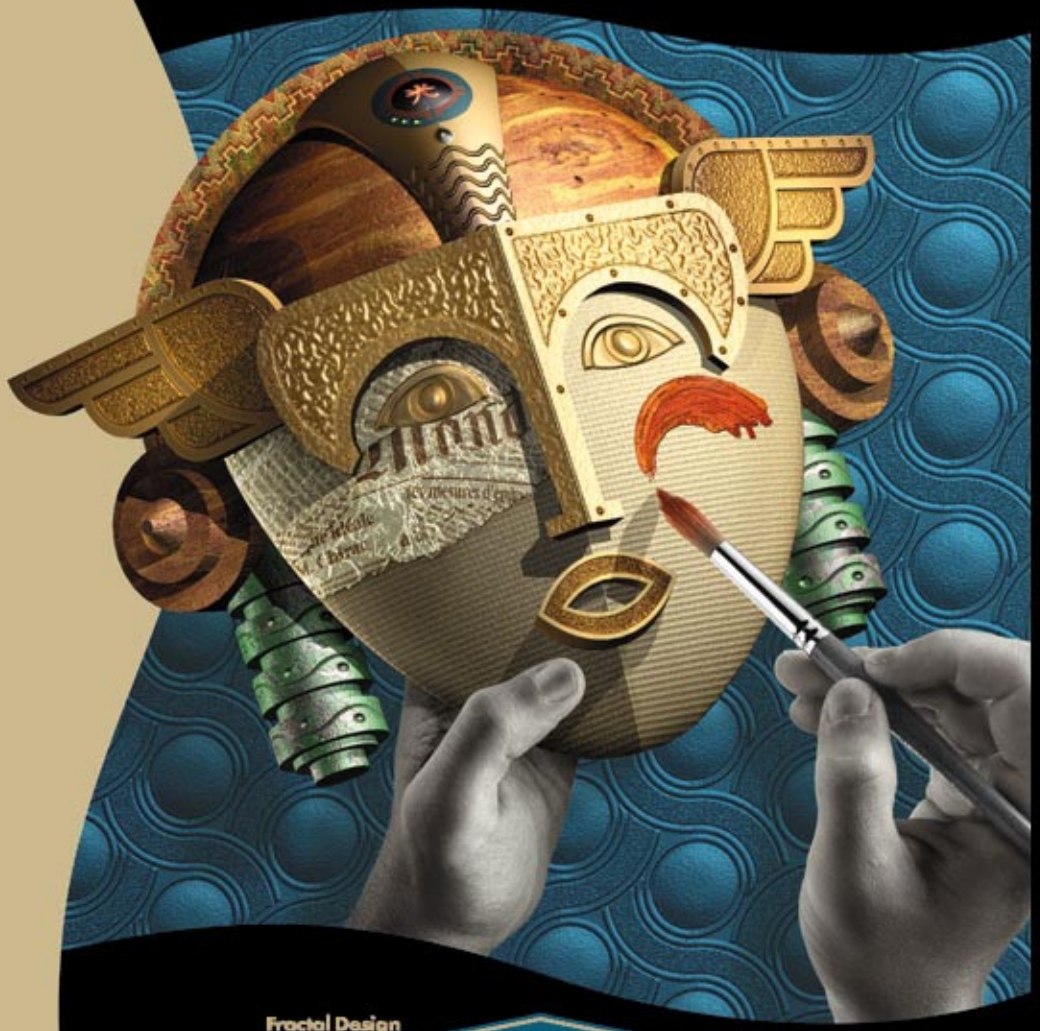

Fractal Design

DETAILER™

The Amazing 3D Paint Program

Demo User Guide

for Macintosh® & Windows™

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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 Models

Your Detailer Demo version can import a model created in another 3D program.

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, QuickDraw3D™ (3DMF) 3D Studio™ and DXF formats.

Extensions that come with 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 also render your models 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 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.

Demo Software

This Demo version has the following features disabled: Save, Save as, Print, Export, and Copy. To reduce size for downloading minimal sample content is provided.

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"

Ordering Detailer

To order Fractal Design Detailer, please visit your local Fractal Design reseller, or call Fractal Design Corporation at (800) 846-0111 or (408) 430-4100. For more information about Fractal Design Detailer, please visit our web site .

Detailer Basics

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.

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.

The Model Window displays the 3D View of the model.

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.

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.

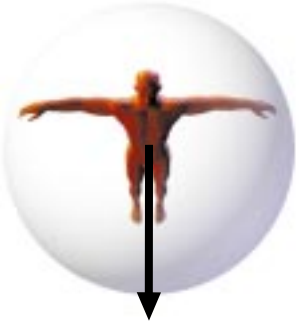
In the model space, the model doesn't move. The model is fixed with respect to the lights. When you use the Virtual Trackball, you're changing your view of the model. That is, the model stays in one place and you move around it. You may want to adjust lighting after rotating your view.

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

Original position.

Rotation on the X Axis

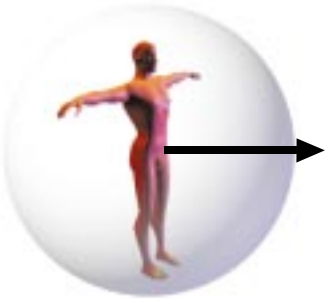
Drag down from the center of the window to view from above.



Drag down to rotate on the x axis.

Rotation on the Y Axis

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



Drag left or right to rotate on the y axis.

Rotation on the Z Axis

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

Drag in an arc to rotate on the z axis.

Rotation on Several Axes

Drag at an angle to compound rotation.

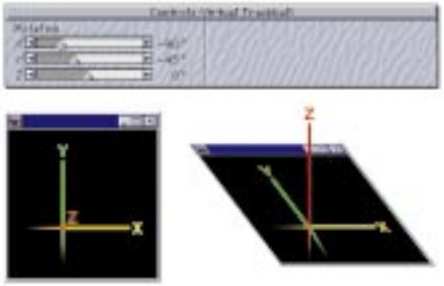
Drag at an angle to rotate on several axes.

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**.

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 x axis runs horizontall.y. They y axis runs vertically. The z axis runs perpendicular to the plane of your monitor screen.

