, the color set expands and the set will be easy to locate.

3 Choose a color you wish to add to the new color set. You can choose a color from the Materials: Color palette or from an existing image.

4 If the color set is locked, click the **Padlock** button on the Materials: Color Set palette to unlock it.

5 On the Materials: Color Set palette, click **Add Color**. The color is added to the color set. To name the newly added color, double-click the color swatch and enter a name in the dialog box that appears.

6 Repeat this procedure until you have chosen all of your color set colors.

You may change the name of any color in a color set by double-clicking the color. A dialog box appears asking you to name the color. Type the new name and click **OK**.

7 Click the **Library** button. A dialog box appears asking if you want to save the changes you've made.

8 Click **Save**. Enter a name for the color set, choose a destination directory, and click **Save** or **OK**.

9 The Open Color Set dialog will appear. You can cancel this dialog to keep your saved color set as the active one.

See also:

[Adding and Deleting Colors from a Set](#)

Adding and Deleting Colors from a Set

Customize color sets further by changing, adding, or deleting colors.

To add a color to an existing color set:

1 Choose the color you want to add to an existing color set. You can choose a color from the Materials: Color palette or from an existing image.

If you want to add a color from an existing color set, select the color in the existing color set before you open the destination set. When you open or create a new set, Detailer will first close the current set and then display the new set.

2 If the color set is locked, click the **Padlock** button on the Materials: Color Set palette to unlock it.

3 On the Materials: Color Set palette, click **Add Color**. The color is added to the color set. To name the newly added color, double-click the color swatch and enter a name in the dialog box that appears.

To delete a color from an existing color set:

1 Choose the color set that contains the colors you want to delete.

2 If the color set is locked, click the **Padlock** button on the Materials: Color Set palette to unlock it.

3 Click the color you want to delete to select it. The current selection frame surrounds it.

4 On the Materials: Color Set palette, click **Delete Color**. A dialog box appears asking you if you really want to delete the color.

5 Click Yes. Detailer deletes the chosen color from the color set window.

To change a color in an existing color set:

1 Choose the new color you want to place into the open color set. You can choose a color from the Materials: Color palette or from an existing image.

2 If the color set is locked, click the **Padlock** button on the Materials: Color Set palette to unlock it.

3 Hold down the **Option** key (Macintosh) or the **Alt** key (Windows) and click the color in the color set that you want to replace. The new color replaces the old one in the color set.

Customizing Color Sets

You can arrange a color set in a variety of ways. You can specify the number of rows and columns in the set, the size of the color swatches, whether or not there are grid lines, and whether or not the colors are labeled.

You can make changes in any order until the color set is exactly the way you want it. The numbered steps in the next set of instructions give you a place to start.

To customize a color set layout:

- 1** Choose Materials palette: Color menu > Adjust Color Set.
- 2** If the color set is locked (padlock closed), click the **Padlock** button on the Materials: Color Set palette to unlock it.
- 3** Click a **Sort Order** radio button to order the colors in the set. Click **Saved** to sort colors in the order they were originally entered. Click **HLS** to order colors by hue, luminance, and saturation; **LHS** for a luminance, hue, saturation order; or **SHL** to order colors by saturation, hue, and luminance.
- 4** Use the **Color Square Size** box to adjust the size of the individual squares in the color set. Click the single arrows to expand or contract each square by one pixel. Click the double arrows to double or halve the size of each square.
- 5** Use the **Color Set Size** box to change the number of rows and columns in the color set. Click the single arrows to add or delete rows or columns one at a time. Click the double arrows to double or halve the number of rows or columns in the color set.
- 6** Click the **Display Text** checkbox at the bottom of the **Color Square Size** box to turn the color names on and off.
- 7** Click the **Display Grid** checkbox at the bottom of the **Color Set Size** box to turn the grid on and off. Turning it off eliminates the lines between colors. You can see more colors, but the separations between colors are not as distinct as when the grid is on.

Using Gradations

A gradation is a gradual transformation of one color into another. Sometimes they are called blends or fountains. Detailer provides several different types of gradations: linear, radial, spiral and circular. You can fill areas with these gradations or express them in an existing image.

Although Detailer comes with libraries full of gradations, you might want to create some of your own. You can define two colors and create a gradation between them. You can also capture gradations from existing images (even from imported art) and save them for use in other images. You can save your gradations in your own libraries.

See also:

[Working with Gradations](#)

[Filling with Gradations](#)

[Creating Gradations](#)

[Creating Gradations with the Gradation Editor](#)

[Capturing Existing Image Gradations](#)

[Expressing a Gradation in an Image](#)

Working with Gradations

Use the Materials: Grad palette to select and adjust Detailer's gradations.

To open the Grad palette, choose Materials palette: Color menu > Grads.

Across the drawer front are some gradations. Open the drawer to see more gradations. Click the gradation you want to use and close the drawer.

In the center of the palette, the preview shows how the current settings affect the selected gradation.

The Gradation Angle Ring changes the angle of the gradation. Click anywhere in the ring to change the angle. The red ball shows the selected angle. The numeric value appears below the preview.

You can click inside the gradation preview and Detailer will rotate the gradation for you. Click outside the preview to stop it.

The gradation types on the right of the palette let you select from four types of gradations—linear, radial, spiral or circular.

If you have a spiral gradation, you can drag the Gradation Angle Ring with the Command key (Macintosh) or Ctrl key (Windows) held down to tighten the spiral.

The gradation orders at the bottom of the palette determine how a gradation behaves. The preview strip (above the gradation orders) shows the selected gradation order.

The top row (from left to right) orders the current gradation from left to right, left to right and mirrored, and right to left. The bottom row orders the current gradation from left to right and doubled, right to left and mirrored, and right to left and doubled.

Filling with Gradations

After selecting a gradation, you can use it to fill all or part of an image. See “Filling an Area,” in this chapter, for information about selecting what you want to fill and what you want to fill it with.

If you would like to practice using gradations, you can use the Rectangular Selection tool to define an area to fill. You can also fill the entire image area if you want.

To fill an image with a gradation:

- 1 If you want to fill a selected area of an image, first make a selection.
- 2 Choose Effects menu > Fill.
- 3 In the Fill dialog box, click the Gradation button.
- 4 Click OK. Detailer fills the image with the selected gradation.

You may also use the Paint Bucket tool in conjunction with the Controls palette to fill an area. You set what you want to fill, and what to fill it with, on the Controls palette, then click in the area of the image with the Paint bucket tool.

Creating Gradations

You can create your own gradations from simple to complex. For a simple gradation, choose primary and secondary colors to define a two-point gradation. For more complex gradations, use the Gradation Editor or capture gradations from existing artwork.

Creating a two-point gradation

You can define a two-point gradation by defining two colors in the Color palette and then having Detailer create the gradation between them.

To create a two-point gradation:

1 Display the Color palette.

2 Choose a primary color.

3 Choose a secondary color.

Now that you have defined the two colors, you can make the gradation in the Grad palette.

4 Open the Materials palette: Color menu > Grads palette.

5 Select the Two-Point gradation:

- Click the Two-Point icon (the one that looks like overlapping rectangles). If necessary, open the drawer to find the icon. If it's in the drawer, drag it to the drawer front.
- Alternatively, you can open the drawer and choose Two-Point from the pop-up menu.

6 Make sure the drawer is closed, so you can see the preview of your gradation.

7 Try changing the color order by clicking the different icons at the bottom of the window. You can also try out different gradation types.

8 If you want to save this gradation, click the Save button, give it a name and click OK.

Creating Gradations with the Gradation Editor

Use the Gradation Editor to create new gradations or edit simple, two-point gradations into a more complex blend.

To edit a gradation:

Choose Effects menu> Gradation> Edit Gradation.

The colored ramp across the top of the dialog displays the current gradation bar.

Along the bottom of the bar, the color control points are indicated by the pointed gray markers. You can change the colors for these points.

See also:

[Changing color control points](#)

[Adding and deleting color control points](#)

[Using the Linear check box](#)

[Changing the color space](#)

Changing color control points

To change a control point's color, click a color control point to select it. You can then change the color for this control point by selecting a new color from the Color palette. To start with a two-point gradation, click on the far right control point and then choose a color. Click on the far left control point and choose a different color. Now you could generate additional colors in between by adding new control points.

Adding and deleting color control points

You can easily add new color control points by clicking in the gradation bar. Click anywhere in the bar and a new control point is added without changing the color at this location in the bar. If you **Option**-click (Macintosh) or **Alt**+click (Windows) in the bar, a new control point is added and set to the current color. You can also press the **Delete** or Backspace key to remove the selected color control point.

Using the Linear check box

Leave the Linear check box enabled to create ramps that blend linearly between colors. When editing non-linear gradations (Linear is disabled), all ramps within the gradation are non-linearly blended using smooth curves. When using non-linear ramps, you should use the Color Spread slider to control the color smoothness at each color control point.

Changing the color space

The square boxes above the ramp are located at the midpoints between the adjacent color control points. Click on a square box to select it. When one of these boxes is selected, you can change the color space for the corresponding color ramp segment. The RGB option will blend directly between the red, green, and blue components of the two colors. The Hue Clockwise and Hue Counterclockwise options will blend between the endpoint colors by rotating around the color wheel. For a better understanding of this concept, see the standard system color picker and note the order of the colors on the wheel.

Notice that as you change the parameters within the Edit Gradation dialog, the gradation previews are updated within the Grad palette. Click **OK** when you're finished. If you want to save your new gradation, click the Save button in the Grad palette, name it and click **OK**.

Capturing Existing Image Gradations

You can use any existing imagery as a source for creating new gradations. You could capture the colors in a photo of a sunset or paint your own range of colors as the content of a gradation.

To capture a gradation:

- 1 Use any tool to draw a color blend or open an existing image.
 - 2 Use the Rectangular Selection tool to select a horizontal or vertical area. Make the selection as narrow as possible. If the selection is horizontal, Detailer uses the first row of pixels starting at the upper left for the gradation. If the selection is vertical, Detailer uses the first column of pixels starting at the upper left for the gradation.
 - 3 Choose Effects menu > Gradation > Capture Gradation. The Save Color Ramp dialog appears.
 - 4 Type a name for the gradation and click OK or press Return or Enter. The new gradation is saved in the current library. In the future you can choose it by name from the pop-up menu inside the Grads drawer.
- Refer to the Chapter 1, “Getting Acquainted with Detailer,” for information on working with libraries.

Expressing a Gradation in an Image

You can apply a gradation to an existing image, replacing the colors of the image with the colors from the gradation. The pixel luminance values are used as the mapping guide. For example, expressing a colorful gradation in a grayscale image produces a colorful rendition of the image.

To express a gradation in the image:

- 1** Open the image you want to change. You can select part of the image or use the entire image. Images created with Make Fractal Pattern provide excellent source images.
- 2** On the Materials: Grads palette, select the gradation you want to use.
- 3** Choose Effects menu: Gradations> Express in Image. Use the **Bias** slider to adjust how the gradation is mapped and click OK. Detailer replaces the colors in the image with the colors in the gradation, based on matching luminance.

Using Textures

Detailer's brushes interact with the selected Texture material just as natural tools react with the texture of the surfaces you mark on. Textures are used as the bump map and in applying surface texture and other effects, like Glass Distortion.

Texture materials are not the same as the texture map or the surface texture revealed by the bump map. The Texture material is a special feature that help in developing imagery.

Detailer's Textures are equivalent to Painter's Paper Textures. On some palettes, the word "Grain" refers to the Texture.

The texture is a grayscale image. When the texture image is smaller than the area you're working in, the texture tiles.

Most of Detailer's textures tile seamlessly—you won't see where one tile ends and the next begins. This might not be the case for textures you create.

You can select different textures, modify them, organize them in libraries, and even create your own custom textures.

Click the Texture icon on the Materials palette to display the Materials: Texture palette. Additional materials are stored inside the drawer. Click the grow box to expand the palette.

The Texture palette is where all your textures are stored. In addition to selecting textures, you can use this palette to invert or resize the grain and to open other texture libraries.

See also:

[Selecting a Texture](#)

[Changing Texture Libraries](#)

[Inverting Grain](#)

[Scaling Texture](#)

[Capturing Textures](#)

[Making Textures](#)

[Setting a Random Grain](#)

Selecting a Texture

To select a texture:

- 1 Click the Texture icon on the drawer front of the Materials palette.
- 2 Open the drawer to see more selections.
- 3 Click a texture's icon to select it. You may also select a texture by name from the pop-up menu inside the Texture drawer.

Changing Texture Libraries

Detailer's textures are stored in libraries. Open a new library to get more texture choices.

To open a Texture library:

- 1 Open the drawer of the **Materials: Texture palette** by clicking the pushbar.
- 2 Click the **Library** button. An Open File dialog appears with a list of texture libraries.
- 3 Locate other texture libraries. There are a number of libraries installed into the Detailer directory/folder by default, and additional libraries on the Detailer CD-ROM. Double-click the library you want to open, or select it and click **Open**. A new set of textures is loaded into the drawer.

Inverting Grain

You can think of the texture grain as a three-dimensional landscape. Usually brushes react to the texture by coloring the peaks and ignoring the valleys. Enabling the `Invert Grain` checkbox makes color fill the valleys and ignore the peaks.

Scaling Texture

Use the Scale slider at the bottom of the Texture palette to resize the texture. You can scale the texture down to 25% and up to 400%.

Capturing Textures

The Capture Texture command lets you turn a section of an image into a texture, which will be available on the Texture palette.

To capture a texture:

- 1** Open or create an image. The Make Fractal Pattern feature creates excellent textures.
- 2** Select all or a piece of the image with the Rectangular Selection tool.
- 3** Select Materials palette: Texture menu> Capture Texture. The Save Texture dialog box appears.
- 4** If necessary, move the Crossfade slider to the right to blend the distinction between tile borders.
- 5** Type the name of your new texture and click **OK** or press **Return** or **Enter**.

Your texture now appears in the Texture palette drawer and is added to the current library.

Making Textures

The Materials palette: Texture menu > Make Texture command lets you create regular textures.

To create textures:

- 1** Choose Materials palette: Texture menu > Make Texture. The Repeating Texture dialog box appears. The Preview Window reflects your changes.
- 2** Choose a pattern (not related to Pattern materials) from the Pattern pop-up menu to use as the basis of your texture.
- 3** Adjust the Spacing and Angle sliders. Moving the Spacing slider to the right opens up space between rows and columns in the selected pattern. Moving the Angle slider changes the direction in which the pattern rows are lined up.
- 4** When you like the look of the texture, type a name for it and click **OK**. Your new texture appears as the last item in the Texture palette.

Setting a Random Grain

Normally, texture grain is fixed—the grain is in the same position each time you apply a brush stroke. You may change this if you want the grain to move randomly.

To randomize the paper grain:

- 1 Choose Brushes palette: Controls Menu> Random.
- 2 Enable the Random Brush Stroke Grain option.

Working with Patterns

A pattern is a repeating design. The smallest unit of a pattern is known as a tile. When you fill with a pattern, the tile is repeated across the area. Detailer saves tiles in separate files and in libraries. Detailer provides you with over 120 photorealistic patterns. You can also create your own pattern tiles.

Patterns are created by repeating a rectangular image tile across an area. Ideally, the images are created so that they tile seamlessly.

When you paint using the Cloner brush, Detailer uses the current pattern image by default. This means you can “paint with patterns.”

See also:

[Seamless and Wrap-Around](#)

[Check Out Pattern](#)

Seamless and Wrap-Around

To help in making seamless pattern tiles and surface maps, Detailer gives images defined as a pattern or applied as map two special characteristics: wrap-around colors and wrap-around seams.

- A brush stroke dragged off the edge reappears on the opposite side of the image. This is called “wrap-around colors.”
- With the Grabber tool selected, you can hold down the Shift key and drag the seams to the center of the image. For best results, do this at 100% scale, not when you’re zoomed in. This is called “wrap-around seams.”

To choose a Pattern:

1 Click the Pattern icon on the Materials palette.

2 Click the icon for the pattern you want. You can open the drawer to see more choices. If you want to see other patterns, click the Library button and load a different pattern library.

3 When you’ve selected a pattern, close the drawer.

The palette shows a preview of the pattern, gives the dimensions of the tile image (Rows and Columns describe the number of pixels horizontally and vertically), and gives you options for scaling and arranging the tile in fills.

- Rectangular places the tile in a regular grid for fills. The Offset slider does not apply.
- Horizontal allows you to offset the tiles in subsequent rows. The Offset slider controls the amount of offset.
- Vertical allows you to offset the tiles in subsequent columns. The Offset slider controls the amount of offset.

When you’ve set these options, you can use the pattern. To test it, open a new image. To see the tiling, the image must be larger than the tile. Choose Effects menu > Fill. In the Fill dialog, choose Pattern as the material source and click OK. The pattern tile will fill and repeat as specified on the Materials: Pattern palette.

Check Out Pattern

If the preview isn't enough, you can open the pattern tile in its own window.

To check out a pattern for editing:

1 In the Materials: Pattern palette, select the pattern you want to review.

2 Choose Materials palette: Pattern menu > Check Out Pattern.

Detailer opens the selected pattern tile in its own document window.

3 You can edit the pattern tile as you would any image. To put the modified pattern back in the palette use the Add Image to Library or Capture pattern features discussed in the following section.

Creating Patterns

Detailer offers three ways to create patterns:

- By defining the current image as a pattern and adding it to the pattern library.
- By creating a rectangular selection and capturing it as a pattern.
- By making a fractal pattern and adding it to the library.

After creating a pattern tile, you'll probably want to work with it to improve the way it tiles. See "Tips for Creating Seamless Tiles," in this chapter, for more information.

Caution: Creating patterns can become addictive. It's a good idea to keep libraries small. Use the Patterns Mover to create new libraries and delete unwanted patterns. You can switch libraries whenever you want to use a different set of patterns.

See also:

[Define Pattern](#)

[Add Image to Library](#)

[Capture Pattern](#)

[Tips for Creating Seamless Tiles](#)

[Make Fractal Pattern](#)

Define Pattern

You can give any image the pattern wrap-around characteristics by defining it as a pattern.

Images applied as maps are automatically defined as patterns. This gives them the important wrap-around characteristics.

To define an image as a pattern:

- 1 Open the image file you want to work with.
- 2 Choose Materials palette: Pattern menu> Define Pattern.

If you save in RIFF format, images defined as patterns maintain these characteristics even after they have been saved and reopened. If you want the defined pattern in your Pattern palette drawer, you'll need to add it to the library.

Add Image to Library

After you create a pattern, you can add it to the current library.

To add the image to the current library:

- 1 Open the image you want to add to the pattern library.
- 2 Choose Materials palette: Pattern menu> Define Pattern.
- 3 Choose Materials palette: Pattern menu> Add Image to Library. Detailer prompts you to name the pattern.
- 4 Give it a descriptive name and click OK. If a pattern of that name already exists in this library, Detailer will ask if it's okay to replace it. If not, click No and try again with a different name.

Capture Pattern

You can capture a pattern from an existing image and set the horizontal and vertical shift for the pattern tile.

To capture a pattern:

- 1 Open the image that contains the area you want to use.
- 2 Choose the Rectangular Selection tool.
- 3 Select the area you want. Remember, the edges of the selection will meet when the image is tiled, so select carefully.
- 4 Choose Materials palette: Pattern menu > Capture Pattern. Detailer displays the Capture Pattern dialog, which lets you name the pattern and define how it should be arranged in a fill.

Rectangular Tile places the tile in a regular grid for fills. The Bias slider does not apply.

Horizontal Shift allows you to offset the tiles in subsequent rows. The Bias slider controls the amount of offset.

Vertical Shift allows you to offset the tiles in subsequent columns. The Bias slider controls the amount of offset.

As you try different tile arrangements and Bias settings, the preview shows their result. Don't worry about making it perfect, you can change the direction and Bias setting in the Patterns palette.

If you intend to use a pattern to create your texture or bump maps, you will want to make sure that the offset and bias is set to zero. This will ensure the edges of the pattern match up seamlessly when they meet on the model.

-
- 5 Enter a descriptive name for the pattern and click OK.

Detailer captures the pattern and saves it to the current library. You can find your captured pattern in the Pattern palette. If you want to edit it, you can check it out of the library.

Tips for Creating Seamless Tiles

Patterns are created by repeating a rectangular image tile across an area.

Detailer wraps surface maps onto objects. There is a seam on the object where the edges of the map meet. Ideally, the imagery on either side of the seam matches closely and the transition is not apparent. The techniques for creating seamless pattern tiles apply also to developing maps that appear seamless on the model.

When you develop patterns, you're creating images for tiling. Ideally, the images will tile seamlessly. That is, the eye will not be able to distinguish between the boundaries of the tiles. Detailer provides several features to help you generate such pattern tiles.

- Wrap-around colors means that a brush stroke dragged off one edge of an image appears on the other side. This makes it easy to paint seamless, self-tiling patterns.
 - The wrap-around seams feature lets you move the edges of the pattern tile to the center of the image, where their tonal differences are more apparent and easier to correct.
-

To wrap around the seams:

- 1 Open the image.
- 2 Choose Materials palette: Pattern menu > Define Pattern.
- 3 Click the Grabber tool on the Tools palette.
- 4 Hold down the Shift key and drag in the image. You'll see a horizontal and vertical line where the image edges meet. When the crossing lines are centered, release the mouse button.

To create a seamless tile, you'll need to edit the image to get rid of the image edge lines. Several techniques are possible, depending on the type of image.

- The Soft Cloner brush set to clone from somewhere in this image is best for preserving detailed imagery as it appears, while providing soft edges for smoother transitions. To set the cloning source in this image, hold down the Control key (Macintosh) or the Shift key (Windows) and click on the point you want to clone from. Release the key. Now click on the point you want to clone to. Your strokes maintain this clone source-destination relationship.
- You might paint out the lines using any cover brush or smear across them with a Water or Drip brush.
- Floating a copy of a selection and moving it over the line is another good choice. Sometimes feathering the floater and reducing its opacity can help produce a clean transition. You'll probably want to hide the selection marquee while you work. Drop the floater when you're satisfied.

Make Fractal Pattern

Make Fractal Pattern is a pattern generator that creates interesting landscapes. Make Fractal Pattern can be used to generate bump maps. These topographic patterns can also be filled with color to create interesting texture maps.

To make a fractal pattern:

1 Choose Materials palette: Pattern menu> Make Fractal Pattern.

2 Use the preview, with the options available in the dialog, to design your pattern. These options are described in the following paragraphs.

3 When you are satisfied with the adjustments you have made to the pattern, as displayed in the preview, click **OK**.

Detailer creates your new pattern file. When Detailer is finished, your pattern file will be displayed in its own image window.

See also:

[Power Slider](#)

[Feature Size Slider](#)

[Softness Slider](#)

[Pattern Size](#)

[Channel Options](#)

[Height as Luminance](#)

[Gradient Bearing](#)

[Surface Normal](#)

[Converting a Pattern to a Texture](#)

Power Slider

The Power slider controls the level of intricacy of the pattern's definition, as if you were "zooming" in and out on a textured surface with a microscope. Move the Power slider to the right to zoom out and you will see many, smaller patterns. Move the Power slider to the left to zoom in and you will see few, larger patterns.

Feature Size Slider

The Feature Size slider defines the number of prominent features within the tile. Move the slider to the left to increase the number of features per tile.

Softness Slider

The Softness slider adjusts the softness of the pattern.

Pattern: Size

Size describes the exact size of the tile you are creating. If you have a lot of memory, you can make a larger file with a higher resolution.

Depending on the amount of memory you have allocated to Detailer, some of the size options may be unavailable.

Channel Options

Detailer uses four channels to store graphic information: Red, Green, Blue, and Alpha (or Mask). Information other than color values can be placed in these channels as well. The channel options allow you to visualize this information in new and different ways.

Height as Luminance

Height as Luminance displays pseudo-height information as luminance.

Images generated with this option are excellent bump maps. Dark areas are peaks, while white areas are valleys.

Images generated with this option are also useful in conjunction with the Apply Surface Texture feature. However, with this feature, white areas are represented as peaks, and dark areas become depressions.

The Height as Luminance fractal pattern is grayscale. To colorize it, choose a colorful gradation and use the Effects menu > Gradation > Express in Image command.

Gradient Bearing

Gradient Bearing uses the Red channel to display the bearing of the down angle of a height field.

Surface Normal

Surface Normal uses the Green and Blue channels to represent the X and Y components of the surface normal (angle perpendicular to the surface at a given point) of the height field. (Green=X, Blue=Y)

These two latter options for viewing a fractal texture are offered for purely aesthetic reasons. One way to take advantage of them is to create color variations of the texture with the Adjust Colors effect. Other effects can deviate quite a ways from the original image.

Fractal patterns can be saved in the current pattern library using the Add Image to Library feature discussed earlier in this chapter.

Converting a Pattern to a Texture

Some patterns make excellent textures. If you wanted to use a pattern as a texture map, you would probably fill the texture map with a pattern and apply it to a model. However, you may want to keep a pattern modified to be a texture in your texture library for future use.

To convert a pattern to a texture:

- 1 Generate a fractal pattern or check out a pattern to display it in an image window.
- 2 The luminance and contrast are all that matters in a texture. You may want to adjust the contrast and brightness of the pattern first, before converting it.
- 3 When you're satisfied with the tonal balance, choose Edit menu> Select All.
- 4 Choose Materials palette: Texture menu> Capture Texture.
- 5 Name the texture and click OK.

The texture appears in the current library.

Applying Image Materials

Image materials, including color, gradations, weaves, and patterns can be applied to your images in a variety of ways. Most commonly, you can fill selected areas with the Paint Bucket tool or the Fill command.

Detailer also provides a number of special effects methods for using image materials.

See also:

[Filling an Area](#)

[Applying Texture](#)

Filling an Area

To fill an area with a color, gradation, or pattern, use the Paint Bucket tool on the Tools palette or the Fill command on the Effects menu.

When you want to use the Paint Bucket tool, click its icon on the Tools palette. Selecting the Paint Bucket tool displays the Controls palette: Paint Bucket tool. This palette shows choices for what to fill and what to fill with. The current fill is shown on the left of the palette.

To fill with the Paint Bucket:

- 1 Click the Paint Bucket tool on the Tools palette to select it.
- 2 Display the Controls palette: Paint Bucket tool.
- 3 Click the radio button for what you want to fill with when you click in the image window with the Paint Bucket tool.

Image fills an image area differently depending on whether or not an area of the screen is currently selected. If no area is currently selected, the Paint Bucket will fill all contiguous pixels based on the color of the pixel clicked with the Paint Bucket. If an area of the screen is currently selected, the Paint Bucket will fill either the inside or outside of the selection, depending on where you click.

Mask fills contiguous areas of the Mask layer based on the luminance values of the selected Fill With source.

- 4 Click the radio button for what you want to fill the area with.

Current Color uses the selected color. When you select it, the Current Fill preview shows the selected color.

Gradation uses the selected gradation. When you select it, the Current Fill preview shows the selected gradation.

Pattern uses the current pattern. The source image appears in the Current Fill preview.

- 5 When you're finished setting the Controls palette, click with the Paint Bucket in the desired area to fill it with the new material.

To use the Fill command:

- 1 Select part of your image.
- 2 Choose Effects menu > Fill. The Fill dialog appears.
- 3 Select what you want to fill with—the Current Color, Pattern, or Gradation.
- 4 Adjust opacity if you like.
- 5 Click OK or press Return or Enter. The selected area fills with your choice.

Applying Texture

You may be wondering why you can't fill with a texture. Remember that Texture is a surface control material.

To apply texture, choose Effects menu> Surface Control> Express Texture. You may also use Effects menu> Surface Control> Apply Surface

Texture. In some cases, you might want to try Effects menu> Surface Control> Dye Concentration or Color Overlay and set the Using pop-up to Texture. See Chapter 13, "Applying Effects," for more information about image effects using texture.

