



Using Eclipse™

V 3.1.4 for Windows NT™/98

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Finding Information about Eclipse

Sources of information

Your Eclipse package contains several sources of information: an Installation Guide, this Manual, a Quick Reference card and a short Introduction. New features and information received too late to be included in this manual can be found in the ReadMe file which you find in Eclipse's installation folder. As you run Eclipse, you can use its online help system to get the information in this manual.

The **Eclipse Tutorials** contain a set of lessons that have been developed by an Eclipse expert with years of experience delivering Eclipse training and working with Eclipse users. For a quick tour which shows you Eclipse's most exciting features, see **Tutorial 1: Eclipse Round-trip**.

This **Manual** provides in-depth information for using Eclipse to create, edit, compose and retouch images. Start with *"Eclipse Basics" on page 1-1* to get a general understanding of how to use Eclipse.

After you get going, refer to the topics that you are most interested in.

- **For image composition**, see *"Working with ShapeLayers" on page 5-1* and *"Editing ShapeLayers and Their Fills" on page 6-1* to learn how to use Eclipse's ShapeLayer technology to open, edit and compose multiple images.

- **For retouching**, you might want to start with *"Correcting Color" on page 2-1*, *"Adding Effects" on page 3-1* or *"Masking" on page 8-1*.
- **For photo imaging**, you will also want to see *"Special Effects Using ShapeLayers" on page 7-1*.
- **For creating color separations**, turn to *"Creating Color Separations" on page 10-1*.

Notation used in this Manual

This guide uses different type styles and paragraph formats to draw your attention to important information.

Bold text

The following types of information appear in **bold face** text:

- Menus or menu items that you choose.
- Commands or text that you type.
- Fields, buttons and options that you select.

Here are some examples of when bold text is used:

- Choose **Save** from the **File** menu or choose **File** → **Save**. This means "click the File menu, then click Save."
- At the command line, type **Eclipse**.
- Select **Page Dimension** and type **8.50**.

Italic text

The following types of information appear in italic text:

- Cross-references,
- Unique or important terms.

For example:

- See “*Notation used in this Manual*” on page V.

System and program prompts

File names, system and program prompts and messages appear in Monotype text like this:

Installation of this product requires `ROOT` privileges.

Procedures

Procedures are marked with a headline in bold face. If several steps are required to complete a procedure, they are numbered like this:

To open an image:

- 1 Choose **File** → **Open**. A submenu appears.
- 2 From the submenu, choose **Image**.

Warnings

Warnings are marked in red. Warnings prevent you from making mistakes which may interrupt your workflow. For example:

WARNING

Be sure to give the new file a different name so you do not replace the old file.

Tips

Tips provide hints or short cuts. For example:

TIP

Calibrate your monitor to match the output you see. It is a good idea to calibrate your monitor every three months.

Remarks

Remarks provide interesting information or comments.

Getting Help

Eclipse includes online documentation that you access through the Help menu located at the right of the menu bar.

Online Help is an electronic version of this manual. Help is displayed in a separate window that you can leave open as you work.

To get online help, choose **Help** → **Eclipse**.

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1.1. Starting Eclipse

Starting from the Desktop

Double-click the Eclipse icon in the Eclipse folder in the **Programs** section of your **Start** menu.

TIP

To start Eclipse, you can also double-click on a Tile file icon or drop a Tile file icon on top of an Eclipse icon. A Tile file is an image stored in Eclipse format.

Starting from the Command line

- 1 Click **Start** on the task bar.
- 2 Click **Run** in the menu.
- 3 Type `<pathname>\eclipse`, where `<pathname>` is the name of the directory where you installed Eclipse, e. g.
`C:\Program files\Eclipse\Eclipse`

TIP

*Starting Eclipse from the command line, lets you open an image file at the same time by typing the image's pathname and filename after **Eclipse**. For example, to open a file called picture in `C:\mypictures` type:*

```
C:\Program files\Eclipse\Eclipse  
C:\Eclipse\mypictures\picture.
```

1.2. Opening and Saving Images

Opening an image

You can open images in more than a dozen formats using the Open command in the File menu. Simple instructions are given here. For detailed information see *Appendix A: Managing/Translating Files*.

To open an image

- 1 Choose **File** → **Open**.
- 2 From the submenu that appears, choose **Image**. The standard Windows Open file dialog appears.



Open file dialog

Choose the directory you want from the drop-down menu at the top.

To open an image mark it by clicking on its filename, then click **Open** or press Enter. As a short-cut, double-click the image filename to open it.

Generating icons

To help you recognize image files, you can create a small version or thumbnail of the image file you want to open by clicking **GenIcon**.

Thumbnail files are stored in the same directory as the parent image and are given a `.pxy` filename extension.

The image determines the color space

The image you open determines the color space in which you work:

- Opening an RGB image sets Eclipse to an RGB color space.
- Opening a CMYK image sets Eclipse to a CMYK color space.

The image you open is called the *canvas image* to distinguish it from images you place inside ShapeLayers.

Eclipse opens a copy of the image

By default, Eclipse works on a copy of any image you open, allowing you to discard unwanted changes and restore your image to its original version. If a dialog box appears warning that you will be working on your original image, then Original mode has been selected in **File** → **Preferences** → **General**.

See *page 9-6* for information on changing back to Copy mode.

Opening a mask or ShapeLayer

If you save a mask or ShapeLayer with the same name as the image, you can open them with the image by choosing **File** → **Open** → **All**.

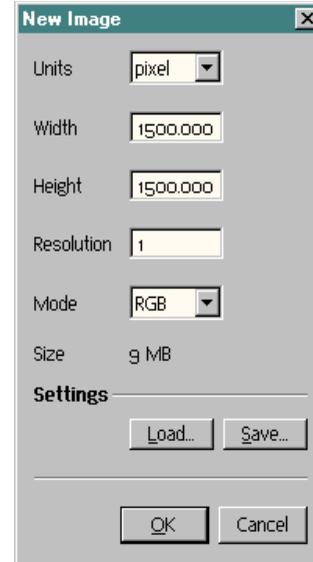
Once you have opened an image, you can also open masks and ShapeLayers on their own by choosing **File** → **Open** → **Mask** or **File** → **Open** → **ShapeLayers**.

TIP

*When opening an Adobe Illustrator file as a ShapeLayer file, you may want to select **Fit to Canvas When Open** in the *Open ShapeLayer file dialog*.*

Creating a new image

To create a new image, choose **File** → **New Image**. The New Image dialog appears.



New Image dialog

All text boxes show the values which were used the last time. You can either use those values or type in new ones.

- 1 Units:** Choose a unit for the dimensions from the drop-down menu.
- 2** Type **Width** and **Height** values into the respective textbox. The units depend on the setting in the **Units** text box.
- 3** To change the **Resolution**, type in a new value. Its unit depends on the setting in the **Units** text box. Default setting is Pixel per unit. In case the

unit is pixel, resolution equals 1 and can not be changed, of course.

- 4 Mode:** Choose a color space - **RGB** or **CMYK**.
- To save these settings for future use, click **Save**. To reuse saved settings, click **Load**.

As soon as you have specified width and height for the new image, Eclipse calculates its file **Size**.

- Click **OK** to create the new canvas.

REMARKS

Saving settings for a new image is like creating stationery. The settings file takes much less disk space than a real blank page.

Working with units set to pixels is easiest, especially if you are unfamiliar with resolutions in other unit systems.

Opening another image

If you choose **File** → **New Image** or **File** → **Open** when an image is already open, a dialog box asks Close the current image before opening?

- Click **Yes** to close the current image without saving it.
- Click **Cancel** to close the dialog box and not open another image.
- Click **No** to start a second copy of Eclipse and open another image.

TIP

You can have two or more copies of Eclipse open at once. To conserve memory, minimize the copy you are not using.

Import from an external device

You can import images from a Twain-compatible scanner or digital camera connected to your computer.

To import an image from an external device

- Connect the device to Eclipse by choosing **File** → **Select Source**. A Twain dialog opens with a list of the devices available.
- Choose the device you want to work with.
- Choose **File** → **Acquire** to open the software installed with the respective device. See the device's manual for further instructions on how to scan or how to read pictures from a digital camera.

Printing an image

To print your current image choose **File** → **Print**. Eclipse opens a standard Windows Print dialog. There you define the necessary settings like type of printer, number of copies etc. and then start the printing procedure.

Closing an image

To close the current image without quitting Eclipse, choose **File** → **Close**.

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A dialog box appears asking Are you sure you want to close?

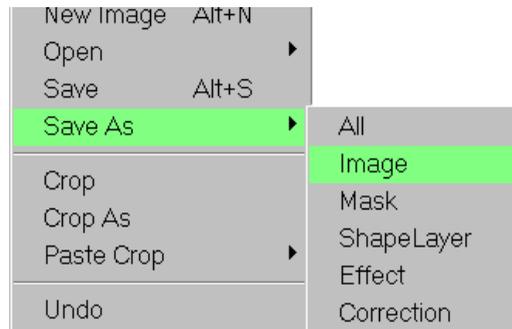
- Click **Yes** to close the image without saving it.
- Click **No** to leave the image open and continue working.
- Click **Save** to both save and close the image.

Saving the image

To save an image with the same name and format, choose **File** → **Save**.

Using the Save command replaces the original file with the saved file.

For customized saving, choose **File** → **Save As**. A submenu appears.



1.2. Opening and Saving Images

Save As → **All**: Save the canvas image and its related mask and ShapeLayer overlay with the same name and an appropriate extension: `.tmsk` for mask files and `.shp` for ShapeLayer files.

Save As → **Image**: Save the canvas image with a different format or name. The original file is not affected.

Save As → **Mask**: Save the current mask as an Eclipse or Alias mask file with a `.tmsk` filename extension.

Save As → **ShapeLayer**: Save all ShapeLayers in an Eclipse ShapeLayer file with a `.shp` filename extension.

Save as → **Effect**: Save the current effect with a `.eff` filename extension.

Save as → **Correction**: Save the current correction with a `.corr` filename extension.

TIP

*When Eclipse is in Copy mode, you can save changes to the working copy of an image without affecting the original image by choosing **File** → **Retain**.*

Quitting Eclipse

To quit Eclipse, choose **File** → **Quit** or **Alt + F4**.

A dialog box appears asking if you really want to quit and whether you want to save the image before quitting.

- Click **Yes** to quit without saving the image.
- Click **No** to continue working.
- Click **Save** to save the image before quitting.

1.3. How Eclipse Handles Images

Eclipse uses a native image file format called *Tile file* to display images in the main window and in ShapeLayers. This native format organizes the image data for optimal performance.

When you open a foreign format image file, Eclipse creates a Tile version of the image for you to work on. This is true for Original or Copy mode. When you save the file, Eclipse saves any changes you made to the Tile version back to the original file. You can also save the Tile version in one of more than a dozen different image formats.

Eclipse creates image proxies

Eclipse creates and uses proxy versions of image files to display them on screen or within ShapeLayers.

Eclipse generates an image's proxy file as it needs it. This is normally a background process. A proxy file has the same filename as the actual image, with a .pxy extension. For example, for an image named mypicture, Eclipse generates a proxy named mypicture.pxy. Eclipse stores proxy files in the same directory as their parent image files. After a work session, you will find the .pxy files in the same directory as the images.

When you open an image, Eclipse looks for the proxy in the same directory as the image. We recommend that you keep the image proxies in the same directory as their parent image. This way

Eclipse will not have to recreate a proxy because it can't find the existing one.

Copy mode vs. Original mode

In Eclipse, you can work in either Copy mode or Original mode, as determined by a setting in the General Preferences dialog box. The mode you choose determines whether you work directly on your image files or on copies of the files.

WARNING

*To protect your original images, we strongly suggest that you **always work in Copy mode!!!** For more information, see “Abandoning Changes” on page 1-34.*

Eclipse creates temporary files

Eclipse creates and uses temporary files as you work. For example, when you work in Copy mode, Eclipse makes a copy of each image file you open to protect the original image. Eclipse also uses temporary files when you work with masks, vignettes, and warped images. Temporary files have names like Eclipse.22852.NewImage.3 or Eclipse.22852.Before.2.

WARNING

Do not delete temporary files while you are working with Eclipse.

Eclipse deletes any temporary files it creates when you exit the program. However, you must have enough free space on your hard disk for Eclipse to create the files it needs as you work. If you run out of temporary file space, you get a warning and are

prompted to free up space. You can specify the directory in which Eclipse stores temporary files in the General Preferences dialog. We suggest that you store temporary files on a local hard disk for best performance.

For more information on temporary files, see *page 9-6*.

Canvas image resolution

Resolution is the number of pixels per unit of measurement. When you open an image, its original resolution is preserved. By default the resolution is expressed in absolute pixels. For example, an image with a dimension of 7 x 5 inches and a resolution of 100 ppi will have its dimensions expressed as 700,500 — its total number of pixels. Working in pixels is the easiest, but if your required output is expressed in pixels per inch (ppi) you can change the units to inches by choosing **File** → **Preferences** → **General**. The dimension will then be expressed as 7.00,5.00.

The canvas image resolution is displayed in the main window title bar.



By default, the resolution is expressed in pixels. This image is 700 pixels wide by 500 high.



Now the units have been changed to inches, so the resolution is given as 7.00 inches by 5.00 inches.