Controlled rotation allows you to drag the slider to rotate around the desired axis.

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

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.

Click with the Magnifier tool to zoom in.

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.

Use the Grabber tool to pan the Model Window.

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.

Change the background color and see how it affects the way the model appears.

To change the background color:

1. Choose **Edit menu▸ Preferences▸ Model**. Detailer displays the Model Preferences dialog.
2. Click the swatch for **Background Color**. Detailer opens the system color picker so you can choose a color for the window background.

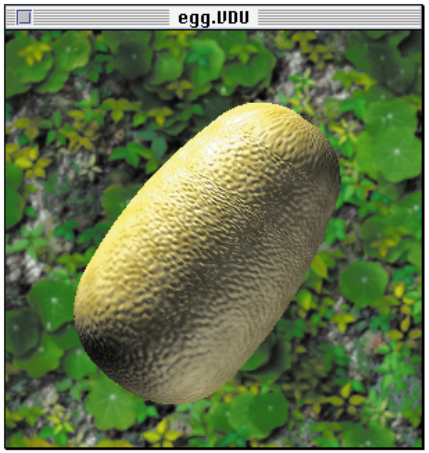
Importing a Background Image

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.



You can import a background and render with it.

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:

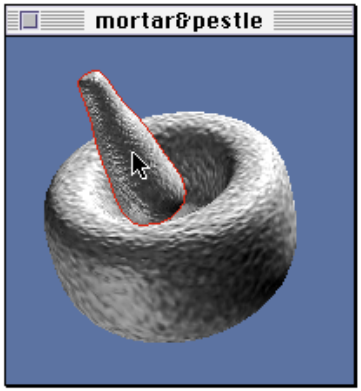
1. Bring the Model Window to the front.
2. Choose **Window menu▸ Show Background**. Detailer sets the window to display the background image.

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.



Selecting one object of a multi-object model.

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.

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 Materials: Object palette holds the controls for the five maps.

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.

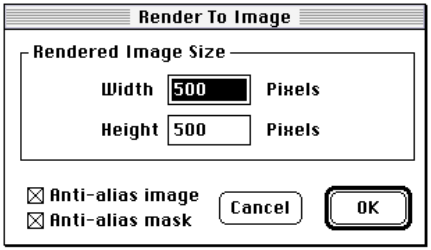
Render to Image

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.



Set your rendering options in the Render to Image dialog.

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.

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.

The dinosaur eggs are separate renderings composited in Detailer.

To composite your renderings in Detailer:

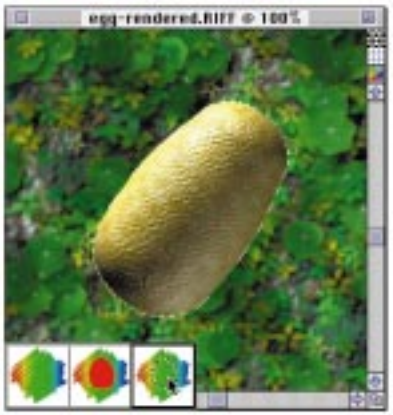
1. Open the saved rendering in Detailer.

   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.



Convert the mask to a selection; then copy the image element and paste it in another image.

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.

Tutorial Projects

The following three tutorials will build on each other. You will learn everything about working in Detailer, from the very basic to the more complex. The files used to create these projects are installed in the Tutorial directory/folder in the Detailer directory/ folder on your hard drive. The finished detailer models (Tutorial Project 1, 2 and 3) are located in the Tutorial directory/folder on the Detailer CD.

Project One: Basic Mapping

This tutorial guides you through a basic Detailer project. You'll learn the important concepts, features and tools for working in Detailer. In this project you'll create a model of a box, then apply a texture map to its surfaces.

The final rendered image.

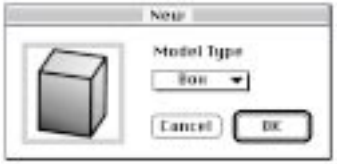
Creating the Box Primitive

The first step is to obtain a model.

If you haven't done so already, launch the Detailer application.

To create the Detailer primitive:

1. Choose **File menu▸ New Model**. Detailer displays the New Model dialog for creating primitive objects.

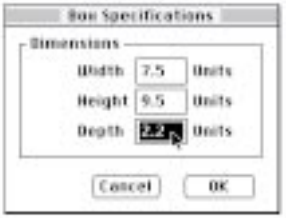


Choose the Box model type.

Detailer "primitives" are basic objects that you create in Detailer—the box, sphere, cylinder, cone and cup. When you're ready to work with more intricate models, you can open model files exported from Ray Dream Designer and other programs.

2. Box is the first option offered. Click **OK** to proceed.

If you want to, use the pop-up to look at the previews of the other primitives before proceeding.



Set the dimensions for the box.

3. Detailer prompts you to enter dimensions for the box you want. Set the dimensions at 7.5 inches wide, 9.5 inches high and 2.2 inches deep.

The dimensions of the box help determine the dimensions of the images you'll apply to the surface. In this project, we've supplied an image for the texture map. This means that you must use the dimensions supplied above. A box of any other description will distort the texture map image.

4. When you click **OK**, Detailer prompts you to set dimensions for the 3D View. For this project, use the default values Detailer suggests. Click **OK**.

Set the width and height of the window where the model is displayed.

The Model Window, also called the 3D View, shows your model. Because models are three-dimensional, you can view them from any angle. You'll learn how to do this later in this project.

Detailer displays your model in the Model Window.

The 3D view requires 52 bytes per pixel, so a 200 by 200 pixel window needs about 2 MB of memory. At 400 pixels square, the window needs about 8 MB.

Don't set a Model Window that requires more RAM than your system has available.

Although Detailer allows you to open more than one model, the additional memory demand can make this impractical on some systems.

Applying a Texture Map

The texture map is an image you apply to the surface of the model to give it color. Texture maps can include imagery of any description—marble, wood, text, dragon scales, anything you can develop in a two-dimensional image. In this project, we'll apply packaging artwork to the box.

The texture map is only one type of surface map you can apply in Detailer. Detailer lets you apply several other map types. You'll learn more about these later.

To apply the texture map:

1. Choose **Map menu▸ Load▸ Texture**.

Load maps to apply them to the model.