Painting

See also:

[Introduction to Painting](#)

[Mark Making](#)

[Starting to Paint](#)

[Selecting Brushes and Variants](#)

[Using Texture with a Brush](#)

[Basic Brush Controls](#)

[Built-in Brush Variants](#)

[Cloners Brushes](#)

Introduction to Painting

In Detailer, you can paint with traditional tools like pencils, crayons or charcoal in maps or directly on a 3D model. Detailer's brushes overflow with features from Natural-Media to fantastic effects.

This chapter covers Detailer's brushes and the basics of painting. You'll learn how to make marks, choose a brush and variant, resize a brush and create and save new variants. The built-in brush variants will be described in detail. Look in the next chapter for more information on customizing the brushes.

To paint in Detailer, use the Brush tool. Choose a brush in the Brushes palette, and make marks by dragging with your mouse or stylus. You may mark in an image window, which may or may not be currently applied as a map. If it is a map, the effect of your marks will appear in the Model Window.

Conversely, you may mark on the model in the Model Window, and your strokes will simultaneously appear in the map image window.

The actual result of your strokes will depend on the type of map you're working in—whether it's the texture or bump map, for example. Remember to select the map you want to paint into before you start marking.

If you paint with the Brush tool in the 2D image, the brush dab will have the same size anywhere in the image. However, if you use that same brush in the Model Window, the dab size may change on different regions of the model. This is because scale will vary across the object in some mapping modes. Refer to Appendix A, "Designing Maps," for more information.

The Brush tool represents a category of marking tools. Within the Brush category are pencils, crayons, pens, chalk, airbrushes, the remarkable Image Hose, and more. The Brushes palette lets you choose between these tools and gives you access to controls that let you customize the brushes.

Many of Detailer's brushes, such as chalk and charcoal, interact with the current texture. By combining different brushes and textures, you can create an amazing variety of stroke effects.

In terms of brush strokes, the current texture is called grain. References to "Grain" in sliders, palettes, and dialogs refer to the current texture.

See also:

[Stylus versus Mouse](#)

[Freehand and Straight Lines Drawing](#)

[Selecting Brushes](#)

Stylus versus Mouse

Most stylus and graphics drawing tablets provide 256 levels of pressure information. The mouse has no pressure information. The mouse is either “on”—button down, or “off”—button up.

Many of Detailer’s brushes respond to the pressure information provided by a drawing stylus. Greater pressure can increase the width of a brush stroke, the penetration of color, the amount of the secondary color, or the degree of some other effect, depending on the variant.

When you draw or paint, some qualities of your marks will vary depending on whether you’re using a pressure-sensitive stylus or a mouse. With a stylus, you can use pressure to get the most out of Detailer’s brushes.

If you are using a mouse with Detailer, you can compensate for the lack of pressure information by adjusting the Opacity and Grain sliders on the Controls palette: Brush tool. For example, moving the Opacity or Grain slider to the left can give the same results as pressing lightly on a stylus. Moving the Opacity or Grain slider to the right can produce the same effect as pressing heavily.

Another way to modify a brush is with the Brushes palette: Controls menu > Sliders palette. Here you can modify the brush to respond to factors like velocity and direction instead of pressure. See “[Sliders Palette](#)” for more information.

Freehand and Straight Lines Drawing

With Detailer, you can draw freehand, or you draw with straight lines.

Freehand allows you to click and drag in any motion or direction you like.

Straight Lines will connect each point click with a line and can be closed (return to origin) by pressing the **Return** or **Enter** key.

To make a freehand stroke:

- 1 Select the Brush tool in the Tools palette. Brush controls appear in the Controls palette: Brush tool.
- 2 Select a brush from the Brushes palette. You may double-click the Brush tool to display the Brushes palette.
- 3 Click the Freehand radio button on the Controls palette under Draw Style.
- 4 Position the pointer where you want to start painting.
- 5 Push down on the stylus or hold down the mouse button and drag to make a mark.
- 6 When you have finished, let up on the stylus or release the mouse button.

With some brushes, you see a dotted line before the mark appears. This dotted line appears when you use complex brushes. For example, the Van Gogh brush and the Hairy Brush. These brushes have to be precomputed, which causes a delay in the stroke's appearance on the screen. These brushes work best when you apply them in short strokes. Wait until the stroke appears before you start another one.

Straight line mode is not available when marking in the Model Window. The following description applies only to marking in an image window.

To draw a straight line:

- 1 Select the Brush tool and choose a brush from the Brushes palette.
- 2 Click the Straight Lines radio button on the Controls palette: Brush tool under Draw Style.
- 3 Click the stylus or mouse where you'd like your stroke to start in the image window. You'll see an origin point marker.
- 4 Drag to where you want your stroke to finish. A thin line connects the two points. Before you release the mouse or stylus, you can move the stylus or mouse around and place the finishing point exactly where you want it. Release the mouse or stylus. Detailer fills in a straight line between the two points.
- 5 Continue to draw more lines in the same fashion, or you may simply click to create points that are automatically connected by a line. When you are done, press the **Return** or **Enter** key if you want Detailer to draw a line from where you left off to the origin point. If you don't want to connect the points, click the Freehand button to return to freehand drawing. Toggle between the Draw Styles as you paint.

In Straight Line mode, to constrain your line to a 45° or 90° angle, hold down the **Shift** key as you click your second point. Lines automatically are constrained to a grid if the snap to grid is turned on. Snap to grid is found under the Canvas menu > Grid.

Keyboard Shortcuts

Key Description

b Choose Freehand mode.

v Choose Straight Lines mode.

The "v" will also end the current polygon so you can begin a new one.

Selecting Brushes

Detailer's painting, drawing, image-editing, and cloning brushes are located on the Brushes palette.

To select a brush:

1 Click a brush on the drawer front of the Brushes palette. Click the pushbar to open the drawer and see more brushes.

A red highlight appears around the brush you selected. The name of the brush variant appears on a pop-up menu under the drawer pushbar .

2 Make changes on the Controls palette: Brush tool if you need to.

The Opacity and Grain sliders change the appearance of brush strokes; they are described later in this chapter. The Draw Style radio buttons determine whether you draw freehand or straight lines. The Overlapping Rectangles show the selected primary and secondary colors.

3 Choose a variant from the Variants pop-up menu.

For each brush, you have a choice of variants. For example, if you select Pencils, you can choose from Colored Pencils, Thick & Thin Pencils, a 2B Pencil, a Sharp Pencil, a 500 lb. Pencil, and a Single Pixel Scribbler. All variants are described later in this chapter.

Mark Making

In Detailer, you can paint by simply selecting the Brush tool, choosing a brush from the Brushes palette and making marks on the canvas. The particular variant of that brush you choose determines the appearance of the marks you make.

Detailer provides a drawer full of different brushes, each with its own characteristics. Many of the brushes are digital equivalents to the traditional media you're familiar with. Using these brushes, you can create 3D models that look like they were hand painted or wrapped with real canvas or textured paper.

Some brushes contain special image-editing capabilities. These brushes—including the Retouching brush, Image Hose, Cloners, and Water—take advantage of the computer's power to produce effects that wouldn't be possible with traditional media alone.

Many of Detailer's brushes respond to the additional control provided by a stylus and graphics tablet. Brush strokes fade in and out, change width, or penetrate based on the pressure of the stylus.

Because you use a stylus the same way you draw and paint with pencils, pens, and brushes, the stylus has a familiar feel. You can apply your experience with the traditional tools directly to the Detailer canvas and you'll get natural-looking strokes.

If you are using a mouse, you can use the Sliders palette accessed from the Brushes palette: Controls menu to get the same effects produced by a stylus. Instead of using pressure to determine size or color, you could choose to use direction. See, "[Advanced Painting](#)," for more information.

Starting to Paint

To paint, you'll need to choose a brush, choose a variant, choose a texture, select a color, and mark in either the Model Window or image window.

Refer to the "[Image Materials](#)," for information on choosing textures and colors.

See also:

[Choosing a Brush](#)

Choosing a Brush

One thing to consider when applying paint is whether the brush you have chosen applies color that “builds up” or “covers.”

A real-world example of build-up is the crayon: Scribble on the page with blue, then scribble on top of that with green, then red... The scribbled area keeps getting darker—approaching black. Even if you were to apply a bright color like yellow, you couldn’t lighten the scribble, it would stay dark; this is build-up.

An example of “cover” is oil paint. No matter what colors you paint, you can always apply a layer of paint that completely hides what’s underneath. Even with a black background, a thick layer of yellow will be pure yellow.

Build-up and Cover are called “methods.” Methods are categories that describe brush behavior. The brush methods are build-up, cover, eraser, drip, mask, cloning, wet. Brush methods are described in, “[Advanced Painting](#).”

Another important quality of a brush is the degree of anti-aliasing. Anti-aliased brush strokes have soft edges. The color dissipates over a few pixels to the background. See each brush description in this chapter to determine if the variant is aliased or anti-aliased.

Selecting Brushes and Variants

Detailer's brushes are stored in the Brushes palette. You can show the Brushes palette in any one of three ways: select Window menu > Brushes, press Command-2 (Macintosh) or Ctrl+2 (Windows), or double-click the **Brush** tool in the Tools palette.

Detailer provides a number of different brushes: pencil, eraser, pen, etc. Each of these brushes is further divided into *variants*. A variant is a specific version of that brush. For example, the Pencils brush offers the following variants: Colored Pencils, Thick & Thin Pencils, a 2B Pencil, a Sharp Pencil, a 500 lb. Pencil, and a Single Pixel Scribbler.

Complete descriptions of each brush and variant are in the following section, [“Built-in Brush Variants.”](#)

To select a brush from the Brushes palette, click the icon for the brush you want. You may have to open the palette drawer to find a particular brush. When the drawer is open, you may also select a brush from the Brushes pop-up menu.

Detailer's built-in brush variants are so cool that many artists will use them with only the basic adjustments—size, opacity, and the amount of grain revealed by the stroke.

If you want to create your own, custom variants, Detailer offers a number of controls that let you modify the brush effect. To retain these specific adjustments for future use, you'll need to save the variant., [“Advanced Painting,”](#) provides detailed information about customizing brushes and saving variants.

Using Texture with a Brush

In the natural world, a marking tool has different effects on surfaces of different texture. Detailer allows you to control the texture of the canvas to achieve the results you'd expect from natural media on a given surface—pencil on watercolor paper, markers on cotton paper, paint on canvas, chalk on the sidewalk, etc.

Brushes with a “grainy” method respond to texture. For more information about Brush Methods, see [“Advanced Painting.”](#)

The different brush variants interact with the canvas texture at different levels. You can control the texture of brush strokes in three ways:

- By changing the texture. For more information, see, “[Image Materials](#)”)
- By changing the Grain slider on the Controls palette: Brush tool.
- By changing the stroke of the stylus on the pressure tablet. In most cases, a light stroke colors only the peaks and ridges of the grain. A heavy stroke fills color deep into the pockets and valleys.

Basic Brush Controls

The basic brush controls for Opacity and Grain are found on the Controls palette when the Brush tool is selected.

See also:

[Brush Controls: Opacity](#)

[Brush Controls: Grain](#)

[Brush Controls: Brush Size](#)

Brush Controls: Opacity

The Opacity slider controls the degree the stroke “covers” or “builds up” on the underlying colors.

When Opacity is at maximum, the color is solid, completely covering, or building up, on the underlying colors.

With Opacity low, the color is thin. You’ll be able to see through to the underlying colors.

One brush method, Grainy Edge Flat Cover, does not respond to opacity. It is the nature of any brush with this method not to respond to adjustments you make in the Opacity slider.

Brush Controls: Grain

The Grain slider controls how much color penetrates into the canvas texture.

Moving the Grain slider to the right intensifies penetration of the color. This allows less texture to show through.

Moving the slider to the left reduces the stroke's penetration, which reveals more texture.

Brush Controls: Size

Detailer offers a number of features for resizing and shaping brushes. Resizing brushes becomes technical quickly. This information is covered in detail in, "[Advanced Painting](#)." For now, the quickest way to change the size of a brush is with the keyboard shortcut:

1 Hold down the Command-Option (Macintosh) keys or Ctrl+Alt (Windows).

2 In the image window, press the mouse button and drag. A circle that represents the brush diameter appears beneath the cursor. When you've dragged the circle to the size you want, release the button.

In some cases, the brush must be "built." Press Command-B (Macintosh) or Ctrl+B (Windows), click the Build button, or choose Brushes palette: Brushes menu > Build Brush. If you try to paint with an "un-built" brush, Detailer will alert you.

If resizing the brush has made its stroke appear strange to you, you probably need to adjust Spacing.

Built-in Brush Variants

The following section is a catalog of Detailer's built-in brush variants.

These descriptions of the variants outline the behavior of a brush when pressure information is available. If you are using a mouse to paint, you'll want to modify a brush to achieve those pressure-sensitive effects. Modifying brushes will help you get the most out of the mouse as an input device.

See also:

[Brush](#)

[Artists](#)

[Liquid](#)

[Water Color](#)

[The Water Color Brush Variants](#)

[Airbrush](#)

[Pencils](#)

[Eraser](#)

[Water](#)

[Chalk](#)

[Charcoal](#)

[Pens](#)

[Felt Pens](#)

[Crayons](#)

[Retouchers](#)

[Masking Brushes](#)

[Image Hose](#)

[Dodge](#)

[Burn](#)

Brush

The Brush provides effects you'd expect from oil paints and acrylics. All of the Brush variants cover underlying brush strokes, and many are capable of multi-colored strokes.

See "[Image Materials](#)," for information on defining the colors for multi-color brushes.

Some of the Brush variants, like Loaded Oils, give the striated effect of real bristles. Using these variants with Apply Surface Texture in the Effects menu produces some great oil or acrylic-like brush strokes.

See also:

[Hairy Brush](#)

[Graduated Brush](#)

[Cover Brush](#)

[Penetration Brush](#)

[Oil Paint](#)

[Camel Hair Brush](#)

[Rough Out](#)

[Big Rough Out](#)

[Huge Rough Out](#)

[Digital Sumi](#)

[Loaded Oils](#)

[Small Loaded Oils](#)

[Big Loaded Oils](#)

[Big Wet Oils](#)

[Brushy](#)

[Fine Brush](#)

[Sable Chisel Tip Water](#)

[Coarse Hairs](#)

[Smaller Wash Brush](#)

[Ultrafine Wash Brush](#)

[Big Wet Ink](#)

[Big Dry Ink](#)

Hairy Brush

The Hairy Brush simulates strokes made by a bristle brush, showing semi-anti-aliased “brush hair” lines. The Hairy Brush interacts with grain and is pressure sensitive in terms of opacity and stroke width. The Hairy Brush can paint multi-color strokes.

You can customize the Hairy Brush dramatically by adding bristles and opening up space between them. For instructions, see [“Advanced Painting.”](#)

Graduated Brush

The Graduated Brush is ideal for shading. It paints semi-anti-aliased brush strokes of just the primary color or the primary and secondary color, depending on pressure. It interacts with grain, and its stroke width is also determined by pressure.

See “[Image Materials](#),” for instructions on selecting primary and secondary colors.

Cover Brush

The Cover Brush produces brush strokes that have soft, anti-aliased edges. It does not interact with grain. Stroke width and opacity are determined by pressure.

Penetration Brush

This brush has hard, aliased edges. Its strokes look like acrylics when you apply surface texture to them using the Effects menu (described in [“Applying Effects”](#)). The Penetration Brush reacts to grain. Pressing lightly with a stylus allows more texture to show through; pressing heavily reveals less texture.

Oil Paint

The Oil Paint brush gives you strokes that have hard, aliased edges. Its strokes interact with grain. Stroke width and opacity are determined by pressure.

Camel Hair Brush

The Camel Hair Brush gives soft, anti-aliased strokes. Bristle size is dependent on drawing speed. Dragging quickly narrows each bristle; dragging slowly widens each bristle. Opacity depends on pressure.

Rough Out

Rough Out acts like a fast, dry brush and is ideal for roughing out ideas. The dab size of the brush is dependent on drawing speed. The faster you drag your stylus, the thinner the lines. Dragging slower produces thicker lines. The amount of grain revealed by this brush depends on pressure. Pressing lightly reveals more grain; pressing harder reveals less grain.

Big Rough Out

This variant is a wider version of Rough Out.

Huge Rough Out

This variant is an even wider version of Rough Out.

Digital Sumi

The Digital Sumi brush variant is a multiple-bristle brush made up of single-pixel bristles. Pressure affects width.

Loaded Oils

The Loaded Oils brush simulates the look of a traditional loaded brush—a brush dipped in more than one color. Use the Color Variability sliders to adjust how loaded oils appear. For more information about Color Variability see [“Image Materials.”](#)

Small Loaded Oils

This variant is a narrower version of Loaded Oils.

Big Loaded Oils

This variant is a wider version of Loaded Oils.

Big Wet Oils

Big Wet Oils is a wide loaded brush that mixes with the colors in the image.

Brushy

Brushy is a multi-bristle brush that runs out of paint toward the end of a stroke and picks up colors it's dragged through.

Fine Brush

The Fine Brush is a very fine-hair brush that changes scale quickly based on pressure.

Sable Chisel Tip Water

This variant is a fine-hair brush that uses water to smear the colors in an image.

Coarse Hairs

The Coarse Hairs brush produces a stroke with a small number of coarse hairs that change scale quickly based on pressure.

Smaller Wash Brush

The Smaller Wash Brush has a multitude of fine, closely spaced bristles that mix and smear the current color with colors in an image.

Ultrafine Wash Brush

This variant is similar to the Smaller Wash Brush but with a larger bundle of finer bristles.

Big Wet Ink

Big Wet Ink is a thick striated brush, loaded with ink. It has a soft appearance and looks like the bristles are spread apart.

Big Dry Ink

Big Dry Ink is like Big Wet Ink, but with a bit harder edge.

Artists

The Artists brush helps you paint in the styles of the master artists. Paint in the style of Vincent Van Gogh, where your brush strokes are multishaded, or in the style of Georges Seurat, where multiple dots combine to form an image.

With all of the Artists brush variants, dragging quickly produces narrower strokes, dragging slowly produces wider strokes. Use the Color Variability sliders to adjust how the Artists brush strokes are colored. For more information about Color Variability see “[Image Materials](#).”

See also:

[Van Gogh](#)

[Van Gogh 2](#)

[Seurat](#)

[Impressionist](#)

[Flemish Rub](#)

[Piano Keys](#)

Van Gogh

One of the things that made Vincent Van Gogh's style special was his use of multicolored brush strokes. The Van Gogh brush recreates this style with a multicolored, anti-aliased brush stroke that covers underlying colors.

This is a complex brush and the strokes must be pre-computed; hence the dotted line that follows the cursor during the stroke. For best results, use shorter strokes with this brush, and wait for them to render before making new strokes.

Van Gogh 2

Van Gogh 2 has about the same look as Van Gogh but it paints interactively—the strokes do not have to be pre-computed.

Seurat

Georges Seurat painted in the pointillist style, a neo-Impressionist technique of using clusters of dots to represent the subject. The Seurat brush automatically creates multicolored, anti-aliased dot clusters. To add more dots, drag over the area again.

You can regulate dot size on the Size palette accessed from the Brushes palette: Controls menu > Size. Move the Size slider to the right to make the dots bigger.

Impressionist

This brush re-creates the style of the Impressionists who painted with flattened dabs of color. The direction you drag determines the angle of the dab.

You can use the Impressionist variant to push around existing paint in an image by moving the Opacity slider to the left.

Flemish Rub

This variant creates an effect similar to the Impressionist variants. The difference is that Flemish Rub smears existing color instead of applying new color. Use this variant to apply an impressionistic effect to an existing image.

Piano Keys

This variant creates a colorful ribbon-like stroke with color bands perpendicular to the direction of your stroke. Piano Keys uses a closely spaced, thin captured rectangular tip to produce the effect.

Liquid

The Liquid variants treat the underlying image as though it was floating on a thick liquid. The brush stroke drags image colors behind it.

This can be particularly useful when working with scanned photographs. These brushes can create a palette knife painting effect.

To smear existing paint with a Liquid brush variant—without adding color—move the Opacity slider all the way to the left.

To smear while adding some color, move the Opacity slider to the right.

Stylus pressure affects texture differently for the Liquid variants (drip method). More texture is visible when you press heavily, and less texture is apparent when you press lightly. This follows the natural behavior of smearing—the harder you smear the paint, the more you will reveal the surface it is painted on.

Drag these brushes slowly. The amount of pressure determines how much of the image you smear.

The Grain slider controls the strength of distortion a Liquid brush exerts on an image.

See also:

[Distorto](#)

[Smeary Bristles](#)

[Total Oil Brush](#)

[Smeary Mover](#)

[Coarse Smeary Mover](#)

[Coarse Smeary Bristles](#)

[Coarse Distorto](#)

[Thick Oil](#)

[Tiny Smudge](#)

Distorto

This variant moves paint around without adding color. Dragging quickly produces a thinner stroke; dragging slowly creates a wider one.

Smeary Bristles

This variant smears the primary color into the image. This variant is grain-sensitive. Dragging quickly produces a thinner stroke; dragging slowly creates a wider one.

Total Oil Brush

This variant is similar to Smeary Bristles, but produces a tighter stroke.

Smeary Mover

This variant is similar to Smeary Bristles, but it smears existing paint without adding color.

Coarse Smeary Mover

This variant is a semi-anti-aliased version of Smeary Mover.

Coarse Smeary Bristles

This variant is a semi-anti-aliased version of Smeary Bristles.

Coarse Distorto

This variant is a semi-anti-aliased version of Distorto.

Thick Oil

Thick Oil smears with a stroke loaded with the primary color.

Tiny Smudge

Tiny Smudge is a single-pixel, multi-bristled smudging tool.

Water Color

The Water Color brush variants produce natural looking watercolor effects.

See also:

[The Wet Layer](#)

[Diffusion](#)

[The Water Color Brush Variants](#)

The Wet Layer

Water Color brushes are different from the other brushes. Water Color brushes paint into the “wet layer,” which has special properties that enable the colors brushed into it to flow and mix.

The wet layer floats over the image. This separation of layers enables effects and techniques that wouldn’t otherwise be possible. You can edit the watercolors, including erasing and blurring, without changing anything in the image layer. For example, you can draw pencil outlines in the image layer, then overlay watercolor shading without smudging the pencil lines.

You can’t edit the wet layer with image-layer tools. If you’re using the Eraser brush and it has no effect on a brush stroke, that stroke may be in the wet layer. Use the Wet Eraser instead.

You can’t use the Selection tools to select and delete an area in the wet layer.

You can’t use the Dropper tool to sample colors from the wet layer.

Once you save, the wet layer dries.

The wet layer automatically dries when you save the image. Once the watercolor image is dried, you can’t do any more “wet” modifications to it.

Diffusion

Diffusion creates wonderful, soft, feathery edges on the strokes of some water color variants. In terms of natural water colors: wet paper produces more diffuse strokes.

After applying water color strokes—but before saving the image—you can increase the diffusion of your strokes.

Diffusion spreads color into the grain. Make sure the current texture is appropriate for the diffusion effect you want.

To increase diffusion on water color strokes:

- 1 Apply one or more strokes with a water color brush variant.
- 2 If you would like to restrict the diffusion to a region, make a selection with the Rectangular Selection tool. The diffusion effect will apply only within the selection.
- 3 Press Shift-D.
- 4 Repeat the command until the strokes show the level of diffusion you want.

The Water Color Brush Variants

All of the Water Color variants, except Wet Eraser, interact with the canvas texture. The Grain slider works differently with the Water Color brushes than with the other brushes. With Water Color variants, moving the slider to the right makes the texture more pronounced. Moving the slider to the left reduces the grain interaction.

Stylus pressure affects the width of the brush stroke for all of the Water Color brush variants except Wet Eraser. Increased pressure widens the brush stroke; less pressure narrows the stroke.

See also:

[Simple Water](#)

[Water Brush Stroke](#)

[Wet Eraser](#)

[Pure Water Brush](#)

[Spatter Water](#)

Broad Water Brush

[Large Water](#)

[Large Simple Water](#)

[Diffuse Water](#)

Simple Water

The Simple Water variant leaves a stroke of the primary color without bristles.

Water Brush Stroke

This variant is a watercolor bristle brush. When you first make a stroke, a dotted line appears while Detailer computes the stroke.

Wet Eraser

The Wet Eraser removes watercolor strokes from the wet layer. The Wet Eraser is pressure sensitive. Pressing heavily erases more quickly.

If you've "dried" the wet layer (by saving the image), use the regular eraser to remove the stroke from the image.

Pure Water Brush

This variant behaves like the Water Brush Stroke variant except without adding color. Use this variant to spread and blend the colors of existing watercolor strokes.

Spatter Water

This variant spatters water randomly with each stroke.

Broad Water Brush

This variant paints a wide brush stroke that shows its bristles.

See “[Advanced Painting](#),” for ways to customize bristle brushes.

Large Water

This variant paints a broad wash of color.

Large Simple Water

This is a larger version of the Simple Water variant.

Diffuse Water

This variant produces a stroke with diffuse edges (refer to the description of Diffusion at the beginning of the Water Color section).

Airbrush

The Airbrush applies a fine spray of color. The Airbrush covers underlying colors. Stylus pressure determines the concentration of color.

See also:

[Fat Stroke](#)

[Thin Stroke](#)

[Feather Tip](#)

[Spatter Airbrush](#)

[Single Pixel Air](#)

Fat Stroke

The Fat Stroke variant covers a large area with a soft, anti-aliased paint stream.

Thin Stroke

This variant covers a smaller area than Fat Stroke.

Feather Tip

Feather Tip is a small sized variant that paints soft, anti-aliased lines of varied widths. The width variation is more apparent when you widen the brush size.

Spatter Airbrush

The Spatter Airbrush introducing a random texture into the airbrush spray. This variant produces a semi-anti-aliased stroke. Stylus pressure determines how much grain is revealed.

The results vary with different textures. Experiment with different textures and see how the brush stroke is affected.

Single Pixel Air

This variant is a single-pixel brush. Color builds up based on pressure.

Pencils

Pencils are great for anything you'd use real pencils for—from rough sketches to fine-line drawings. Like their natural counterparts, Pencils interact with canvas texture.

All the Pencils variants build to black. Pencils are pressure sensitive in terms of opacity. The Colored Pencils variant is an exception. Colored Pencils have uniform opacity regardless of pressure.

With the Colored Pencils, 2B Pencil, Sharp Pencil, and 500 lb. Pencil variants, dragging quickly produces a thinner line; dragging slowly leaves a thicker line.

The thick-to-thin variation becomes more apparent as you increase the \pm Size setting on the Brushes palette: Controls menu > Size palette.

See also:

[Colored Pencils](#)

[Thick & Thin Pencils](#)

[2B Pencil](#)

[Sharp Pencil](#)

[500 lb. Pencil](#)

[Single Pixel Scribbler](#)

Colored Pencils

The Colored Pencils variant produces lines with semi-anti-aliased edges.

Thick & Thin Pencils

With this semi-anti-aliased variant, line width depends on the direction of your stroke.

2B Pencil

This variant is a soft lead pencil that produces thin, anti-aliased lines.

Sharp Pencil

This variant is a hard lead pencil with semi-anti-aliased strokes.

500 lb. Pencil

The 500 lb. Pencil creates fat, semi-anti-aliased lines.

Single Pixel Scribbler

The Single Pixel Scribbler has a one-pixel pencil point. Pressure affects opacity.

Built-in Brush Variants: Eraser

Detailer has two ways to remove color: the Eraser variants, which erase down to the paper color, and the Bleach variants, which erase to white. Darkeners are Eraser variants that increase color density, building colors toward black. Darkeners are the inverse of Bleach.

With all of the Eraser variants, pressure determines how much you erase. To erase lightly, press gently.

If you're using a mouse, the Opacity slider controls how much you erase. With an eraser variant's opacity at 100%, it will completely remove color in one stroke. With opacity low, the eraser removes color gradually.

Water

Water smudges and dilutes existing colors in the image. It doesn't add any color. All of the Water variants are pressure sensitive—the harder you press, the more you'll smear the image.