Mask resolution: The mask channel uses the same resolution as the canvas image.

ShapeLayer resolution: ShapeLayer fills are resolution independent. Only when you render a ShapeLayer fill to the canvas image, the fill assumes the canvas resolution.

Changing image resolution

If you require a different resolution for the output image, you can change it using one of two methods:

- Change resolution without changing the number of pixels. This makes a corresponding but opposite change in image dimensions.
- Change the resolution without changing the image dimensions.

Changing resolution and dimensions

If you change the resolution without changing the number of pixels, the image dimensions also change.

- If you decrease the resolution, the existing pixels are spread out more and the image dimensions increase.

1. Eclipse Basics

- If you increase resolution, the pixels become closer together and the image dimensions decrease.

REMARK

When the resolution changes, the image's output dimensions also change. In the example we have been using, you decrease the resolution to 72 ppi. The dimension of the image will increase (because the total number of pixels are now spread out more) to 9.72,6.94 (700 pixels / 72 ppi = 9.72 and 500 pixels / 72 ppi = 6.94).

Changing the image resolution and dimensions does not change the size in terms of pixel count or storage size.

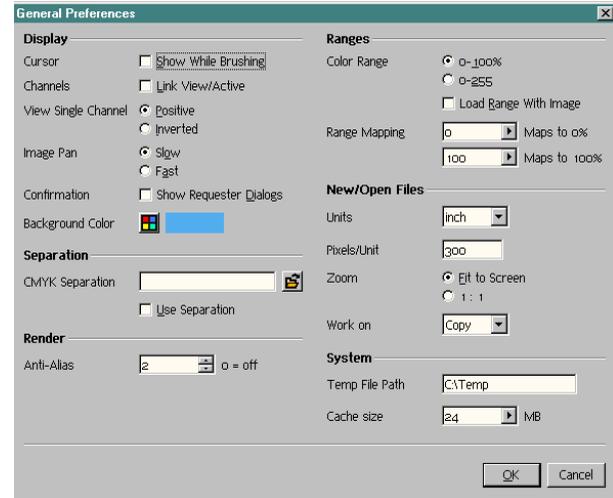
When the pixel count remains constant, there is an inverse relationship between resolution and image dimensions. As a rule, remember that doubling resolution cuts image size by half, and vice versa.

To change the canvas image resolution and dimensions

1 Choose **File** → **Preferences** → **General**.

The General Preferences dialog appears.

1.3. How Eclipse Handles Images



The General Preferences dialog

2 In the **Pixels/Unit** text box, type a new value.

REMARK

*If **Units** is set to pixels, **Pixels/Unit** is dimmed.*

Changing resolution without changing image dimensions

To change an image's resolution without changing its dimensions, you must render the image onto a canvas with the resolution you want. There are two ways to accomplish this:

- Use the **Eclipse Standalone Renderer** to render the image with a different resolution. For directions, see “Choosing render options” on page 11-12.

- Create a new canvas with the resolution you want and render the image onto it, as described next.

To change resolution without changing image dimensions

- 1** Create a new canvas by choosing **File** → **New Image**.
- 2** Specify the image resolution and dimensions you want, then click **OK**.
- 3** Create a ShapeLayer of the same size as the canvas using the Rectangle tool (see “*Creating or editing a rectangle*” on page 5-9).

TIP

Use the ShapeLayer Geometry shelf to fit the ShapeLayer to the canvas exactly. Set the x and y positions as well as the offsets to 0.0.

- 4** Open the image you want to change as a ShapeLayer fill.
- 5** Render the image to the new canvas by clicking **Render** in the ShapeLayer Toolbox.

For more information on working with ShapeLayers, see “*Working with ShapeLayers*” on page 5-1 and “*Editing ShapeLayers and Their Fills*” on page 6-1.

1.4. Using Mouse and Tablet

Mouse basics

This guide refers to mouse buttons as left, middle, and right and assumes that your mouse has the standard button configuration of a three-button mouse. If you have reversed the order of the mouse buttons because you are left-handed or for some other reason, a reference to the left mouse button refers to the right button on your mouse and vice versa.

- Use the left button for most tasks: clicking buttons, selecting tools, painting and so on. Unless an instruction explicitly says to use the middle or right mouse button, use the left mouse button.
- Use the middle button to unpaint and to delete edit points on polygons and curves.
- Use the right button to pan an image and to lock a vertex when shadow casting.

If you're using a **one-button mouse** or a **stylus**, press Alt + right mouse button to mimic the middle button.

A **click** is a quick press and release of a mouse button. You click a mouse button to select a command or an object on the screen.

Dragging means to press and hold the mouse button as you move the cursor across the screen. You drag to move or scale ShapeLayers or to pan the image directly.

Using a tablet

Eclipse supports any pressure-sensitive tablet which supports the Wintab™ API. For instruction to install your tablet, see its documentation.

You can adjust the sensitivity of the tablet stylus by choosing **File** → **Preferences** → **Stylus Pressure**. See “*Stylus Pressure Preferences*” on page 9-7 for more information. For instructions on setting up and using your tablet, refer to the documentation that came with it.

1.5. Choosing from Menus

In this guide, menu commands are written in this format: **File** → **Open**. This means to choose the **Open** command from the **File** menu.

Eclipse menus work the same as those in other applications.



File menu

Click a menu title so the menu stays open. Then click the command you want.

Clicking a command with an arrow beside it displays a submenu. Click a submenu command to choose it.

Another way to choose a command is to press and hold the menu title so you see the menu. Then drag down through the menu to the command you want and release the mouse button.

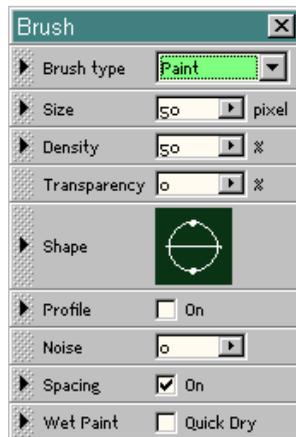
Choosing a command usually opens a dialog or shelf in which you can specify your settings before executing the action. Some commands, such as **Group** and **Ungroup** in the **Organize** menu, do not display a dialog or shelf — they perform an action immediately.

1.6. Using Shelves and Dialogs

Eclipse uses shelves to display tools and editors. You can leave shelves open as you work on your image.

Eclipse uses dialogs to adjust the options for a certain action. Executing the action closes the dialog.

Shelves and dialogs use the same controls. For this reason, the controls are described for a shelf only.



A shelf, in this case the Brush shelf

Title bar: Drag here to move the shelf.

Close button: As in any Windows program, click to close the shelf and cancel any changes you have made.

Rollout (shelves only): A shelf opens in its default configuration which gives access to the most frequently used adjustments. For further adjustments of a section click on the Rollout button on its left side.

Text box: Use these keys and mouse actions when typing in a text box:

Click	Insert cursor and activate text box
Double-click	Select all text in box and activate text box
Drag	Select and highlight text in box
Esc	Clears all selected text in the box
Left/Right Arrow	Moves the cursor left or right one character
Shift + Pos1	Moves the cursor to the beginning of the text
Shift + End	Moves the cursor to the end of the text
Backspace	Moves the cursor left and deletes the character to the left

Pop-up slider: The arrow button on the right of a text box opens a pop-up slider. You can either:

- click the button and drag the slider in one move. The slider closes as you let go of the mouse button.
- or click the button, then move the slider. Close the slider by clicking anywhere in the window.

Slider: Drag a slider to change a value or click next to the slider to change its value incrementally.

Check box: Click to turn an option on or off.

Radio button: Click to choose one of two or more options.

Push button: Click to activate.

Toggle button: Click to activate or deactivate.

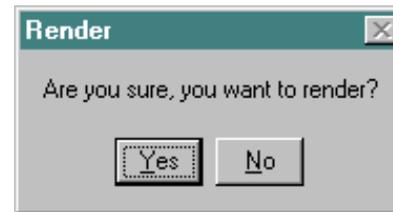
Drop-down menu: Click to see the menu, then select.

Minimize/maximize the main window

Eclipse uses standard Windows **Minimize** and **Maximize** buttons.

- To minimize the Eclipse window so that it appears as an icon on the desktop, click the **Minimize** button at the right end of the title bar.
- To maximize Eclipse so that its main window fills the screen, click the **Maximize** button.

Requester dialogs



Requester dialog example

Requester dialogs usually ask you to confirm actions or options by clicking buttons labelled **OK** and **Cancel**, or sometimes **Yes** and **No**.

As with shelves, clicking the Close button closes the dialog and cancels the operation.

If you do not want confirmation dialogs to appear, choose **File** → **Preferences** → **General** and turn off **Show Requester dialogs**.

1.7. Calibrating for Good Color

Edit Inks

Use the **View** → **Edit Inks** command to choose and edit the ink density files Eclipse uses to display and create CMYK images. Eclipse, Eclipse I/O (ecio), and CMYK Separator all use the current (most recently opened) ink density file to generate CMYK images from RGB originals.

You can use **Edit Inks** to calibrate both image display and image separation for your printing environment. As you adjust the values of the current ink density file, you see the changes in the canvas image.

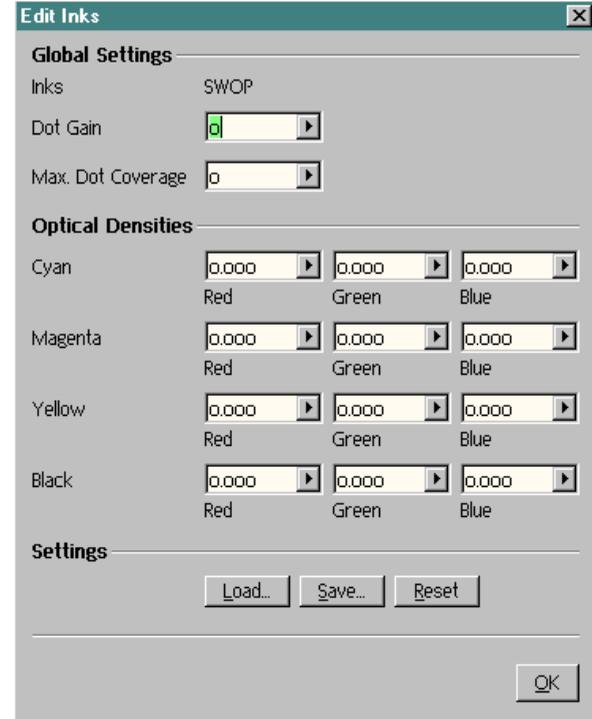
Eclipse includes a standard ink density file that you can customize and save. To use the ink file specified in **Edit Inks**, turn on **Proof Inks** as described under “*Proof Inks*” on page 1-18.

REMARK

Since the Edit Inks and Proof Inks commands affect only CMYK images, they are dimmed and unavailable if you are working with an RGB image.

To choose or edit the ink density file:

- 1 Choose **View** → **Edit Inks**. The **Edit Inks** dialog appears.



The Edit Inks dialog

- 2 To change the ink density file Eclipse uses, or to edit an existing file, click **Load**.
- 3 Use the Open file dialog that appears to choose the ink density file you want to work with. Eclipse stores the ink density files in the C:\Program files\Eclipse\util directory.

- 4 To change the **Dot Gain**, select the text box and type in a value or use the popup slider. The value represents the actual dot gain, not a percentage.
- 5 To change the ink density for a color in a certain channel, choose the appropriate text box and type in a new value. You can also use the appropriate popup slider. Values can range from 0.00 to 2.00.

As you make changes, you see the effect on screen.

TIP

To get color value information about the canvas image, use the Probe that is available from the Window menu.

- 6 To abandon your changes and restore the ink density file to the last saved version, click **Reset**.
- 7 To save your changes, click **Save**.

Type a name in the **File Name** text box or select a name from the file list. If you choose an existing filename, Eclipse overwrites that file with the new file. You can create and save as many ink density files as you want.

- 8 To close Edit Inks, click its Close button.

Proof Inks

Turn on **Proof Inks** to have Eclipse use the current ink density file to display a CMYK image. Eclipse includes a standard *ink_densities* file in the C:\Program files\Eclipse\util\custom sub-

directory that it uses to calculate the image based on the characteristics of SWOP printing inks. Proof Inks displays the image as if it was printed.

To customize Eclipse for your printing requirements, you can edit the ink density file or create your own versions of the file using Edit Inks, described under “*Edit Inks*” on page 1-17.

To turn on Proof Inks

- 1 Click the **View** menu title, and then click **Proof Inks**. When there is a check in front of Proof Inks, Proof Inks is turned on.
- 2 To turn **Proof Inks** off, click it again.

1.8. Viewing an Image

Zooming in and out

You can zoom in as far as 16:1 so that the image is 16 times bigger than at 1:1. You can zoom out to 1:16 so that the image is 16 times smaller. The current zoom level is shown in the Zoom menu at the bottom edge of the main window:



If the **Zoom** menu shows **2:1**, you are currently zoomed in at a two-to-one ratio.

Use the **Zoom** buttons or the **Zoom** menu to zoom in or out.

- **Zooming out:** The image appears smaller automatically.
- **Zooming in:** If the new size is too large to display completely, click the point in the image that you want in the centre of the screen.

Using the Zoom buttons



Zoom-in: Each time you click this button you zoom in one level.



Zoom-out: Each time you click this button you zoom out one level.