Detailer displays the Apply Texture Map dialog, which lets you choose the source for the image you apply. The dialog offers options for copying image, opening saved files, and creating new images.

2. For this project, you'll open a saved file. "Blank" is the default option, so you need to choose **Open Image...** and click **OK**.

3. Detailer displays a standard "Open" dialog so you can locate and select an image file. The texture map image for this project is titled 1DETBOX.RIF. It's saved in the Tutorial directory/folder that was installed in the Detailer application directory/folder. When you've selected the file, click **Open**.

4 Detailer prompts you to set mapping options.

Setting Mapping Options

"Mapping" describes the actual method used to put the two-dimensional image onto the three-dimensional surface. Detailer offers five different mapping modes. Each is suited to objects of different shape.

To set mapping:

You're working with a box. You could use cubical mapping; however, implicit mapping is generally preferred for objects that support it.

Set Implicit as the mapping type.

1 You want to choose **Implicit** mapping. Implicit mapping is the default so it should already be chosen. The red border indicates the selected mode.

The Orientation options apply to the other mapping modes. The orientation of implicit maps is defined in the model itself.

2 Click **OK** to dismiss the Mapping Options dialog.

Detailer opens the texture map image in a new window and applies it to the model in the Model Window.

The texture map is applied to the box model.

Take a look at the 3D view of your box. You probably won't see it clearly. You'll need to add more light.

If an image window hides the Model Window, you can bring it forward by choosing its listing from the Window menu. Model Windows are listed at the bottom of the menu.

Adding Light

Your model exists in a three-dimensional space. The view in the Model Window is a rendering. Rendering is like taking a picture with a camera. Just like traditional photography, rendering requires light. Detailer lets you create a lighting environment that illuminates your model just the way you want it.

To add light:

If they're not open already, display the Tools and Controls palettes. You can choose to show and hide palettes under the Window menu.

1 Choose the Light tool by clicking its icon.

The Light tool

When you select the Light tool, the Controls palette provides features specific to the light tool. That is the function of the Controls palette—to provide options and controls specific to the selected tool.

2. In the Model Window, click on the box face you want illuminated. Detailer creates a light shining on your model at the point you clicked.

Click once with the Light tool on the face of the box.

3. Now you can use the sliders on the Controls palette to change the brightness and concentration of the light.

Make adjustments to the light on the Controls palette.

Using the Light tool and the Controls palette is just the start of working with light. There are more lighting controls on the Light palette.

Changing the Model View

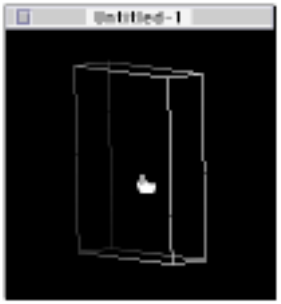
Because your model is three-dimensional, you can view it from any direction. This is one of the major benefits of working in 3D. Viewing it from any direction means you can render images that show it at any angle.

To rotate the model view:

1. In the Tools palette, choose the Virtual Trackball tool.

The Virtual Trackball tool

2. In the Model Window, drag to rotate your view. The point where you begin and the direction you drag determine how your view changes.



Use the Virtual Trackball tool to change the view of the model.

If you look at the texture map image in its window, then look at the imagery on the model as you rotate the view, you'll see how the mapping process puts imagery on the 3D surface.

If you want to restrict rotation to a given axis, you can use the sliders in the Controls palette.

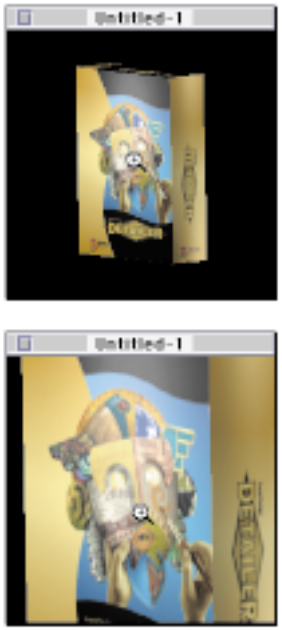
Remember, you're simply changing your view—not the model itself. This means that the lighting remains the same on the model. If you rotate to a side that is not lit, you can add another light there.

Zooming In and Out and Panning

When you're working in Detailer, you'll change the model view to get a better vantage for developing imagery and painting on the model or to set the view for rendering a separate image.

To zoom in or out:

1. Choose the **Magnifier** tool.
2. In the model Window, click once to zoom in on the area you want to see close up. You may also drag a marquee over the area you want. To zoom out, hold down the **Option** key (Macintosh) or **Alt** key (Windows) and click once in the image.



Click once with the magnifier to zoom-in.

After you've zoomed in, you'll see only a portion of your model. If you want to view a different area, you can pan the image with the Grabber.

To pan the image:

1. Choose the **Grabber** tool. You can shortcut to the Grabber by holding down the Spacebar.
2. Drag in the Model Window to bring new areas into view.

Pan with the Grabber tool.

When you're ready to proceed, adjust the magnification, position and rotation to view the box from an aesthetically pleasing angle.

Saving the Detailer Model

You've created a model, applied a texture map, adjusted lighting, and changed the view. Now it's time to save your work.

To save your work:

1. Bring the Model Window to the front. You can select it from the bottom of the Window menu.
2. Choose **File menu▸ Save**.

Detailer displays a standard Save dialog, so you can name the file and choose a location.

If you modified the texture map image, Detailer will prompt you to save it before letting you save the model. Detailer requires you to save all images applied as maps before you can save the model.

The saved model includes references to all of the maps you've applied, their settings and adjustments, the set of lights, and the viewing angle in the Model Window.

A finished Detailer model has the file that contains the 3D geometry and additional files for each map you've applied. Because several files are required, you'll want to

keep them together. It's a good idea to organize your files by saving the model and its maps in a single folder.

Rendering an Image

When you're ready to create an image file from the 3D View, you can render it. The rendering is a standard image file that you can print, edit, or composite with other imagery.

To render the 3D View of the box:

1. Make sure the Model Window shows the view you want to render. The rendered image will be a high resolution snapshot of the Model Window.