The Water variants work in the image layer. They are not associated with the wet layer or the Water Color variants.

See also:

[Just Add Water](#)

[Grainy Water](#)

[Frosty Water](#)

[Tiny Frosty Water](#)

[Big Frosty Water](#)

[Single Pixel Water](#)

[Water Spray](#)

[Water Rake](#)

Just Add Water

This variant smudges with smooth, anti-aliased strokes. It removes grain and responds to the velocity of your stroke, smearing more when you drag slowly.

Grainy Water

This variant reacts to grain. It is ideal for smearing existing textured strokes because it helps them maintain their graininess. You can also use it to add texture to smooth strokes.

Frosty Water

This variant smears with a hard-edged, brittle stroke. It interacts with the texture grain. Try choosing other textures for some different results.

Tiny Frosty Water

This variant is a sharpened version of Frosty Water.

Big Frosty Water

This variant is a large version of Frosty Water.

Single Pixel Water

This is the smallest Water brush available, similar to wetting a single hair and using it to smear an image.

Water Spray

This variant sprays pixels of water onto the image.

Water Rake

This variant is a multi-bristle water applicator.

Chalk

Chalk produces the thick, rich texture of the natural pastel sticks. Chalk covers with strokes that interact with grain.

The Chalk variants are pressure sensitive in terms of opacity. Adjust the Opacity slider to get the same effect with a mouse.

See also:

[Artist Pastel Chalk](#)

[Sharp Chalk](#)

[Large Chalk](#)

[Square Chalk](#)

[Oil Pastel](#)

Artist Pastel Chalk

This variant produces a medium width, semi-anti-aliased stroke.

Sharp Chalk

This variant is a sharper version of Artist Pastel Chalk.

Large Chalk

This variant is a wider version of Artist Pastel Chalk.

Square Chalk

This variant uses a captured rectangular tip to produce a chiseled edge.

Oil Pastel

This variant slightly smears the underlying color. It uses a captured triangular tip to produce a chiseled edge.

Charcoal

Charcoal leaves covering strokes that interact with grain. Both Grain and Opacity are pressure sensitive.

See also:

[Gritty Charcoal](#)

[Default Charcoal](#)

[Soft Charcoal](#)

Gritty Charcoal

Gritty Charcoal gives deep-toned, semi-anti-aliased strokes. The width of the stroke depends on the direction you drag.

Default Charcoal

This variant produces heavily textured, semi-anti-aliased strokes.

Soft Charcoal

Soft Charcoal produces a soft, anti-aliased stroke.

Pens

The Pens variants give you ink pens that never clog, spatter or run dry.

See also:

[Fine Point](#)

[Smooth Ink Pen](#)

[Calligraphy](#)

[Pen and Ink](#)

[Flat Color](#)

[Scratchboard Tool](#)

[Scratchboard Rake](#)

[Pixel Dust](#)

[Single Pixel](#)

[Leaky Pen](#)

Fine Point

The Fine Point variant produces a ballpoint pen stroke that reveals texture.

Smooth Ink Pen

This variant behaves like the traditional fountain pen. Strokes get darker as you layer them. Stroke width and grain depend on pressure. Heavy pressure produces a wide stroke that penetrates the grain. Light pressure produces a narrow stroke that reveals grain.

Calligraphy

The Calligraphy pen is great for stylized lettering. The line width varies with the direction of the stroke.

Heavy pressure produces a wide stroke; light pressure produces a narrow stroke.

Keep the Opacity slider in its default position for the most ink-like lines.

With variants where direction determines stroke width, you can set the angle where the width changes. See, [“Advanced Painting.”](#) for information.

Pen and Ink

With the Pen and Ink variant, the width of the stroke is determined by how fast you drag. The faster you drag, the thinner the lines become.

Flat Color

This variant lets you cover large areas with even color.

Scratchboard Tool

The Scratchboard Tool is smooth, anti-aliased and pressure sensitive.

To create a scratchboard drawing:

- 1 Open a new image and choose black as the paper color.
 - 2 In the Materials: Color palette, select white, or any other color, as the primary color.
 - 3 Now you can scratch out your design with this variant. Line width depends on pressure.
- The Scratchboard variants work just as well with dark colors on a light background.

Scratchboard Rake

This variant is a multi-toothed version of the Scratchboard Tool. This brush is ideal for crosshatch shading. Line width depends on pressure.

Pixel Dust

Pixel Dust sprays a random distribution of pixels.

Single Pixel

The Single Pixel variant draws with a single pixel brush.

This variant is not pressure sensitive.

Use this variant with the Straight Lines drawing style to draw single-pixel lines.

Leaky Pen

This variant leaves a scattering of drops, like you'd expect from a leaky pen. The slower you drag, the bigger the drops.

Felt Pens

The Felt Pens variants draw smooth, anti-aliased lines that build toward black as you layer strokes. Pressure determines opacity for all of the Felt Pens.

See also:

[Fine Tip Felt Pens](#)

[Medium Tip Felt Pens](#)

[Felt Markers](#)

[Dirty Marker](#)

[Single Pixel Marker](#)

Fine Tip Felt Pens

This variant draws narrow strokes.

Medium Tip Felt Pens

This variant draws medium-width lines. Drag quickly for a narrow stroke. Drag slowly for a wider one.

With variants where drag speed determines stroke width, you can adjust the width range and the smoothness of transitions between wide and skinny in the Brushes menu> Controls menu> Size palette. See [“Advanced Painting,”](#) for information.

Felt Marker

The Felt Marker produces a softer shade than the Felt Pens. The direction of the stroke determines its width. With variants where direction determines stroke width, you can set the angle where the width changes. See, [“Advanced Painting,”](#) for information.

Dirty Marker

The Dirty Marker produces shades that build toward black more quickly than those made with the Felt Marker. The direction of the stroke determines its width.

Single Pixel Marker

This variant is a one-pixel Felt Pen. Pressure affects opacity.

Crayons

The Crayons produce semi-anti-aliased strokes that interact with texture and build up as you layer them. Pressure determines opacity and grain.

See also:

[Default](#)Default>(w95sec)

[Waxy Crayons](#)Waxy_Crayons>(w95sec)

Default

This is a basic crayon.

Waxy Crayons

This variant smears the primary color with the underlying colors.

Retouchers

The Retouchers cover underlying colors. Typically you'll use the dropper to sample a color from the image, then use a Retoucher brush to cover aberrations in that area of the image. Stylus pressure determines the concentration of color.

The Retoucher brushes are distinguished by two characteristics: size and softness. The sizes are small, medium, and large. The dab edge softness levels are soft, medium, and hard.

Masking Brushes

Masking Brushes paint in the mask layer. They are described in Chapter 10, “Selections and Masks.”

Following are examples of how the masking brush strokes appear.

See also:

[Masking Pen](#)

[Masking Airbrush](#)

[Masking Chalk](#)

[Grainizer](#)

[Single Pixel Masking Pen](#)

[Big Masking Pen](#)

Masking Pen

The Masking Pen draws smooth, anti-aliased lines. The Masking Pen is pressure-sensitive in terms of stroke width.

Masking Airbrush

The Masking Airbrush paints misty, anti-aliased strokes.

Masking Chalk

The Masking Chalk variant draws semi-anti-aliased lines that interact with the texture.

Grainizer

The Grainizer produces broad, grainy, anti-aliased strokes. The grain is based on the texture.

Single Pixel Masking Pen

The Single Pixel Masking Pen draws with a single pixel. This brush is useful when zoomed in.

Big Masking Pen

The Big Masking Pen produces broad, solid, anti-aliased lines. This brush is good for filling in large areas.

Image Hose

The Image Hose is a special brush that applies images instead of color. The images it paints come from Nozzle files.

The following examples are previews of the default nozzles. For complete information on Image Hose variants, creating Nozzle files, loading them, and controlling the Image Hose, see, "[Using the Image Hose](#)."

Dodge

Dodge lightens the colors of the image.

Dodge is a photographer's technique. A photographic print is made in the darkroom by projecting the negative's image onto light-sensitive paper. While making a print, a photographer might mask a small portion of the image for a few seconds. The photographer keeps the mask moving, "dodging" it over the paper, so that it won't leave an outline. When the exposure is finished, the area that was dodged received less light. When the paper is developed, the dodged area is lighter.

Burn

Burn darkens the colors of the image.

Burn uses the same technique as dodge, but with the opposite mask—one that covers most of the image. The un-masked portion receives more light during the exposure, so it develops darker.

Cloners Brushes

The Cloners are a special set of brush variants. Cloners sample imagery from one area and reproduce it in another.

Detailer offers a number of Cloners variants. Some reproduce imagery perfectly. Others introduce artistic effects. Each variant is described later in this section.

Cloners work in the Canvas. You cannot use a Cloners variant to paint in a floater.

You can use Cloners variants in one of two ways:

- To paint with the current pattern.
- To replicate imagery within an image—from an area in the upper left to the center, for example. This is called “point-to-point” cloning.

When you choose a Cloners variant and start painting, you’ll be painting with the current pattern. If you want to do point-to-point cloning, you’ll need to set the origin.

See also:

[Point to Point Cloning](#)

[Cloners Variants](#)

Point-to-Point Cloning

To set the clone source location:

1 Choose a Cloners variant.

2 With the Control key (Macintosh) or Shift key (Windows) held down, click in the source area in your image. This is the origin for the clone sampling.

3 Move the cursor to the destination area and click. This establishes the source-destination relationship between your two click points.

Now, painting in the destination region delivers imagery from the source region.

Cloners Variants

The variants of the Cloners brush behave like their “plain” brush counterparts—for example, the Chalk Cloner produces the same effect as the Artist Pastel Chalk variant of the Chalk brush.

You can customize the Cloners variants with Detailer’s other customizing functions that are described in [“Advanced Painting,”](#)

See also:

[Felt Pen Cloner](#)

[Pencil Sketch Cloner](#)

[Hairy Cloner](#)

[Oil Brush Cloner](#)

[Chalk Cloner](#)

[Hard Oil Cloner](#)

[Van Gogh Cloner](#)

[Melt Cloner](#)

[Driving Rain Cloner](#)

[Straight Cloner](#)

[Soft Cloner](#)

[Impressionist Cloner](#)

Felt Pen Cloner

This variant re-creates felt pen strokes that get darker as you paint over other strokes. To keep the colors from darkening too quickly, move the Opacity slider in the Controls palette: Brush tool to the left.

Pencil Sketch Cloner

This variant imitates pencil lines. To get a quick-sketch effect with uneven lines, open the Brushes palette: Controls menu > Random palette and move the Clone Location How Often slider all the way to the left.

Hairy Cloner

The Hairy Cloner paints like the Hairy Brush variant of the Brush, producing somewhat anti-aliased strokes that show the brush's "hair lines" and react to the grain. This brush is useful with oil painting.

Oil Brush Cloner

The Oil Brush Cloner gives you anti-aliased brush strokes that hide underlying ones. This is another good brush to use with oil painting. Short strokes work best with the Oil Brush Cloner. How quickly you drag the mouse or stylus determines the width of the stroke. Drag slowly for thick strokes, quickly for thin ones.

Chalk Cloner

This variant draws like the Artist Pastel Chalk variant of the Chalk brush.

Hard Oil Cloner

The Hard Oil Cloner gives you a harsh stroke with a hard edge that interacts with the grain and covers underlying strokes. It's good for oil painting and works best with short strokes. How quickly you drag the mouse or stylus determines the width of the stroke. Drag slowly for thick strokes, quickly for thin ones. This brush interacts with the current texture. Choose different ones in the Materials: Texture palette for unusual results.

Van Gogh Cloner

This variant paints multicolored brush strokes in the style of Vincent Van Gogh.

Melt Cloner

The Melt Cloner melts an image so that it looks like it's dripping, and works the way the Distorto variant in the Liquid brush works. When you use this brush with oil painting, it looks like you applied paint with a palette knife.

Driving Rain Cloner

This variant clones your image as it would look through a window during a rainstorm.

Here's how it works:

After you choose the Driving Rain Cloner, click and drag the stylus or the mouse and you'll see slanted brush strokes that look like rain drops appear perpendicular to your stroke's direction.

Straight Cloner

This variant duplicates the image without changing it. Simply click and drag and you'll see the area around the source point come through.

Soft Cloner

The Soft Cloner gives you airbrush-style strokes that softly recreate the source area. The edges of the Soft Cloner brush are soft, allowing it to blend realistically with an existing background.

Impressionist Cloner

The Impressionist Cloner uses the directions of your brush strokes to place many short dabs in varied colors based on the source point.

Detailer has all of these great brushes to create surface maps, but you can also customize your own brushes. The next chapter describes all of the brush controls and how you can customize Detailer's brushes for your own specific needs.

Advanced Painting

See also:

[Customizing Detailer's Brushes](#)

[Brush Controls](#)

[Spacing Palette](#)

[Random Palette](#)

[Well Palette](#)

[Sliders Palette](#)

[Brush Methods](#)

[Fine-Tuning the Cloning Methods](#)

[Saving, Restoring and Deleting Brush Variants](#)

[Capturing Brushes](#)

[Creating a New Brush](#)

[Brush Libraries](#)

Customizing Detailer's Brushes

All of Detailer's brushes are adjustable in a myriad of ways. In fact, the default variants in the Brushes palette are just saved settings from Detailer's vast collection of brush controls.

While these default brushes do excellent work, you'll probably want to adapt them to a particular need or refine them to your own style. You can change brush size, shape, angle, how color flows from the tip, and much, much more. This chapter describes the many features for customizing Detailer's brushes.

Changes you make to brush variants, including the basic controls like size and opacity, apply only as long as that variant is selected—they disappear as soon as you switch to another variant or select a different tool (this ensures that the brushes are “clean” every time you reach for them). **If you want to keep the changes, you must save them.** Detailer allows you to save customized brushes as the default variants, or as new brush variants.

In this chapter you'll learn...

- About dabs and strokes—Size, Spacing, Random and Well
- Making brushes sensitive to input using the Sliders palette
- About brush methods
- How to save custom brush variants and how to modify the default variants
- Captured brushes
- Creating new brushes and managing brush libraries.

Brush Controls

Although brush strokes appear as having continuous color, they are actually created by laying down a series of closely spaced individual dabs. Detailer lets you control both the dab shape and the way it's repeated to create the stroke.

Controls of the **dab** are located primarily on the **Size** palette.

Controls for the **stroke** are located primarily on the **Spacing** palette.

The **Random** palette has one control for the stroke and several for the medium.

The **Well** palette controls the medium (usually color) that flows from the brush.

The **Sliders** palette can be used in many ways to change the behavior of the dab, stroke, and medium.

See also:

[Size Palette](#)

Size Palette

The Brush Controls: Size palette accessed from the Brushes palette: Controls menu> Size palette lets you control the brush dab width and tip, for example, use the Size palette to sharpen your pencils.

See also:

[Preview](#)

[Brush Tip](#)

[Build](#)

[Brush Control Size](#)

[±Size](#)

[Size Step](#)

[Adjusting the Angle](#)

[Dab Types](#)

Preview

The Preview in the center of the palette shows how your changes affect the brush dab. Clicking in the Preview lets you toggle between “hard” and “soft” views of the dab.

In the hard view, concentric circles show the minimum and maximum size of a brush. The inner (black) circle shows the minimum dab width. The outer (gray) circle shows the maximum dab width. Remember that some brushes vary the line width based on pressure or stroke speed. The difference between the diameter of the two circles shows the range in which the stroke width will vary.

In the soft view, shading shows the density distribution of the brush tip. The density distribution describes how much of the medium is conveyed by a given point on the brush dab. For example, an individual dab made by an airbrush produces a soft-edged circular mark with minimum density at the outer edge of the dab. Density increases inward to a maximum value at the exact center of the dab.

Brush Tips

The brush tip profile shows a cross section of density distribution across the diameter of the dab. You can think of a brush tip profile as a bell curve graph representing the density spread across the brush dab.

Different mediums have different density distributions. Changes in the density distribution produce different marking qualities in a brush stroke.

To change the density distribution, click the icon for the brush tip profile you want.

See also:

[Pointed profile](#)

[Medium profile](#)

[Linear profile](#)

[Dull profile](#)

[Watercolor profile](#)

[1-Pixel Edge](#)

Pointed profile

Pointed profile provides maximum density at the center with rapid fall-off to the edge.

Medium profile

Medium profile has a wide area of greater density at the center with rapid fall-off to the edge.

Linear profile

Linear profile provides maximum density at the center with an even fall-off to the edge.

Dull profile

Dull profile provides maximum density at the center with a high density weighting to the edge.

Watercolor profile

Watercolor profile provides maximum density at the outer edge in a ringlike fashion with medium internal density.

1-Pixel Edge

1-Pixel Edge provides maximum density throughout with a rapid fall-off at the edge, producing a one-pixel, anti-aliased edge.

Build

When you finish making changes on the Brush Controls: Size palette, you may need to click Build (if the button is raised and highlighted) to create the brush shape. Pressing Command--B (Macintosh), or Ctrl+B (Windows), or by choosing Brushes palette: Brushes menu> Build Brush also builds the brush.

Relax, some brushes may take a little while to build—especially if you're working on a slower machine. Larger dab and \pm Size values increase build time.

Brush Control: Size

The Size slider controls the width of the brush dab and, therefore, the brush stroke. Moving the slider to the right makes a brush wider. Moving it to the left makes it narrower.

You don't need to open the Brush Controls: Size palette to adjust the size of a brush. Use the brush sizing shortcut: Hold down the Command-**Option** keys (Macintosh), or the Ctrl+Alt keys (Windows), and drag in the document window. A circle that represents the brush diameter appears beneath the cursor. When you've dragged the circle to the size you want, release the button. In some cases, the brush must be "built." Press Command-B (Macintosh), or Ctrl+B (Windows), to build the brush. If you try to paint with an "un-built" brush, Detailer will alert you.

As size changes, you may need to adjust Spacing—especially if gaps appear in the stroke.

±Size

The ±Size slider controls the difference between the minimum and maximum width of a stroke. Remember that some brushes vary the line width based on pressure or stroke speed. The difference between the diameter of the two circles shows the range the stroke width will vary. Moving the slider to the right increases the difference between the narrowest and widest portions of a stroke.

Size Step

The Size Step slider controls the transition between the narrow and wide sections of a stroke. Moving the slider to the right makes the transition appear more abrupt. Moving it to the left makes the transition smoother.

Adjusting the Angle

Expand the Brushes palette: Controls menu> Size palette by clicking the grow box. The Angle Control sliders appear.

See also:

[Squeeze](#)

[Brush Control: Angle](#)

[Ang Rng](#)

[Ang Step](#)

Squeeze

The Squeeze slider controls the shape of the brush dab. Squeezing a brush changes it from round to elliptical. Moving the slider to the left makes a dab more elliptical and moving it to the right makes a dab more round.

Squeeze and angle controls are not valid for Bristle and 1-Pixel dab types.

Brush Control: Angle

The Angle slider controls the angle of an elliptical brush dab. Moving the slider to the right rotates the dab clockwise. Moving the slider to the left rotates the brush counterclockwise.

The angle describes the angle of the ellipse.

Ang Rng

The Angle Range slider lets you specify a range of dab angles that may appear in a brush stroke. Setting this slider to 180° means you can get every angle between 0° and 180° in your stroke.

To take advantage of this feature, you'll need to set up the brush to base the angle on some factor, like stroke direction or randomness. You'll do this in the Sliders palette.

Ang Step

The Angle Step slider controls the increment of change for brushes with an Angle Range greater than 0°. For example, setting the Angle Step to 5° means that you get a brush dab every 5° within the current angle range setting. Moving the slider to the right results in fewer brush dab angles. Moving the slider to the left creates more brush dab angles.

Dab Types

Brushes can have one of the following dab types: Circular, 1-Pixel, Bristle, or Captured. You can choose the dab type for a variant you're creating at the bottom of the expanded Size palette.

Circular

Circular dabs are controlled by the Size palette.

1-Pixel

A 1-Pixel dab consists of one pixel. You can't change its size. You'll use 1-pixel brushes mostly when you zoom in to edit at the pixel level.

Bristle

When you select the Bristle dab, the soft view of the Preview on the Size palette displays a bristly dab.

Captured

Captured dabs are dab shapes that you create and capture with Brushes palette: Brushes menu > Capture Brush, described later in this chapter.

Spacing Palette

A brush stroke is created with a series of dabs. By adjusting the spacing between dabs, you can control the continuity of the brush stroke. To access the Brush Controls: Spacing palette, choose Brushes palette: Controls menu> Spacing.

See also:

[Spacing Size](#)

[Min Spacing](#)

[Stroke Types](#)

Spacing/Size

The Spacing/Size slider controls the distance between the brush dabs in a stroke. When the Spacing/Size slider is at 100%, the spacing equals the radius of the dab. For example, a dab that's 10 pixels across is repeated every 5 pixels. As the Spacing/Size slider is moved to the left, the distance between dabs is less and they begin to overlap. Overlapping increases the density of the stroke and makes it look more continuous.

Min Spacing

The Minimum Spacing slider specifies the minimum number of pixels between dabs. If you don't want a continuous stroke, move the Minimum Spacing slider to the right. In this way, you can create a dotted or dashed line. Each dot or dash is made by one brush dab.

Stroke Types

Expanding the Brush Controls: Spacing palette reveals the Stroke Types buttons. The Bristles slider, at the bottom of the palette, controls the number of dabs used for Multi-stroke and Rake brushes.

See also:

[Single](#)

[Multi](#)

[Rake](#)

[Hose](#)

[Bristles](#)

Single

A Single stroke brush has one dab path.

You can use Bristle and Captured dabs with the Single stroke option to create the effect of multiple bristles.

Multi

A Multi-stroke is made by dragging a set of randomly distributed dabs. The several dabs leave strokes that are not parallel, and they may overlap. Each time you apply a multi-stroke brush, the result may differ.

Each stroke in a Rake or Multi-stroke brush can have a different color. Increase Color Variability on the expanded Materials: Color palette to color the strokes differently.

Multi-stroke brushes must be precomputed, which generates a delay in their appearance on the screen. Because of this delay, Multi-stroke brushes, such as the Van Gogh brush, work best when you apply them in short strokes.

Rake

A Rake stroke is made by dragging a set of evenly distributed dabs. The several bristles in a rake brush are parallel to each other.

Hose

The Hose is a single stroke composed of the current Image Nozzle file. See Chapter 12, “Using the Image Hose,” to learn more about the Image Hose and Nozzle files.

Bristles

The Bristles slider controls the number of bristles or dabs used for Multi-stroke and Rake brushes.

Random Palette

Detailer uses randomness to introduce an “accidental” quality in color and stroke. Randomness contributes to the appealing, unique look of artwork done in Detailer. You can control brush randomness with the Advanced Controls: Random palette, accessed from the Brushes palette: Controls menu> Random.

Randomness of the primary color is controlled from the Materials: Color palette.

See also:

[Dab Location Placement](#)

[Clone Location](#)

[Random Brush Stroke Grain](#)

[Random Clone Source](#)

Dab Location Placement

The Dab Location Placement slider introduces a randomized jitter to the brush stroke. Instead of appearing directly along the stroke, dabs appear randomly outside the brush stroke path. Move the slider to the right to increase deviation from the stroke path.

Clone Location

The two Clone Location sliders work with brushes of the Cloning method.

A cloning brush takes color information from a specified source point, or the current pattern (by default), and applies it to a destination area in an image.

Detailer's cloning brushes move information from the current Pattern to the image or from one area of the image to another.

See also:

[Variability](#)

[How Often](#)

Variability

When Variability is zero, the pixels of the source and destination images correspond precisely—using a cloning brush at full opacity (and no grain) will simply recreate the source image.

Introducing a degree of randomness disturbs the pixel-to-pixel correspondence. The resultant variations in the image distance the clone from its source point, which can contribute to the Natural-Media appearance.

The Variability slider lets you randomly offset the location where the clone brush samples the source. Moving the slider to the right increases the range (distance) the sample may be offset.

How Often

The How Often slider controls the period between random offsets. Moving the slider all the way to the left sets the period to zero—every sample is offset. This gives the clone image a rough, distorted look.

Moving the How Often slider to the right increases the period—samples are offset less frequently. This keeps the clone's appearance more like the source.

Random Brush Stroke Grain

Normally, when you make a brush stroke, the grain is fixed—the “bump” areas will always be bumps. Strokes repeated over an area will bring out the same grain.

The Random Brush Stroke Grain option randomizes the grain beneath the brush. The Spatter Airbrush is an example of Random Brush Stroke Grain brush.

Random Clone Source

Random Clone Source randomly samples from the specified source point, or the current pattern (by default). There's no correspondence between the samples taken from the source or pattern and where they are placed on the destination. The result is a random effect of the predominant colors in the source or pattern. The brush and stroke determine the nature of the source or pattern.

Well Palette

The Well palette controls how a brush conveys its medium (color) to the paper. The Resaturation, Bleed, and Dryout controls work together to determine how much color a brush has at the start and finish of a stroke.

The Well palette has no effect on brushes that smear existing color, like the Eraser and Liquid brushes.

See also:

[Resaturation](#)

[Bleed](#)

[Dryout](#)

Resaturation

Resaturation controls the amount that color is replenished in a stroke. If Resaturation is zero, the brush will never get any color. When Resaturation is below 10% (and Bleed is less), the brush stroke fades in gently.

Well Palette: Bleed

The Bleed slider controls how much the brush colors mix with the underlying colors—including the paper color. Moving the slider to the right increases the extent of bleed.

When Bleed is higher than resaturation, more color bleeds than covers, so the stroke will never reach full opacity.

Dryout

The Dryout slider determines how quickly a brush runs out of its medium. Dryout is measured in pixels. Moving the slider to the left makes a brush's reservoir empty more quickly. This can lead to brush strokes that fade out gently.

When the slider is set to the far right, the brush never runs out of color.

Dryout works in conjunction with Bleed, so Bleed must be above zero to take advantage of Dryout. You can modulate the Dryout effect by changing the Bleed setting.

Sliders Palette

The Advanced Controls: Sliders palette lets you control brush effects based on a number of input factors. For example, many brushes vary their opacity or width in response to changes in stylus pressure. This is merely their default setting. You can use the sliders to vary these effects in response to other factors, like stroke direction or velocity. This is the kind of modification you'll want to make if you're using a mouse to draw with and don't have access to pressure information.

The Sliders palette is set up as a matrix. Drag the slider for one of the eight main brush components to link it to one of the eight control factors.

See also:

[Control Factors](#)

[Brush Components](#)

Control Factors

Control factors determine how the brush component is adjusted.

Random

Random adjusts the component at random.

Source

Source adjusts the component based on the luminance of the current Pattern. Higher luminance (closer to white) increases the setting for that component—for example, a wider stroke.

Bearing

Bearing adjusts the component based on the direction in which the stylus points. Not all stylus models convey this information.

Tilt

Tilt adjusts the component based on the angle of the stylus from the tablet. Not all stylus models convey this information.

Pressure

For pressure sensitive tablets, Pressure adjusts the component based on stylus pressure. Greater pressure increases the setting for that component.

Direction

Direction adjusts the selected brush component based on the direction of the stroke.

Velocity

Velocity adjusts the component based on the dragging speed. Dragging quickly minimizes the setting. Dragging slower increases it.

None

None applies no adjustment to the component.

Brush Components

Size

The **Size** slider determines how Detailer should vary the width of the brush stroke. The range from minimum to maximum is determined by the \pm Size slider in the Brushes palette: Controls menu> Size palette. The most common source for size variance is Pressure. The Scratchboard Tool is a good example of a brush with Size based on Pressure.

Jitter

The **Jitter** slider determines when (how often) Detailer should jitter the brush stroke. The amount of jitter is controlled by the Dab Location Placement slider on the Brushes palette: Controls menu> Random palette. A typical source for controlling jitter is Velocity. Jitter will reduce as the brush speeds up.

Opacity

The **Opacity** slider determines how Detailer should vary the density of the medium. The Opacity slider in the Controls palette: Brush tool will establish the maximum opacity of the brush. The opacity of the Airbrush is determined by pressure. More pressure yields more opaque strokes.