Using the Zoom menu

- 1 To see the Zoom menu, click the Zoom menu button displaying the current zoom level.
- 2 Click the level you want.

TIP

You can control whether images open at a 1:1 zoom level or are fitted to the Main window using the Zoom option in the File → Preferences → General dialog.

When zooming in, keep your eye on the message area at the right of the status area. If the image's zoomed-in size is too big to display completely, Eclipse prompts you to Select zoom centre.

Using Keyboard shortcuts to Zoom

- Use **Ctrl O** to fit the image to the window.
- Use **Ctrl +** to zoom out.
- Use **Ctrl-** to zoom in.
- Use **Ctrl 1** to zoom to 1:1

Panning and scrolling an image

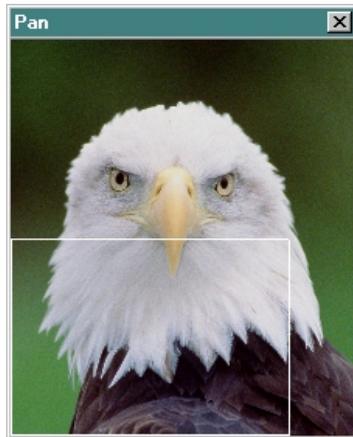
When you cannot see the entire canvas image in the main window, you can move it three different ways:

- Use the Pan shelf available from the **Windows** menu.
- Drag the image while holding down the right mouse button.

Using the Pan dialog

To open the Pan dialog, choose **Window** → **Pan**.

The Pan dialog contains an icon version of your image and a pan box that represents the available image area.



The Pan dialog

The Pan box encloses the area visible in the main window.

Drag the Pan box to scroll the image.

If you have zoomed out so that the entire image fits in the main window, the pan box completely encloses the image.

TIP

When working on a very large image or when zoomed in a lot, keep the Pan shelf open so you can move about readily.

Panning images using the right mouse button

You can pan the canvas image directly by dragging it in any direction while holding down the right mouse button.

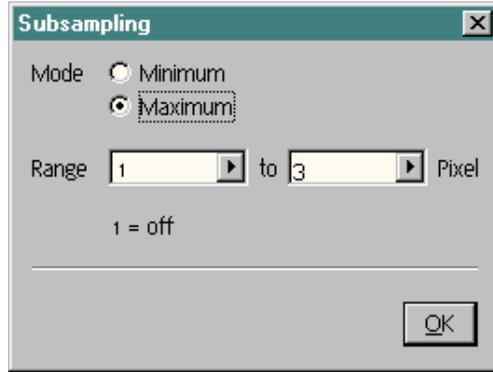
The Pan option in the General Preferences dialog determines how Eclipse displays an image as you pan. **Show** displays the image as you pan. This is slower than **Fast**, which does not display the image until you release the right mouse button.

Subsampling: Visual feedback vs. speed when moving images

When you pan the canvas image and move or edit filled ShapeLayers, Eclipse redraws the image tiles at lower resolution first, then at higher resolution. This process is called *subsampling*. You can control the subsampling level using the Subsample command in the View menu.

To set subsampling levels

1 Choose **View** → **Subsampling**. The Subsampling dialog appears.



The Subsampling dialog

- Set the level you want for **Minimum** and **Maximum**. The following chart describes the effects of different subsampling levels.

Level	Effect
1	Subsampling is turned off. The image redraws as a series of chunks. This ensures you the fastest total redraw time but the longest wait for the image to appear.
2 to 9	Subsampling is turned on. As the subsampling level increases, the image redraws more quickly and the scan chunks become less perceptible.

To specify the subsampling level you want

- Leave the Subsampling dialog box open as you work and use the **Minimum** and **Maximum** buttons to switch between states.

Refreshing the Main window

Sometimes a graphic card can produce artifacts while working.

To refresh the Main window, click **Window** → **Refresh**.

1.9. Measuring and Aligning Tools

Showing the Rulers

You can display rulers along the top and left sides of the image area. The rulers use the current unit of measurement specified in the General Preferences dialog, e. g. pixels or inches.

- To show the rulers, click the **Organize** menu and select **Rulers** so there is a hook beside it.
- To hide the rulers, click **Rulers** again.

TIP

*To change the color of the rulers, press **AltGr C**. Press the key repeatedly to cycle through the eight available color options: red, yellow, green, blue, magenta, black, white and transparent.*

Using the Clone brush to measure distance

You can measure distance using the Clone brush.

- 1 Select a Clone brush. (Select the Brush tool in the ShapeLayer Toolbox. Then in the Brush shelf, choose a Clone brush from the brush menu or press **F**.)
- 2 Click the point at which you want to start measuring. This point is called the clone source.
- 3 Drag the pointer.

The distance the pointer is dragged is displayed in the message area at the bottom right of the

canvas. The units used to measure distance are the same as those used for the rest of the canvas.

As you drag, you will also see a “rubber-banding” line connect the clone source with the pointer. This line disappears when you select another tool.

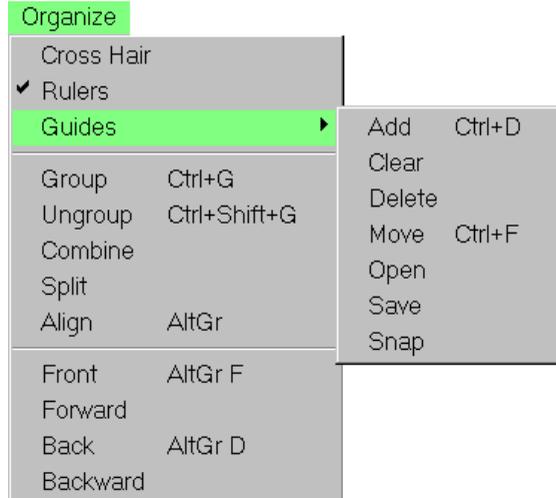
- 4 When you click another point (the clone destination), the distance disappears from the message area.
- 5 To measure another distance, press **F** again and return to point 2 above.

Adding Guides

Guide lines help you align elements. You can add, move and delete individual guide lines as well as clear all the guides you have added. Plus you can snap guides into position and save and reuse a set of guidelines. It is helpful to have the Rulers turned on when you use Guides.

To see the Guides menu

Choose **Organize** → **Guides**.



To add a Guide

Choose **Organize** → **Guides** → **Add**.

- To place a vertical guide, click on the top edge of the image area (on the top ruler if it is visible).
- To place a horizontal guide, click on the left edge of the image area (on the side ruler if it is visible).

Repeat this process for each guide line you want.

To remove all the guides

Choose **Clear** from **Organize** → **Guides** → **Clear**.

To delete a Guide

- 1 Choose **Organize** → **Guides** → **Delete**.
- 2 Click the guide you want to delete.

To move a Guide

- 1 Choose **Organize** → **Guides** → **Move**.
- 2 Drag the guide you want to move.

TIP

*If you want guides to snap to a ruler subdivision, turn on **Snap**.*

To save and reuse a set of Guides

- 1 Choose **Organize** → **Guides** → **Save**.

In the Open file dialog that appears, type in a name for the Guide file and click **OK**. By default, the file is saved in the C:\Program files\Eclipse\util\custom directory.

- 2 To reuse a saved set of guides, choose **Organize** → **Guides** → **Open** and select the file you want.

To force a Guide to snap to a ruler subdivision

Choose **Organize** → **Guides** → **Snap**.

TIP

*To change the color of the guides, press **AltGr C** repeatedly. There is no transparent color option, so the guides cannot be hidden.*

Using a cross hair

For accurate alignment with ruler units or with other objects in an image, you can turn the pointer into a cross hair.

To use a cross hair

Choose **Organize** → **Cross Hair**.

To stop using the cross hair, choose **Organize** → **Cross Hair** again.

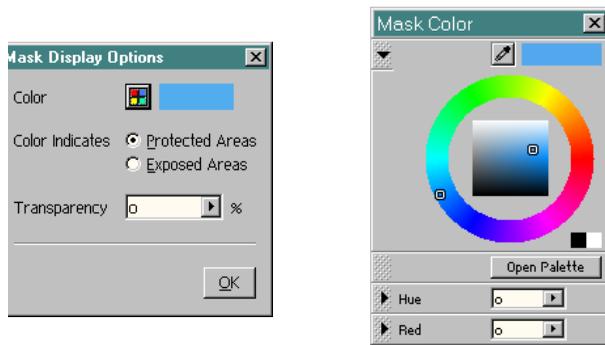
Aligning ShapeLayers

For information on aligning ShapeLayers, see “*Aligning ShapeLayers*” on page 6-6.

1.10. Choosing a Color

Linking a tool to the Color Editor

Tool editors and shelves that affect color contain a swatch that shows you the current color for the tool. To change the color for the tool, you first link the tool to the Color Editor by clicking its ColorLink button.



A tool dialog and its Color Editor

Clicking the ColorLink button in a tool shelf or a dialog opens the Color Editor (if it is not already open) and links it to the tool.

When you change the current color in the Color Editor, the new color also appears in the tool's color swatch.

The Color Editor shows the current color for the tool to which it is linked.

For example, if you want to change the mask color, you click the ColorLink button in the Mask Color dialog to link to the Mask Color Editor. Then use the Mask Color Editor to select a color for the mask. As you change colors in the Color Editor, the color swatch in the Mask Color shelf also changes.

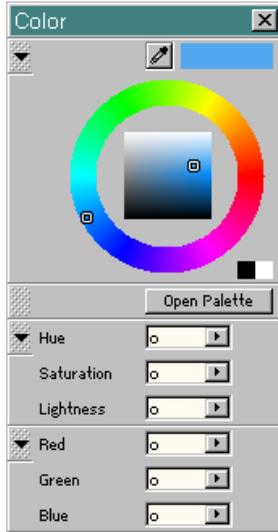
These tool shelves and dialogs have ColorLink buttons:

- Brushes: Brush Editor, Color Brush, Glow Brush
- ShapeLayer Fill: Vignette Color and Fill Color
- Effects: Color Fill, Colorize and HSL Replace Color
- Mask Color, Background Color
- Corrections: Replace Color, Selective Color Replacement
- Shadow Casting
- CMYK Separator: Hue, Black Boost

Selecting colors in the Color Editor

1 Open the Color Editor by clicking the color swatch in a tool that uses color, or choose **Window** → **Color Editor**.

The Color Editor shelf appears.



The RGB Color Editor shelf

The title of the Color Editor changes to reflect the tool to which it is linked.

The sliders available depend on whether you are working on an RGB or a CMYK image.

Click the **Open Palette** button to open the **Color Palette**.

2 Choose one of four methods for selecting a color:

- select a color using the Color wheel
- enter numeric color values

- pick colors from your image
- access the Color Palette and choose a color from it.

These methods are described in the following pages.

The color you select remains the current color for the tool you are using until you change the color.

For example, if you change the Color brush to red, it remains red until you change it. If you use the Fill Color dialog to fill a ShapeLayer with red, every ShapeLayer fill will be red until you change the color again.

Using the Color wheel

The Color wheel lets you select a color by its Hue, Saturation and Lightness parameters.

- To select a hue, click the point on the wheel and drag it to the desired color.
- To select saturation and lightness, click the point in the square and drag it to the appropriate location. In the square, saturation increases from left to right and lightness increases from bottom to top.
- To select black, click on the small black field to the bottom right of the Color wheel.
- To select white, click on the small white field to the bottom right of the Color wheel.

Your settings are displayed immediately as numerical values in the text boxes at the bottom of the shelf.

To choose a new color numerically

Type in a value in a text box or use its pop-up slider.

Eclipse adjusts the current color in the swatch at the top right of the shelf.

To pick a color from the image

1 To choose a color from your image, click the **Pick** button which is on the left of the color swatch.

Eclipse prompts you to pick a color from the image.

2 Drag the cursor over the image.

The color swatch, sliders and text boxes reflect the color values at the cursor position.

3 To select the color beneath the cursor, release the mouse button.

Using the Color Palette

You use the Color Palette to open, create, edit and save color sets or *palettes*. Each palette can hold 90 different colors. You can transfer colors between the Color Editor and the Color Palette.

Eclipse includes a default Color Palette file that is stored in the C:\Program files\Eclipse\util\custom direc-

tory. You can create and save your own palette files and later open them in the Color Palette.

To use the Color Palette

Open it by clicking **Open Palette** in the Color Editor or by choosing **Window** → **Color Palette**. Eclipse displays the Color Palette.



The Color Palette

To choose a color from the Palette

Click on one of the squares. The color becomes the current color in the Color Editor.

Transferring color to the Color Editor

1 If the Color Editor is not open, open it by selecting **Window** → **Color Editor**.

2 To transfer a color from the Palette to the Color Editor and make it the current color, click one of the small squares in the Palette.

Transferring color from the Color Editor

- 1 To transfer the current color from the Color Editor to the Color Palette, hold down the Shift key, point to one of the squares in the Palette, and click.

Eclipse sets the color of the square to the current color shown in the Color Editor.

- 2 To reset the Color Palette to its state when you last saved it, click **Reset**.

Filling the Color Palette with colors from an image

- 1 To fill the Color Palette with colors from an image, click **Fill**.

Eclipse prompts you to select color fill region from image (Esc to abort).

- 2 Move the cursor to the part of the image from which you want to get the colors, and drag. A rectangular box marks the area you select.
- 3 When the box encloses all the colors you want, release the mouse button.