2. Choose **File menu▸ Render to Image**.

   Detailer displays the Render to image dialog, which lets you set dimensions and anti-aliasing options for the rendering.

To render, set your rendering options and click OK.

3. Enter width and height dimensions for the rendering. For this project, use 500 by 500 pixels as the size.

   You really want to use dimensions that are proportional to the Model Window. If you render at a different aspect, you might lose some portion of the image.

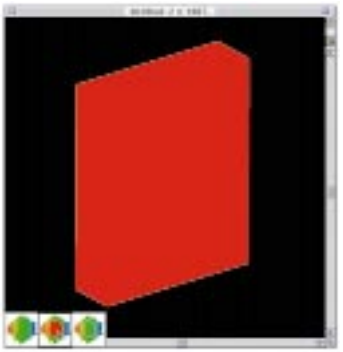
4. Anti-aliasing creates soft, blended pixels along the perimeter of the model. For this project, you want to anti-alias the mask, not the image. Disable the **Anti-alias image** option.

5. Click **OK** to start the rendering. Rendering can take a few moments, and the time increases with larger images. When Detailer finishes rendering, you'll see the rendering in a new image window.

Renderings include a mask layer, which makes compositing easy.

To view the mask, you can set the image window to Show Mask mode. The pop-up icons near the bottom, left of the window let you change the Drawing and Visibility modes.

The rendered image.



The mask of the rendered image.

To save the rendering:

1. Choose **File menu▸ Save**.

2. Detailer displays a standard Save dialog, so you can name the file and choose a location. Typically, you'll want to save

files in TIFF format if you are going to export to another 3D program like Fractal Design Ray Dream Designer.

Closing the Project

Image files that are applied as maps must remain open while you are working on the model. If your close a map image file, it will be disassociated with the model. To avoid this, simply close the model first. When you close the model, Detailer automatically closes the associated map image files.

To close a Detailer project:

1. Bring the Model Window to the front. You can select it from the bottom of the Window menu.

2. Save the file now, in case you made changes recently.

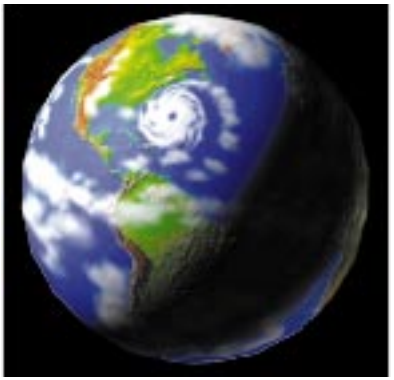
3. Click the Model Window's close box. You may also choose **File menu▸ Close**.

   Detailer closes the model file and all map image files. Image files that are not loaded as maps remain open. You can close them in the same ways.

Project Two: Creating and Applying Maps

The first tutorial gave you a overview of working in Detailer. It was a simple project, because you used only one of the map types (texture map) and didn't develop imagery.

In this project, you'll create an image of the Earth, complete with storm systems. You'll apply two maps, use more palette features, and learn more about Detailer's tools for creating images.



The completed project.

Before you begin, clean up your workspace by closing any files and choosing **Window menu▸ Clean Up Palettes**.

Creating a New Model

To create a new model:

1. Choose **File menu▸ New Model**.

2. In the New Model dialog, select **Sphere** from the pop-up. Click **OK**.

Choose sphere model type.

3. Detailer prompts you to specify the sphere's diameter and tolerance.

   Five units is a good size for this project.

   Tolerance controls the number of triangles used to approximate the curved surface. Choose the **Medium** setting.

4. When you click **OK**, Detailer prompts you for the 3D View size. Use the 200 pixels square default.

Applying a Texture Map

Once you have a model, you'll want to create map image files to apply to it. In this project, you will first apply an existing texture map.

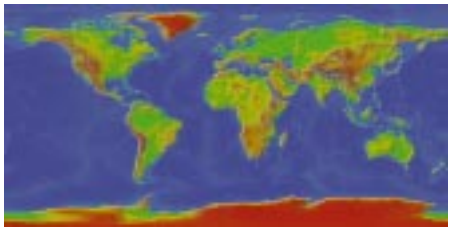
To apply a map:

1. Display the **Materials palette**. You can find it listed on the Window menu.

2. In the Materials palette, click the Object icon. Detailer displays the **Materials: Object palette**. This palette lists the maps on an object and offers the same control features available from the Map menu.

3. In the **Materials: Object palette**, double-click the texture map listing. You may also choose a map listing and click the **Load** button.

   Detailer displays the Apply Texture Map dialog. You'll open an existing image called 2EARTH.RIF. The file is located in the Tutorial folder installed in the Fractal Design Detailer directory/folder.



Load the texture map for the Earth.

4. When you open the file, Detailer displays the Set Mapping Options dialog. Choose **Spherical** mapping mode. Leave the orientation at the default—**Align with Coordinate Axes**.

Choose Spherical mapping mode.

Images used for spherical mapping should be twice as wide as they are high.

5. When you click **OK**, Detailer maps the image onto the sphere. Look at the result in the Model Window. You can use the **Virtual Trackball** to view the Earth from anywhere in space.

Setting Lighting in the Light Palette

You might want to add some light to the subject. This time, we'll use the Light palette.

In the Materials palette, click the Light icon. Detailer displays the **Materials: Light palette**.

The Light tool is a quick way to add light, but the Light palette offers complete control over lighting your model.

The preview sphere represents your model space. You can think of your model as being inside the preview sphere.

To create a new light with the Light palette:

1. Click on the preview sphere.

2. The small circles on the sphere are the light icons. You can move a light by dragging its icon. You can select a light by clicking its icon. Once selected, you can use the other controls to change the light's color, brightness, and concentration or to delete the light completely. Increasing concentration narrows the specular highlight.

Click in the preview sphere to add lights.

When you're finished setting the lights, return to the **Materials: Object palette**.

Remember that you can tear off a palette (other than the current one) by dragging its icon out of the Materials palette.

Creating a New Bump Map

Now let's create a bump map. The bump map adds surface relief—terrain, like mountains and valleys. You'll develop the bump map image by copying, then modifying the texture map.