Grain

The **Grain** slider determines where Detailer should reveal texture in a brush stroke. The Grain slider in the Controls palette: Brush tool sets the maximum amount of grain in the brush. The Colored Pencil variant has its Grain component determined by pressure. Increasing pressure causes the pencil to “dig into” the paper.

Color

The **Color** slider determines where Detailer should use the primary or secondary color. Set Color to direction and Detailer will paint with two colors, depending on the direction of your brush strokes.

Angle

The **Angle** slider determines how Detailer orients the brush dabs. The Ang Rng setting in the Brushes palette: Controls menu> Size palette must be greater than 0.0 and Squeeze must be less than 100% in order for brush angles to vary. The Impressionist and Oil Pastel variants will change dab angles based on the direction of the stroke.

Resat

The **Resaturation** slider determines how Detailer controls resaturation—how much color is replenished in a stroke. When used in conjunction with Bleed, setting the Resat component to Pressure can create a brush that behaves like a drying marker.

Bleed

The **Bleed** slider determines how Detailer controls bleed—how much colors mix. When used in conjunction with Resat, setting the Bleed component to Pressure can create a brush that behaves like a drying marker.

Brush Methods

The brush method describes the basic nature of a brush. All of the many brush control settings flow through the method to determine the brush effect.

Understanding the methods and being able to vary them gives you more options for creating new brushes or editing existing ones. For example, some brush controls and effects are invalid under certain methods, so by changing the method, you can radically alter a brush.

To display the methods, click the grow box on the Brushes palette. You can change the method category and subcategory from the menus.

There are seven method categories: [Buildup](#)Buildup>(w95sec), [Cover](#)Cover>(w95sec), [Eraser](#)Eraser>(w95sec), [Drip](#)Drip>(w95sec), [Mask](#)Mask>(w95sec), [Cloning](#)Cloning>(w95sec) [Wet](#)Wet>(w95sec).

See also:

[Method Sub-Categories](#)

[Cloning Methods](#)

Buildup

The Buildup methods produce brush strokes that build toward black as you overlay them. Felt Pens are an example of buildup brushes.

Cover

The Cover methods produce brush strokes that cover underlying strokes. Chalk is an example of a cover brush.

Eraser

The Eraser methods either erase, lighten, darken, or smear the underlying colors.

Drip

The Drip methods interact with the underlying colors to distort the image.

Mask

The Mask methods paint directly into Detailer's masking layer. You can also use any of Detailer's brushes in View Mask Mode to paint into the mask. Masking is covered in detail in Chapter 10, "Selections and Masks."

Cloning

The Cloning methods take a source imagery (from the current Pattern or somewhere else in the image) and re-create it in another medium.

Wet

The Wet methods produce watercolor effects.

Method Sub-Categories

Each method category is further divided by its subcategories. The following terms are used in describing the subcategories:

- Soft methods produce smooth, anti-aliased strokes.
- Flat methods produce strokes with hard, “pixellated” edges.
- Hard methods provide brush strokes with semi-anti-aliased edges

In a few instances, you’ll see the words Edge and Variable in a method. Edge means strokes are thick and sticky looking. Variable means a brush stroke starts off a bit more transparent.

Last, there’s Grainy. It means the brush reacts to the grain.

So putting together the method categories and their subcategories results in the specific brush methods. For instance, Grainy Hard Cover means that brush strokes interact with the current texture and have semi-anti-aliased strokes that hide underlying ones. Grainy Hard Cover is the default method for Chalk and Charcoal brushes.

Cloning Methods

Hard Cover Cloning

Gives you semi-anti-aliased brush strokes that hide underlying strokes.

Soft Cover Cloning

Produces anti-aliased brush strokes that cover layered ones.

Grainy Hard Cover Cloning

Works like Hard Cover Cloning but brush strokes also interact with paper grain.

Grainy Soft Cover Cloning

Works like Soft Cover Cloning but brush strokes also interact with paper grain.

Drip Cloning

Pushes color around as if it were wet, cloning the original with distortion based on your stroke.

Fine-Tuning the Cloning Methods

Four settings on the Random palette, found under the Brushes palette: Controls menu > Random, can affect the results of the cloning methods.

- Moving the Clone Location: Variability slider to the right softens brush strokes and works best with the bristle brushes for creating an impressionistic effect.
- Moving the Clone Location: Variability slider a bit to the right and the Clone Location: How Often slider to the left gives drawing tools a sketchy feel.
- Clicking Random Clone Source makes the cloning methods randomly pick up pieces from the specified source point or the current pattern (by default). What you get with your brush is random snippets of the image.
- Clicking Random Brush Stroke Grain makes the cloning methods pick up paper grain at random from the current paper grain.

See “[Random Palette](#),” for more information about these settings.

See also:

[Changing Methods](#)

Changing Methods

It's good to know how to juggle methods. Lets say you want a Charcoal-looking stroke, but instead of hiding underlying strokes, you want brush strokes to muddy to black. you can get this effect by changing the method to Grainy Hard Buildup.

Now let's say you want a smoother, anti-aliased stroke. Change the method to Grainy Soft Buildup. The stroke still isn't quite right—you don't want to see the texture. So you choose the Soft Buildup subcategory. Your stroke has smooth, anti-aliased edges and turns builds to black. Soft Buildup is the default setting for Medium Felt Tip Pens. You can change the method category and subcategory by using the pop-up menus.

Saving, Restoring and Deleting Brush Variants

When you've customized a brush the way you like it, you can use it immediately. Unless you save them, changes you make to brushes disappear as soon as you switch to another variant or brush. If you want to keep a brush, save it—either as a variant to an existing brush or a variant to a new brush. These options are called: Save Variant and Save Built Variant.

See also:

[Save Variant](#)

[Save Built Variant](#)

[Restore Default Variant](#)

[Delete Variant](#)

Save Variant

This command creates a new variant under the current brush category. For example: You started with the Pencil brush and modified it to resemble a grease pencil. Choose Brushes palette: Brushes menu> Variants> Save Variant and Detailer opens a dialog where you can name the variant "Grease." From now on, you'll find your Grease Pencil alongside Detailer's default Pencil variants.

To save the current brush settings as a variant of the selected brush in the current library:

- 1 Choose Brushes palette: Brushes menu> Variants> Save Variant.
- 2 Detailer will prompt you to name the variant. Type a name, then click OK.

Your new variant will now appear on the variant pop-up for the current brush category.

Each brush may hold up to 32 variants. It's easier to find the variant you're looking for when the list is shorter. You can manage the number of variants under a brush by creating new brushes and adding variants to them. Saving new variants to new brushes in new libraries will also help Detailer manage memory.

Save Built Variant

This command saves your changes to the current variant. This is the command you'll use to modify Detailer's default variants. For example, you might decide that the Oil Paint brush variant is too big. Select it and modify the brush size. Choose Save Built Variant. From now on, you'll find the Oil Paint variant as you defined it.

To save changes to an existing variant:

Choose Brushes palette: Brushes menu> Variants> Save Built Variant. Your changes are incorporated in the variant.

If you change one of Detailer's built-in variants, then decide that you want the original back; choose the Restore Default Variant feature described below.

Restore Default Variant

Restore Default Variant allows you to return the current variant to the factory settings.

To restore the default variant:

Choose Brushes palette: Brushes menu > Variants > Restore Default Variant.

Delete Variant

Delete variant lets you remove an unwanted variant from the current brush. Remember, if you delete one of Detailer's default variants from the default Brushes library, you will have to reinstall Detailer to get it back.

To delete a variant:

- 1 Choose the variant from the Variant pop-up menu.
- 2 Choose Brushes palette: Brushes menu > Variants > Delete Variant. Detailer asks you to confirm that you want to delete the variant. Click Yes to delete the variant.

Capturing Brushes

You can create your own brush shapes. Any brush shape is possible.

To create a brush shape:

1 On a white background, draw the brush shape in black. If you like, use shades of gray to define partially transparent areas of the brush.

2 Choose the Rectangular Selection tool.

3 Hold down the Shift key and drag across your brush shape to create a square selection.

Detailer uses the selected area to map the brush size. When the brush is built, this area is sampled to compute each brush dab.

4 Choose Brushes palette: Brushes menu > Capture Brush.

5 Take a look at the brush dab in the Brushes palette: Controls menu > Size palette. Change its size, squeeze, and angle, if necessary. Click Build if Detailer doesn't automatically build your brush.

6 Draw with the brush. If you like the results, save it as a new variant.

When the original area must be scaled to the size of the brush dab, sampling can appear aliased. The greater the scaling, the more aliasing will be apparent. To prevent this, create a shape with soft (grayscale) edges and draw it close to the size you'll use it.

Important Tip: When creating a brush that responds to direction and pressure, orient the brush shape toward three o'clock.

Creating a New Brush

You can add your own brush categories to Detailer's Brushes palette. You might want to create a brush if you've customized a medium and you wanted to keep its tools organized. Your new brush will appear at the same level as Pencil, Chalk, Crayons, etc.

- 1** Draw a small image to use as the palette icon for the new brush.
- 2** Choose the Rectangular Selection tool.
- 3** Hold down the Shift key and drag across the image to create a square selection.
- 4** Choose Brushes palette: Brushes menu> Variants> Save Brush.
- 5** Detailer will prompt you to name the brush. Type a name, then click OK.

Your new brush and its icon now appear on the Brushes palette.

When you create a new brush, it starts with zero variants. The first thing you'll want to do for your new brush is to create and save some variants to it.

For efficiency on systems with limited RAM, keep brush libraries small. Detailer will be more efficient if you store the brush variants you create into several libraries. When you want to use these special brushes, load the alternate libraries.

Brush Libraries

A library is a saved collection of similar tools. For example, Detailer's built-in brushes (and their variants) are contained in the default brushes library.

You can create new libraries for brushes and add your custom brushes to them. You can create as many brush libraries as you want, but only one will be open at a time.

For information on loading alternate libraries and managing the contents of your libraries, see "Libraries and Movers" in Chapter 1, "Getting Acquainted with Detailer."

It's a good idea to limit the number of brushes in a library. This makes it easier to find a particular brush and helps Detailer manage memory.

Brushes are loaded into memory when you launch Detailer, so adding brushes to the default brush library increases Detailer's need for RAM. If you are working close to the memory threshold, you'll want to organize new brushes into secondary libraries. When you want a different brush set, switch libraries. This will help Detailer be efficient with memory.

Selections and Masks

Selections and masks are features to help you develop imagery. They increase your control over where you paint and apply effects.

Selections and masks have a close relationship. Both features work by isolating areas; however, they differ in the way they're created and what you do with them. Some operations in Detailer require a mask, others work only with a selection. Depending on the artwork, sometimes you will choose to work with the mask and sometimes the selection is a better choice. You can easily convert between a mask and selection, so no matter which way you start working, you can achieve the same result.

See also:

[Selections](#)

[Mask](#)

[Working with Selections](#)

[Masking](#)

Selections

Selections are areas of an image that you isolate—either to copy, float, or apply effects.

You may create selections in image windows, but not in the Model Window. If you create a selection in an image window, you can switch to the Model Window and your selection will remain active.

Selections are enclosed by a moving line of black and white dashes, called the selection marquee, or “marching ants.” You can exclude a region within the enclosure by creating a negative selection. Negative selections “cut holes” in the regular, positive selection. On screen, negative selections appear in the image window as red marching ants. Selection paths are not displayed in the Model Window.

Negative selections are generated by the Lasso tool, set to Subtract From Selection in the Controls palette.

Mask

The mask is an 8-bit overlay that protects image areas from changes or encloses areas to be changed. When a selection is created, the mask responds to the selection according to how the Drawing buttons are set, masking inside or outside of the selection.

The background (canvas) mask can also be used to control the appearance of floaters. By setting options for a floater, you can use the canvas mask to conceal or reveal part of the floater.

See, "[Floaters](#)," for more information on floaters and floater/canvas mask interaction.

Each floater has its own mask. In a floater, the mask determines the visible region of the floater. By modifying the floater's mask you can change the shape of a floater.

See also:

[Drawing and Visibility Modes](#)

[Drawing Modes](#)

[Visibility Modes](#)

Drawing and Visibility Modes

For working with the canvas mask and selections, Detailer has three drawing and three visibility modes. The controls for these modes appear in pop-ups in the bottom left of the image window.

Drawing Modes

The Drawing buttons determine whether the inside or outside of a selection is protected when you paint.

Mask Disabled

The mask is turned off. Brush strokes are allowed anywhere in the image.

When you paint in the Model Window, your brush strokes obey the drawing mode.

Masked Inside

The mask protects the areas it covers. Opaque areas of the mask prevent brush strokes from reaching the canvas. Clear areas of the mask allow brush strokes to go directly to the canvas. Where the mask is shaded, a portion of the brush stroke is applied semi-transparent.

Masked Outside

Masked Outside inverts the mask. Only the masked regions accept brush strokes.

Visibility Modes

The Visibility buttons control how the mask appears in your image. The modes allow you to convert between mask and selection.

Clear View

In this mode, you won't see the mask; however, it will still function according to the drawing mode setting.

View Red Mask

The mask is displayed as a red overlay in the image window. Brush strokes will reach the canvas only where you can see through the mask.

This mode has two main uses: to allow you to see where the mask protects the image and to allow you to paint in the mask.

In this mode, you can see the mask invert when you switch between Masked Inside and Masked Outside drawing modes.

Detailer offers one other way to view the mask—Edit Mask mode. This feature and methods of working with Edit Mask mode appear later in this chapter.

View Selection

The mask is displayed as a selection. By choosing this visibility mode, you can convert a mask to a selection.

A selection is active only when the ants are marching. Detailer must be in this mode to create, cut, float, or apply an effect to a selection.

In most cases, Detailer sets the visibility mode automatically, according to the tool or command you use.

A shortcut between modes

When working with a selection in View Selection mode, you can immediately set Detailer to Mask Disabled/Clear View by choosing Edit menu> Deselect. You can then proceed without interference from the selection or mask.

When you want the selection back, choose Edit menu> Reselect. Detailer switches to Masked Outside/View Selection.

Working with Selections

In this section, you'll learn how to create selections. Selections work only in image windows.

See also:

[Creating Selections](#)

[The Selection Tools](#)

[Converting a Mask to a Selection](#)

[Creating a Selection Using the Magic Wand](#)

Creating Selections

To select the entire image, choose Edit menu> Select All.

If you want to select a portion of the image, you can specify the selection path in any of several ways:

- By using one of the selection generating tools, the Rectangular Selection tool, the Oval Selection tool, or the Lasso tool
- By creating a mask and converting it to a selection (choosing the View Selection Visibility button)
- By using the Magic Wand.

You may not create a selection inside a floater. You can get around this restriction by copying the floater to a temporary image and dropping it there.

Using The Selection Tools

You may use the Rectangular Selection tool, the Oval Selection tool, or the Lasso tool to create selections.

The Rectangular and Oval Selection tools

Choose the Rectangular or Oval Selection tool on the Tools palette.

The Rectangular or Oval Selection tool icon “pops up” to let you select the other version. You may also switch between the tools using the icons on the Controls palette: Selection tools.

Position the cursor in the image and drag diagonally. When the selection is the size you want, let up. Hold down the Shift key to constrain to a circle or square. The Controls palette provides information on the size and location of the selection you create.

After creating a rectangle, you can move any corner by holding down the **Control** key (Macintosh) or the **Ctrl+Alt** keys (Windows) and clicking on the corner point you want.

See also:

[Using the Lasso tool](#)

Using the Lasso tool

Choose the Lasso tool on the Tools palette.

The Controls palette: Lasso tool offers three modes for creating selections:

New—Each path you draw creates a new selection, while disabling any previous selection.

- **Add to Selection**—Each path you draw is added to the current selection.
- **Subtract from Selection**—Each path you draw becomes a negative selection path, which voids any portion of the current selection that it overlaps.

With the Lasso tool, you can draw freehand around the area you want. When you let up, Detailer closes the path and converts it to a selection.

Converting a Mask to a Selection

In some cases, you might prefer to use masking tools to create a mask, then convert it to a selection. The many methods of creating a mask are covered later in this chapter. After creating a mask, you can convert it to a selection by choosing the View Selection visibility mode. Refer to [“Drawing and Visibility Modes,” earlier in this chapter for more information.](#)

Creating a Selection Using the Magic Wand

Pixels come in related groups of colors based on hue, saturation, and value. The Magic Wand allows you to select an area based on color similarity. You can adjust Painter to accept a narrow or wide range within one or several color groups.

To select part of an image with the Magic Wand:

1 Choose Edit menu > Magic Wand. The Magic Wand dialog appears and the cursor becomes a Magic Wand.

2 In the image window, click or drag the Magic Wand over the color group you want to select. The HSV sliders in the Magic Wand dialog box change, reflecting the range of selected colors. The Magic Wand selection will now be displayed as a colored mask.

You can add to the selected area in two ways:

- Hold down the Shift key and click or drag over additional areas in the image.

Adjust the HSV sliders to increase the range of colors. The colored regions of the HSV sliders describe each selected range. You can drag the limits of a range in either direction. As you work, the mask shows your changes to the selection.

By default, the Magic Wand selects only contiguous areas in the image. If you want to find all pixels of a color group, select the area with the Rectangular Selection tool before using the Magic Wand.

3 When you're satisfied with the masked area, click OK. Painter selects that area.

Masking

The canvas has a mask layer, and each floater carries its own mask. These masks have four main functions:

- The canvas mask protects areas of the canvas from brush strokes. This function depends on the drawing mode—Masked Inside, Masked Outside, or Mask Disabled. See “[Drawing and Visibility Modes](#),” at the beginning of this chapter, for more information.
- The canvas mask can also be used to control the visibility of floaters. By setting options for a floater, you can use the canvas mask to conceal or reveal parts of the floater. In this way, you can interweave floater images with the background. See “[Floaters](#),” for more information.
- The canvas mask can be converted to a selection by choosing the View Selection visibility mode. This enables you to float the masked area or apply effects to it. Detailer’s sophisticated masking tools make it easy to create complex selections.
- The floater mask controls what portion of the floater is visible. See “[Floaters](#),” for more information.

For the canvas and floater, the mask is an 8-bit “image” you can modify. By changing the mask, you can control any of the functions described above.

At any moment, there is one canvas mask. To view it, select the View Red Mask visibility icon. By default, Detailer displays the mask in red. Un-masked areas show through to the canvas image.

When in View Red Mask mode (as opposed to Edit Mask mode), floaters cover the canvas mask. You might want to hide the floaters to see the mask completely. To hide floaters, click the eye icon next to the floater listing in the Floater List palette.

You may also view the mask by putting Detailer in Edit Mask mode. Click the color spectrum icon near the top, right corner of the image window. The icon becomes a black circle and the image window displays the mask as a grayscale image. You may also enter Edit Mask mode by choosing Canvas menu> View Mask. When you’re finished in Edit Mask mode, click the icon again to return to Image mode. You may also choose Canvas menu> View Mask again.

You may also use Edit Mask mode to view an image floater’s mask. First select the floater, then click the color spectrum icon to choose Edit Mask mode.

With a floater selected, in Edit Mask mode you can apply effects to the floater’s mask. When you’re finished, click the Edit Mask mode icon again to view how your changes affected the floater.

See also:

[Creating and Editing Masks](#)

[Creating a Canvas Mask from a Selection](#)

[Basic Masking Commands](#)

[Automatic Masking Features](#)

[Using Edit Mask mode](#)

[Painting into a Mask](#)

Creating and Editing Masks

Detailer provides several ways to generate and modify masks. Many of the tools work in a floater's mask as well as the canvas mask.

When no floater is selected, you will modify the canvas mask.

When a floater is selected, you will modify the floater's mask.

- The easiest way to set up a canvas mask is from a selection. Selections translate directly to the mask.

Selections are not allowed inside of floaters.

- You may generate or modify a mask with one of the automatic masking features.
- In Edit Mask mode, you may paint the mask with any brush variant and apply effects to the mask image.
- You may paint the mask manually using any Masking brush variant.
- You may fill the mask using the Paint Bucket tool.
- You may modify a mask when you paint with the Image Hose. Enable the option Add to Mask on the Nozzle palette before painting. For more information, see "[Using the Image Hose](#)."
- You may modify the canvas mask when you drop a floater. Enable the option Drop with Mask on the Floater List palette before dropping.
- You can also acquire a canvas mask by opening a Detailer rendering or by opening an image created in another program.

Ray Dream Designer renderings, Painter and Adobe Photoshop documents may contain a mask. All Detailer renderings include a mask of the model.

When importing into Detailer, Photoshop files must be in RGB or Grayscale mode. For RGB images, Detailer will use any mask information contained in channel 4.

Creating a Canvas Mask from a Selection

You may convert a selection to a mask.

To convert a selection to a mask:

1 Use any tool or method to create a selection.

2 Set the visibility mode to View Red Mask. The selection now forms the canvas mask.

Depending on your plans, you may want to change the drawing mode to view the mask in the inverse.

Basic Masking Commands

Clearing the Mask

If you want to clear the mask, choose Edit menu> Mask> Clear Mask.

Inverting the Mask

If you want the mask inverted to change the control of your brush strokes, you can switch the drawing mode between Masked Inside and Masked Outside.

To actually invert the mask image, choose Edit menu> Mask> Invert Mask.

Feathering a Mask

You can feather a mask to soften the transitions between masked and un-masked areas.

To feather a mask:

1 Choose the View Red Mask visibility mode. Viewing the mask isn't necessary, but it helps by showing the effect of your changes.

2 Choose Edit menu> Mask> Feather Mask. The Feather Mask dialog appears.

3 Enter the number of pixels you want to feather your mask, then click OK.

If the effect is not what you intended, choose Edit menu> Undo and try again with a different feathering radius.

Measuring Mask Density

You might want to measure the density of the canvas mask at a given point.

To measure mask density:

1 Select the Dropper tool and display the Controls palette.

2 Hold down the Shift key and click on the point of the canvas where you want to measure the mask.

The Controls palette: Dropper shows values for the mask at that point.

The V text field describes the mask as a percentage. Lower values correspond to a denser mask.

The RGB text fields describes the mask level. Each mask pixel is defined with 8 bits of data. This gives 256 levels (255–0) of mask density. The RGB value 255 means the sampled pixel is unmasked. Lower values correspond to a denser mask, with zero being completely masked.

Automatic Masking Features

Auto Mask

Auto Mask creates a mask based on your choice of image characteristics. The Invert option allows you to invert the mask you create.

To generate an Auto Mask:

- 1 Choose Edit menu > Mask > Auto Mask. The Auto Mask dialog box appears.
- 2 Use the Using pop-up menu to choose which image characteristics to base the mask on. The options are described below.
- 3 When you've chosen an option, click OK to generate the mask. Once the mask is generated, view it by choosing the View Red Mask Visibility button.

Auto Mask Texture

Texture creates a mask using the current texture. This is useful when you apply effects based on Mask.

Image Luminance

Image Luminance creates a mask based on the current image's light and dark areas. Luminance will efficiently mask high contrast photographs.

Pattern Luminance

Pattern Luminance produces a mask in the current image based on the current pattern's light and dark areas.

Current Color

Current Color creates a mask protecting pixels of the current primary color. Enabling the Invert option means that *everything but* the current color will be masked.

You might want to use the Dropper tool to pick a color from the image before using this command.

Color Mask

The Color Mask feature lets you create a mask based on a range of colors.

To generate a color mask:

- 1 Choose Edit menu > Mask > Color Mask. The Color Mask dialog box appears.
 - 2 Click in the image to pick up the central color of interest.
 - 3 Adjust the HSV Extent sliders to control the range of colors. The colored regions of the HSV sliders describes the selected range. You can drag the limits of the range in either direction.
 - 4 Adjust the HSV Feather sliders to control the feathering at the edges of the color space extents in hue, saturation, and value, respectively. This can help soften the mask edge.
- Watch the effect of your slider changes in the Preview Window. Drag the image in the Preview to see other parts of the document.
- Use the Inverted option to mask everything but the color you select.
- 5 When the mask looks the way you want it, click OK.

Using Edit Mask mode

Edit Mask mode allows you to work in the mask as though it was a regular image. Working in Edit Mask mode offers three advantages:

- You can see the mask of the canvas or floater as a grayscale image.
- You may use any brush variant to paint or modify the mask.
- You may apply effects to the mask image.

The only disadvantage to working in Edit Mask mode is that you can't see the color image. To see the color image and the mask, use the View Red Mask visibility mode.

Because of the close relationship between selections and the mask, the Rectangular Selection tool is the only selection feature allowed in Edit Mask mode.

To use Edit Mask mode:

- 1 If you want to work with a floater's mask, select the floater. If you want to work with the canvas mask, deselect all floaters.
- 2 Click the color spectrum icon near the top, right corner of the image window. The icon becomes a black circle and Detailer displays the mask as a grayscale image. You may now paint in the mask and apply affects.
- 3 When you're finished in Edit Mask mode, click the icon again to return to Image mode.

When a map is in Edit Mask mode, the mask image appears on the object in the Model Window.

To paint into the mask in Edit Mask mode:

- 1 Click the Edit Mask icon to enter Edit Mask mode.
 - 2 Choose any brush and paint. Because you can see the mask as a grayscale image, you can tell what value color to use to paint. Paint with black to extend the dark areas of the mask. Paint with white to extend the light areas.
-

To apply an effect to the mask:

When the image is in Edit Mask mode, you may use effects to modify the mask. Some of the most useful are Effects menu> Tonal Control> Brightness/Contrast and the Focus effects.

When working in Edit Mask mode, use the Brightness/Contrast effect to increase (spread) or reduce (choke) a feathered mask.

Painting into a Mask: The Masking Brushes

Another way to create or modify a mask for a floater or the canvas is by painting with one of the Masking brushes. These brushes paint only into the mask layer, so Detailer automatically sets to View Red Mask when you choose one of them.

You can paint a canvas mask in an image window or on a model in the Model Window. You cannot paint in a floater or floater mask in the Model Window. To edit a floater mask, you must work in the image window.

- When no floater is selected, you will modify the canvas mask.
- When a floater is selected, you will modify the floater's mask.
- The value of the primary color controls the mask density.

When you paint with a Masking brush, you use white, black, or a shade of gray as the primary color. This is because the mask carries 8 bits of information and you need only to set a level in that range.

See also:

[In the canvas mask](#)

[In a floater mask](#)

[Masked Outside](#)

[Filling the Mask](#)

In the canvas mask

When the drawing mode is set to Masked Inside or Mask Disabled, painting in a mask with black creates opaque areas. Painting with white erases the mask. And using a shade of gray gives you a relative level of opacity.

Because Masked Outside drawing mode inverts the mask, it also transposes the effects of painting with black or white. In this case, painting with black erases the mask and painting with white adds to it.

In a floater mask

In a floater, the masked region establishes the visibility of the floater. You can change the extent of a floater image by modifying its mask. The Masking Modes on the Floater List palette affect the way the Masking brushes behave in a floater, these modes will be discussed in the next chapter. The following example illustrates only the default state of a floater.

Masked Outside

Masked Outside is the default state of a floater. In this mode, only the masked region of the floater rectangle is visible. The background image shows through the un-masked regions.

Painting with black adds to the mask and reveals more of the floater rectangle, which hides more of the background.

Painting with white erases the mask and conceals more of the floater rectangle, which reveals the background.

The color that the mask appears in View Red Mask mode is not associated with the primary color you paint with. The mask image appears in red by default.

To paint with a Masking brush:

1 Choose a Masking brush from the Brushes palette. Detailer sets the visibility mode to View Red Mask. You must view the mask to paint with a Masking brush.

Detailer comes with a set of masking brush variants; however, any brush can be turned into a masking tool by changing its Method Category to Mask. The Mask brush method applies brush strokes only to the mask layer. See Chapter 9, “Advanced Painting,” for more information on brush methods.

You may also use almost any brush when working in Edit Mask mode, without setting the method to Mask.