Eclipse transfers the selected colors to the Color Palette.

REMARK

*If you select a large portion of your image, Eclipse may display a warning box telling you that the fill area is too large. Click **OK** to clear the warning, and then click **Fill** again and select a smaller portion of the image.*

Filling the Color Palette with colors from the image restricts the palette to the color range occurring in the picture.

To save the Palette or to give it a different name

Click **Save**.

Use the Save File dialog that appears to save the Palette.

To open a Palette file

Click **Open**.

Use the file dialog that appears to select the Palette you want.

Eclipse opens the file and sets the colors in the Palette.

1.11. Hiding Parts of the User Interface

Hiding all shelves

Use the Hide command in the Window menu to hide open tool shelves and dialogs to see as much of your image as possible.

To hide all open shelves and dialogs

Choose **Window** → **Hide**.

When you choose **Hide**, Eclipse clears any open tool shelves, leaving only the main window open. Any commands or options you selected in the hidden shelves remain in effect.

To redisplay hidden shelves

Choose Hide again.

TIP

When you are showing a customer an image, quickly hide all shelves and dialogs by pressing Tab.

Hiding the ShapeLayer overlay and Rulers

To hide the ShapeLayer overlay and rulers, press **Ctrl H**.

To make them visible again, press **Ctrl H** again.

TIP

*If you hide the ShapeLayer overlay, make a mental note to turn it on again when you need it. If you also want to hide ShapeLayer fills, choose **View** → **ShapeLayers** → **Outline**.*

Hiding the Brush cursor

By default, the circumference of the brush is outlined in whatever color is used for the overlay (controlled by AltGr C). If you do not want to see this outline, choose **File** → **Preferences** → **General** and turn off **Cursor: Show While Brushing**.

Hiding the brush cursor improves brush performance.

1. Eclipse Basics

1.12. Set the Color of Parts of the User Interface

If you can not clearly see the cursor, ShapeLayer overlay, rulers or guides, you can change their color.

To change the color of the pointer, ruler and ShapeLayer overlay

Press **AltGr C**.

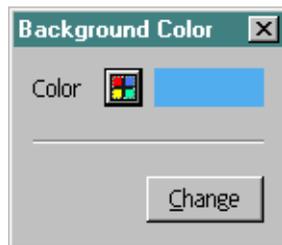
Keep pressing **AltGr C** to cycle through the eight color choices. One choice hides the ShapeLayer overlay and ruler. The pointer and guides cannot be hidden.

In case you want to hide the ShapeLayer overlay, press **Ctrl + H**.

You can also change the color that surrounds the canvas image. The background color is stored in the user preference file automatically.

To change the background color

1 Choose **View** → **Background Color**.



The Background Color dialog

1.12. Set the Color of Parts of the User Interface

- 2 Click the ColorLink button to open the Color Editor.
- 3 Choose the color you want from the Color Editor. The background color will be updated immediately. To keep the new color, press Change. To reset the background to its former color, close the dialog.

The mask is blue by default, but you can change its color by choosing **Mask** → **Mask Display Options**. For more information, see “*Mask display color and transparency*” on page 8-4.

1.13. Previewing the Effects of Changes

Previewing Corrections, Effects and Auto Masks

You can see a preview of a color correction, an effect or an auto mask by turning on **Preview** in the **View** menu. The preview remains in effect as long as the correction, effect or mask dialog is open. You do not have to apply the effect, correction or mask to see what it will do to your image.

To preview Effects, Corrections, and Auto Masks

Choose **View** → **Preview**.

When there is a hook beside Preview, Preview is turned on.

You will most likely want to leave Preview turned on while you work unless you are painting on a correction or effect and want to leave the correction or effect dialog open to make occasional adjustments. In this case, turning off Preview hides the correction or effect except in the areas you have painted.

To turn Preview off

Choose **View** → **Preview** again.

REMARK

*If you have ShapeLayers on your image, Eclipse previews and applies effects and corrections through the ShapeLayers; the effects and corrections do not affect the entire image. The **Shape-***

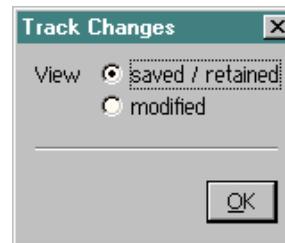
Layers → **Render** setting determines whether you see the Preview for all ShapeLayers or only for selected ShapeLayers.

Comparing Before and After

If you want to evaluate the results of an effect, a correction, or some paint, use the Track Changes command to compare the current image with the way it looked when you last saved or retained it. If you do not like the changes, abandon them by choosing **File** → **Restore**.

To compare an image before and after a change

Choose **View** → **Track Changes**.



The Track Changes dialog

To see how the image looked when it was last saved or retained, select **View: saved/retained**.

To see how it looks with your changes, select **View: modified**.

TIP

*If you save an edited image, you cannot use **Track Changes** to compare the original version with the new version. If you want to compare a saved image with the original, open the original image as a canvas image and open the edited image inside a ShapeLayer that is the same size as the canvas image. Set the transparency of the ShapeLayer fill to 100 so that the edited image is invisible, then gradually lower the transparency so it becomes visible and eventually covers the original image.*

Probe

To get information about specific color values in an image, use the Probe available from the Window menu. Using the Probe is a good way to determine which colors you may want to correct. For example, if someone's face looks too red, you can probe the face and find out how much red already exists in the image. Then you will know which red percentages you need to change.

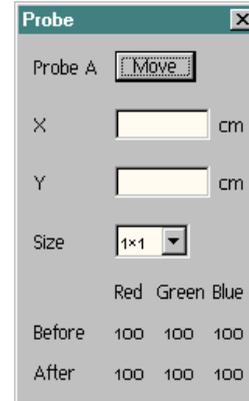
You can open more than one Probe at a time so you can evaluate different areas of the image simultaneously.

REMARK

When you open another Probe, the new Probe and its dialog may appear directly on top of or close to the last ones. Drag the Probes and their dialogs to separate them.

To use a Probe

1 Choose **Window** → **Probe**. The Probe dialog appears.



A Probe dialog

To help you correlate a Probe with its window, the first Probe you open is labelled **A** and its window is labelled **Probe A**.

The next Probe you open is labelled **B** and its window is labelled **Probe B**.

The dialog displays the Probe's current X and Y location as well as the color value at its current location. The Before values show the status before applying an effect or correction, the After values show the actual state of the image.

- 2** To place the Probe, click the image.
- 3** To move the Probe use one of these methods:
 - Drag the Probe to a new position on the image.

- Type in values in the **X** and **Y Position** text boxes and click **Move** or press **Enter**. The Probe moves to the specified location. This is a good way to take repeated readings at the same position.
- 4 To adjust the size of the Probe, select a size from the drop-down menu which is shown in pixels.
- 5 When you no longer need a Probe, close its dialog.

REMARK

To get information about the full color range in an image, see “To pick a color from the image” on page 1-27.

1.14. Abandoning Changes

Changes are permanent only when you save an image

The work you do permanently affects the canvas image if you render your work and save the image. You can undo or abandon changes in several ways:

- When you are working in Copy mode, you can use the Restore command in the File menu or the Restore brush to return the canvas its state when you last chose Save, Save As or Retain.
- While you are working with the brushes, you can use the middle mouse button to unpaint brush strokes.
- When working with ShapeLayers, you can undo an unlimited number of actions.
- ShapeLayers do not become part of the canvas until you render them to the canvas image or mask.
- Auto masks do not affect the image mask unless you apply them.
- You can preview special effects and color corrections, but they do not change the canvas unless you apply them.

When you make changes, you see them interactively. If you save the changes, they affect the actual canvas image data; there is no post-processing involved.

Copy mode vs. Original mode

When you work in Eclipse, you can work in either Copy mode or Original mode.

To choose the mode you want to work in

1 Choose **File** → **Preferences** → **General**.

2 In the Preferences dialog click either the radio button labelled **Copy** or the one labelled **Original** to choose the mode you want.

When you open an image, Eclipse makes a copy of the image file and you work on the copy. In **Copy mode**, you can:

- retain changes to the working copy without affecting the original image by choosing **File** → **Retain**.
- restore an image to the state it was in when you last saved or retained changes by choosing **File** → **Restore**.

When you open an image in **Original mode**, you work directly on the original source image file. You cannot use the Restore or Retain commands to save or discard changes.

WARNING

We strongly suggest that you always work in Copy mode to protect your original images. Use Original mode only if you have extremely limited disk space or you just want to display images, not work on them. If you must work in Original mode, make backup copies of your images before you start.

Retaining changes to your working copy

When you are working in Copy mode, use the Retain command to preserve changes to the working copy. Retained changes do not affect the original image, which is only changed if you choose **File** → **Save** or **File** → **Save As**.

To retain changes to your working copy of an image

- 1 Choose **File** → **Retain**.

A dialog box appears asking if you are sure you want to retain your image.

- 2 Click **Yes** to retain changes. Click **No** to cancel the command.

Restoring your image

When you are working in Copy mode, use the Restore command in the File menu to restore an image to its state the last time you retained or saved it. (If you are working in Original Mode, the Restore command is greyed out and inactive.)

To return a canvas to its last saved or retained state

Choose **File** → **Restore**.

If you want to restore only part of an image, use the Restore brush. For more information, see “*Restoring selectively with the Restore Brush*” on page 4-12.

Undoing and Redoing changes to ShapeLayers

The **Undo** command cancels the last editing action you performed on a ShapeLayer and restores the ShapeLayer to its state before the action. For example, if you move a ShapeLayer and then select **Undo**, Eclipse restores the ShapeLayer to its original location.

The **Undo** command works on all ShapeLayer editing and filling actions, including all the tools and commands you access through the ShapeLayer Toolbox. There is no limit to the number of actions or steps you can undo — you can undo every editing action you performed since you first opened the image.

To use the Undo command

Choose **ShapeLayer** → **Undo**, or press **Ctrl Z**.

Use the **Redo** command to repeat an editing action that you have undone. For example, if you move a ShapeLayer and then select **Undo**, the ShapeLayer returns to its original position. If you then select **Redo**, the ShapeLayer moves back to where you moved it.

The **Redo** command works on all ShapeLayer editing and filling actions, including all the tools and commands you access through the ShapeLayer Toolbox. There is no limit to the number of actions or steps you can redo — you can redo every editing action you have undone since you first opened the image.

To use the Redo command

Choose **ShapeLayer** → **Redo**, or press **Ctrl X**.

When you are painting with the Brush tool, you can remove paint or **Unpaint** by dragging with the middle mouse button held down. For information on unpainting, see *“Painting Basics”* on page 4-2.

1.15. Working on Color Channels or the Mask Layer

Using the View and Active buttons

An RGB image is composed of three color channels: **R**ed, **G**reen, and **B**lue. A CMYK image has four color channels: **C**yan, **M**agenta, **Y**ellow, and **B**lack. You can view and work on all color channels simultaneously, or you can work on any combination of color channels.

You control the color channels you can see and work on using the **View** and **Active** buttons in the dashboard along the bottom of Eclipse.



View and Active buttons for an RGB image.



View and Active buttons for a CMYK image.

To view or work on an image or ShapeLayer, click its **View** or **Active** button. To turn it off again, select its button again.

REMARK

*The **Channels: Link View/Active** preference in the General Preferences dialog determines whether you can work on a color channel or mask layer without viewing it at the same time.*

*If you turn on **Link View/Active**, you can not select an **Active** button without Eclipse automatically selecting its corresponding **View** button. If you turn this preference off, you can work on a color channel without viewing it.*

When you select a single View channel, you see the layer as a black and white positive or negative. When you select more than one channel, Eclipse displays the layers in color. To choose positive or negative view options, use the **Invert when viewing single** preference in the General Preferences dialog box. For more information, see *page 9-4*.

Working on the mask layer

An image also has a mask layer, represented by the mask icon next to the color channel buttons. Use the mask buttons to either view or work on the mask layer. You cannot work on a color channel and the mask layer at the same time.

1.16. Canvas Modes

The **Canvas Mode** determines how Eclipse displays or combines paint color and the colors in filled ShapeLayers in relation to the colors in the canvas image. Since Eclipse is a WYSIWYG system, Canvas Mode also determines how Eclipse renders ShapeLayers to the canvas image; what you see on screen is what you will get when you render your image.

Canvas Mode is most useful when you are composing multiple images, especially when your canvas image includes color vignettes. Its also a way to mimic masking without having to create a mask.



The Canvas Mode menu

Use the **Canvas Mode** menu to change the way Eclipse combines ShapeLayer fills and paint with the canvas image.

You will find the Canvas Mode menu at the bottom of Eclipse, beside the View and Active buttons.

The effects of each mode are described on the following pages.

REMARK

When you change the Canvas Mode, Eclipse displays all subsequent filled ShapeLayers or brush strokes in the new mode. The display of existing ShapeLayers or paint strokes applied in a different mode does not change.

In **Normal** mode, Eclipse displays all brush strokes and ShapeLayer fills as they exist, without regard to the colors in the canvas image. In **Normal mode**, a filled ShapeLayer or paint stroke obscures the portion of the canvas image it covers, unless you apply transparency to the ShapeLayer or brush. Likewise, a filled ShapeLayer or brush stroke on top of another filled ShapeLayer or stroke obscures what is underneath it.