To create a bump map:

1. Double-click the bump map listing in the **Materials: Object palette**.

2. In the **Apply Texture Map** dialog, choose the **Copy image** option. The pop-up lists open image files. Make sure the 2EARTH.RIF is selected.

3. Click **OK**. Detailer displays the Mapping Options dialog. Again, you'll use spherical mapping. This time, set the orientation to **Align in Register with Texture Map**.

   Aligning the two maps means that, on the model, the imagery in the one map corresponds with the imagery in the other.

   Detailer copies the image and applies the copy as a bump map.

At this point, the texture map and bump map images are identical. The map type is identified in the window title, so you can tell which window holds which map.

Create the bump map from a copy of the texture map.

Let's take a look at the bump effect on the model. To do this, we'll hide the texture map. Take a look at the icons beside the map listings in the **Materials: Objects palette**.

The double "X" means that no map of that type is loaded. The Eye icon shows that this map is loaded and is visible on the object. You can hide a map (remove it from the object) by clicking the Eye.

The Pencil icon lets you control which map is active. Only the active map (clear Pencil) is ready for editing. The other (inactive) maps have a red slash through their Pencils. You can make a map active by clicking its Pencil icon.

The Bump Map is highlighted and displays the pencil to show you are able to paint in it.

Editing the Bump Map

When the texture map is hidden, you can see the effect of your bump map—surface relief in the form of the continents.

To raise and lower the bump depth:

Drag the **Bump Map Adjustment: Amount slider**. This is one way to change the level of bump. The other way requires you to edit the bump map image.

When you have more than one map loaded for an object, you'll need to identify which one you want to work in.

Raise the bump map using the Bump Map Adjustment: Amount slider.

Set the bump map as the active map. You may click the Pencil icon beside the map listing in the **Materials: Object palette** or you may choose **Map menu▸ Paint into▸ Bump Map**.

Detailer uses the luminance values of the pixels in the bump map image to determine the height or depth of the bump. Pixels of higher luminance (closer to white) appear recessed and pixels of lower luminance (darker) appear raised in the bump. You can flip this with the Invert option on the **Materials: Object palette**.

Color information is ignored. This means that the bump map may be a grayscale image.

To better visualize how the features of the bump map image will appear on the model, you might want to remove the color from the image.

To remove the color from the bump map:

1. The bump map should still be active. If not, click the Pencil icon for the bump map listing in the Materials: Object palette or activate the bump map window.

2. Choose **Effects menu▸ Tonal Control▸ Adjust Colors**. If necessary, set the Using pop-up to **Uniform**.

3. Drag the **Saturation** slider all the way to the left. Click **OK**.

Create a grayscale version of the bump map and increase the contrast to enhance the range of bump.

You can increase the contrast in the image to enhance the range of bump.

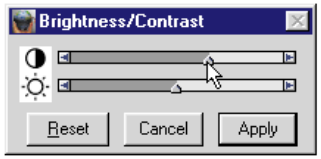
To enhance the range of bump:

1. Choose **Effects menu▸ Tonal Control▸ Brightness/Contrast**.

2. Drag the **Contrast** slider to the right. This will "raise the mountains higher and carve the valleys lower." Click **OK**.

When the bump map generates the relief you want, you can go back and work on the texture map.

Use the Eye and Pencil icons in the **Materials: Object palette** to make the texture map active and visible on the model.



Drag the Contrast slider to the right to increase the range of bump.

Adding Floaters to the Texture Map

Work in the texture map to add new imagery—a hurricane. The hurricane image will be a **floater** that you can move across the Earth. Detailer inherits its ability to work with multiple floating selections or "floaters" from Painter. You'll find floaters offer a flexible and dynamic method of working.

A floater is an independent image that hovers above the canvas. You can move floaters around, scale, distort, and edit them without touching the canvas image. Detailer can open and save Photoshop 3 files, automatically converting layers into floaters and vice-versa. To maintain floaters, save in RIFF or Photoshop format.

The hurricane floater has already been created for you. It is located in a Floater Library called TUTLIB.POR.

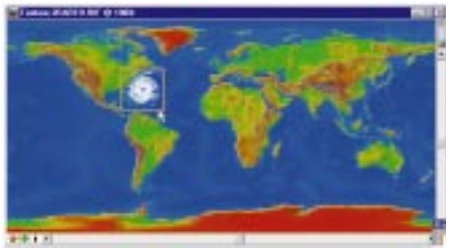
To use the hurricane floater:

1. Choose **Materials palette: Object menu▸ Floaters**.... Detailer displays the Floaters palette. The Floaters palette contains a library of image floaters.

2. Click the pushbar to open the drawer so you can access the Library button.

Click the Library button to open the floater library for this tutorial called"TUTLIB.POR."

3. Click the **Library** button. Locate the floater library TUTLIB.POR installed in the Tutorial directory/folder in the Detailer directory/folder.



Drag a floater into the texture map file.

4. Drag the icon for the hurricane floater from the Floaters palette to the south Atlantic region of the texture map image. When you release, Detailer displays the hurricane right where you dropped it.

   Because you added a floater to your image, Detailer automatically selects the **Floater Adjuster tool**, which you can use

to drag the floater to a different location. You can drag a floater in either the image window or in the Model Window. Try it in the Model Window.

The Floater Adjuster tool

While working in the map image file, be careful not to float the entire map image! You will know you have done this if the entire map displays a selection rectangle and your hurricane disappears. To "un-float" the entire map image and continue, choose **Edit menu▸ Undo** or **Edit menu▸ Drop**.

5. Bring the Model Window to the front. Drag the hurricane toward Florida... stop before you destroy Miami!

You can drag a floater anywhere on the model; however, if dragging it on the model moves it out of the image, part of it will get cut off. To avoid this, keep all of the floater within the borders of the texture map image.

When a floater is selected, a black and yellow rectangle appears around it in the map image window. You can deselect to hide the rectangle by choosing **Edit menu▸ Deselect**. You can select the floater again by clicking on it with the Floater Adjuster. This is just the beginning of working with floaters.