2 Check the drawing mode.

Use either Mask Disabled or Masked Inside if you want to start with a clear mask and paint to add the masked area.

Use Masked Outside if you want to start with a solid mask and paint to erase portions of it.

Remember that you can invert the mask. You can start in one drawing mode, then invert the mask, and continue in the other mode.

3 Select black, white, or a grayscale value as the primary color. Paint in the image to modify the mask.

In the canvas mask, you’ll see the strokes appear in the red mask color. In a floater, you won’t see the strokes directly; however, you will see their effect as the floater image shrinks or grows beneath your brush.

See also: [Masking Pen](#)

Filling the Mask

Most often you will fill in the mask to create special effects.

To fill in the mask:

- 1 Choose the Paint Bucket tool.
- 2 In the Controls palette: Paint Bucket tool, select Mask for What to fill and choose the medium to fill with.
- 3 Set Detailer to the View Red Mask visibility mode or Edit Mask mode.
- 4 Click in the region you want filled.

Floater

See also:

[What are Floaters?](#)

[Creating Image Floaters](#)

[The Floater List](#)

[Moving Floaters](#)

[The Composite Method: A Floater's Special Effects](#)

[Using Floaters](#)

[Floater Mask](#)

[The Floaters Palette](#)

[Working with Reference floaters](#)

[Floaters for creating WWW Image Maps](#)

What Are Floaters?

Floaters are images, or portions of images, that float above the canvas. You can copy and move floaters around in the document to create just the composition you want.

Each floater is a separate image, so each floater you add to a document introduces another layer of information. Because each floater is distinct, you can move them around and edit them without interfering with the canvas image—or other floaters. Likewise, you can work in the canvas without interfering with any of the floaters.

This is a huge advantage when positioning imagery on your model. You can use the Floater Adjuster tool to drag a floater exactly where it belongs on the model. Any piece of imagery—a label on a bottle or the number on the side of a race car, should be added as a floater.

In RIFF or Photoshop 3 format, floaters stay floating even when you save the file, so you can make changes easily. There's no need to redo the entire composition; just rearrange the floaters. The result is a dynamic and flexible design environment.

Because you can manipulate floaters independently, they are considered image objects. Features for working with floaters are available from the Materials palette: Object menu.

Detailer offers two kinds of floaters: image and reference.

See also:

[Image Floaters](#)

[Reference Floaters](#)

[More About Floaters](#)

Image Floaters

Image floaters are discrete images that float above the canvas. Image floaters are stored as pixel information with a mask to define the image shape and opacity. You may paint and apply effects in Image floaters.

Image floaters (or “floaters”) are used primarily for compositing images—moving portions of an image within a document, moving images between documents, and maintaining layers within a document.

Reference floaters

Reference floaters are temporary, low-resolution versions of Image floaters. You'll convert a floater to a Reference floater when you want to transform it (rotate, resize, slant) by dragging its handles. When you've finished with such transformations, convert the Reference floater back to a floater.

More about Floaters

Image and Reference floaters have the following characteristics in common:

- They are subject to the layering hierarchy in the Floater List. This includes the related controls for selecting, hiding, naming, and grouping.

These features are described in “The Floater List,” later in this chapter.

- They may be cut, copied, pasted, and moved in an image in the same ways.

These features are described in the “Moving Floaters,” section in this chapter.

- They obey the floater composite method, which controls how the floater interacts with underlying images.

These features are described in “[The Composite Method: A Floater’s Special Effects.](#)”

See also:

[Dropping Floaters](#)

Dropping Floaters

Floaters continue to float even when deselected. When you're finished working with a floater and want it merged with the canvas image, you may Drop it.

Keep your options open. Don't drop floaters unless necessary. Save in the RIFF or Photoshop 3 format to keep them floating between sessions.

For information on the Drop with Mask option, see "Drop with Mask," later in this chapter.

To merge a floater or group of floaters with the background:

- 1 Select the floater or group you want to drop.
 - 2 Click Drop on the Floater List palette, or choose Edit menu > Drop.
-

To composite all floaters simultaneously:

- 1 Click Drop All on the Floater List palette.

Floaters are designed to work in RIFF format. In Photoshop 3 format, floaters become layers. If you save the file in any other format, the floaters will be dropped automatically.

When you save in Adobe Photoshop 3 format, floaters are assigned to appropriate image layers.

If you intend to export your model to Ray Dream Designer or another 3D application, save your map image files in TIFF format.

Creating Image floaters

Creating a floater is a two-step process; it involves making a selection and floating it. You have several options for accomplishing either step.

See also:

[Making Selections](#)

[Floating Selections](#)

[Adding Text Floaters](#)

Making Selections

- You may use any of Detailer's selection tools. The Rectangular and Oval Selection tools, the Lasso tool, and the Magic Wand are all useful.

[“Selections and Masks,”](#) provides detailed instructions for creating selections.

You must be working in an image window to create a selection. You can't create selections in the Model Window.

- You may also use any of the masking tools for selecting an image area: Auto Mask, Color Mask, and the Masking brushes.

When you've masked the area you want, turn it into a selection by choosing the third Visibility button (View Selection) at the bottom of the document window. The selection must be active (displayed as marching ants) before you can float the image.

Floating Selections

With an image area selected (marching ants), you can float it.

- On the Tools palette, choose the Floater Adjuster tool. Then click inside the selection to float it.

If you don't want to cut the selection from the background (to reveal the current paper color), hold down the Option key (Macintosh) or Alt key (Windows) when you click. This creates the floater as a copy of the selection.

- You may also choose Edit menu > Float.
- Another way to create a floater is by copying or cutting, then pasting. Anything you paste from the Clipboard appears in the Detailer document as a floater.

If you need to move a floater from one document to another, you can copy and paste it. You can also put a floater in the Floaters palette and drag it out when you need it.

- The Effects menu > Orientation commands: Rotate, Scale, and Distort, automatically float the image selection they are applied to.

Creating a floater is just the beginning. You can move, copy, and use any of Detailer's tools and effects to modify a floater. You can also save a floater to a library for later use.

More information on working with Image floaters appears later in this chapter.

Adding Text Floaters

The Text tool allows you to create floaters from Adobe Type 1 font outlines or TrueType fonts. Text floaters support all of the features and options for working with Image floaters.

To create a text floater:

- 1 Choose the Text tool on the Tools palette.
- 2 In the Controls palette: Text tool use the Point Size slider to choose a point size.
- 3 In the Controls palette: Text tool choose a font from the Font pop-up menu.

Font names appearing in the Controls palette list with a “•” after are PostScript. No “•” indicates the font is TrueType.

4 Click in the image or on the model where you want to put the text. Remember, you can move the text floaters after you create them.

5 Type the text you want.

6 Press Return or Enter to type on the next line.

If you make a mistake while typing, you can press the Delete or Backspace key to remove the unwanted letters, and continue typing, but only if you haven't moved your insertion point.

If you have moved your insertion point, you must select the text floater with the Floater Adjuster tool and press the Delete or Backspace key to remove it.

For organization and better control, you might want to group the floaters that make up words or phrases. If you want to apply effects to text, you must collapse the group first.

As you type, the text floaters are added to the list of selected floaters in the Floater List. After typing one word or phrase, choose Materials palette: Object menu > Group. Detailer gathers the separate characters into a group. Now, press Return or Enter to open the group's Floater Attributes dialog. Enter the word or phrase you just typed for the group's floater name. Now you can easily identify and control that word or phrase as a single item.

To convert a floater to a Reference floater:

- 1 Select a floater.
- 2 Choose Effects menu > Orientation > Free Transform. Detailer converts the image to a Reference floater.

For more information on creating and transforming Reference floaters, see “Working with Reference floaters,” later in this chapter.

The Reference floater state is just for transformations. If you try to paint in a Reference floater, Detailer immediately commits the transform and converts the Reference floater to an Image floater.

The Floater List

The Floater List palette keeps track of all the floaters in a document and provides special features for controlling them.

To open the Floater List palette, choose Materials palette: Object menu> Floater List.

The Floater List palette lists all of the floaters in the current document, with any selected floater highlighted and in bold type. If no floaters are selected, everything in the list appears in plain type. The floater list is arranged according to the layers, with the highest layer on top. The two types of floaters, Image and Reference, have different icons next to the floater listing.

See also:

[Selecting Floaters](#)

[Hiding a Floater](#)

[Naming Floaters](#)

[Ordering Floaters](#)

[Grouping/Ungrouping Floaters](#)

[Closing and Opening a Group](#)

[Collapsing a Floater Group](#)

Selecting Floaters

When you want to work with a particular floater, you must select it.

To select a floater, click on it with the Floater Adjuster tool. The floater selection marquee outlines the floater. You may also click the floater's name on the Floater List palette to select it.

To deselect a floater, click outside of it with the Floater Adjuster tool. You may also choose Edit menu> Deselect. On the Floater List palette, you can deselect a floater by clicking in the empty space below the names.

A deselected floater continues to float. That is, even though you don't see a selection marquee and the floater image appears to blend with the background, the floater is still a distinct object. Changes you make to the background will not affect the floater. This can lead to confusion. For example: If a floater is *not selected*—but you try to paint into it, your brush strokes will go *to the canvas*. Because the floater is concealing that part of the canvas, *you won't see the strokes*. To avoid this, remember to select the floater before you try to paint into it.

If you want a floater to “stop floating,” i.e. to merge with the canvas, you must Drop it.

Hiding a Floater

If you want to hide a floater, click the Eye icon next to its name in the Floater List palette. When the Eye is shut, the floater is invisible. To see the floater again, click the Eye to open it.

Hiding the Selection Marquee

You can hide the selected floater's selection marquee by disabling the Show Selection Marquee option at the bottom of the Floater List palette or by pressing Command--Shift-H (Macintosh) or Ctrl+Shift+H (Windows).

Naming Floaters

As the number of floaters in a document increases, it can become difficult to track which listing refers to which floater. Detailer lets you give the floaters descriptive names, which makes them easier to keep track of.

To name a floater:

1 Double-click the floater's name in the Floater List palette. You may also select the name in the Floater List and press Return or Enter. Detailer displays a Floater Attributes dialog.

2 Enter a descriptive name and click OK.

The Floater Attributes dialog also gives the location of the top, left corner of the floater. You can move the floater to a specific location by changing the Top and Left values in the attributes dialog.

Ordering Floaters

The Floater List palette provides a way to organize and track the many floaters in an image. It lets you change the ordering of overlapping floaters and allows you to group floaters so that you can move them as a single floater.

All floaters appear in the Floater List. In the document, the floaters are displayed in order—that is, a floater higher in the list appears in front of the ones below it. Floaters that overlap in the document are layered—the foreground floater obscures the one behind it.

By changing the ordering, you can control the composition of the several floating objects. There are two ways to do this—using the Floater List palette or with the Controls palette: Floater Adjuster tool.

To change the order of floaters using the Floater List palette:

1 Drag the name of the floater to the location in the list that reflects the order you want in your image. For example, if you want the floater on top of the other images, drag it to the top of the list.

To change the order of floaters using the Controls palette: Floater Adjuster tool:

1 Select the floater.

2 Use the Front, Back, and Arrow buttons on the Controls palette: Floater Adjuster tool to change the selected floater's level in the hierarchy.

3 Click Front or Back to send the floater to the top or bottom layer; or click one of the arrow buttons to move the floater one layer at a time.

Grouping/Ungrouping Floaters

Group floaters whenever you want to control them as a unit. You can move a closed floater group in any of the ways you'd move a single floater. For example, after creating text floaters, you might want to group the words.

Grouping does not allow you to apply brush strokes or effects across a set of floaters. To do these operations, collapse the group first.

You can ungroup the floaters any time. If you like, you can copy a group using Option-click (Macintosh) or Alt+click (Windows) and save it in a floater library.

To create a group:

- 1 Hold down the Shift key and click each floater on the Floater List palette that you want in the group.
- 2 Click Group. A selection marquee surrounds the floaters in the image window. The names of the floaters appear under a group name in the Floater List. Detailer names groups Group 0, Group 1, and so on, by default. You can rename groups if you like.

To change a group's name:

- 1 Double-click the group's name. The Floater Attributes dialog box appears.
- 2 Type a new name and click OK or press Return or Enter.

To add a floater to the group:

- 1 Drag its name into the group. To remove it from the group, drag it back out.

You can add a group to another group in the same way—by dragging the group name into the group. Drag a floater out of a group to make it an individual floater again.

To ungroup floaters:

- 1 On the Floater List palette, click the group name.
- 2 Click Ungroup.

Closing and Opening a Group

Before moving a group, you must close it. When a group is open, the floaters in the group are treated individually. When a group is closed the group is treated as one single floater.

To close a group, click the arrow to the left of the group name. When the arrow points to the right and the names of the group members are hidden, the group is closed.

If you want to edit individual floaters in a group or move them separately, you must open the group.

To open a group, click the triangle to the left of the group. The arrow turns down, opening the group and revealing the names of its members. You may now select and work with them individually

Collapsing a Floater Group

If you want to unite the group as a single floater, click the Collapse button on the Floater List Palette. Collapsing reduces the group to a single floater. You cannot isolate the original group members after collapsing.

Moving Floaters

See also:

[Dragging with the Floater Adjuster Tool](#)

[Moving a Floater to a Specific Location in the Image](#)

[Copying Floaters](#)

Dragging with the Floater Adjuster Tool

Once a floater is selected, you can drag it anywhere in the image with the Floater Adjuster tool. You can also nudge the selected floater one pixel at a time by pressing the Arrow keys on your keyboard.

You can select and drag floaters in either the image window or right on the object in the Model Window.

If moving a floater leaves an unwanted hole in the canvas, choose Edit menu> Undo, then hold down the Option key (Macintosh) or the Alt key (Windows) before dragging. This copies the floater.

Moving a Floater to a Specific Location in the Image

You can set the exact coordinates for the upper left corner of a floater. If you were creating screens for a CD-ROM, you might want to render different models, but have each model appear in the same position on each screen. Detailer makes this easier by providing fields to enter these coordinates.

To set a floaters position:

- 1** Double-click the floater's name in the Floater List palette. The Floater Attributes dialog box appears. The Top and Left boxes show the floater's location with respect to the top, left corner (0,0) of the image. The reference point for the floater or group is the top, left corner of the floater's rectangle (or the group's selection marquee).
- 2** Enter the new values in the Floater Attributes dialog box. Increasing the Top value moves the floater down. Increasing the Left value moves the floater to the right. Positive and negative values that place the floater partially, or wholly, outside of the image are allowed.
- 3** Click OK. The floater moves to the specified location.

Copying Floaters

You can copy the selected floater to the Clipboard, then paste as many copies as you like. You can also move to another document and paste the floater there.

The Composite Method: A Floater's Special Effects

When a floater is above another image—either the canvas or another floater—Detailer can use the overlapping color information to create special effects.

The effects are variations of the floater's Composite Method. Each floater may have its own method. You can change the Composite Method any number of times without actually changing the images. This gives you the freedom to experiment without risking an unwanted, permanent edit.

To change a floater's composite method:

1 Select a floater. The floater should have some kind of image behind it. If the next layer is merely black or white, the effects will be limited.

2 Choose one of the Composite Methods from the pop-up menu on the Controls palette: Floater Adjuster tool. If you don't like one effect, choose a different one.

See also:

[Default Floater](#)

[Gel](#)

[Colorize](#)

[Reverse-Out](#)

[Shadow Map](#)

[Magic Combine](#)

[Pseudocolor](#)

[Normal](#)

[Dissolve](#)

[Multiply](#)

[Screen](#)

[Overlay](#)

[Soft Light](#)

[Hard Light](#)

[Darken](#)

[Lighten](#)

[Difference](#)

[Hue](#)

[Saturation](#)

[Color](#)

[Luminosity](#)

Default Floater

In the Default method, the floater covers (hides) the underlying image.

Gel

The Gel method tints the underlying image with the floater's color. For example, a yellow floater gives the underlying image a yellow cast.

Colorize

The Colorize method replaces the hue and saturation of the canvas pixels with the hue and saturation of the floater pixels.

You can use this feature to convert a color image into grayscale and vice versa. A black floater turns the underlying color image into a grayscale image. A colored floater adds color to an underlying grayscale image.

Reverse-Out

In the Reverse-Out method, the floater inverts the colors behind it. Reverse-Out is a great way to drop out type. Place a floater over black type and the type turns white.

A color's inverse, also known as its complement, is the color on the opposite side of the color wheel.

With Reverse-Out, the colors in the floater are not considered—only the area it covers.

Shadow Map

Shadow Map blocks light, letting you create shadows without changing the image.

Magic Combine

Magic Combine combines the floater with the underlying image based on luminance. The parts of the floater that are lighter than the underlying image appear within the bottom image.

One way to use this command is for filling type. With a photograph as the top floater and black type as the underlying image, choosing Magic Combine fills the type with the image.

Pseudocolor

The Pseudocolor method translates the floater's luminance into hue. You can use this method to turn a grayscale floater into a spectrum of color.

Normal

The Normal method is Photoshop's default mode. It behaves the same as the Default composite method.

Dissolve

Dissolve makes pixels in the floater transparent based on the opacity of the mask.

Multiply

Multiply combines colors by multiplying RGB values to create a darker color. Multiply is very much like combining two transparencies.

Screen

Screen combines colors to create a lighter color.

Overlay

Overlay combines colors while preserving the highlights and shadows of the image color.

Soft Light

Soft Light darkens or lightens colors depending on the luminance of the floater color.

Hard Light

Hard Light multiplies or screens colors, depending on the luminance of the floater color.

Darken

Darken takes the darker of the image or floater color and uses that color.

Lighten

Lighten takes the lighter of the image or floater color and uses that color.

Difference

Difference subtracts one color from the other, depending on which color has a greater brightness value.

Hue

Hue creates a color by combining the luminance and saturation of the image color with the hue of the floater color.

Saturation

Saturation creates a color by combining the luminance and hue of the image color with the saturation of the floater color.

Color

Color creates a new color by combining the luminance of the image color and the hue and saturation of the floater color.

Luminosity

Luminosity creates a new color from the hue and saturation of the image color and the luminance of the floater color. This is the opposite of Color.

Using Floaters

You'll use floaters to move image selections around in a document and to move images to other documents so you can composite them. In fact, whenever you copy and paste image selections, they come in as floaters. This is handy because you can easily drag the floaters where you want them.

You can use floaters for manipulating masks. For example, you can use a floater to modify a canvas mask or to move the mask from one document to another.

You can also use floaters to create Image Hose Nozzle files. See "[Using the Image Hose](#)," for more information.

See also:

[Working with Floaters](#)

[Trimming a Floater](#)

[Expanding a Floater](#)

[Using the Controls Palette: Floater Adjuster Tool](#)

[Editing Floater Images](#)

Working with Floaters

Because each floater represents a separate image (above the canvas), you'll need to let Detailer know which image you intend to work in. As you work, you'll switch layers—first working on the canvas, then in one floater, then in another, then on the canvas again.

When you want to work with a particular floater, you must select it.

To select a floater, click on it with the Floater Adjuster tool. The black and yellow selection rectangle outlines the floater. You may also click the floater's name on the Floater List palette to select it.

You can hold down the Shift key and click on another floater to add it to the selection. You can move a multi-floater selection, but you cannot paint across them.

To deselect a floater, choose Edit menu > Deselect. On the Floater List palette, you can deselect a floater by clicking in the empty space below the names in the list.

Trimming a Floater

When Detailer creates a floater, it captures a larger, rectangular region, then masks it down to the shape of the selection. The larger rectangle gives you room to work and allows you to feather the image beyond the original selection.

The margin between the selection and the rectangle is a default setting called the Floater pre-feather. You can change it in Edit menu> Preferences> General.

Trimming reduces the floater's dimensions to the minimum rectangle that will contain the masked image. Trimming floaters is good housekeeping, but don't do it until you're satisfied with the feathering. Your options for modifying the floater image and mask are reduced after trimming.

To trim a floater, select a floater, then click Trim on the Floater List palette.

Expanding a Floater

Expand does the opposite of Trim. It enlarges the selected floater's rectangle. Expanding adds blank image area, so it won't help if you want to increase the feathering beyond the pre-set distance.

To expand a floater, select the floater, then click Expand. Detailer displays a dialog that lets you specify the number of pixels and direction to expand the floater.

Using the Controls Palette: Floater Adjuster Tool

The Controls palette: Floater Adjuster tool is displayed when you're using the Floater Adjuster tool. The palette describes the selected floater's rectangle and provides several editing options.

You can decrease opacity to hide a floater but it is faster to click the eye icon on the Floater List palette.

See also:

[Opacity](#)

[Feather](#)

Opacity

Drag the Opacity slider to change the selected floater's visibility. Decreasing Opacity allows underlying images to show through.

Feather

Feathering controls the softness at the edge of the floating image. Feathering works by blurring the border of the mask.

To feather the edges of a selected floater, move the Feather slider in the Controls palette: Floater Adjuster tool.

How much you can feather a floater is determined in the General Preferences dialog box. Choose Edit menu> Preferences> General. Notice that the Floater Pre-Feather is preset to 16 pixels, making this the default setting of the Feather slider. You can change this default to any number up to 50.

Editing Floater Images

Nearly all of Detailer's brushes and effects work with floaters. You can paint in a floater, change its opacity, feather its edges, and enhance its image with commands from the Effects menu.

You can also edit the floater by modifying its mask. By changing the mask, you'll reveal or conceal parts of the floater. You may paint on a floater with a Masking brush or use any of the advanced masking features, like Auto Mask.

See also:

[Painting in a Floater](#)

Painting in a Floater

To paint in a floater, select a floater and start painting. Your brush strokes appear only in the floater and will not affect the canvas.

You may use any of Detailer's brushes to paint or draw in a floater, with the exception of the Water Color brushes—a floater doesn't have a wet layer.

You can move a floater to a temporary document, drop it with its mask, and use the Water Color brushes there. Because you dropped the floater with its mask, you can easily re-float the modified image to bring it back.

You cannot paint across a floater group. If this is something you want to do, you need to Collapse the group into a single floater.

The drawing mode (in terms of the floater mask) is controlled by the drawing mode icons on the bottom of the image window. You can paint across the entire floater rectangle, or within the mask area.

To paint on the canvas, deselect all floaters before you start painting. When no floaters are selected, your brush strokes go to the canvas.

This can be "interesting" if a floater covers the area where you're painting. In this case, you might not see the brush strokes. You'll need to deal with the floater by moving, hiding, or dropping it to see what you're painting.

Floater Mask

The floater mask is created when you float a selection. The mask defines the area of the color layer that is visible.

To view a floater's mask:

1 Select the floater.

2 Choose Canvas menu> View Mask. You may also click the color spectrum icon near the top right of the image window.

To return to image display, choose Canvas menu> View Mask or click the color spectrum icon again.

See also:

[Floater Masking Modes](#)

[How the canvas mask interacts with a floater](#)

[Editing a Floater Mask](#)

[Restoring a Floater Mask](#)

[Drop with Mask](#)

Floater Masking Modes

A floater mask will be in one of three modes: Disabled, Masked Inside, or Masked Outside. By changing the mode, you change how the floater appears.

To change a floater's mask mode:

1 Select the floater you want to change.

2 In the Floater List palette, click the icon for the masking mode you want. The icon for the current mode is outlined.

Masking Disabled

With Masking Disabled, Detailer ignores the mask and displays the entire floater rectangle.

Masked Inside

Masked Inside inverts the floater mask—masked regions of the floater rectangle are rendered invisible. Regions outside the mask are visible.

Masked Outside

Masked Outside uses the floater mask to reveal only the shape of the floating image. The unmasked regions are invisible. This is the default mode for a floater.

How the canvas mask interacts with a floater

You can use the canvas mask to conceal or reveal parts of a floater.

The floater/canvas mask interaction will be in one of three modes: Disabled, Masked Inside, or Masked Outside. By changing the mode, you can immediately alter the composition.

To change the floater/canvas mask interaction:

1 Select the floater you want to change.

2 In the Floater List palette, click the icon for the mask interaction mode you want. The icon for the current mode is outlined in red.

The attribute for interacting with the canvas mask is contained in the floater, so each floater may use a different interaction mode.

Masking Disabled

The floater isn't affected by the canvas mask. This is the default mode for a floater.

Masked Inside

The canvas mask reveals the floater. Only regions of the floater that coincide with masked canvas regions are visible.

When Masked Inside is selected, painting with white in the canvas mask reveals more of the floater. Painting with black conceals more of the floater, while revealing the canvas.

Masked Outside

The canvas mask conceals the floater. Only regions of the floater that coincide with un-masked canvas regions are visible.

When Masked Outside is selected, painting with black in the canvas mask reveals more of the floater. Painting with white conceals more of the floater, while revealing the canvas.

Editing a Floater's Mask

By modifying a floater's mask, you can change how much of the image is visible. The most useful way to modify a floater mask is with a Masking brush or by working in Edit Mask mode.

By painting with a Masking brush in a floater, you change the extent of its mask, revealing or concealing more of the floater image layer. When you conceal more of the floater, you reveal more of the canvas.

All of the Masking brushes and commands—except Magic Wand—are available for modifying a floater mask.

For more information on modifying a floater mask, see Chapter 10, “Selections and Masks.”

Restoring a Floater Mask

If you modify a floater's mask, but then decide that you don't like the changes; you can return the floater to its original condition.

To restore the floater mask, click the Restore button on the bottom of the Floater List palette.

Drop with Mask

The Drop with Mask option at the bottom of the Floater List palette lets you decide what to do with the mask of a floater you drop. When this option is disabled, only the floater image merges with the image on the canvas.

When Drop with Mask is enabled, the floater images merge with the canvas image *and* the floater's mask merges with the canvas mask.

There are a number of ways Drop with Mask can be useful. For example, if the canvas mask is clear (Command-U or Ctrl+U), the dropped floater's mask *becomes* the canvas mask. You can use this technique to move a mask from one document to another.

The Floaters Palette

The Floaters palette is a convenient place to store floaters you'll want to use again.

To display the Floaters palette, choose Materials palette: Object menu> Floaters.

To add a floater to the Floaters palette:

1 Using the Floater Adjuster tool, drag the floater from the image window into the Floaters palette.

As the floater enters the palette, you'll see the selection marquee shrink to icon size.

2 When you drop the floater in the palette, Detailer will give you an opportunity to rename it. If you haven't already given the floater a descriptive name, do so now.

To use a floater from the palette:

1 Display the Floaters palette.

2 Locate the icon for the floater you want. You may also use the pop-up to select it by name.

3 Drag the icon into your image.

You must drag a floater from the library to an image window. Do not attempt to drag a floater to the Model Window.

You can create your own custom libraries to organize floaters by category. When you're creating a library, keep in mind that the smaller the library, the easier it will be to see its contents at a glance.

Working with Reference floaters

A Reference floater is a special kind of floater. It gets its image information from an external source—a reference image.

The Reference floater is a low resolution, stand-in for the original image. Because it is low resolution, a Reference floater can be quickly transformed in ways that would otherwise be prohibitively slow.

Working with a Reference floater allows you to transform a floater in an image by dragging its handles. Possible transformations include resizing, rotating, and skewing. Transformations happen immediately.

After transformations, you can convert the Reference floater to a floater. During conversion, Detailer refers to the original image to improve the resolution. This makes the image cleaner.

Editing the image—with a brush or effect—is not allowed in a Reference floater. When you've finished transforming the floater, you can convert it to a floater, which you can edit.

Reference floaters (and the transformations they allow) are particularly useful when compositing high resolution images.

See also:

[Creating a Reference floater](#)

[Transforming a Reference floater](#)

[Set Transform](#)

[Converting a Reference floater to a Floater](#)

Creating a Reference floater

- Create a Reference floater by converting a floater.

To convert a floater to a Reference floater:

- 1 Select a floater.
- 2 Choose Effects menu> Orientation> Free Transform.

Transforming a Reference floater

A selected Reference floater has eight handles on its selection rectangle—one on each corner and one on each side. You'll drag these handles to transform the floater.