In **Lighten** mode, Eclipse displays only those colors in a filled ShapeLayer or brush stroke that are *lighter* than the colors in the canvas image directly beneath. As you move a filled ShapeLayer or paint over the canvas image, you see only the parts of the ShapeLayer or the paint stroke that are lighter than the canvas image.

In **Darken** mode, Eclipse displays only those colors in a filled ShapeLayer or brush stroke that are *darker* than the colors in the canvas image directly beneath. As you move a filled ShapeLayer or paint over the canvas image, you only see the parts of the ShapeLayer or paint stroke that are darker than the canvas image.

Add is used often with CMYK images. In those areas where a filled ShapeLayer or brush stroke over-

laps the canvas image, Eclipse adds the colors in the canvas image to the colors in the filled ShapeLayer or the paint stroke. This produces a blending or combining of the colors in the canvas with the ShapeLayer or paint stroke.

Subtract is more often used with RGB images. In those areas where a filled ShapeLayer overlaps the canvas image, Eclipse subtracts the colors in the canvas image from the colors in the filled ShapeLayer or the paint stroke. The result is similar to Add for CMYK images; it produces a blending or combining of the colors in the canvas with ShapeLayer or paint stroke.

In **Color** mode, Eclipse displays only the Hue values in filled ShapeLayer or brush stroke and combines it with the canvas image. The saturation and luminance of the canvas image are preserved.

In **Texture** mode, Eclipse displays only the saturation and luminance values in a ShapeLayer or brush stroke and combines it with the canvas image.

1.17. Cropping, Rotating or Transforming an Image

Cropping the Canvas image using the Crop command

You can crop, or copy, a part of an image using the Crop command in the File menu. Eclipse stores the cropped portion of the image as a clipboard file called *CropPaste*. You can then paste the cropped portion into the current image or into a different image using the Paste Crop command. If you turn on the **Use Mask** button in the dashboard, the command crops the image and its mask.

TIP

*If you want to save a cropped portion of an image as a file, use the **Crop As** command described on page 1-41.*

To crop an image and save it as a clipboard file

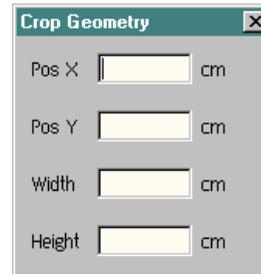
1 Choose **File** → **Crop**.

Eclipse prompts you to select the area to crop.

2 Drag a rectangle on the image to enclose the portion you want. If you want, you can move and size the rectangle afterward.

- To change the size of the crop area, drag the corners of the rectangle.
- To move the crop area, drag it with the mouse.

- You can also set the position and size numerically by double-clicking into the crop area. The Crop Geometry dialog appears.



The Crop Geometry dialog

3 Press **Ctrl + C** to end the operation.

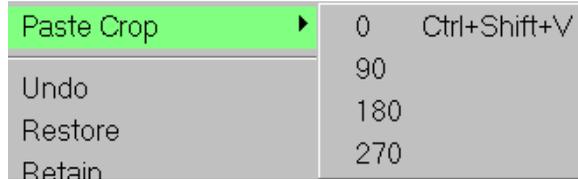
Eclipse stores only one *CropPaste* file at a time; each time you use the Crop command Eclipse replaces the current *CropPaste* file with the new one.

Pasting and rotating a cropped image

Use the **Paste Crop** command to paste a cropped portion of an image into the current image. **Paste Crop** can paste in four different orientations. To use **Paste Crop**, you must have used the Crop command to create a *CropPaste* file during the current or a previous Eclipse session.

To paste a portion of a image you have cropped using File → Crop

1 Choose **File** → **Paste Crop**. The following sub-menu appears.



2 Choose the orientation you want to use.

Submenu choice	Rotation Orientation
0°	Pastes the image at the same orientation at which it was cropped
90°	Rotates the image 90 degrees
180°	Rotates the image 180 degrees
270°	Rotates the image 270 degrees

Eclipse displays a rectangular frame in the image area that represents the cropped portion of an image.

- 3 Drag the frame where you want it.
- 4 Press **Ctrl + V** to paste the cropped portion into the image.

Saving a cropped image as a file using the Crop As command

You can both copy part of an image and save it as a file using the Crop As command. It works like the Crop command described *page 1-40*, except that you can save the cropped file on disk, select a different file format for it, and give it any name you want. If you turn on the **Use Mask** button in the dashboard, the command crops the image and its mask. After you crop a portion of an image and save it as a file, you can open it like any other image file or use it to fill a ShapeLayer.

REMARK

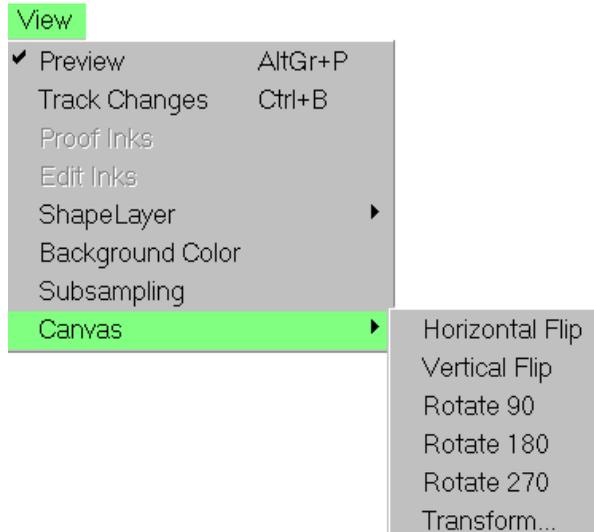
*You can also use the **Cropout** command button in the ShapeLayers Toolbox to crop an image and save it as a file. For more information, see “Copying only part of the canvas image into a ShapeLayer” on page 5-21.*

To crop an image and save it as a permanent file

- 1 Choose **File** → **Crop As**.
- 2 Drag a rectangle on the image to enclose the area you want to crop. You can move and size the rectangle after you draw it, if you want.
- 3 To end the operation, press **Ctrl + C**. An Open file dialog appears.
- 4 Use this dialog to change to the directory in which you want to save the cropped image, give it a filename, and click **Save**.

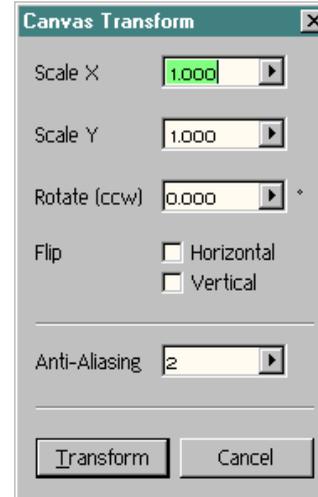
Transforming the Canvas image

Rotate, scale, mirror, and transform the canvas image using commands in the Canvas submenu, which is available by choosing **View** → **Canvas**.



The first five commands are the most commonly used transformations.

Choosing **Transform** from this submenu opens the Canvas Transform dialog. Use it to enter values for scaling, rotation, anti-alias level and flipping direction.



The Canvas Transform dialog

REMARK

If the canvas has any unrendered ShapeLayers, they are saved in a temporary file called Eclipse_infile located in the temporary directory specified in the File Preferences shelf. A copy of the canvas is transformed without the ShapeLayers. You can find the ShapeLayers in a file called Eclipse_infile.shp, also located in the temporary directory. Transforming another canvas with ShapeLayers replaces Eclipse_infile.

2. Correcting Color

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2.1. Color Corrections Overview

Use the Correction tools in the **Correct** menu to make color corrections to the canvas image. There are 14 correction tools to choose from:

- **Combo:** Combines Midpoint, Contrast, Brightness, Slope and Freeform.
- **Contrast:** Sharpen or flatten contrast.
- **Dodge/Burn:** Lighten or darken an image.
- **Brightness:** Add or subtract color evenly across the range.
- **Freeform:** Move, add or delete points on the tone curve with this sophisticated gradation tool.
- **Gradation:** Change the quarter and eighth tones individually for any channel.
- **Midpoint:** Adjust the midtones only.
- **Modify:** A gradation tool with numerical display of color values.
- **SetPoint:** Adjust the color of highlights and shadows.
- **Slope:** Independently adjust the start and end points of a color curve.
- **Selective Color Replacement:** Change specific hues.

- **Replace Color:** Change only the color you select.
- **HSL Replace Color:** Adjust the hue, saturation and lightness of a specific color in a RGB color space.
- **Color Transfer:** Alter percentages of color in one channel or move color from one channel to another.

You can apply color Corrections to:

- the entire canvas image,
- selected color channels of the canvas image (including the mask channel),
- specific areas of the canvas image that you touch up with a Correct brush,
- areas of the canvas image within selected ShapeLayers (or within all ShapeLayers if you have **ShapeLayer** → **Render Mode** set to **All ShapeLayers**).

Previewing and evaluating Corrections

To preview the effects of a Correction, turn on Preview with the button in the Correction dialog via **View** → **Preview** in the main menu.

To compare an image before and after a Correction, choose **View** → **Track Changes**.

2. Correcting Color

2.1. Color Corrections Overview

To read before and after color values, choose **Window** → **Probe**.

TIP

Using the Probe is a good way to determine which colors to correct. For example, if someone's face looks too red, probe the face and find out how much red already exists. Then you will know which red percentages you need to change.

For more information on using these tools, see “*Previewing the Effects of Changes*” on page 1-31.

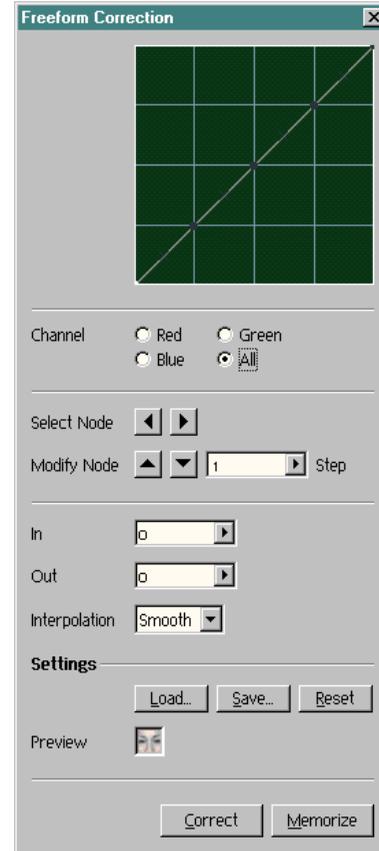
Working with Correction dialogs

When you choose a Correction from the Correct menu, a Correction dialog appears. Only one Correction dialog can be open at a time. If you choose another Correction, the second Correction dialog replaces the first.

TIP

If you want to apply a number of Corrections at once, use the Combo Correction tool described on page 2-9.

Most Correction dialogs have the same basic elements, as illustrated in the following picture of the Freeform Correction dialog.



A typical Correction dialog (here: Freeform Correction)

Editing the Correction graph

The main portion of most Correction dialogs displays a graph with a graph line or curve. The graphs use a standard (x,y) grid.

2. Correcting Color

2.1. Color Corrections Overview

The (horizontal) **x-axis** represents input values that range from 0 to 100 percent dot. Input values represent the image's state prior to a Correction.

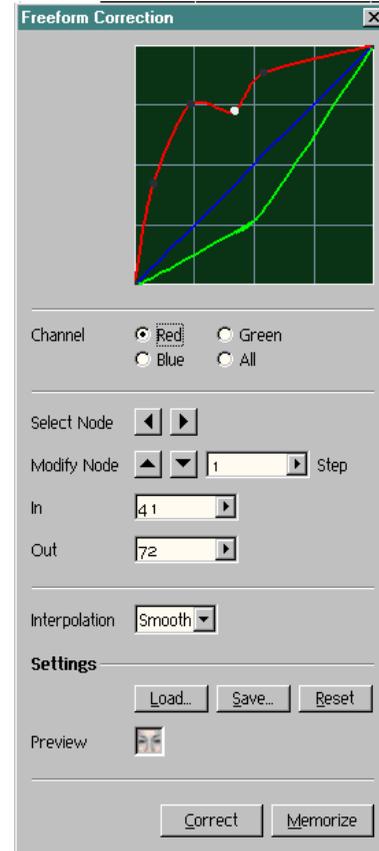
The (vertical) **y-axis** represents output values that also range from 0 to 100 percent dot. The output values are determined by the input values plus or minus any change you make to the graph line or curve.

The graph line or curve represents the relationship between the input and output values for a given Correction. A straight 45-degree line between (0, 0) and (100, 100) means that there is no difference between the input and output values.

To make a Correction, you move one or more points on the line, usually in the vertical direction. As you move a point, you distort the graph line and change the output values along the y axis. If **Preview** is turned on, you can immediately see the Correction applied to the image.

Selecting a graph for a color channel

For most Corrections, you can make different adjustments to each color channel. In this case, each channel has a separate graph line, which is the same color as the channel: a red graph line represents the red channel, a blue graph line represents the blue channel, and so on.



In this picture, the red channel is selected, and graph points appear on the red graph line.

To work with a different color channel, select a different channel button. Points for the selected color channel appear on the graph line.

Selecting a graph point

When Eclipse displays a Correction dialog, it highlights one of the points on the graph line, most often the point nearest the origin. You can select any point on the line.

REMARK

Some graphs have only one point.