Applying Effects to Floaters

You can apply effects to floaters to change their appearance or their orientation. In this example, if you drag the floater into the southern hemisphere, you'll find that it's spinning the wrong way. Because of the Coriolis effect, weather systems rotate in opposite directions in the northern and southern hemispheres. If you put the hurricane floater south of the equator, you'll need to flip it to get the correct rotation. You can flip the floater using orientation effects.

To flip the floater vertically:

1. Make sure a floater is selected or you will apply effects to the entire image.

2. Choose **Effects menu▸ Orientation▸ Flip Vertical**.

Painting with the Image Hose

When you've got the storm system where you want it, you might want to some additional clouds. You can add the clouds with one of Detailer's brushes. The best brush for this job is the Image Hose.

To use the Image Hose to paint with clouds:

1. In the **Tools palette**, choose the **Brush tool**.

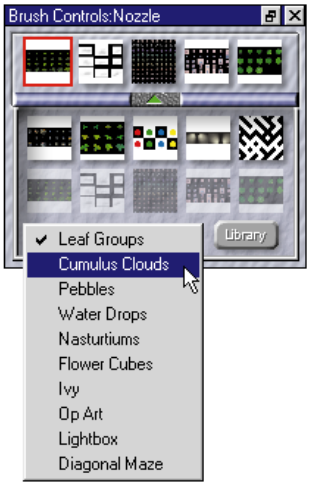
2. Display the Brushes palette, from the Window menu or by double-clicking the Brush tool icon in the Tools palette.

Choose the Image Hose brush.

3. In the **Brushes palette**, locate and select the **Image Hose**. You might need to open the palette drawer to find it.

4. The Image Hose paints with images that come from Nozzle files. Nozzle files are stored in the Nozzles palette. Open the Nozzles palette by choosing **Brushes palette: Nozzle menu▸ Nozzles**.

5 Open the Nozzles drawer by clicking on the pushbar. Choose the **Cumulus Clouds** nozzle from the pop-up menu.



Choose Cumulus Clouds from the pop-up in the Nozzles palette drawer.

6 Paint with clouds in the map image file or in the Model Window.

Remember to deselect your hurricane floater before painting with the Image Hose. When a floater is selected, your image editing changes apply to the floater—not to the canvas.

Paint with clouds on the model.

If you want to paint clouds across the seam of the texture map, you must first select the texture map and choose **Materials palette: Pattern menu▸ Define Pattern**.

Remember to save this project. You'll need to save the model file and both map files.

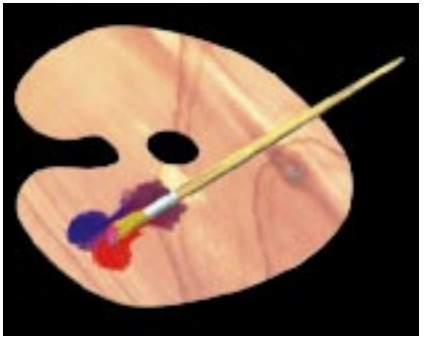
If you want to, go ahead and make a rendering. Choose **File menu▸ Render to Image**.

Project Three: Advanced Mapping

This tutorial builds on what you've already learned by introducing some of the more advanced features and techniques. This tutorial moves fairly quickly. If at any point you want more information on a feature, feel free to sidetrack to the section of the manual that covers that topic.

In this project you'll open a saved model, work with a multi-object model, use the mesh, apply three maps, and use more features for developing images.

Before you begin, clean up your workspace by closing any files you have open.



The finished project.

Opening the Model for this Project

To open an existing model:

1. Choose **File menu▸ Open**.

2. Detailer displays a standard Open dialog so you can locate and select a model file. The model for this project is titled 3TUTORIAL.VDU. It's saved in the Tutorial directory/folder installed in the Detailer directory/folder. When you've selected the file, click **Open**.

   When the model opens, it will appear dark. You're looking at the bottom of the model and no light is shining there. Use the **Virtual Trackball** tool to change your view so you can see the palette and the brush.

This model was created in Fractal Design Ray Dream Designer and exported in Detailer format.

Working with Multi-Object Models

This model is made up of two objects—the brush and the palette. Detailer allows you to work with models comprised of up to 240 objects. You may apply a different set of maps to each object in the model.

When you work with a multi-object model, you'll need to select one of the objects before applying maps.

To select one object within a model:

1. Choose the **Object Selection tool**.

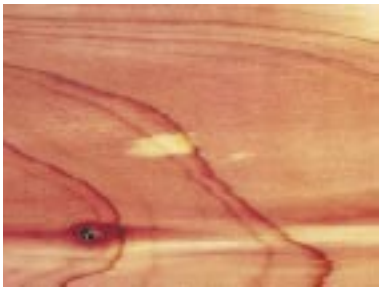
The Object Selection tool

2. In the Model Window, click on the artist's palette object.

Detailer outlines the selected object in red. In the Controls palette, you will find some technical information on this object.

Creating a Map for the Artist's palette

You're going to apply a wood texture map to the artist's palette.



The texture map for the palette is called 3WOOD.RIF.

To apply a wood texture to the palette:

1. Use either **Map menu▸ Load Texture** or double-click the texture map listing in the **Materials: Object palette** to open the **Apply Texture Map** dialog.

2. Open an existing image of wood grain called 3WOOD.RIF from the Tutorial directory/folder.

3. When you open the file, Detailer displays the Set Mapping Options dialog. Choose **Pass-thru** as the mapping mode and click **OK**.

Choose Pass-thru as the mapping mode.

Now that the palette has a texture, you can work on the brush.

Creating maps for the brush

First, select the brush, then create a texture map for the brush.

To select the brush:

1. Choose the **Object Selection tool**.
2. Click on the brush object in the model to select it.

To create a texture map for the brush:

1. In the Apply Texture Map dialog, choose **Make new image using... Blank**.
2. You'll need to specify the size of the new image. In the Rows and Columns text fields, enter 150 (rows) and 650 (columns). These values describe a map appropriate to this object. You'll see why in a moment. Click **OK**

   Rows and columns describe the pixels in the image. "Rows" refers to the number of pixels in the image height. "Columns" refers to the number of pixels in the width.
3. Detailer prompts you to set mapping options. Choose **Implicit** mapping.

   Orientation options do not apply to Implicit mapping. The orientation is defined in the object's construction. That's why it's implicit.