To select a Reference floater, click on it with the Floater Adjuster tool or click on its name in the Floater List.

Floater: Free Transformations

You may resize, rotate, and slant a Reference floater by dragging its handles.

Choose the Floater Adjuster tool and select the Reference floater you want to manipulate.

Floater: Resizing

Drag a corner handle in the direction you want to resize.

To maintain proportions, hold down the Shift key as you drag.

To resize in one dimension only, drag a side handle.

Floater: Rotate

Hold down the Command key (Macintosh) or Ctrl key (Windows) and drag a corner handle.

Floater: Slant (Skew)

Hold down the Command key (Macintosh) or Ctrl key (Windows) and drag a side handle.

Notice the cursor change as you position the floater over a handle.

Floater Set Transform

After creating a Reference floater, the Set Transform dialog allows you to perform numerical transformations. Set Transform is useful for returning the floater to its original condition.

- 1 Select a Reference floater.
- 2 Choose Effects menu> Orientation> Set Transform. Detailer opens the Set Transform dialog.
- 3 The Set Transform features are described below. When you're finished with them, click OK. Detailer transforms the Reference floater accordingly.

See also:

[Transform: Scale](#)

[Transform: Rotate](#)

[Transform: Slant](#)

[Transform: Retain Mask](#)

[Transform: Quality](#)

[Transform: Reference Image](#)

[Converting a Reference floater to a Floater](#)

Transform: Scale

The Horizontal and Vertical Scaling values describe the scaling relationship between this floater and its reference original. You can change the scaling by entering new values.

If the scaling is low, 33% for example, and you increase it, Detailer refers to the reference original to get more pixel data.

If you want to alter the proportions, disable the Constrain Aspect Ratio option. This allows you to apply different scaling factors in the Horizontal and Vertical dimensions.

Transform: Rotate

The original rotation value is 0°. Enter a new value to rotate the Reference floater. Positive values rotate the Reference floater counter-clockwise. Negative values rotate clockwise.

Transform: Slant

The original slant value is 0j. Enter a new value to slant the Reference floater.

Transform: Retain Mask

The Retain Mask option is enabled by default. If you want to ignore the mask information, you can disable this option.

Transform: Quality

The Quality options allow you to choose the level of sampling between the Reference floater and the original image.

Fast sets a high sampling ratio, which produces a low resolution Reference floater. A low resolution Reference floater contains less information, so it can be transformed quickly.

Remember that when you convert a Reference floater to a floater (with Effects menu> Orientation> Commit Transform), Detailer re-samples the original reference image to produce the best possible transformed image. This means that you can work fast without sacrificing image quality.

Clean sets the sampling ratio at 1 to 1, which produces a Reference floater of the highest possible resolution—up to that of the original. This shows a better image as you work, but takes much longer to calculate transformations.

Transform: Reference Image

The resolution of the original reference appears at the bottom of the Set Transform dialog. You might find this information useful.

Converting a Reference floater to a Floater

When you are finished with transformations, you can convert the Reference floater back to an image.

If you try to apply an effect or paint on a Reference floater, Detailer automatically converts it to a floater.

1 Select the floater you want to convert.

2 Choose Effects menu > Orientation > Commit Transform. Detailer converts the Reference floater to a floater. This may take a few moments.

During the conversion, Detailer examines the reference original and brings the best pixel data possible to the transformed floater. For this reason, you'll see the image quality improve.

Notice that the floater's icon in the Floater List changes.

Floater for creating WWW Image Maps

The image map is a World Wide Web feature that allows a client to hyperlink to different locations by clicking on specific areas within an image. In a Detailer image, you can specify a floater as a “clickable” region. Then, when you save the file in JPEG format, you can ask Detailer to automatically create the image map description file.

To set a floater clickable region:

- 1 Open the image you want to work with.
- 2 Select the region you want clickable.
- 3 Float the selection.
- 4 Open the Floater List palette and Trim the floater.
- 5 Double-click the floater in the Floater List palette and Detailer displays the Floater Attributes dialog.
At the bottom of the dialog, enable the WWW Map Clickable Region option and select Rectangle, Oval or Polygon.
- 6 In the Notes field, enter the hypertext reference and URL. For example <http://www.fractal.com/>.
- 7 Close the Floater Attributes dialog.
- 8 When you save the document as a JPEG file, enable either the NCSA or CERN Map File check box in the options dialog.
Detailer will automatically write out a text-based “map” file that defines the hyperlink areas.

Introducing the Image Hose

The Image Hose is a milestone in the evolution of art tools. Instead of painting with color, the Image Hose paints with images; and not just one or two images at a stroke, but a variety of changing images.

The images flowing from the hose change as you make a brush stroke. Detailer gives you complete control of the image output. For example, by increasing stylus pressure, you can hose larger images—or more colorful ones. Or by changing the direction of the stroke, you can change the angle of the images. This is just a sample of the possible controls. By creating your own sets of images, anything is possible.

The Image Hose deposits 24-bit images with an 8-bit mask. The mask enables you to layer the images gently, without aliased edges or artifacts.

You can load the Image Hose with leaves, bark, grass, stones, people—images of any description. When you paint with these image elements, you can build them into coherent shapes—a tree, a hill, a cobble stone street, a crowd of people.

See also:

[How it works](#)

How it works

The Image Hose is a brush. To use it, you must first load it with images. The images are kept in special nozzle files.

A nozzle is what you attach to a garden hose to control the flow of water. So a nozzle is what you attach to the Image Hose to control its medium—images.

A nozzle file may contain any number of images. Usually, the images are similar and form a logical series—that is, the images progress along some order. For example, the images might increase in size, or advance in angle.

It is not necessary that images progress in a logical series, but the Image Hose is more powerful when they do. Progression allows you to control the images that flow from the hose.

The images are indexed so that Detailer can locate and hose specific images on request. As you paint with the Image Hose, you can request specific images from the nozzle index by varying your input. Increasing an input value takes images from later in the series. For example, you can set up the nozzle so that by pressing harder with a pressure sensitive stylus, you paint with larger images.

“Indexing” refers to the method Detailer uses to select particular images from the many images in a nozzle file.

You control which input factor to use for indexing on the Nozzle palette. You can hose images sequentially, at random, based on pressure, stroke direction, and several other factors.

You control the images themselves in the nozzle file. If you want more variety in the images, create more images in the nozzle file. Designing and creating nozzle files is covered later in this chapter.

As your Image Hose requirements become more exacting, you can create complex nozzles that involve *two progressions*—for example, images get larger *and* change angle. In this case, you’ll use one input factor, to determine image size, and use a second factor to determine image angle. This creates a 2-Rank Nozzle.

Using the Image Hose

The Image Hose is easy to use and provides a number of options for the behavior of “nozzle spray.”

To use the Image Hose:

- 1 Choose the Brush tool.
- 2 Choose the Image Hose brush from the Brushes palette.
- 3 Choose Brushes palette: Nozzle menu > Nozzles. Detailer displays the Brush Controls: Nozzle palette.
- 4 Select a nozzle from the Nozzle palette.
- 5 Choose an Image Hose variant, and make a brush stroke in your document.

See also:

[Getting a Nozzle](#)

[Choosing an Image Hose Brush Variant](#)

[The Controls Palette: Brush Tool](#)

Getting a Nozzle

You may choose a nozzle from the Nozzle palette or load a separate nozzle file.

To choose a nozzle from the palette:

- 1 Display the Brushes palette.
- 2 Choose Brushes palette: Nozzle menu > Nozzles. Detailer displays the Nozzle palette.
- 3 Open the drawer of the Nozzle palette.
- 4 Click the icon for the nozzle you want or use the pop-up menu in the drawer to select one.

To load a nozzle file:

If you've created a separate nozzle file that isn't part of a library, you can load it.

- 1 Choose Brushes palette: Nozzle menu > Load Nozzle. A directory window appears.
- 2 Open a nozzle file by double-clicking its name in the directory or highlighting the file name and clicking Open.

The first time you load a nozzle, Detailer may ask for some information on the image's construction. This is covered in the section on creating nozzle files, later in this chapter.

Keep nozzle files in the Nozzle directory/folder (in the Detailer application folder) for easy retrieval.

Choosing an Image Hose Brush Variant

After loading a nozzle file, all you have to do to start painting is choose the Image Hose brush and one of its variants.

About the Variants

Like Detailer's other brushes, the Image Hose has several variants. These built-in variants combine nozzle control factors with brush settings to create different hose effects.

The following descriptions will give you an idea of the effect of each variant.

Small, Medium, and Large refer to image spacing. Small variants space images closely. Large variants space images widely. See "Controlling the Image Hose Brush," in this chapter, for more information on spacing images.

Random, Sequential, Directional, Pressure, and (Source) Luminance refer to the indexing rule by which images are selected from the nozzle file. See "Controlling the Nozzle," in this chapter, for more information.

Spray and Linear refer to the placement of images in relation to the stroke. Spray variants scatter images. Linear variants place images directly on the stroke path. See "Controlling the Image Hose Brush," in this chapter, for more information.

You can use these variants as a starting point, then adjust the brush and nozzle controls to hose the images just as you want them.

The Controls Palette: Brush Tool

You can use the sliders on the Controls palette: Brush tool to adjust the opacity of nozzle images and to mix them with the secondary color.

The Opacity slider allows you to make nozzle images semi-transparent. If you move the slider all the way to the left, the images become invisible.

The Grain slider allows you to mix the secondary color with the nozzle images. If the slider is set to 100%, the nozzle images remain pure. As you move the slider to the left, more of the secondary color appears in the images. If the slider is set to 90%, Detailer mixes 10% of the secondary color to 90% of the image. This is a handy way to adjust the shading of image elements.

See Chapter 7, “Image Materials,” for information on selecting the secondary color.

Controlling the Image Hose

The Image Hose has three components of control: The Image Hose brush, the nozzle controls, and the nozzle file.

- You'll adjust the brush to determine the placement of images in the stroke.
- You'll use the Nozzle palette control sliders to change the scale and to set the rules for indexing.
- You'll create your own nozzle files to determine the image content and dimensions of progression.

See also:

[Controlling the Image Hose Brush](#)

[Controlling the Nozzle](#)

[Nozzle Options](#)

Controlling the Image Hose Brush

Brush controls for the Image Hose primarily affect where the images appear in the stroke. For example, whether the images are scattered or closely spaced.

See also:

[Spacing Images](#)

[Randomizing placement](#)

Spacing Images

You control the space between images with the Size/Spacing slider on the Brush Controls: Spacing palette. Moving the slider to the right increases the spacing between image elements.

Because spacing is based on the diameter of the brush, the Size slider in the Brush palette: Controls menu> Size palette also affects image spacing. Increasing the brush size adds space between hosed images.

The Size slider does not affect the size of the image elements themselves. For this control, use the Scale slider on the Nozzle palette.

Randomizing placement

You control the proximity of images to the stroke path with the Dab Location Placement slider on the Advanced Controls: Random palette. When the slider is all the way to the left, images are hosed directly in the stroke. Moving the slider to the right increases the scattering of the images.

Controlling the Nozzle

You can control the size of the nozzle images and the rules for delivering them with the sliders in the Nozzle palette.

See also:

[Nozzle: Scale](#)

[Nozzle: Indexing](#)

Nozzle: Scale

Using nozzles in the current library, the Scale slider lets you control the size of image elements delivered by the Image Hose.

Drag the slider to the left to shrink the images. Drag it to the right to grow them. At 100%, the images equal their size in the nozzle file.

Nozzle: Indexing

As you paint with the Image Hose, Detailer selects images from the nozzle file based on one or more rules. This selection process is called indexing. The Nozzle palette lets you change the rules for indexing the images.

Image nozzle files may be created with one, two, or three image progressions called “ranks.” Detailer offers these three dimensions of progression, so each nozzle file can be identified as a 1, 2, or 3-Rank nozzle.

Learn more about the rank system in the section, “Creating Nozzles for the Image Hose,” later in this chapter.

The Rank-1, Rank-2, and Rank-3 sliders set the rules for indexing in their respective dimensions. This indexing determines which images from the many in the nozzle file are delivered from the Image Hose.

To change the indexing rule:

1 Move the slider to the control factor you want for that rank. The control factors are described below.

Because a 1-Rank nozzle has no second or third rank, the Rank-2 and Rank-3 sliders do nothing for a 1-Rank nozzle.

See also:

[Nozzle: Sequential](#)

[Nozzle: Random](#)[Nozzle: Source](#)

[Nozzle: Bearing](#)

[Nozzle: Tilt](#)

[Nozzle: Pressure](#)

[Nozzle: Direction](#)

[Nozzle: Velocity](#)

[Nozzle: None](#)

Nozzle: Sequential

Sequential indexes images in the order they appear in the rank—moving left to right, and top down, just as you read English.

Nozzle: Random

Random selects images from the rank at random.

Randomness can add irregularity of color and texture to the areas you paint with the Image Hose. This contributes to the aesthetics of the painting. Minor irregularities occur in natural structures.

Nozzle: Source

Source delivers images based on the luminance of pixels in the current pattern. As the luminance decreases, Source delivers images from later in the rank.

To take advantage of this feature, you may want to create a special pattern image for the single purpose of controlling the Image Hose. If the pattern tile is smaller than the image you're working on, the pattern is repeated over the area. This might be what you want, or you might need to make the pattern the same size as the image. See "Working with Patterns" in Chapter 7, "Image Materials," for more information.

For controlling the Image Hose, the pattern may be grayscale. Remember, Detailer only uses the luminance values.

To see how the pattern you've selected corresponds to the image, fill the image with the pattern. Choose Edit menu> Undo to get the image back.

Nozzle: Bearing

Bearing indexes images based on the bearing of the stylus. Not all stylus models convey this information. This control does not work with a mouse.

Nozzle: Tilt

Tilt indexes images based on the tilt of the stylus. Not all stylus models convey this information. This control does not work with a mouse.

Nozzle : Pressure

Pressure only works with pressure sensitive tablets. Pressure indexes images based on stylus pressure. Greater pressure selects images from later in the rank.

Pressure is a great control for requesting images from a nozzle. For example, if you set up your nozzle file to progress from small to larger images, heavier strokes deliver larger images.

Nozzle :Direction

Direction indexes images from the rank based on the direction of the stroke. A left-to-right, horizontal stroke delivers the first element in the rank. As the stroke direction progress counter-clockwise, the Image Hose delivers subsequent images from the rank.

Detailer uses the direction of the stroke in the image window—not in the Model Window.

The number of elements in the rank determines the directional change required to index a different element. For example, a nozzle file that contains 72 images at progressive angles delivers a different item at every 5° of stroke direction ($360/72=5$).

The first item in the rank matches to a left-right stroke (toward 3 o'clock). Keep this in mind when designing a directional nozzle.

Nozzle :Velocity

Velocity is often used with a mouse to mimic pressure. Velocity indexes images from the rank based on the speed of the stroke. A faster stroke delivers elements from later in the rank.

Velocity can be difficult to control. For this reason, you might want to use it in a rank with few elements.

Nozzle : None

None returns one element only— the last in the rank.

Nozzle Options

The Brush Controls: Nozzle palette has two check box options for the Image Hose—[Use Brush Grid and Add To Mask.](#)

Use Brush Grid

When Use Brush Grid is enabled, the Image Hose places images in a regular grid pattern. The grid size follows the grid in the nozzle file.

Add to Mask

When Add to Mask is enabled, the images you paint with the Image Hose are painted to the mask layer as well. That is, the *mask* of each nozzle image is added to the mask layer:

Creating Nozzles for the Image Hose

See also:

[Designing Nozzles: 1, 2 or 3 ranks](#)

[Preparing Images](#)

[Creating a 1-Rank Nozzle from a group of floaters](#)

[Creating a 2-Rank Nozzle on a Grid](#)

[Creating a 3-Rank Nozzle](#)

[Nozzle Libraries](#)

Designing Nozzles: 1, 2, or 3 ranks

A nozzle file contains a series of images arranged in a regular grid. Usually, the images are progressive in terms of size, shape, angle, or color. Progression is not necessary, but it increases the sophistication of the Image Hose. For example, a nozzle file with images progressing in size, can be set up so that greater stylus pressure paints incrementally larger images.

What if you want a two-dimensional progression? For example, image elements increasing in size and/or changing angle. To do this, you'll need to set up your images as a 2-Rank Nozzle file. Painting with a 2-Rank Nozzle, you can control where your image comes from in terms of *both* progressions. In this case, you use a different input factor to control the location in each rank.

In the example of the cube transforming into an oval, Rank 1 is a progression in shape. The image below shows Rank 2 as a progression in size. It would make sense to use pressure to control Rank 1 and direction to control Rank 2.

For information on setting the control factor for each rank, see "Controlling the Nozzle," in this chapter.

You can extend the nozzle to a third progression, creating a 3-Rank Nozzle. Again, you use a separate input factor to control the location in each rank.

If you use one input factor to control two ranks, some image elements become unavailable.

Consider the way you will control each rank before building a nozzle. The way you lay out the images can limit the ways you can control the indexing.

Before you begin building a nozzle, you'll need to decide what rank level you need.

You'll need to have an idea of how many elements you want in each progression.

See also:

[Understanding the Ranking System](#)

[Preparing Images](#)

Understanding the Ranking System

A 1-Rank indexing system is simply a numbered sequence. You can locate any element in the sequence by giving its number. For example, “Item 3.”

In Detailer, you locate items by varying input—for example, by pressing harder with the stylus or changing the direction of the stroke. See “Controlling the Nozzle,” earlier in this chapter, for information on the input factors you can use to control indexing.

A 2-Rank indexing system uses two perpendicular indexes. The first rank extends horizontally and the second extends vertically. Again, you’ll vary input to locate an item for either rank. You can think of indexing in the two ranks as “selecting a column” and “selecting a row.” The Image Hose delivers the image from the nozzle where the selected column and row intersect. In order for this to work properly, you’ll need to use different input factors for selecting in each rank.

A 3-Rank indexing system extends the 2-Rank model. The third rank is created by repeating the 2-Rank “set.” In this case, you index in the third rank by varying input to locate which set you want. Within the selected set, the one and 2-Rank indexing (described above) is used. In order for this to work properly, you’ll need to use different input factors for selecting in each rank.

A 3-Rank indexing system is used with calendar dates. Any day, in the past or future, can be located, given the month, day, and year. For example, “February 25, 1962 (2/25/1962).”

In the example above, another dimension has been added to the nozzle. Rank 3 is a progression in color. You might control this final rank with randomness, velocity, or source—depending on your plans in the image.

Preparing Images

Regardless of the rank level of the nozzle you are making or the method you use to build it, the following tips will help you develop the individual images.

Each element in an Image Hose nozzle must be masked. The mask allows you to paint with images of irregular shape. Only what is inside the mask will flow from the Image Hose.

You might want to work by creating a silhouette of the image shape with a mask, then fill in the color information later.

With soft edges to the mask, you can hose images that are automatically anti-aliased. This improves the continuity across an area of hosed images.

You can create Image Hose nozzles from floaters. As you create image elements, turn them into floaters. If the floater looks good when dropped on different backgrounds, the image will look good as a nozzle element. Building a nozzle from floaters offers advantages in convenience as well.

Creating a 1-Rank Nozzle from a group of floaters

To create a 1-Rank nozzle from floaters:

1 Create the image elements of the nozzle you want as floaters.

You might want to name your floaters. You also might create a new floater library and add these floaters to it by dragging them into the Floaters palette.

You can display the Floaters palette by choosing Materials palette: Object menu> Floaters...

Refer to Chapter 11, “Floaters,” if you need more information on working with floaters.

2 When you’ve created the images, float all of them in the same file. It doesn’t matter where the images float in the document.

3 Open the Materials: Floater List palette and inspect the list of floaters.

The top floater on the list will be the first element in the nozzle sequence. Moving down the list advances through the progression.

4 Drag the item for each floater to arrange the list according to the progression you want in the nozzle.

5 If any of the floaters is a group, click the name of the floater to select it. Then click Collapse to turn the group into a single floater.

Detailer can make a nozzle from a group of floaters, but not from a “group of groups.”

6 Hold down the Shift key and select each item in the list. You may also choose Edit menu> Select All when the Floater Adjuster tool is selected. Then click Group. All the items are now part of the same group.

7 Close the group by clicking the triangle at the left of the group listing in the Materials: Floater List palette.

A 1-Rank Nozzle doesn’t mean the images must be in one line. Detailer will wrap images onto several lines to create a document of reasonable shape. This follows how printed words of a sentence may wrap from one line to the next, moving down the page.

The wrapping of words on the page doesn’t damage the sentence—you know when it ends by your knowledge of language and the rules of punctuation. Likewise, Detailer follows a mathematical rule in reconstructing the rank of images. This rule is contained in the Nozzle Definition. You’ll learn more about this in the next section.

8 In the Floater List palette, click Trim. This shrinks the bounding box region around each floater to its minimum size.

9 Choose Brushes palette: Nozzle menu> Make Nozzle From Group. Detailer creates a new, untitled image. This is your nozzle file.

¼ Choose File menu> Save. Give the file a descriptive name and save it as a RIFF file. Keeping your nozzle files in one place makes them easy to locate.

To load your nozzle and add it to the current library:

1 Choose Brushes palette: Nozzle menu> Load Nozzle.

2 Choose Brushes palette: Nozzle menu> Add Nozzle to Library.

3 Name the nozzle and click OK.

You can now paint with your nozzle.

Creating a 2-Rank Nozzle on a Grid

Nozzles of two and three ranks cannot be created from a floater group. You must build these nozzles manually.

The indexing system requires the nozzle images to fit in a regular grid. You can create a nozzle file by setting up a grid and placing an image element at the center of each cell.

To determine the grid cell size:

The cell size is based on the smallest rectangle that will hold the largest image element (including its mask).

1 Float your largest image element.

2 In the Floater List palette, click Trim. This reduces the selection to the minimum rectangle.

3 With this one floater selected, choose Canvas menu > Canvas Size. Detailer displays the floater's width and height in pixels. Make a note—you'll want to use slightly larger values as the grid size. Click Cancel to close the dialog.

For this example, the grid size will be 50 by 50 pixels.

4 Determine the number of elements you want in each rank.

In this example, we'll be using angle as the progression in the first rank. We want the images to advance in angle by a 30° increment. Dividing 360° by 30°, we get 12. This nozzle should have 12 items in the first rank.

For the second rank progression, we'll use size. The different sizes in the nozzle allow you to control the image size within a stroke. We'll use 6 sizes. This nozzle should have 6 items in the second rank.

5 Multiply the number of items in Rank-1 by the cell width. This value is the image width.

For this example, $12 * 50 = 600$ pixels.

6 Multiply the number of items in Rank-2 by the cell height. This value is the image height.

For this example, $6 * 50 = 300$ pixels.

7 Create a new document that has the appropriate width and height dimensions.

For this example, the image is set to 600 pixels wide by 300 pixels high.

8 Choose Canvas menu > Grid > Grid Options. Detailer displays the Grid Options dialog.

Set the Horizontal and Vertical Spacing to the values of the cell width and height. Click OK.

For this example, the spacing is 50 by 50.

9 Display the grid by clicking the Grid button above the vertical scroll bar on the image window. The grid should describe the number of elements you want in each rank—Rank 1 horizontally, and Rank 2 vertically.

See also:

[Build the Nozzle](#)

Build the Nozzle

To *build a nozzle*:

1 Place one image element in the center of each grid cell. Follow an appropriate progression, based on your intentions for controlling this nozzle.

2 If you bring image elements into the grid as floaters, they will bring their mask with them. If you drop floaters, make sure the Drop with Mask option at the bottom of the Floater List palette is enabled. Each image element must be masked.

3 As you work down the second rank, you might be able to take advantage of advanced copy and transform techniques to speed the process.

4 When you've filled each grid cell, save the file in the RIFF format. You can now load the nozzle into the Image Hose.

Remember to drop all floaters, using Drop with Mask, before saving the file.

5 The first time you load the nozzle file, the Nozzle Definition dialog box appears asking you for some important information. By providing it, you inform Detailer of the math you did when you created the file—the size of each cell and how many image elements there are. Detailer needs this information to index images correctly.

Item width and height describe the cell grid size. Enter the values you set in the nozzle file.

In this example, the size is 50 by 50.

Index rank describes the number of progressions. Enter 2 for a 2-Rank Nozzle.

In the columns on the right, enter the number of image elements in each progression.

This example has 12 items in rank 1 and 6 items in rank 2.

6 When you're done with the Nozzle Definition dialog, click OK.

If the values you enter do not describe the file, Detailer will not accept them. In other words, the “number of items” multiplied by the “item size” *must* equal the dimensions of the nozzle file.

Remember, you'll still need to set the sliders in the Nozzle palette to describe the control factors for each rank.

Creating a 3-Rank Nozzle

You can create a 3-Rank Nozzle using the grid method described above.

The following suggestions should help you build a 3-Rank Nozzle with a minimum of fuss.

To create a 3-Rank Nozzle:

1 Build the first two ranks using the grid method described above. Open this file.

For this example, we'll continue the 2-Rank Lizard Scales Nozzle we created earlier.

The lizard scales nozzle file has 12 items in rank 1 and 6 items in rank 2. Each item is 50 pixels wide by 50 pixels high.

2 Determine the number of elements you want in the third rank.

In this example, we'll use a change in shape of the scales. Minor irregularities in the detail across a painted surface contribute to a natural appearance.

We'll use 3 variations to build the third rank. This nozzle will have 3 items in the third rank. Each item in the third rank will be a *set of images*—the 2-Rank Nozzle.

3 Check the height of the current nozzle file. Press on the information “i” at the bottom of the window.

4 Multiply the number of items in the third rank by the height of the file. The result you get will be the height of your 3-Rank Nozzle file.

The 2-Rank Lizard Scales Nozzle we created is 300 pixels high. $3 \times 300 = 900$ pixels.

5 Choose Edit menu > Select All.

6 Choose Edit menu > Copy.

7 Choose Edit menu > Paste > Into New Image.

This command creates a new image of the same size and content as the original file.

Now you must extend this file vertically to accommodate the items in the third rank.

8 Choose Canvas menu > Canvas Size.

Add the correct number of pixels (to the bottom) to set the canvas to the height of your 3-Rank Nozzle.

The example file is currently 300 pixels high, so we'll add 600 pixels to the bottom to make it 900 high.

Now you can develop imagery for each item (set) in the third rank.

9 The 2-Rank image should still be in the Clipboard. Choose Edit menu > Paste.

¼ Position the pasted floater in the area you added. The images should be centered in the grid cells.

The Canvas Grid overlay should be turned on and set to the dimensions of your largest floater. Refer to the instructions for creating a 2-Rank Nozzle for more information.

To add the Third Rank:

1 The 2-Rank image should still be in the Clipboard. Choose Edit menu > Paste.

2 Position the pasted floater in the area you added. The images should be centered in the grid cells.

3 Modify the images in this floater according to the third rank progression.

Using color as the third rank progression is by far the easiest change to implement. You can change the color for a floater or selection using Effects menu > Tonal Control > Adjust Colors.

4 We used a change in the shape of the scales in this example. You might choose some other progression. Keep in mind that you'll use a different input factor to control image delivery in each of the three ranks.

5 Display the Floater List palette and make sure the Drop with Mask option is enabled.

6 Drop all floaters.

7 You might want to view the mask to make sure that each image element is masked.

8 Save the file in RIFF format.

You will define this file as a 3-Rank Nozzle when you load it the first time. Refer to the description in “Creating a 2-Rank Nozzle on a Grid,” earlier in this chapter.

Your sample file has items with a width of 50 pixels and a height of 50 pixels. It is a 3-Rank Nozzle with 12 items in rank 1, 6 items in rank 2, and 3 items in rank 3.

Nozzle Libraries

Nozzle libraries let you save and retrieve sets of nozzle files.

Refer to Chapter 1, “Getting Acquainted with Detailer,” for information on loading alternate libraries, creating new libraries, and moving items between libraries.