Moving a graph point

You make color Corrections by adjusting the position of the graph points using one of these methods:

- Drag the point.
- Change from one point to the next by clicking the **Select Node** arrows. Click the **Modify Node** arrows to change a point's value. You can select the amount of movement per step in the **Step** text box.



- If the Correction dialog has text boxes that control the graph points, type new values in the boxes and then press Enter or use the text box' popup slider.

About values you type in text boxes

The effect of values you type depends on the **Color Range** setting in the **General Preferences** dialog box: 0-100 or 0-255.

0-100: If **Color Range** is set to 0-100, values are percentages. Typing 10 means “increase this color by 10 percent”. Typing -10 means “decrease this color by 10 percent” (providing the Correction uses relative values, described below).

0-255: If **Color Range** is set to 0-255, values are actual pixel values. In this case, typing 10 means “increase this value by 10 pixel values”. Typing -10 means “decrease this value by 10 pixel values”.

There are also two ways in which Corrections interpret values: *relative* and *absolute*.

Relative: Most Corrections interpret numbers you type in text boxes as relative: the value modifies the value of the currently selected graph point. Typing a positive value increases the value of the currently selected graph point. Typing a negative value decreases its value.

Absolute: The Freeform and Modify Corrections use absolute numbers, which means that the value you type is the value that is used. Negative values are set to 0 for these tools.

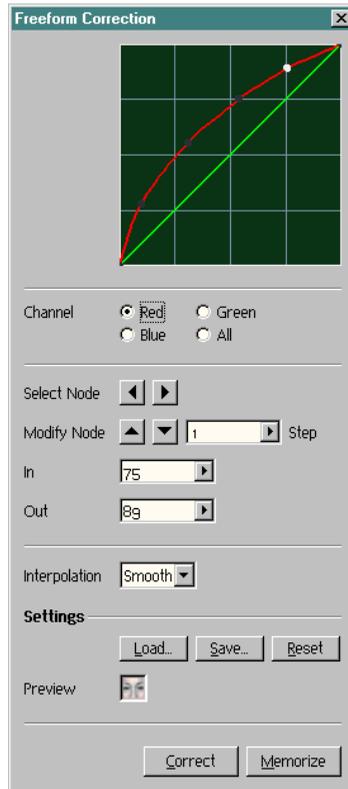
Correcting RGB vs. CMYK images

The direction in which you move a graph node to lighten an image differs for RGB and CMYK images.

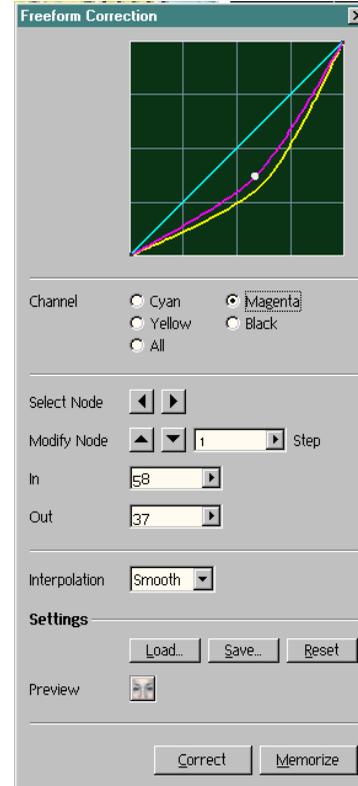
2. Correcting Color

2.1. Color Corrections Overview

Because the location of shadows and highlights on the graph are reversed in RGB and CMYK images, you move graph points in opposite directions to achieve the same change.



To lighten an RGB image: Move graph points upward.



To lighten a CMYK image: Move graph points downward.

Correction dialog commands and options

To apply the Correction to your image, click **Correct**.

Eclipse displays a confirmation box that asks if you really want to apply the Correction. Click **Yes** to apply the Correction or click **No** to cancel the operation.

To retain your values and close the dialog, click **Memorize**.

To undo a Correction, choose **File** → **Restore**. The **Restore** command restores the image to its last retained state. For more information, see “*Restoring your image*” on page 1-35.

To reset a graph line to its default state, click **Reset**. When working with different channels and graph lines, you can reset the lines separately or together. This is an easy way to start over if you decide you do not like the changes you have made.

Saving and opening Correction files

Use the **Load** and **Save** buttons to save Correction settings. Eclipse saves the settings in a file, which you can open later to repeat the Correction. This is a good way to apply consistent Corrections to many images.

To save a Correction file

- 1 Choose a Correction from the **Correct** menu.

The appropriate Correction dialog appears.

- 2 Specify the Correction settings you want and click **Save**.

Use the Save File dialog that appears to name and save the Correction settings file. The Correction file is given a `.corr` filename extension automatically.

To open a Correction file

- 1 Choose a Correction from the **Correct** menu.

The appropriate Correction dialog appears.

- 2 Click **Load** in the Correction dialog.

- 3 Use the File Open dialog that appears to select the Correction file.

Eclipse updates the Correction dialog with the settings from the Correction file.

Restricting Corrections within ShapeLayers

You can preview and apply Corrections to areas of the canvas image that are surrounded by ShapeLayers.

- If you choose **ShapeLayer** → **Render Mode** → **Selected ShapeLayers**, Eclipse previews and applies Corrections only to parts of the canvas image surrounded by the ShapeLayers you have selected.
- If you choose **ShapeLayer** → **Render Mode** → **All ShapeLayers**, Eclipse previews and applies Corrections through all the ShapeLayers in your image, whether or not you have selected them.

- If you close the **ShapeLayer Toolbox**, the ShapeLayers disappear and a Correction affects the entire image.

TIP

To more easily see the changes a Correction makes, draw a ShapeLayer over only half of the area you want to change and compare the areas inside and outside the ShapeLayer.

Brushing on Corrections

By brushing on a color Correction with a **Correct** brush, you can touch-up only the areas you want. Airbrushing with a low-density brush gives a soft, natural effect.

To use the Correct brush

- 1 Choose a Correction from the **Correct** menu.
- 2 Set up the Correction in the Correction dialog, but do not apply the Correction.
- 3 Close the Correction dialog. Or, if you want to leave it open so you can quickly modify the Correction settings, turn off **Preview**.
- 4 Select the **Correct** brush from the **Brush Type** menu in the Brush shelf or press **N**.
- 5 Brush on the Correction.

WARNING

If you do not open a Correction dialog, Eclipse applies the last Correction you used to the areas you paint.

For more information, see “Using Brushes” on page 4-1.

Applying Corrections to a mask

You can apply all Corrections to a mask. To apply a Correction to the mask layer you must first:

- Select the **Active Mask** and **View Mask icons** in the dashboard so you can work on the mask layer.
- For an RGB image, select the **Red** channel in the Correction dialog before making the Correction.
- For a CMYK image, select the **Cyan** channel in the Correction dialog before making the Correction.

2.2. Combo Correction

The Combo Correction combines the functionality of the Midpoint, Contrast, Brightness, Highlights, Shadows and Freeform Correction in a single operation. This allows you to preview the effects of applying these commonly used Corrections in combination before committing them to the canvas.

REMARK

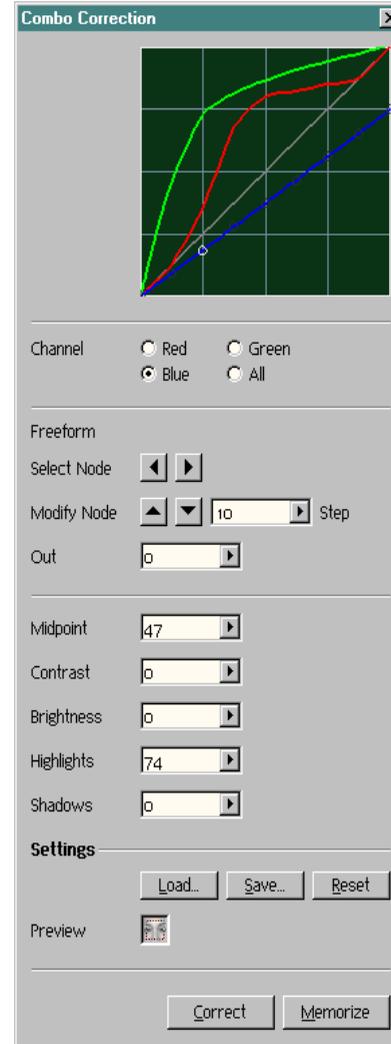
Because of the complexity and interdependency of the Combo Correction, you cannot adjust the graph line by dragging points.

To use the Combo Correction

- 1 Choose **Correct** → **Combo**. The Combo Correction dialog appears.

The Freeform Correction has its own section as you can choose values for each eight tone.

The Midpoint, Contrast, Brightness, Highlights and Shadows Correction each move the whole curve.



The Combo Correction dialog

- 2 Select the color channel you want to correct.
- 3 Use the text boxes or their popup sliders to edit the curve, or click **Load** to open a previously saved Correction file.
- 4 When you have defined all Corrections, click **Correct** to apply them.
- 5 If you want to save the Corrections to use another time, click **Save**.

2.3. Contrast Correction

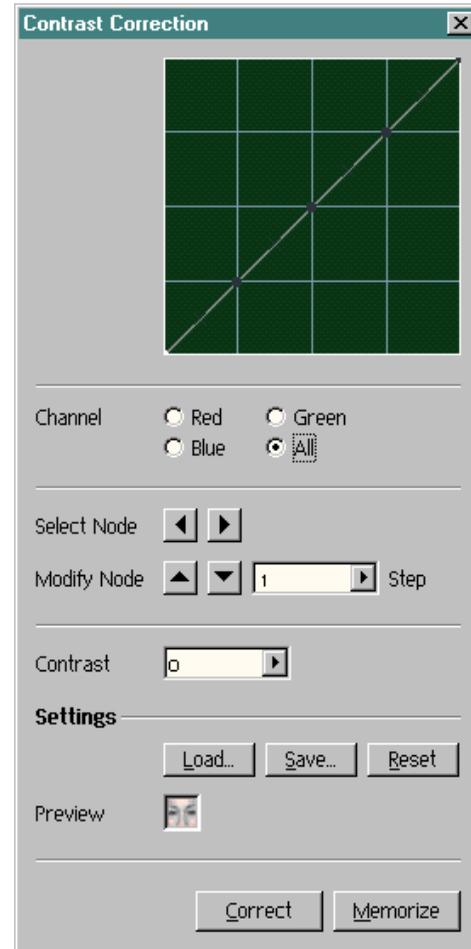
The Contrast Correction is similar to adjusting the contrast on a television. High values sharpen the contrast; low values flatten contrast. The end points of the graph are fixed so extreme highlights and shadows remain constant.

To adjust contrast

- 1 Choose **Correct** → **Contrast**. The Contrast Correction dialog appears.
- 2 Select the color channel you want to work with.
- 3 Use any of the following methods to adjust the contrast:
 - Load a Correction file.
 - Drag a point on the graph line. You can use either point—the graph line distorts symmetrically no matter which point you drag.
 - Select a point and click the **Modify Node** arrows.
 - Select a point, type a positive or negative value in the Contrast text box and click Enter. You can also use the text box' popup slider.

The graph point and line move to reflect the new value.

If you want to save your settings, click **Save**.



The Contrast Correction dialog

- 4 When you have defined the Correction, click **Correct** to apply it.

2.4. Dodge/Burn Correction

Use the Dodge/Burn Correction to lighten or darken an image. It is based on the photographers' technique of lightening an area by obstructing light during printing (dodging) or darkening an area by allowing extra light to reach it (burning).

The Dodge/Burn Correction works on all color channels simultaneously; there is no need to select a channel.

To lighten or darken an image using Dodge/Burn

1 Choose **Correct** → **Dodge/Burn**.

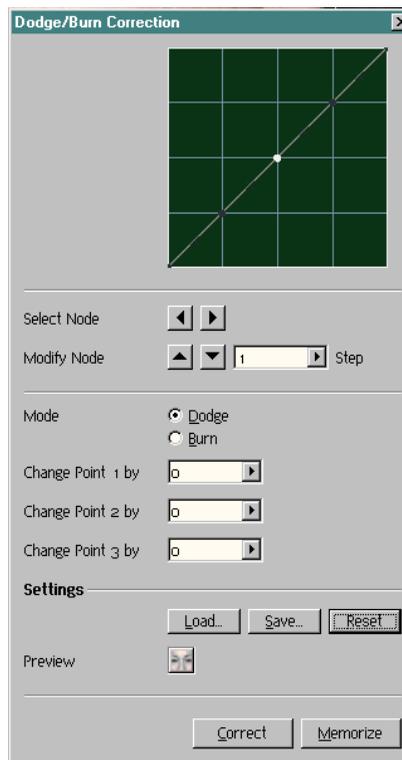
The Dodge/Burn Correction dialog appears. The points on the graph line represent three quarter tones: 25, 50 and 75. The eighth tones are represented by small *x*'s between the quarter tone points. Below the graph, the dialog contains a column of text boxes that display the three quarter tone values for the channels.

2 Select **Dodge** or **Burn**. Use Burn to darken the image; use Dodge to lighten it.

When *dodging* (lightening), you can only move the graph points upward.

When *burning* (darkening), you can only move the graph points downward.

The direction in which you move graph points has the same effect on both RGB and CMYK images.