Choose "Make new image using.... Blank.

When the image opens, it will be blank. You'll add the imagery in the following steps.

A brush of this type is constructed of three distinct materials—the wooden handle, the metal ferrule, and the hair bristles. This brush, however, is modeled as a single object. You'll need to use a texture map that describes the different materials, aligned with the object features. Detailer offers two features that make this easy: the mesh overlay and floaters.

Using the Mesh Overlay

The mesh describes the correlations between regions of the map image file and regions of the object. The mesh itself depends on the selected mapping type.

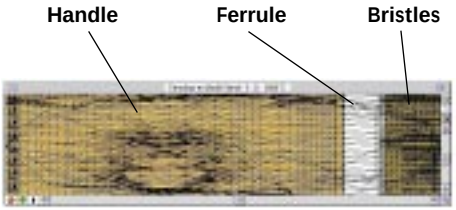
To view the mesh:

1. Be sure you have a map image window active, not the Model Window.
2. Choose **Canvas menu▸ View Mesh**.

Detailer displays an overlay of the mesh in the map image window.

You may also click the mesh icon near the top, right corner of the map image window to show and hide the mesh.

Looking at the mesh, you should be able to see features of the brush construction. This makes it easy to create imagery for the different materials of the brush.



Activate the mesh to display mapping information.

Making the Wooden Handle

To make a wooden handle:

1. Choose the **Rectangular Selection** tool.

2. By viewing the mesh, drag to select the area that maps to the wooden handle. Look at the Controls palette. It shows the dimensions of your selection rectangle. Note the values—you need a piece of wood that's at least this size.

3. Choose **File menu▸ Open**. Choose **Image** in the dialog. Select a new woodgrain called 3WOOD2.RIF located in the Tutorial directory/folder.

The file used for the brush handle texture map, called 3WOOD2.RIF.

You are opening this file, as opposed to applying it, because you're not going to use this file as a map. You're just going to get some imagery from it.

The Rectangular Selection tool

4. Choose the **Rectangular Selection** tool. The "r" key is the shortcut to choosing this tool. Drag a marquee that is slightly larger than the area you noted for the handle (in step #2). Of course, you'll want to select an area that has some nice grain pattern.

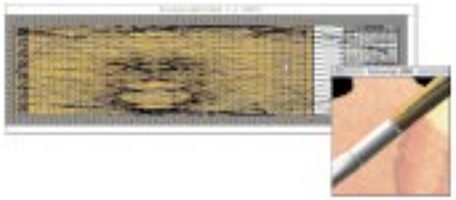
5. When you've selected a region, choose **Edit menu▸ Copy**.

   Locate the image window for the texture map applied to your brush. Bring the window to the front (make it active) so you can work in it.

6. Choose **Edit menu▸ Paste**.

   Detailer pastes the wood selection as a floater. Automatically, Detailer switches to the **Floater Adjuster tool** so you can drag the floating image where you want it.

7. Drag the floater into position. The important alignment is with the edge of the ferrule.



Align the handle with the ferrule using the mesh and your view in the Model Window.

You can nudge the floater one pixel at a time by pressing the Arrow keys on your keyboard.

It doesn't matter that the floater is slightly taller or wider than the handle area—any overlap to the left, top, and bottom is ignored.

At this point, you might want to look at the brush. Select the Model Window, zoom in, rotate, and use the **Grabber** to see the handle on the brush. Check the alignment where the handle meets the ferrule.

You might want to add some light to see your brush better.

If you'd like to adjust the color of the wood, it's easy. The floater should be still be selected. If not, choose the **Floater Adjuster** tool and click on it.

To adjust the color of the wood:

1. Choose **Effects menu▸ Tonal Control▸ Adjust Color**.

2. In the Adjust Color dialog, drag the sliders to change the wood color.

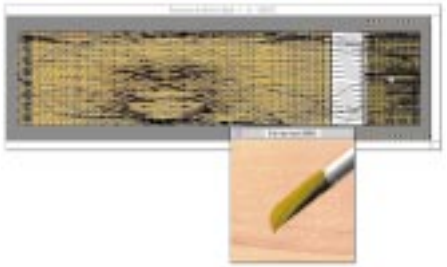
You are finished with the wood source file. You may close it without saving changes. Click the 3WOOD2.RIF file to bring it to the front and click the close box to close it.

Use Adjust Color to change the color of the wood floater.

Adding the bristles

The techniques you used to create and position the wooden handle are what you'll want to do for the bristles. You want a rectangle of imagery with strong horizontal striations. If you don't want to create your own, you can find a file with suitable content in the Tutorial directory/folder. It's titled 3BRISTLE.RIF. You don't need the entire file, only a portion of it.

Repeat the steps from the previous section to create the bristles.



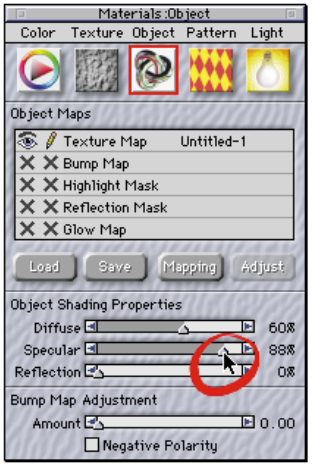
Align the bristles next to the ferrule using the mesh and your view in the Model Window.

Creating the Ferrule

The ferrule is metal, so it doesn't require much imagery. Perhaps you'll want a little color—light blue for chrome or gold for brass. The important characteristic of metal is its shininess.

To set shininess:

1. Drag the **Materials: Object palette: Specular slider**.
2. Increase the setting to give the object strong highlights.



Drag the Specular slider to set shininess.

This also gives the bristles strong highlights, which isn't natural. You'll correct this by loading a new map to mask the highlight on the bristles.

Creating a Highlight Mask

The highlight mask allows you specify what part of the object has highlights.

To create the highlight mask:

1. Choose **Map menu▸ Load▸ Highlight**. You may also double-click the Highlight Mask listing in the **Object palette**.
2. In the Apply Map dialog, choose the **Copy image** option and select the file loaded as the texture map.

   Copying the texture map is convenient because that image already shows where the handle and bristles are.

The copied image composites the floaters with the canvas.