To add a nozzle to the library:

- 1 Create and save a nozzle file.
- 2 Choose Brushes palette: Nozzle menu> Load Nozzle.
- 3 Locate your nozzle file in the directory and click OK.
- 4 If necessary, enter the values to define the number of elements, their size and rank.
- 5 Choose Brushes palette: Nozzle menu> Add Nozzle to Library.

To check out a nozzle:

- 1 In the Nozzle palette, choose the nozzle you want to work with.
- 2 Choose Brushes palette: Nozzle menu> Check Out Nozzle. Detailer opens the nozzle file in an image window.
- 3 You may edit the file if you like.
- 4 To put it back in the library, choose Brushes palette: Nozzle menu> Add Nozzle to Library.

Applying Effects

See also:

[Image Editing and Effects](#)

[Image Orientation](#)

[Image Effects](#)

[Tonal Control](#)

[Surface Control](#)

[Focus](#)

[Esoterica](#)

Image Editing and Effects

Many of Detailer's effects are inspired by traditional artistic methods.

Detailer's effects will be useful as you create map images. Effects are also used for making the finishing touches to rendered images.

The Effects menu offers features for electronic retouching, sharpening and softening focus, and color adjustment. Orientation effects include rotate, scale, and flip.

Special effects include glass distortion, embossing, posterizing, color overlay, and warping.

In this chapter you'll learn about these effects and how to take advantage of them.

Additional effects may be available as plug-ins. See "Making Plug-Ins Available to Detailer" in Chapter 1, "Getting Acquainted with Detailer," for information about how to access third party plug-in effects.

Most of Detailer's effects are applied by making a selection, choosing a command from the Effects menu, setting options, and clicking OK. If you do not make a selection, the effect will be applied to the entire image.

See also:

[Selecting Where to Apply Effects](#)

[Effects and Open Palettes](#)

[Using Fade to Partially Undo Effects](#)

[Recently Used Effects Commands](#)

Selecting Where to Apply Effects

You can apply an effect to a selection, to a floater, or to the entire image.

- If you want to apply an effect to a region of an image, select that area before choosing an effect command. You may use any of Detailer's selection tools.
- If you want to apply an effect to an image floater, select that floater before choosing an effect. Detailer applies the effect to the entire floater.

Detailer automatically applies an effect to the entire image if no part of the image is selected.

Effects and Open Palettes

You can use all of the Materials palettes while the Effects dialogs are open. For effects that use color or texture, you can change those Materials while you are experimenting with the effect, and see your changes update interactively in the Preview.

Suppose, for example, you are adding a Color Overlay to an image. The overlay effect depends on a selected texture and the primary color. If you open the Materials: Texture palette and the Color palette when you choose Effects menu> Surface Control> Color Overlay, you can select and/or change textures and colors. These changes will be displayed in the Preview of the Color Overlay dialog. If necessary, you can open texture libraries while the Color Overlay dialog remains open.

You can move Effects dialogs out of the way, if necessary, for full access to other palettes.

Using Fade to Partially Undo Effects

The Fade command allows you to undo any percentage of your last effect. This is a great way to achieve just the right amount of an effect.

To fade an effect:

- 1 Apply an effect to your image. To experiment, try one of the Tonal Control effects.
- 2 Choose Edit menu> Fade. The Fade dialog appears.
- 3 Drag the Undo Amount slider and watch the preview image change between the “before” and “after” states.
- 4 When the preview shows the level of the effect you want, click **OK**.

Recently Used Effects Commands

The Effects menu consists of several submenus. Sometimes while you are working, you want to use the same effect multiple times. Detailer makes this easy.

As you work, you'll notice that the menu items for the last effects commands you've used are available at the top of the Effects menu. This makes it easy to choose the commands again.

Shortcut: Detailer provides keyboard shortcuts for the two most recently used effects:

- Choose the last effect used by pressing Command-/ (Macintosh) or Ctrl+/ (Windows).
- Choose the second to last effect used by pressing Command-; (Macintosh) or Ctrl+; (Windows).

Image Orientation

You can manipulate part or all of your image's orientation by rotating, scaling, or flipping horizontally or vertically.

These commands are located in the Effects menu > Orientation.

See also:

[Rotate](#)

[Scale](#)

[Distort](#)

[Flip Horizontal](#)

[Flip Vertical](#)

[Transform Features](#)

Rotate

You can rotate all or part of an image.

To rotate:

1 Select the part of the image you want to rotate. To rotate the entire image, do not select anything.

Rotating the entire image floats the image and rotates the floater.

2 Choose Effects menu> Orientation> Rotate. The Rotate Selection dialog appears.

3 You can rotate visually by dragging the corner of the selection. The Rotate Selection dialog reflects the numerical value of the angle after you release the mouse or stylus. You can also rotate by entering the desired angle in the dialog. A positive number rotates counterclockwise. A negative number rotates clockwise.

4 Click OK or press Return or Enter. When you rotate an image, Detailer first turns the image into a floater and then rotates it. The image will remain a floater until you drop it.

Scale

The Scale command lets you change the dimensions of part or all of an image.

To scale:

- 1 If you want to scale only part of the image, select that part.
- 2 Choose Effects menu > Orientation > Scale. The Scale Selection dialog appears, and there are selection handles on the selected area
- 3 You can drag the handles on the image, or you can enter the percentages by which the size is increased or decreased.
- 4 Choose from the Options—Constrain Aspect Ratio and Preserve Center:
Check Constrain Aspect Ratio to maintain the selection's proportions. Unchecking this item lets you change horizontal and vertical measurements independently.
Check Preserve Center to keep the item anchored in its location.
- 5 Click OK or press Return or Enter. When you scale an image, Detailer first turns the image into a floater and then scales it. The image will remain a floater until you drop it.

Distort

You can distort the shape of an image or part of an image.

To distort:

- 1** If you want to distort only part of the image, select that part.
- 2** Choose Effects menu > Orientation > Distort. Handles appear around the selection, and the Distort Selection dialog appears.
- 3** Drag the handles to reshape the selection.
- 4** Choose the distortion method you want: Perspective or Bilinear.
- 5** Drag the handles to reshape the selection.
- 6** Check the Better (Slower) box to get a more accurate rendering of your changes. The Better method is preferred when the distortion factor is particularly high.
- 7** Click OK or press Return or Enter. A progress dialog appears. Your selection will remain floating until you drop it.

Flip Horizontal

Flipping an image horizontally creates the mirror image across an imaginary vertical axis down the center of the image.

To flip an image horizontally:

- 1** If you want to flip only part of the image, select that part.
- 2** Choose Effects menu> Orientation> Flip Horizontal.

Flip Vertical

Flipping an image vertically creates the vertical mirror image of itself flipped across a horizontal axis.

To flip an image vertically:

- 1 If you want to flip only part of the image, select that part.
- 2 Choose Effects menu> Orientation> Flip Vertical.

Transform Features

The transform effects are for Reference floaters. For complete descriptions, see the section on Reference floaters in, "[Floaters](#),"

Free Transform

Free Transform converts an Image floater into a Reference floater. This enables you to resize, rotate and slant it by dragging the handles.

Set Transform

Set Transform lets you perform these same transformations numerically.

Commit Transform

Commit Transform converts the (transformed) Reference floater back into an Image floater.

Image Effects

Detailer's Image Effects fall into several categories. Here are some of the tasks you can accomplish with the many options of the Effects menu.

Tonal Control lets you adjust brightness/contrast, adjust color values (HSV) for an entire image or part of it.

Surface Control refers to changing surface textures, embossing, adding color overlays, applying lighting effects, and warping.

The Focus commands let you soften or sharpen the focus, add glass distortion or motion blur effects.

Esoterica consists of the Highpass and Grid Paper features.

See also:

[About the Using pop-up menus](#)

About the Using pop-up menus

In many of Detailer's Image Effects dialogs, you'll see a pop-up menu named Using.

This menu lets you specify the source that Detailer uses as the control for applying an effect. The control source determines how much of the effect to apply to different areas of the image.

The Using options vary between effects. They include Texture, Mask, Image Luminance, Pattern Luminance and Uniform. These are described in the sections explaining the different effects.

In most cases, you can see the results of choosing different options in the Preview of an effect's dialog. The best way to see how these commands affect your images is to try them. You can always choose Edit menu> Undo or Edit menu> Fade if you aren't satisfied with the result.

Tonal Control

The Tonal Control commands in the Effects menu let you adjust or alter colors in an image.

See also:

[Adjust Colors](#)

[Adjust Selected Colors](#)

[Brightness/Contrast](#)

[Equalize](#)

[Negative](#)

[Posterize](#)

Adjust Colors

The Adjust Colors command lets you control the hue, saturation, and value of an image in much the same way as you would adjust your TV.

To adjust colors:

- 1** To adjust colors for only part of the image, select that part. If nothing is selected, the entire image will be adjusted.
- 2** Choose Effects menu> Tonal Control> Adjust Colors. The Adjust Color dialog appears.
- 3** The Using pop-up menu lets you control where and how much to apply the color adjustment. In all cases other than Uniform Color, pixels assigned higher luminance from the Using source receive the greater color adjustment.
- 4** Adjust the sliders to control the overall hue, saturation, and value levels in the selection. You can see changes in the Preview. You can pan the Preview by dragging if you want to.
- 5** To return the image or selection to the way it was press, **Reset**. This resets all of the sliders.
- 6** When you are satisfied with the way your changes look in the Preview, click **OK** or press **Return** or **Enter**.

Adjust Selected Colors

Adjust Selected Colors is similar to the Adjust Colors effect, but it works only on a specified range of colors within an image. You choose a color in an image and adjust colors within a range of that color. You could, for example, turn yellow peppers to red peppers.

You can adjust colors that are exactly the same as the color you select, or you can choose colors within a range, based on proximity (on the color wheel or color space) to the selected color.

To adjust selected colors:

1 Choose Effects menu> Tonal Control> Adjust Selected Colors.

2 In the image window, click the color you want to adjust.

When you pick a color, the Color palette updates to your choice.

3 Choose an option from the Using pop-up menu to determine what Detailer uses as the source for the color adjustment. For example, Image Luminance uses the brightness of the image to control the color adjustment.

4 Adjust the Extents and Feathers sliders.

Use the Extents sliders to specify the extent of the HSV color space around the selected center color. Move the Extents sliders to the right to increase the size of the color range that is affected by the command.

Adjust the H Extents slider to control the range of hues affected. The percentage you choose means that only hues within that fraction of hues on the color wheel will be affected.

Adjust the S Extents slider to control the range of saturation affected. Only saturations within this range will be adjusted.

Adjust the V Extents slider to control the range of values affected.

The Feather sliders affect the softness at the edge of the selected colors.

5 Adjust the sliders accordingly to control the overall hue, saturation, and value levels. Watch the results in the Preview. You can pan the Preview to see different parts of the image.

6 When you are satisfied with the way your changes look in the Preview, click **OK** or press **Return** or **Enter**. To remove your changes from the Preview and return your image to the way it was, press **Reset**.

Brightness/Contrast

The Brightness/Contrast effect adjusts the brightness and contrast of the overall image in the RGB color space. Alternatively, the Adjust Dye Concentration command (described later in this chapter) converts the image to a dye density domain and adjusts it there.

To adjust RGB brightness and contrast:

- 1** To adjust brightness and contrast of only part of the image, select that part. If nothing is selected the entire image will be adjusted.
- 2** Choose Effects menu> Tonal Control> Brightness/Contrast.
- 3** Drag the upper slider to adjust image contrast. Drag the lower slider to adjust image brightness. The image is redrawn when you let up on your mouse or stylus.
- 4** If you want to reset the sliders to normal, click **Reset**.
- 5** When the adjustments are the way you want them, click **Apply** to save the adjustments.

Equalize

The Equalize effect improves contrast by adjusting black and white points and distributing the brightness levels throughout the entire range of available levels. To achieve this, Detailer creates a histogram showing the number of pixels for each brightness level value. Equalize allows gamma adjustment, which lightens or darkens an image without changing highlights or shadows.

To equalize:

- 1** To adjust only part of the image, select that part. If nothing is selected, the entire image is adjusted.
- 2** Choose Effects menu > Tonal Control > Equalize. The Equalize dialog appears. When you initially bring up the Equalize dialog, Detailer automatically adjusts the image so that the lightest color is white and the darkest color is black.
- 3** Click **OK** or press **Return** or **Enter** to automatically equalize the selection.

You can adjust contrast manually by setting the black and white points in the histogram.

To set the white and black points manually:

- 1** In the Equalize dialog, drag the small white point marker under the histogram to the left and drag the black point marker to the right.

Now, any values in the image located to the right of the white marker become white; any values to the left of the black marker become black.

- 2** Click **OK** to apply changes.

Changing the gamma adjusts only the midtones of an image and leaves the white and black areas untouched.

To adjust the image's gamma:

- 1** Move the Brightness slider to the right to increase gamma, which makes the image darker. Move the slider to the left to decrease gamma, making the image lighter. Your changes will be apparent while you're still in the dialog.

- 2** Click **OK** to apply changes.

To cut down on the time it takes to compute a histogram in the Equalize dialog, you can select an area of your image that represents the range of grayscale shades in the entire image. If you are happy with the results, check the Apply to Entire Image checkbox, click **OK** and Detailer will equalize the entire image. Do not check Apply to Entire Image and click **OK** to equalize the selection only.

Negative

Choose Effects menu> Tonal Control> Negative to turn part or all of your image into a negative. The Negative effect will simply invert all the colors in your image.

Posterize

Posterizing changes the number of color levels in the image.

To posterize an image:

- 1** To posterize only part of the image, select that part. If nothing is selected, the entire image will be posterized.
- 2** Select Effects menu> Tonal Control> Posterize. The Posterize dialog appears.
- 3** Enter a number of levels. The lower the number you enter, the more dramatic the effect will be.
- 4** Click **OK** or press **Return** or **Enter**.

To posterize an image combined with a texture, use Apply Screen under Effects> Surface Control. To posterize to two levels and adjust the threshold level, use Equalize.

Surface Control

Some of Detailer's most unusual image-editing effects are in the Surface Control submenu of the Effects menu. You can manipulate texture, color, and light to produce a variety of interesting visual effects. Many of these effects will allow you to add texture to an image, which can give the illusion that it was created on canvas or paper.

See also:

[Apply Lighting](#)

[Customize Lighting](#)

[Apply Screen](#)

[Apply Surface Texture](#)

[Color Overlay](#)

[Dye Concentration](#)

[Express Texture](#)

[Image Warp](#)

[Quick Warp](#)

Apply Lighting

Apply Lighting is a 2D effect that lets you shine one or more light sources on part or all of your image.

Apply Lighting is a 2D Effect for working on images. It has no connection with the Light palette used to illuminate your 3D model. You may want to use Apply Lighting to enhance a finished rendering.

Apply Lighting is comparable to hanging your artwork in a gallery and adjusting colored spotlights to illuminate it.

You can choose different lighting effects from a library provided, or you can create your own effects by defining brightness, distance, color, and other characteristics. Once you have achieved a lighting effect you like, you can save it in a library for use with other images.

To apply lighting effects from a library:

1 If you want to apply lighting to only part of the image, select that part. If nothing is selected, the entire image is affected.

2 Choose Effects menu> Surface Control> Apply Lighting. The Apply Lighting dialog appears.

The scrolling list contains preset lighting effects in the library. When you first open the dialog, the first effect is selected (it has a box around it), and its name appears under the scroll bar.

Open the Lighting Mover by choosing Command-Shift-L (Macintosh) or Ctrl+Shift+L (Windows).

3 Click a lighting effect in the scrolling region to see the effect in the Preview. Use the scroll bar to see and select other effects.

4 After you choose a lighting effect, click **OK** or press **Return** or **Enter**.

Customizing Lighting

You can use the controls in the Apply Lighting dialog to achieve other lighting effects. The Preview shows your changes, so you can experiment and see the results.

Setting the Light Source

The Preview shows one or more light indicators. You can add and delete lights if you want. The small part of the indicator points in the direction that the light is shining; the large part shows where the light actually is.

Standard camera-based principles apply to editing lighting. For example, if you turn up the lights, you may need to adjust exposure.

- To move the indicator, drag its large end.
- To change the light source direction, drag its small end.
- To create another light indicator, click anywhere else in the Preview.
- To delete an indicator, click the indicator to select it. Then press Delete or Backspace.
- To change the settings for a light, click on the indicator to select it. Then adjust the sliders to set the light as described below.

Use the following guidelines to adjust the sliders:

- Brightness is like a dimmer knob. Moving the slider to the left turns down the light source, moving it to the right increases the selected light's brightness.
- Distance controls how far the light is from the image. If you move the light source closer, you may have to change the image's exposure (see below).
- Elevation sets the light's angle in relation to the canvas. At 90° the light is shining straight down, and at 1° it's very shallow.
- Spread sets the angle of the light cone.
- Exposure is the image's brightness as in photography. Moving the slider to the left (decreasing exposure) darkens the image as a whole. Moving the slider to the right (increasing the exposure) lightens the image as a whole.
- Ambient is the surrounding light in an image. If you had no individual lights in your image, the ambient lighting would govern the overall lightness of the image. Moving the slider to the left darkens the overall lighting; moving it to the right increases the light.

Setting the Light Color

Click the Light Color square and choose a color for the selected light source in the Color Picker. Then click **OK** or press **Return** or **Enter**.

Setting the Ambient Light Color

Click the Ambient Light Color square and choose a color for the surrounding light in the Color Picker. Click **OK** or press **Return** or **Enter**.

Saving Lighting Effects

When you have adjusted lighting and created an effect you like, you can save it. In the future, your saved lighting environment will be available in the library at the bottom of the dialog.

To save a specific lighting effect:

- 1 After making your changes, click Save.
- 2 Type a name for your new lighting effect.
- 3 Click **OK** or press **Return** or **Enter**. It is now a choice in the list and you can apply it to any image.

When you have finished making changes in the Apply Lighting dialog, click **OK** or press **Return** or **Enter** or **Enter**.

Creating Lighting Effects Libraries

You may create your own lighting library. Click Library. Detailer displays a dialog that lets you create a new library or load an existing one.

To access the Lighting Mover, close the Apply Lighting dialog and press Command-Shift-L (Macintosh) or Ctrl+Shift+L (Windows).

Apply Screen

Apply Screen is another way to add texture to an image. It combines luminance, the current texture, and the three colors you pick in the Apply Screen dialog to add a three-color screen to an image.

To use Apply Screen:

- 1** Select an area. If nothing is selected, the effect applies to the entire image.
- 2** Choose Effects menu> Surface Control> Apply Screen. The Apply Screen dialog appears.
- 3** Click each square to call up the Color Picker. Select the color you want to use, then click **OK** or press **Return** or **Enter**.
- 4** Move the Threshold 1 slider to determine how much of the right and middle squares' color will be in the image. Moving the slider to the left increases the amount of the right color. Moving the slider to the right increases the amount of the middle color.
- 5** Move the Threshold 2 slider to determine how much of the left square's color will be in the image. Moving the slider to the left decreases the amount of the left color. Moving it to the right increases the amount of the left color.
- 6** The Using pop-up lets you specify what to base the screen on. Choose an option from the Using pop-up:
 - Texture produces a screen using the current texture. If the Texture palette is open, you can choose different textures while the Apply Screen dialog is open.
 - Image Luminance creates a screen based on the image's brightness. It is similar to a three-level posterization.
 - Pattern Luminance creates a screen based on the current pattern's brightness.
 - Mask creates a screen based on the mask's brightness.
- 7** Click **OK** or press **Return** or **Enter**.

Apply Surface Texture

Detailer lets you add a three-dimensional surface texture to your image.

Apply Surface Texture is a 2D effect for developing imagery. It is not related to the texture map or bump map. The current texture in the Texture palette is one option for controlling the Apply Surface Texture effect.

The Reflection feature lets you map a separate image onto the surface. This gives the effect you'd expect to see in objects made of glass or polished metal, like the chrome bumper of a classic car.

If you want, you can apply a texture when you first create an image, then paint or draw over it. But the texture is erasable, so you might not end up with the same texture across the document surface. Generally, you'll add the surface texture as the last step in producing artwork.

Brush variants with "Grainy" methods reveal the texture automatically in their strokes. See Chapter 9, "Advanced Painting," for more information.

To Apply Surface Texture:

1 You may create a selection area or select a floater if you want to apply the effect to less than the entire image.

2 Choose Effects menu> Surface Control> Apply Surface Texture.

3 The adjustments for working with surface texture are described below. When you've set them, click OK to apply the effect.

See also:

[Using](#)

[Material](#)

[Light Control](#)

[Reflection Maps](#)

Using

The Using pop-up lets you specify where to get the texture.

- Texture applies the current texture. If the Texture palette is open, you can choose different textures and change their scale. The Preview automatically updates to texture changes.
- Mask produces surface texture using the canvas mask or the selected floater's mask. The effect is an embossing around the edges. The Softness slider controls the accentuation of the effect.

Image Luminance uses the current document's luminance to determine where to add surface texture. If brush strokes appear in your image, this will give them depth.

- Pattern Luminance uses the current pattern's luminance.

If you want to change the direction of relief, click the Inverted check box.

- The Softness slider lets you control the transitions in texture. Increasing softness creates more intermediate steps, which produces a smoother distortion. If you experience aliasing or stair stepping, try increasing Softness.

It is the nature of JPEG images to sometimes produce blocky patterns when using Apply Surface Texture.

Material

Set the Material sliders to describe the texture you want.

- Move the Amount slider to control how much surface texture is applied to the image. Moving the slider all the way to the right applies the maximum amount.
- The Picture slider controls the amount of color in the picture. At 100% the full color of the picture shines through. Turn the Picture slider down and color is removed to black, leaving only the shine.
- Move the Shine slider to control the highlights. More Shine creates an aluminum-foil effect.
- The Reflection slider maps the current pattern onto the surface based on the reflection percentage.

The Preview shows how the options look on your image.

Light Control

You may have multiple colored lights active to produce different textural effects.

This light control applies only to the Apply Surface Texture effect.

The lighting preview sphere shows all possible surface angles and how the lights illuminate them.

You may either use the basic positions, offered by the direction radio buttons, or you may create custom lighting by working in the sphere.

The Show Light Icons check box lets you hide or show the light icons.

- To create a new light, click on the sphere. A new light icon (small circle) appears where you click.
- To change a light's angle, drag its icon on the sphere.
- To select a light, click in its icon. Notice the selected light has a thicker, dark icon. You may change the selected light's color and other characteristics.
- To choose a new color for the selected light, click the Light Color box.
- To delete the selected light, press the Delete or Backspace key on your keyboard.

The Light Direction control should be used only as a starting point to develop more complex lighting. If you have developed complex lighting with several lights of different colors and you decide to use the basic Light Direction control to change a light's direction, it will restore the default to one light and reset the color to white.

- Brightness indicates the amount of contribution of the light to the overall lighting color.
- Conc (concentration) adjusts the spread of the light's shine over the surface.
- Exposure globally adjusts the overall lighting amount from darkest to brightest.
- Display affects the lighting preview only. If you have a darker color for the display, it can be easier to see subtle lighting adjustments.

Set light positions in the Preview sphere.

When the Preview shows the image is the way you want it to be, click **OK** or press **Return** or **Enter**.

Reflection Maps

The Reflection slider in the Apply Surface Texture dialog maps the current pattern onto the 2D surface at an adjustable percentage.

This section describes reflection mapping as part of the Apply Surface Texture effect. The functionality is similar to the reflection mapping used on objects.

To take advantage of reflection mapping, a few steps are required.

To use 2D reflection mapping:

1 Create the image you want to use as the reflection. Because the reflection describes the environment around the reflective surface, the image used is sometimes called an environment map. You'll probably want to warp the image to approximate the reflection from a curved surface.

You may want to use the environment images provided on the Detailer CD-ROM for your reflection environment.

2 Capture the reflection image as a pattern.

3 Create a floater to apply the effect to. You will be using the mask to control the placement of the reflection. A floater simplifies the process because its mask matches the shape of the reflection area exactly.

4 Select the floater. When a floater is selected, effects apply only to the floater.

5 Open the Effects menu > Surface Control > Apply Surface Texture dialog.

6 In the Using pop-up, choose Mask.

7 Set the Reflection slider to describe the amount of reflection you want.

8 Adjust the Softness slider to control the mapping from the edges of the floater image. Increasing Softness gives a rounder, more three-dimensional look to the surface.

9 When you have set the other sliders and are satisfied with the preview, click OK.

Color Overlay

Use the Color Overlay command to simultaneously add color and texture effects to an image.

You may want to have the Color and Texture palettes open.

To apply a Color Overlay:

- 1** Select the area you want to affect. If nothing is selected, the effect applies to the entire image.
 - 2** Select the color you want to use.
 - 3** If you want to base the color on a texture, set the Using pop-up to Texture and select a texture in the Texture palette.
 - 4** Choose Effects menu > Surface Control > Color Overlay.
 - 5** Choose between a Dye Concentration and Hiding Power overlay.
 - Dye Concentration means the paper absorbs the color.
 - Hiding Power means the color covers what's beneath it.
 - 6** Move the Opacity slider until the preview reflects your preferred opacity.
 - 7** Choose a command from the Using pop-up:
 - Uniform Color adds a flat tint to the image.
 - Texture overlays color using the current texture.
 - Mask uses the values in the mask as the model for the color overlay.
 - Image Luminance uses the image's brightness as the model for the color overlay.
 - Pattern Luminance uses the luminance of the current pattern as the model for the color overlay.
 - 8** Click **OK** or press **Return** or **Enter**.
- If you are overlaying in an image that is associated with a model, the overlay effect will appear on the model.

Dye Concentration

The Dye Concentration effect adjusts color intensity and adds surface texture by adjusting pigments. You can use it, for example, to lighten an underexposed photo or to darken an overexposed one.

To adjust Dye Concentration:

1 If you want to adjust only part of the image, select that part. If nothing is selected, the entire image is affected.

2 Choose Effects menu > Surface Control > Dye Concentration. The Adjust Dye Concentration dialog appears.

The Materials: Texture palette can be used while the Dye Concentration dialog is open.

3 Choose a command from the Using pop-up:

- Uniform Adjustment adjusts color uniformly.
- Texture adjusts color using the current texture.
- Mask uses the values in the mask as the model for the dye concentration.
- Image Luminance uses the image's brightness as the model for the color adjustment.
- Pattern Luminance uses the luminance of the current pattern as the model for the adjustment.

When you choose **Uniform Adjustment**, moving the **Maximum** slider above 100% increases color density. A value below 100% decreases it. Moving the **Minimum** slider has no effect. With the other Using pop-up commands selected, both sliders are operable.

If you think of texture as peaks and valleys, the **Maximum** slider controls the dye on peaks and the **Minimum** slider controls dye in the valleys. You can set **Maximum** as high as 800%. The lower you set **Minimum**, which can be as low as 0%, the higher the contrast will be between peaks and valleys. The higher the **Minimum** slider, the flatter the texture will appear.

4 Click **OK** or press **Return** or **Enter**.

Express Texture

Express Texture generates a high contrast version of an image in grayscale. With this feature, you can create a visual effect similar to a custom halftone screen, like a mezzotint or line screen. It is also the best way to create bump maps from a texture.

Express Texture is similar to Apply Screen with anti-aliasing built in.

To use Express Texture:

1 Choose Effects menu> Surface Control> Express Texture. The Express Texture dialog appears.

2 Make a selection from the Using pop-up menu.

You can base the effect on the current Texture, Mask, Image Luminance or Pattern Luminance.

3 Adjust the sliders:

- Gray Threshold determines where the threshold is, between pure black and pure white.
- Grain determines how deeply the texture penetrates the surface.
- Contrast determines how many levels of black and white there are. For example, low contrast generates pure gray, medium contrast produces levels of grayscale, building up to a high contrast black and white screen.

If you want to add color back in after using this effect, try using the Edit menu> Fade command. This will bring back the original colors of the image.

Image Warp

The Image Warp command lets you distort the surface of an image as if it were a sheet of pliable film. With this command, your images can look as though they're reflected in a fun house mirror.