The Dodge/Burn Correction dialog

3 Adjust the quarter and eighth tone values by dragging the graph points. For other methods of adjusting graph points, see “Moving a graph point” on page 2-5.

REMARK

If you enter a negative value in a text box, the value is set to zero.

2.5. Brightness Correction

The Brightness Correction produces a flat addition or subtraction of color. The same amount is added or subtracted throughout the entire image, from the highlights to the shadows. Brightness is useful for removing color imbalances (commonly known as “casts”) or for ghosting.

The Brightness Correction has only a midpoint. As you move the point, the entire graph line moves up or down.

REMARK

The Brightness Correction is related to the technique of chemically etching film separations, where “choking” shrinks the dot and “spreading” increases the dot.

To add or subtract color using the Brightness Correction

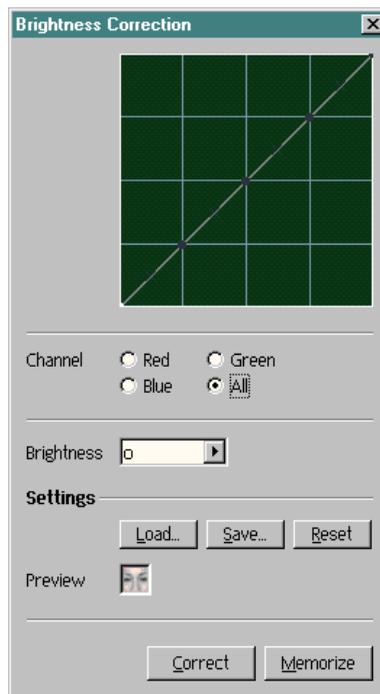
- 1 Choose **Correct** → **Brightness**. The Brightness Correction dialog appears.

Click **Load** if you want to use an existing Correction file.

- 2 Adjust the cast by dragging the graph point, typing a value in the text box or using the popup slider.

WARNING

As you move the graph line up or down, shadow or highlight detail is lost.



The Brightness Correction dialog

REMARK

As mentioned before (“Correcting RGB vs. CMYK images” on page 2-5), the Brightness Correction works in opposite ways for RGB and CMYK images.

EXAMPLE

To remove a reddish color cast in a RGB image, select the red channel and move the graph point upward.

To save your Correction settings, click **Save**.

- 3 When you have defined the Correction, click **Correct** to apply it.

2.6. Freeform Correction

Freeform allows the greatest control of values along the tone curve of an image. Since the graph line allows up to 256 separate points, you can use it to isolate specific percentages of color that you want to change. For example, you may need to correct only the 25 percent to 50 percent red in an image.

Choose between a linear and a smooth curve interpolation:

- **Linear** allows sharp, precise differences in tones.
- **Smooth** produces more gradual transitions between tone points.

You can fine tune a Freeform Correction by adding a graph point exactly where you want it on the curve. This gives you control over all input and output values. You can make subtle adjustments or extreme changes for interesting creative effects.

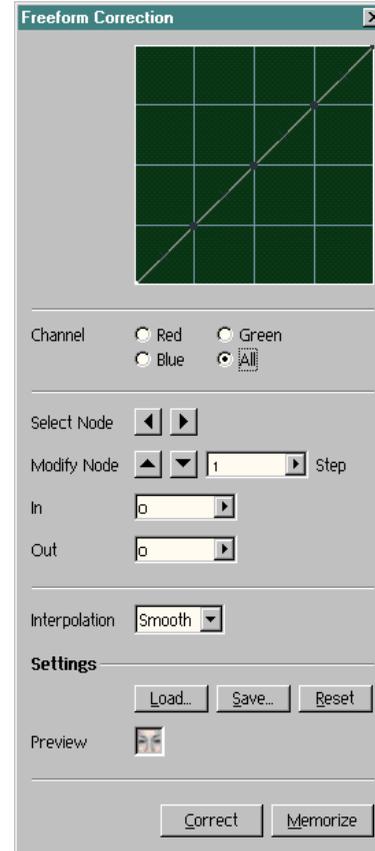
To add a graph point to the graph

Click on the graph with the left mouse button.

To delete a graph point

Click on the point with the middle mouse button.

To open an existing Correction file, click **Load**.



The Freeform Correction dialog

There are three ways to move a graph point. You can either:

- Click on it with the mouse and drag it.

- Select a point with the **Select Node** arrow buttons and move it with the **Modify Node** arrow buttons.
- Select a point either way and move it horizontally with the **In** text box, vertically with the **Out** text box.

TIP

With the Freeform Correction, you can shift a graph point horizontally, making it handy for manipulating narrow ranges of color. To pinpoint a color range you want to change, drag a tone point from side to side to see what colors it affects in the image.

To save your settings, click **Save**.

When you have defined the Correction, click **Correct** to apply it.

2.7. Gradation Correction

Use Gradation to change the quarter and eighth tones individually in all channels to lighten or darken the image. The Gradation Correction dialog displays the actual dot percent of the quarter tones.

To use the Gradation Correction

1 Choose **Correct** → **Gradation**.

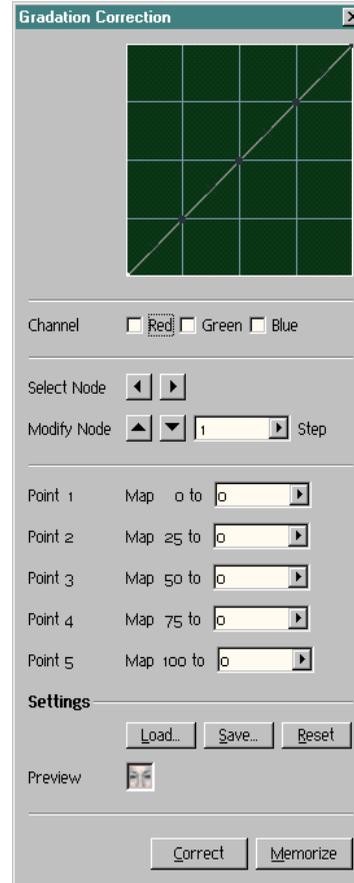
Eclipse displays the Gradation Correction dialog. The points on the graph line represent the quarter tones. The eighth tones are represented by small *x*'s between the quarter-tone points. Below the graph, the dialog contains a row of text boxes that display the quarter tone values for the channels.

To use an existing Correction file, click **Load**.

- 2 Select the color channels you want to work with. You can select as many channels as you want at one time.
- 3 Modify the quarter and eighth tones by dragging points on the graph or by clicking the Select and Modify Node arrow buttons.

You can also modify the quarter tones by typing values in the text boxes and then pressing Enter or using a text box' popup slider.

To save your settings, click **Save**.



The Gradation Correction dialog

- 4 When you have defined the Correction, click **Correct** to apply it.

2.8. Midpoint Correction

Modify allows numeric manipulation of each color channel individually. The Midpoint Correction is a variation on the gradation curve; it forces the Correction at the midpoint of the color and propagates the Correction in a decreasing amounts to the high and low ends of the color (100 percent to 0 percent). Use Midpoint when you want to make the Correction to the midpoint of the color, but do not want to affect the highlights or the shadows.

This operation is similar to a gamma curve, as it mainly affects the midrange of a color channel with decreasing effect at the start and end points. A positive change increases the midpoint (50 percent dot). A negative change decreases the midpoint.

For example, a midpoint increase of 15 adds 15 percent dot to the midrange areas and a lesser increase to the remaining areas since the curve slopes off the 0 percent at the start and end points.

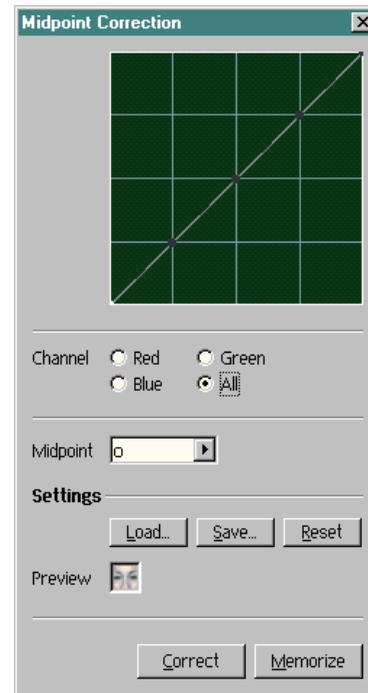
To use the Midpoint Correction

1 Choose **Correct** → **Midpoint**. Eclipse displays the Midpoint Correction dialog.

To open an existing Correction file, click **Load**.

2 Select the color channel you want to work with.

3 Adjust the midpoint by dragging the graph point, typing a value in the text box and pressing Enter or using the popup slider.



The Midpoint Correction dialog

REMARK

The 100% and 0% values are locked so only the midtones can change.

To save your settings, click **Save**.

4 When you have defined the Correction, click **Correct** to apply it.

2.9. Modify Correction

Modify is a type of gradation correction. Its advantage is that it displays numeric values for the channels, providing accurate control and feedback. This is a good tool to use with the Probe (see “Probe” on page 1-32).

1 Choose **Correct** → **Modify**.

To open an existing Correction file, click **Load**.

Eclipse displays the Modify Correction dialog. The points on the graph line represent the quarter tones. The eighth tones are represented by small *x*'s between the quarter tone points. Below, the dialog contains five rows of text boxes that display the quarter tone values for each layer.

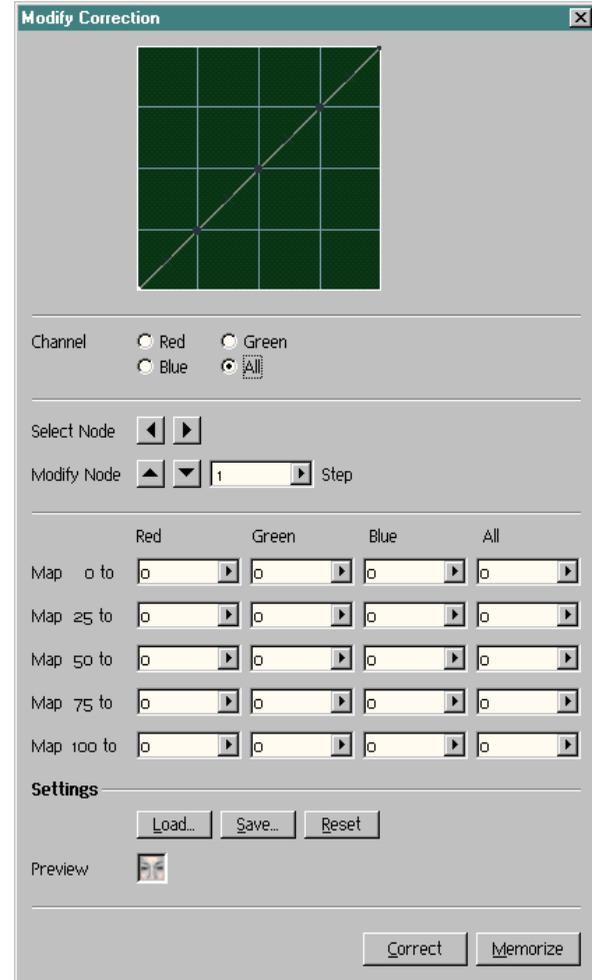
2 Select the color channel you want to work with.

3 Modify the quarter and eighth tones by dragging a graph point or clicking an arrow button.

You can also modify a quarter tone by typing a value in the text box beneath a quarter tone point, and then pressing Enter. The point moves to reflect the new value.

To save your settings, click **Save**.

4 When you have defined all Corrections, click **Correct** to apply them.



The Modify Correction dialog

2.10. Set Point Correction

Use the Set Point Correction to adjust the color of highlights and shadows. For example, use it to add color to blown-out highlights or to remove color from shadows. Set Point is especially useful with CMYK images, in which shadows often have too much ink and highlights are often lost.

To adjust highlights or shadows using the Set Point tool

1 Choose **Correct** → **Set Point**. The Set Point Correction dialog appears.

To open an existing Correction file, click **Load**.

2 Select the color channel you want to work with.

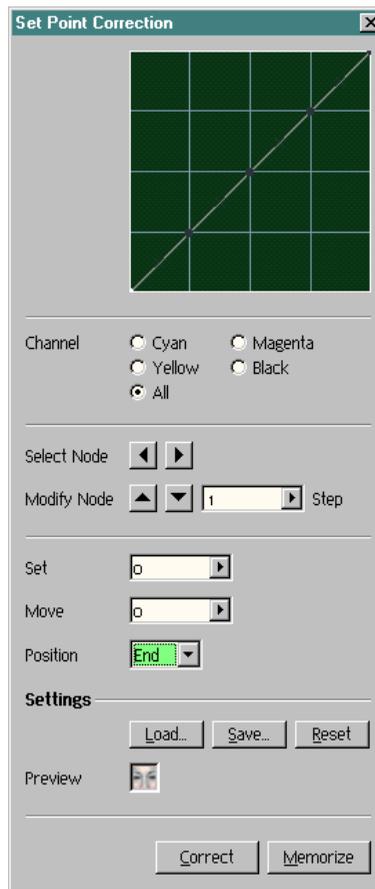
3 From the Position dropdown menu, select either **Start** (for catch lights) or **End** (deep shadows).

Eclipse displays two points at either the start or the end of the graph line.

- One point represents the **Set** point and moves only along the graph line—you can not move it above or below the line.