3. Detailer prompts you to set mapping options. Choose **Implicit** mapping.

4. Edit the highlight mask image to describe the areas of different highlight characteristics.

   Color information is ignored. The mask may be grayscale. White areas of the image permit highlight on the object. Black areas block it completely. Shades of gray permit some level of highlight.

5. Display the **Materials: Color palette**. Set black as the current color.

6. Use the **Rectangular Selection** tool to select the bristles region of the Highlight Mask image. Choose **Edit menu▸ Fill**. In the Fill dialog, choose **Current Color** as the fill medium. Click **OK**.

   The wooden handle has some level of highlight, more than the bristles, but not as much as the ferrule. In the **Materials: Color palette**, set a shade of gray (approximately 50%) that describes the amount of highlight for the wood.

7. Select the handle region of the mask image and fill it with the chosen gray.

Now go back to the Model Window and see the effect of your changes. You might want to adjust the lighting to enhance the highlight.

Create the highlight mask by modifying a copy of the texture map.

Reflection

Reflection is another characteristic of metal. You can set the object's reflection amount with the **Materials: Object palette: Reflection slider**. Increase the setting to approximately 80% to give the object strong reflectivity. Reflective areas on an object will reflect the current pattern or the imported environment image.

Again, the bristles and handle are not as reflective as the ferrule. You'll apply a reflection mask to limit reflection in these areas.

This reflection mask is essentially identical to the highlight mask, so you can copy that image to create the reflection mask map. You might want to darken the masking of the handle area—polished wood shows highlights, but not much reflection.

The image that appears in the reflection is called the environment. You can import an image to use as the environment. If you don't import an image, Detailer uses the current pattern. For this project, use an existing pattern. Choose a pattern on the Materials: Pattern palette. Open the drawer to see all of your choices. The pattern entitled "Interior" is designed for reflection mapping.

Bump

The only feature of the brush model you want to bump is the bristles.

To create a bump map:

1. Choose **Map menu▸ Load▸ Bump**. You may also double-click the Bump listing in the **Object palette**.

2. In the Apply Map dialog, choose the **Copy image** option and select the file loaded as the texture map.

   Copying the texture map is convenient because that image already shows where the handle and bristles are.

If the bristles look too straight and regular, you can use a different image in the bump—perhaps angled or curved striations. The differences between the texture map image and bump effect can produce irregularity that may look more natural.

3. Detailer prompts you to set mapping options. Choose **Implicit** mapping.

4. Set the bump amount with the **Materials: Object palette: Bump Adjustment Amount slide**r. Increase the setting to give the object steeper bumps. You'll want to view the bristles in the Model Window to see the effect of your changes.

You might want to remove the color from the bump map image.

Remember that bump map uses only luminance information. Just because pixels have different colors doesn't mean they will bump differently. Looking at the image in gray scale helps you see the bump features in the map more clearly.

Create the bump map by copying the texture map. Then edit the file for the bump characteristics you want.

To remove color from the bump map image:

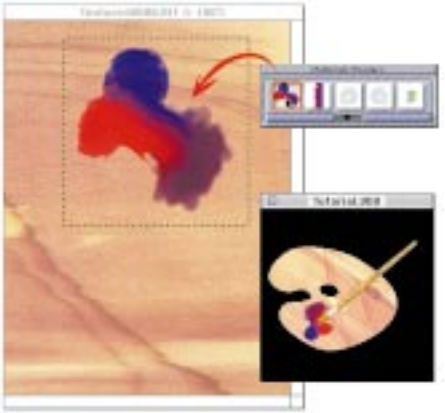
1. Choose **Effects menu▸ Tonal Control▸ Adjust Color**.

2. In the Adjust Color dialog, drag the **Saturation** slider all the way to the left. Click **OK**.

To remove bumping from the handle: Use the **Rectangular Selection** tool to select that area, then press the **Delete** or **Backspace** key.

By now, your model should be looking pretty good. There's only one thing missing... Paint! You can add a colorful floater at the right edge of the texture map to put some paint on the brush.

We have prepared some paint splotch floaters for you. Drag them from the floater library TUTLIB.POR installed in the Tutorial folder/directory in the Detailer folder/directory.



Drag paint splotch floaters from the Floater library into the texture map.

Some paints are shiny when wet. You can copy the floater and then paste it into the same spot in the highlight mask, where you can edit to allow greater highlight in this area.

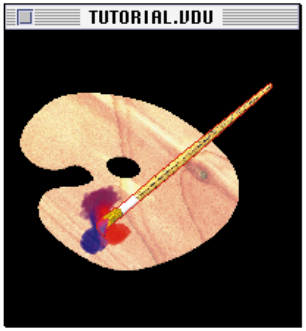
Use **Command–Shift–U** (Macintosh) **or Ctrl + Shift +U** (Windows) to paste a copied floater in the same spot it was copied from.

Copying a floater between maps:
When you copy a floater in one map, you'll often want to paste it in exactly the same location in another map. Detailer offers a shortcut method for doing this: Copy the floater. Move to the other image. Press **Command–Shift–U** (Macintosh) or **Ctrl + Shift + U** (Windows). Detailer pastes the floater in the same location (relative to the top, left corner of the image) it was copied from.

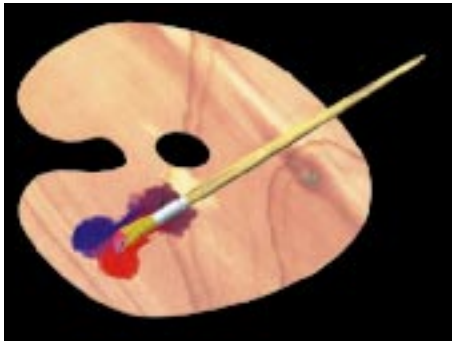
You can keep adding detail, like paint smudges and fingerprints on the handle, to make the brush even more realistic.

Go back to the palette object and the paint mixes. If you want to create your own paint splotches, work in a separate, temporary file to create them. Then select, copy and paste them into the texture map image.

You have just finished your first complex model. Using the techniques and features you've learned, you can create any kind of surface with Detailer!



Before you render, make sure you like everything you see in the Model Window.



The final rendering.