To warp an image:

- 1 If you want to warp only a part of an image, select that part.
- 2 Choose Effects menu> Surface Control> Image Warp. The Image Warp dialog appears.
- 3 The Size slider controls the size of the area affected by dragging the cursor. The higher the percent, the smaller the affected area.
- 4 Choose a warp method:
 - Choose the **Linear** radio button to pull the selected area as if you were pulling from the top of a cone.
 - Choose the **Cubic** radio button to pull a flat surface.
 - Choose the **Sphere** button to pull a surface as if it were a lens.
- 5 Drag the cursor over the Preview to distort the image. A circle appears as you drag, denoting the area affected.
- 6 When you have finished warping the image, click **OK** or press **Return** or **Enter**.

Quick Warp

The Effects menu > Surface Control > Quick Warp feature lets you easily create some of the basic distortions. These distortions are useful in preparing images for environment maps.

Quick Warp applies to the entire canvas—not to selections or floaters.

- The Amount and Angle Factor sliders control the warp effects.
- Sphere warps the image spherically, like a reflection on a polished silver ball.
- Bump warps the center of the image toward you, making it appear convex.
- Valley warps the center of the image away from you, making it appear concave.
- Swirl distorts the image in a spiral. The Angle Factor controls how many times the image spirals.
- Ripple distorts the image in concentric rings, like a reflection in a pool of water when you drop in a stone.

Focus

The Focus commands in the Effects menu let you create glass distortion, motion blurring, sharpening and softening effects.

See also:

[Glass Distortion](#)

[Motion Blur](#)

[Sharpen](#)

[Soften](#)

[Super Soften](#)

Glass Distortion

Glass Distortion offers powerful tools for distorting an image. You can use it to put your image behind the pebble glass of a shower door, or you can distort your image beyond recognition.

A myriad of effects are possible with Glass Distortion. So many, in fact, that you'll probably want to experiment for a while before settling on the effect you like.

Glass Distortion works by relocating the pixels of the image. Detailer lets you control the rules used for relocating the pixels. The primary controls are the displacement map type and what information it uses to create the map.

To use Glass Distortion:

1 You may create a selection area or select a floater if you want to apply the effect to an area smaller than the entire image.

2 Choose Effects menu > Focus > Glass Distortion. The adjustments for working with glass distortion are described below. As you make changes, the Preview shows their effect. When you're satisfied with the settings, click OK to apply the effect.

3 The Using pop-up lets you specify the basic information the displacement map begins with. The amount of displacement depends on the value assigned to the image pixels from the Using source.

- Texture uses the current texture. Texture is good for creating the pebbled glass effect. Unless you want frosted glass, you'll probably want to increase the scale of the texture using the Scale slider on the Texture palette.
- Mask uses this image's mask data. This is a good choice for a controlled distortion map. For example, gradations in the mask lead to a progressive distortion effect. Shapes in the mask distort in the fashion of their shape.
- Image Luminance uses the current document's luminance.
- Pattern Luminance uses the current pattern's luminance.

4 If you want to work with an inversion of the Using information, click the Inverted check box.

5 The Softness slider lets you control the transitions between displaced colors. Increasing Softness creates more intermediate steps, which produces a smoother distortion. If you experience aliasing in a glass distortion, try increasing Softness.

6 The Map pop-up lets you choose the type of displacement to use:

- Refraction displaces pixels like an optical lens bends light. This is the best map type for distortions you'd expect from looking through glass.
- Vector Displacement moves pixels in a specific direction.
- Angle Displacement moves pixels in different directions.

7 The following sliders give you precise control over the "glass."

- The Amount slider lets you control the degree of displacement. Increasing the Amount distorts your image more.
- The Variance slider lets you create multiple variations in the neighborhood of the displacement. The result of increasing Variance depends on the type of image and other settings.
- The Direction slider lets you control the direction of displacement. Three o'clock corresponds to 0°. Refraction is not dependent on direction.

8 When you like what you see in the preview click **OK** or press **Return** or **Enter**.

Motion Blur

This effect makes an image appear as if it has been blurred by movement.

To apply Motion Blur:

- 1** To adjust only part of the image, select that part. If nothing is selected, the entire image is blurred.
- 2** Choose Effects menu > Focus > Motion Blur.
- 3** Use the following guidelines to set the sliders.
 - Radius sets the amount (distance) of blur. Moving the slider to the right makes the image look like it's moving faster.
 - Angle sets the direction in which the image seems to travel. Zero degrees blurs in the direction of 3 o'clock.
 - Thinness blurs the image in a direction perpendicular to the angle you choose with the Angle slider.
- 4** Click **OK** or press **Return** or **Enter**.

Sharpen

This effect heightens contrast by intensifying highlights and shadows.

To sharpen focus:

1 To adjust only part of the image, select that part. If nothing is selected, the entire image is adjusted.

2 Choose Effects menu > Focus > Sharpen.

3 Use the following guidelines to set the sliders.

- Radius determines how much of the edge of an element is affected. The farther the slider is to the right, the wider the affected area will be.
- Highlight determines the intensity of the bright areas. The farther the slider is to the right, the brighter the highlight will be.
- Shadow determines the depth of the shadows. The farther the slider is to the right, the darker the shadows will be.

4 When you like the focus, click **OK** or press **Return** or **Enter**.

Soften

This effect increases the transition from one part of your image to another, enhancing the anti-aliasing of strokes.

To soften focus:

- 1** To adjust only part of the image, select that part. If nothing is selected, the entire image is adjusted.
- 2** Choose Effects menu> Focus> Soften. The Soften dialog appears.
- 3** Adjust the **Radius** slider. The farther the slider is to the right, the more steps there will be between one image element and another, which will mean more blurring.
- 4** Click **OK** or press **Return** or **Enter**.

Super Soften

Super Soften is a faster form of Soften. Super Soften's Wrap Around feature is particularly useful for developing seamless maps and pattern tiles.

To super soften:

1 To adjust only part of the image, select that part with the Rectangular Selection tool. If nothing is selected, the entire image is adjusted.

2 Super Soften is available only as a keyboard command. Choose Command-Shift-S (Macintosh) or Ctrl+Shift+S (Windows). Detailer opens the Super Soften dialog.

3 Enter a value for the softening **Radius**. A larger a value means more blurring.

4 Enable the Wrap Around check box if you want the image to maintain seamless tiling.

The Wrap Around feature softens the pixels on one edge with those on the other. This ensures the image will tile seamlessly.

5 Click **OK** or press **Return** or **Enter**.

Esoterica

Esoterica holds specialized effects.

See also:

[Highpass](#)

[Grid Paper](#)

Highpass

Highpass suppresses low frequency areas containing gradual or smooth transitions of brightness levels. This leaves high frequency areas, or just the edges of an image, containing stark shifts between brightness levels.

You can make the highpass more pronounced by using the `Equalize` command.

To use Highpass:

- 1** If you want to affect only a part of an image, select that part.
- 2** Choose `Effects menu > Esoterica > Highpass`. The Highpass dialog appears.
- 3** Move the `Radius` slider to determine the amount that the low frequency areas will be suppressed. This value defines a radius in pixels around each pixel in the selected image area. Moving the slider to the left suppresses larger amounts of low frequency information. Moving the slider to the right suppresses smaller amounts of low frequency information.
- 4** Click `OK` or press `Return` or `Enter`.

Grid Paper

Using Grid Paper, you can add horizontal or vertical lines or a grid to part or all of your image. The lines become part of the image, and therefore are an element in your design.

Unlike the Grid Overlay, a transparent layer that floats above your image as a reference, Grid Paper becomes part of your image.

Grid Paper is an excellent guide to use when you are unsure about the mapping mode or map aspect. The regularity of the grid clearly demonstrates the mapping and distortion.

To add Grid Paper:

1 If you want to apply Grid Paper to only a part of an image, select that part.

2 Select Effects menu > Esoterica > Grid Paper. The Grid Options dialog appears.

3 Set the following:

- Grid Type determine whether your grid will have rectangles, vertical lines, or horizontal lines.
- Horizontal Spacing determines the amount of space between horizontal lines.
- Vertical Spacing determines the amount of space between vertical lines.
- Line Thickness sets the width of grid lines.
- Grid Color changes the color of grid lines. Click the color square to display the Color Picker. Choose a color in the Color Picker, then click **OK** or press **Return** or **Enter**.
- Background changes the grid's background color. Click the background color square to display the Color Picker. Choose a color in the Color Picker, then click **OK** or press **Return** or **Enter**.

4 Click **OK** or press **Return** or **Enter**.

Printing

You can print Detailer images on many kinds of printers including PostScript, QuickDraw, Windows GDI printers and high-resolution imagesetters.

Although your final goal may be to print high-quality color prints, it is a good idea to first print proofs on any printer you have available.

You can use a black and white printer to check page size and placement of images on the page. If you have a color printer, you can print proofs to get a general impression of what your image looks like. Keep in mind that the proof will not be an accurate representation of a final product produced by an offset printing process. The print process, inks, and paper types all affect the final output.

See also:

[Color Matching](#)

[Page Setup \(Macintosh\) and PostScript Setup \(Windows\)](#)

[Using the Print Dialog](#)

[Printing Tips](#)

Color Matching

In an ideal world, each color on your monitor would match the respective color on the printed page. Due to the number and kinds of things that affect the color at each point in the process (from a monitor adjustment to the mixing of inks, to the porosity of the paper) a perfect match of all the colors used is unlikely. Nevertheless, it is important to adjust those elements that you can control.

See also:

[Color Calibration](#)

[Trial and Error](#)

Color Calibration

Color calibrators are hardware devices that use software to balance the color and gamma (brightness and contrast) of your monitor.

Calibration software can be used to adjust your monitor to reflect what your printed piece will look like. This is done with printer profiles that are either packaged with a software program or created with the program. Some image-editing software packages, such as Photoshop have color calibration capabilities built in.

Trial and error

In the final analysis, calibration is a matter of trial and error. If you have no calibration software, but you do have access to the output device, you can print your file, hold it up next to your monitor and see how closely the match may be. Use the brightness and contrast controls on your monitor to make adjustments. If you have software that can adjust the RGB values of your monitor, use them to get an even closer match.

Page Setup (Macintosh) and PostScript Setup (Windows)

Options for setting up your file for printing depend on several factors—the output device, color versus black and white printing, and whether or not you are printing separations.

Macintosh options are in the File menu > Page Setup dialog.

Windows options are contained in the File menu > PostScript Setup dialog.

The features offered in the Macintosh and Windows dialogs are the same. If you don't have a PostScript printer selected, the PostScript options won't appear.

See also:

[Miscellaneous printing options](#)

[Halftone Screen Setting for PostScript Printers](#)

[Options for Files Saved as EPS](#)

[Saving in EPS for Printing](#)

Miscellaneous printing options

These options are available in all printing situations:

See also:

[Size to Fit Page](#)

[Printer/Press Dot Gain](#)

[Monitor Gamma](#)

Size to Fit Page

Choose this option if you want Detailer to shrink an image that is larger than a selected page size. For example, when this option is checked, a 12" x 12" image would be resized to fit on an 8 1/2" x 11" page. Detailer resizes the image to fit the page.

If an image is larger than the page size and you haven't checked Size to Fit Page, you see an alert message when you print. Click Continue, and the image will be clipped to fit the page. Click Cancel to stop printing. You can then open the Page Setup (Macintosh) or PostScript Setup (Windows) dialog and choose Size to Fit Page.

Printer/Press Dot Gain

Your print shop should be able to tell you what the dot gain will be for a specific job. Dot Gain is the amount any halftone dot grows when it is printed. Depending on the type of printing press, paper, and ink you use, halftone dots may grow, causing an image to become darker than you wish.

To account for this dot gain, Detailer allows you to enter a percentage of dot gain that will adjust halftone dots so they print at the size you intended. For example, if a 50% dot on film grows to 70% after it is printed, the dot gain is 20%. If the dot gain setting is too high, the printed results will be too light. If the dot gain percentage is too low, the printed results will be too dark. Typically, web offset presses have dot gains of around 25% and sheetfed presses have dot gains of 5% to 10%.

Monitor Gamma

The gamma, or brightness, of your monitor and the printing gamma must be the same to get the printout to match what you see on your monitor.

If you haven't used a third-party optical hardware calibration device to change your monitor's gamma, you're pretty safe leaving the Monitor Gamma at 1.8. If you do use one of these calibration devices, we recommend that you set it to 1.8. If, however, you've set your monitor to another gamma, change the Monitor Gamma in Page Setup (Macintosh) or PostScript Setup (Windows) dialog to the same number.

Halftone Screen Settings for PostScript Printers

When you select a PostScript printer, several other factors are available in the setup dialog—Screen Frequency, Angle, and Spot Type. These options affect halftones.

A halftone is an image composed of a series of dots of various sizes. In grayscale printing (newspapers), the varying dot sizes suggest different shades of gray to the eye. In process color printing (cyan, magenta, yellow, and black), varying dot sizes and screen angles give the illusion of millions of colors. Keep in mind that a halftone dot is composed of pixels. The dots are arranged on an imaginary grid, called the halftone screen.

See also:

[Screen Frequency](#)

[Halftone Angle](#)

[Spot Type](#)

Screen Frequency

Screen Frequency represents the fineness of the halftone screen, which is made up of rows of dots. The spacing between halftone dots is referred to as lines per inch or lpi. The paper porosity and the type of press determines the viable halftone frequencies. Newspapers, for example, are very porous and usually print at 85 lpi. A high-quality magazine on glossy paper will print at 150 lpi.

If you are printing a separation, Detailer lets you set the screen frequency for the four process colors: cyan, magenta, yellow, and black.

Be sure to consult with your service bureau for specific recommendations on screen frequency.

Half Tone Angle

This is the angle at which your halftone screen “rests” on your image. When printing separations, these angles can be set for each of the process colors.

Spot Type

The Spot Type pop-up menu gives you options for the shape of the dots that make up your halftone screen grid. For an explanation of these spot shapes and how to make a Custom spot, see the following section.

Options for Files Saved as EPS

Detailer files that have been saved as EPS files conform to the Desktop Color Separation format (EPS-DCS 5-file format). Remember, when you save a file as EPS-DCS, Detailer uses the Printer Settings file (Macintosh) or PRINTER.STG (Windows) in your Detailer folder to make the separation files. If you want to use the screen angles and frequency specified in the Page Setup (Macintosh) or PostScript Setup (Windows) dialog, check the box next to Use Page Setup settings in the EPS Options dialog.

Saving in EPS for Printing

Detailer's EPS files conform to the Desktop Color Separation format (EPS-DCS 5-file format). Although Detailer save files in EPS-DCS, it can't read EPS-DCS. If you plan to save an image in EPS-DCS, it's a good idea to save it in another format first so you will have a copy of it that you can reopen in Detailer.

When you save a file in EPS-DCS, you'll see the EPS Options dialog.

Although you can save your images as 5-file CMYK EPS separations, Detailer can't open or edit CMYK files.

See also:

[Hex \(ASCII\) Picture Data](#)

[Suppress Dot Gain](#)

[Suppress Screen Angles](#)

[Use Page Setup Settings](#)

[Halftone Dot Type](#)

[Save PostScript data into File](#)

Hex (ASCII) Picture Data

This is just another way of storing PostScript information. Some programs require that this option be checked. The file size will be approximately twice as large when the file is saved with this option.

Suppress Dot Gain

Detailer provides controls for dot gain in its Page Setup (Macintosh) or PostScript Setup (Windows) dialog. You may, however, prefer to set dot gain in your page-layout program. To disable Detailer's dot gain adjustments, check the box next to Suppress Dot Gain.

Suppress Screen Angles

Like dot gain, screen angle can be designated in Detailer's PostScript Setup dialog. To disable Detailer's screen angle adjustment, check the box next to Suppress Screen Angles.

Use Page Setup Settings

Detailer includes a file called Printer Settings file (Macintosh) or PRINTER.STG (Windows), which is calibrated for an imagesetter at 133 lpi, standard screen angles, and a dot gain of 16%. If you wish to override these settings and use your own settings in the Page Setup (Macintosh) or PostScript Setup (Windows) dialog, click the box next to Use Page Setup settings.

Halftone Dot Type

The **Halftone Dot Type** pop-up menu gives options for the shape of the dots that make up your halftone screen grid. Most of the shapes listed in the pop-up menu, such as Dot, Line, and Ellipse, are self-explanatory. The Custom setting lets you create your own spot shape using a PostScript command. You'll have to know the PostScript language to do this. In a text file, write the PostScript equivalent of the spot you want to design. For example, here's how to describe a shape that resembles a diamond:

```
180 mul sin exch 180 mul sin add 2 div
```

Next, name the text file Custom Screen and place it in your Detailer folder. Now go back into Detailer and choose Custom from the Halftone Dot Type pop-up menu. Detailer will access this Custom Screen document and make your dots resemble diamonds. If you create a few PostScript spot shapes, each will have its own text file, and you'll use them one at a time, renaming each file Custom Screen so Detailer can find it.

Save PostScript data into File

To save a printable preview of an EPS-DCS document, check Save PostScript data into preview file. The two radio buttons under Preview Options tell Detailer whether the preview data should be saved in black and white or color.

If you have an older laser printer, you may have to use the black and white preview to print these files on your laser printer. Although the preview or display is black and white, the color information remains intact.

Using the Print Dialog

Once you have chosen options, you are ready to print.

To print an image:

1 Choose File menu> Print to open the Detailer Print dialog. The top half of the dialog contains the standard print commands.

2 Select one of the four printing methods Detailer supports.

For Macintosh only, check Color QuickDraw if your printer uses color or black-and-white QuickDraw. (A common color QuickDraw printer is the Hewlett-Packard PaintJet.) You cannot print separations to QuickDraw printers. The Page Setup options of Spot Type and screen frequencies have no effect on printer output.

For Windows only, check GDI Printing if your printer is not a PostScript printer. Some common examples are the Hewlett-Packard DeskJet, the Canon BubbleJet, and the Epson Stylus. You cannot print separations to non-PostScript printers. The PostScript Setup options of Spot Type and screen frequencies have no effect on printer output.

Check Color PostScript if you plan to print to a color PostScript device. (The QMS ColorScript and Tektronix color thermal printer are examples of PostScript printers.) PostScript printers take advantage of the Spot Type, Screen Frequency, and Angle options in the Page Setup (Macintosh) or PostScript Setup (Windows) dialog.

Check Separations to print separations. The output consists of four pages, one each for cyan, magenta, yellow, and black. You can print separations from Detailer with any PostScript device, including high-resolution imagesetters. Good separations depend on the right screen frequency and angle. Printer/Press Dot Gain and Spot Type are also crucial for producing quality color separations. Check with your imagesetting service bureau about the kind of setup that is necessary for the kind of equipment you are outputting files to.

For Windows—Although Detailer uses the PostScript Setup dialog information for screen angles and frequency, Detailer still uses the color separation data in the PRINTER.STG file.

When you save a file as EPS-DCS, Detailer uses the PRINTER.STG file in your Detailer folder to make the separation files. If you want to use the screen angles and frequency specified in the PostScript Setup dialog, check the box next to Use Page Setup settings in the EPS Options dialog.

Detailer places a color bar, registration marks, and color name on each of the four separated plates. If you wish to print negatives of your separation, check the Invert Image box in the Macintosh Printing Options dialog or check the Print As Negative Image box in the Windows Print Setup> Properties> Graphics dialog. If you are using a service bureau to print your separations, check with them on the proper setup for their equipment.

Check the Black and White box if you are printing on a black-and-white PostScript laser printer.

Printing Tips

See:

[Size and Orientation](#)

[Print Quality from Windows](#)

Size and Orientation

Most printers cannot print across the entire page. Any given printer has a maximum printable area, which is largely determined by the paper handling mechanism. For example, the maximum printable area on an 8 1/2 x 11" sheet of paper may be 7 1/2 x 10".

You can visually confirm if your image fits by clicking and holding on the "i" icon in the lower left corner of the image window. This will display a print preview box. The rectangle with the "X" in it represents your image. The white box is the printable area of the page, and the gray border is the non-printable area. If your image is too large to fit, you have several options:

- Use the Canvas menu> Resize command. Enter a lower value for either the width or the height. For this purpose, it's easiest to set the measuring units to inches or centimeters, not pixels.
- Change the printer page orientation from portrait to landscape or vice-versa. This is done in the File menu> Page Setup (Macintosh) or File menu> Print Setup (Windows) dialog. Depending on your image dimensions, changing the orientation may allow your image to fit. The new orientation will be visible when pressing the "i" icon.
- Use the **Size to Fit Page** option under File menu> PostScript Setup. Selecting this option will always make your image fit the maximum printable dimensions. This means that if your image is large, Detailer will shrink it to fit. And if your image is small, Detailer will enlarge it to fit.

Print Quality from Windows

If you are not satisfied with the quality of your output, we recommend you take a close look at your printer settings. To access these settings from within Detailer, choose File menu> Print Setup. Click the **Properties** button.

The settings you find here vary, depending on what make and model of printer you have. For non-PostScript printers, you'll usually find controls for color, brightness, and dithering. Refer to your printer documentation for details.

Microsoft maintains a large library of Windows-related printing information that is available on the World Wide Web. Connect to the Microsoft Knowledge Base at—
<http://www.microsoft.com/kb>

For Windows, Detailer includes a PRINTER.STG file that contains color calibration information for obtaining a quality color separation on a high-resolution imagesetting device.

The Printer Settings Dot Gain is set to 16%, Screen Frequency for all four process colors is 133 lpi, and Angle is set to 15° for cyan, 75° for magenta, 0° for yellow, and 45° for black.

Keyboard Shortcuts

Detailer uses a variety of keyboard shortcuts to help you work efficiently. To locate the keyboard shortcut for a particular command click the appropriate subtitle below.

[Shortcuts: Palettes](#)

[Shortcuts: Choosing Tools](#)

[Shortcuts: Keyboard Commands](#)

[Shortcuts: Model Window Navigation](#)

[Shortcuts: Image Window Navigation](#)

[Shortcuts: Drawing and Visibility Modes](#)

[Shortcuts: Painting and Materials](#)

[Shortcuts: Paint Bucket Tool](#)

[Shortcuts: Virtual Trackball Tool](#)

[Shortcuts: Dropper Tool](#)

[Shortcuts: Selection Tools](#)

[Shortcuts: Floaters](#)

[Shortcuts: Apply Lighting \(2D Effect\)](#)

[Shortcuts: Magic Wand](#)

[Shortcuts: Imported Model Adjustments](#)

Shortcuts: Palettes

Tools	Ctrl+	1
Brushes	Ctrl+	2
Materials	Ctrl+	3
Controls	Ctrl+	4
Hide/Display Palettes	Ctrl+	H

Shortcuts: Choosing Tools

Object Selection*	o
Virtual Trackball**	v
Magnifier	m
Dropper	d
Brush	b
Paint Bucket	c
Text	t
Light*	i
Selection	r
Lasso	l
Floater Adjuster	f

*Model Window must be in front.

**In an image window, the Virtual Trackball functions as Rotate Page.

Shortcuts: Keyboard Commands

File

New Model	Ctrl+	N
Open Model/Image	Ctrl+	O
Close	Ctrl+	W
Save	Ctrl+	S
Print	Ctrl+	P
Quit	Ctrl+	Q

Edit

Undo	Ctrl+	Z
Redo	Ctrl+	Y
Cut	Ctrl+	X
Copy	Ctrl+	C
Paste	Ctrl+	V
Paste in Register	Shift+Ctrl+	V
Drop Current Floater	Shift+Ctrl+	D
Select All	Ctrl+	A
Deselect/Reselect	Ctrl+	D
Auto Mask	Shift+Ctrl+	M
Clear Mask	Ctrl+	U
Invert Mask	Shift+Ctrl+	I

Effects

Last Effect	Ctrl+	/
Second-To-Last Effect	Ctrl+	;
Fill	Ctrl+	F
Edit Gradation	Shift+	Ctrl+ B
Equalize	Ctrl+	E
Adjust Colors	Shift+	Ctrl+ A
Super Soften	Shift+	Ctrl+ S
Quick Warp	Shift+	Ctrl+ F

Canvas

Resize Image	Shift+	Ctrl+R
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Shortcuts: Model Window Navigation

Rotate Model View	Space Bar+Alt+Drag
Rotate Model (lights remain fixed)	Space Bar+Alt+Shift+Drag
Pan View	Space Bar+Drag
Zoom in	Space Bar+Ctrl+Click
Zoom out	Space Bar+Ctrl+Alt+Click
Define Magnification Area	Space Bar+Ctrl+Drag

Shortcuts: Image Window Navigation

Zoom in	Shift+Ctrl+=
Zoom Out	Ctrl+-
Zoom in	Space Bar+Ctrl+Click
Zoom out	Space Bar+Ctrl+Alt+Click
Pan image	Space Bar+Drag
Center Image	Space Bar+Click
Rotate Page	Space Bar+Alt
Constrain rotate to 90°	Shift+Alt+Space Bar
Un-rotate Page	Space Bar+Alt+Click
Define magnification Area	Space Bar+Ctrl+Drag
View Selection	Shift+6
Shift Pattern	Space Bar+Shift+Drag

Shortcuts: Drawing and Visibility Modes

Drawing Modes

Mask Disabled	Shift+1
Masked Inside	Shift+2
Masked Outside	Shift+3

Visibility Modes

Clear View	Shift+4
View Red Mask	Shift+5
View Selection	Shift+6

Shortcuts: Painting and Materials

Brush Controls

Resize Brush	Ctrl+Alt+Drag	
Build Brush	Ctrl+B	
Constrain to 45°	(straight-line mode)	Shift
Adjust opacity in 10% increments	1 – 0 keys	
Load Nozzle	Ctrl+L	

Cloners Brushes

Set Clone Source	Shift+Click	
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Water Color Brushes

Diffuse Wet Layer	Shift+D	
Dry the Wet Layer (Save the image)	Ctrl+S	

Color Set

Add current color to color set	Shift+Ctrl+K	
Replace current color in set	Alt+ Dropper Tool	

Gradations

Edit Gradation	Shift+Ctrl+B	
Adjust spirality - spiral gradations	Ctrl+Drag in angle ring	

Shortcuts: Paint Bucket Tool

Limit fill extent

Click-and-drag Paint Bucket

Shortcuts: Virtual Trackball Tool

Rotate model (lights remain fixed)

Shift+drag in the Model Window

Shortcuts: Dropper Tool

Dropper access

Brush Tool

Ctrl

Object Selection Tool Ctrl

Paint Bucket Tool Ctrl

Rectangular Selection Tool Ctrl

Floater Adjuster Tool Ctrl

Measure mask density

Shift+Click

Replace current color in set

Alt+Click

Set Object Color

Alt+Click on Object

Shortcuts: Selection Tools

Constrain to square/circle

Shift

Adjust current selection rectangle

Control+Alt+Click/Drag

Edit rectangular selection

Shift+Ctrl+E

Shortcuts: Floaters

Group selected floaters
Ungroup

Ctrl+ G
Shift+Ctrl+G
Shift+Ctrl+U

Floater Adjuster

Duplicate
Move floater by one screen pixel
Hide/Display marquee
Delete selected floaters
Adjust opacity in 10% increments
Select floater in image
De-select all floaters in image
Set Transform (selected floater)

Alt+Click/Drag
Arrow Keys
Shift+Ctrl+H
Backspace
1-0 Keys
Click on Floater
Click outside Floaters
Shift+X

Floater List

Attribute dialog box for selected floater
Floater layer order
Select/Deselect
Attribute dialog for current floater

Double-Click Item
Drag Item
Shift+Click Item
Enter

Shortcuts: Apply Lighting (2D Effect)

Lighting Mover

Shift+Ctrl+L

Shortcuts: Magic Wand

Add color to selection

Find all instances in area

Shift+Wand

Selection+Wand

Shortcuts: Imported Model Adjustments

Invert Normals	Shift+Ctrl+J
Repair Normals	Shift+Ctrl+K
Smooth Normals	Shift+Ctrl+N