The Set point limits the adjustment you can make to a specific range. If you select a Set point of 10 percent, an adjustment increases or decreases the dot amount between 0 percent and 10 percent.

- The second point is the **Move** point, the one you use to make your adjustments.



The Set Point Correction dialog

- 4 Adjust the **Set** point by dragging it along the graph line or by typing a value in the Set text box.

If you select a Set point of 10 percent, any adjustment you make affects only catch lights or deep shadow of 10 percent or less.

- 5 Use any of the following methods to adjust the catch lights or deep shadows:

- Click and drag the **Move** point. Notice that you can not move the point beyond the Set point, although you can drag it above or below the line.
- Select the **Move** point, and click the **Increase** or **Decrease** arrows. These arrows work only with the **Move** point.
- Type a positive or negative value in the **Move** text box, and press Enter or use a text box' pop-up slider. The point moves to reflect the new value.

To save your settings, click **Save**.

- 6 When you have defined the Correction, click **Correct** to apply it.

2.11. Slope Correction

Use the Slope Correction to adjust highlights and shadows independently. With Slope you can change contrast, make a picture crisper and more vivid, or affect a single color channel.

To use the Slope tool

1 Choose **Correct** → **Slope**. The Slope Correction dialog appears.

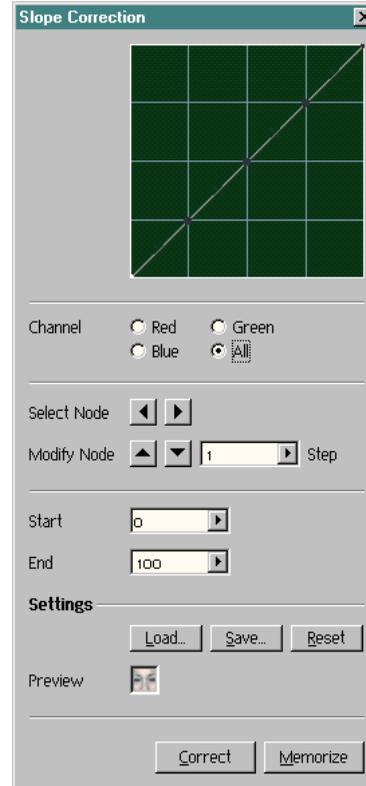
To open an existing Correction file, click **Load**.

2 Click to select the color channel you want to work on.

Eclipse displays one point at each end of the graph line. The point at (0,0) is the start point; the point at (100,100) is the end point.

3 Use any of the following methods to adjust the slope:

- Click and drag the start or end point on the graph line. Notice that the points remain anchored to the outer boundary of the graph.
- Select either point using the Select Node arrow, and click the **Increase** or **Decrease** arrows.
- Type a positive or negative value in the **Start** or **End** text boxes at the bottom of the dialog, then press Enter. The corresponding point moves to reflect the new value.



The Slope Correction dialog

4 You can adjust both the start and end points if you want.

To save your settings, click **Save**.

5 When you have defined the Correction, click **Correct** to apply it.

2.12. Selective Color Replacement

The Selective Color Replacement is one method for adjusting hues in images. The Replace Color and the HSL Replace Color Effect provide other ways of adjusting hues.

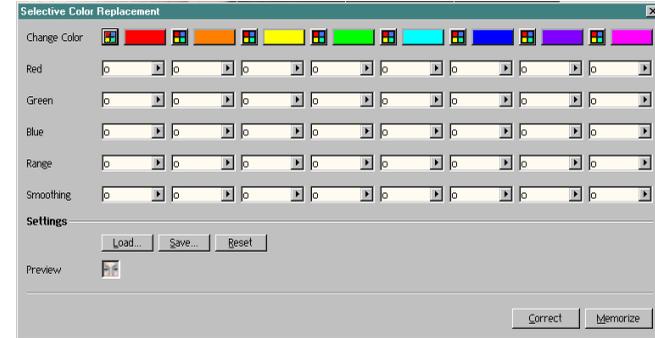
With the Selective Color Replacement, you can select a palette of colors to change either by picking colors from the canvas image or by specifying a color using the Color Editor or Color Palette. Then type the amounts of RGB or CMYK you want to add or remove from each color (use positive or negative numbers).

You can choose the range of a specific color that you want Eclipse to correct.

To adjust specific hues using Selective Color Replacement

1 Choose **Correct** → **Selective Color**. The Selective Color Replacement dialog appears.

To open an existing Correction file, click **Load**.



The Selective Color Replacement dialog

2 Choose a color from one of the eight columns at the top of the Selective Color Replacement dialog. To link to the Color Editor, click the Color-Link button. Then use the Color Editor to alter the chosen color.

To choose a color from your image, click the **Pick** button in the Color Editor, then drag over the image to select a color.

The color swatches in both the Color Editor and the Selective Color Replacement dialog show the color you are currently pointing to. Release the mouse button to select the color you want.

For other ways to select a color, see “*Choosing a Color*” on page 1-25.

3 In the Red, Green or Blue (Cyan, Yellow, Magenta and Black) text boxes, type the value by which you want to offset the color in the swatch.

- If Color Range in the General Preferences dialog box is set to 0-100, type positive or negative values for the percentage of the respective color channels you want to add to or subtract from the color shown in the swatch.
- If the Color Range in the General Preferences dialog box is set to 0-255, type positive or negative values by which you want to alter the respective color channels.

REMARK

If the offset values below a color swatch are all 0, the color is not affected by the Selective Color Replacement.

- 4 To extend the range of hues that will change, type a positive value in the **Range** text box near the bottom of the column.

A Range of 10 means hues with values 5 percent above or 5 percent below the target hue (the hue in the color swatch) will change.

In either case, the values entered in the color channel text boxes apply equally to all hues included in the range.

- 5 Create a gradual tonal drop off using the **Smooth** text box. A Smooth value of 20, for example, means there will be a gradual reduction in change to colors within 20 percent on either side of the Range colors.
- 6 Repeat this procedure for up to eight colors.

To save your settings, click **Save**.

- 7 When you have defined all Corrections, click **Correct** to apply it.

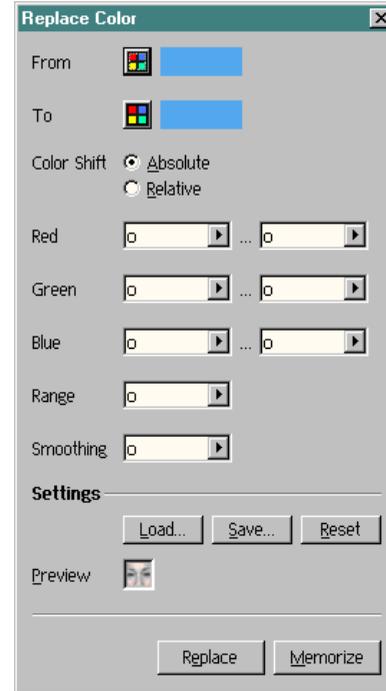
2.13. Replace Color Correction

Use the Replace Color Correction to change or combine colors you specify without having to cut a mask. There are two ways to use the Replace Color Correction: *Relative* and *Absolute*.

- **Relative:** Adds the **To** color to the **From** color.
- **Absolute:** Changes the **From** color to the **To** color.

To change or combine colors using the Replace Color Correction

1 Choose **Correct** → **Replace Color**. The Replace Color Correction dialog appears.



The Replace Color Correction dialog

To open an existing Correction file, click **Load**.

- 2 Select the Color shift you want: **Relative** or **Absolute**.
- 3 Click the **From** ColorLink button to link to the Replace Color Editor. Use the Replace Color Editor to specify the color to change. To pick a color from the image, click the **Pick** icon and then click

or drag on the image. For more information, see “*Choosing a Color*” on page 1-25.

4 Set the **To** color in the same way.

TIP

You can also set the to and from colors using the textboxes and their sliders.

5 To extend the range of the change, type a value in the **Range** text box. For example, if you type **10** in this box, Eclipse changes the **From** color and the ten hues on either side of it to the **To** color. If you leave this text box blank, Eclipse changes only the specific color in the **From** swatch.

6 To create a gradual reduction in color change on either side of the specified range, type a value in the **Smooth** text box, or use the sliders to adjust this value.

To save your settings, click **Save**.

7 When you have defined the Correction, click **Correct** to apply it.

2.14. Color Transfer Correction

Use the Color Transfer Correction to add or subtract percentages of any combination of colors from any color channel. For example, you can use Color Transfer to remove Cyan, Magenta or Yellow from shadows to create black only shadows in CMYK images. You can use it to create black only images in CMYK with total control over how much data is transferred from each of the Cyan, Magenta and Yellow channels.

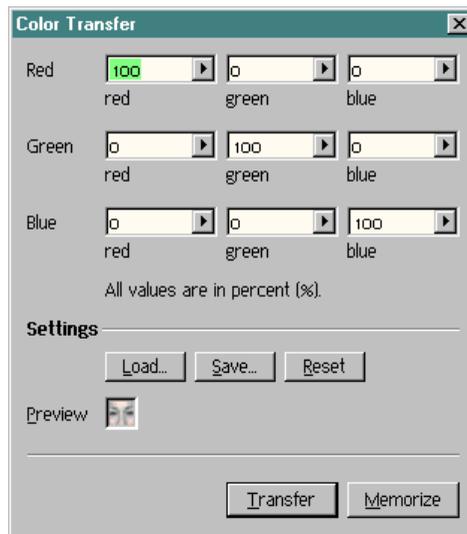
You can also use Color Transfer to copy and paste color between color channels or to increase or decrease the amount of color in a specific channel. For example, to increase the red channel in an RGB image by 20 percent you would type 120 in the *Red, red* field in the Transfer dialog.

Depending on whether you are working with a CMYK or RGB image, the table has either three or four rows and columns. The columns represent the current color channel values. The rows represent new color channel values. When you transfer colors, the columns represent the source values, and the rows represent the destination values.

To use the Color Transfer Correction

1 Choose **Correct** → **Color Transfer**. The Transfer Correction dialog appears.

To open an existing Correction file, click **Load**.



The Color Transfer Correction dialog

2 To *increase* or *decrease* a color in a channel:

- Find the column for the channel you want to change. For example, the **green** column.
- Look down the **green** column for the row labelled **Green**.
- In the box where the **green** column and the **Green** row meet, type in a value greater than or less than 100. For example, to increase the green by 20 percent, type in **120**. To decrease it by 20 percent, type in **80**.

3 To *transfer* color between channels, type in *positive* values:

- Find the column for the color you want to transfer *from* (the source layer). For example, to transfer green to the blue channel, start at the **green** column.
- Look down the **green** column for the row labelled **Blue**. This row represents the destination channel.
- In the box where the **green** column and the **Blue** row meet, type in a positive percentage value for the amount of source color you want to transfer to the destination channel. For example, to transfer 20 percent of the green channel to the blue channel, type in **20**.

4 To *selectively* increase or decrease one color in relation to other channels, type in *positive* or *negative* values. For example, to increase the red only in areas that have a high concentration of blue:

- Find the row for the color you want to increase or decrease. For this example, start at the **Red** row.
- Look across the **Red** row and find the column for the channel in which you want to increase or decrease the red. For this example, find the **blue** column.

- In the box where the **Red** row and the **blue** column meet, type in a positive or negative percentage value. For example, to increase the red by 20 percent in areas with a high concentration of blue, type in **20**. To decrease the red by 20 percent, type in **-20**.

REMARK

If Color Range in the General Preferences is set to 0-255, then values you type in the Selective Correction dialog's text boxes are interpreted as pixel values, not as percentages. For more information, see "About values you type in text boxes" on page 2-5.

To save your settings, click **Save**.

5 When you have defined the Correction, click **Correct** to apply it.

3. Adding Effects

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3.1. Effects Basics

Eclipse Effects

Eclipse includes 14 built-in effects. From the Effects menu, you can choose these effects:

- **Colorize:** Replace all colors with a single color.
- **Fill:** Fill the canvas image or a ShapeLayer with a single color.
- **Invert:** Convert color data to their negative value.
- **Despeckle:** Remove or reduce noise and small flaws.
- **Emboss:** Create a raised effect and tint it if you want.
- **Gaussian Blur:** Make an image appear out of focus.
- **Monochrome:** Convert a color image to graytone.
- **Monochrome & Invert:** Convert a color image to a graytone negative.
- **Noise:** Add random texture to an image.
- **Pixelize:** Produce a low-resolution effect.
- **Posterize:** Reduce the number of colors in an image.

- **Sharpen:** Increase the clarity of a blurry image.
- **Soften:** Soften or gently blur an image.
- **Unsharp Masking:** Create a crisper image; similar to but less powerful than Sharpen.

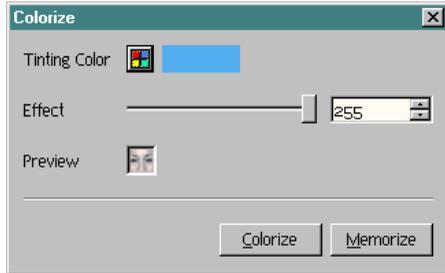
Applying Effects

As with color corrections, you can apply effects to:

- the entire canvas image,
- selected color channels of the canvas image (including the mask),
- areas of the canvas image that you paint with an Effects brush,
- areas of the canvas image which are surrounded by ShapeLayers.

Working with Effects dialogs

When you choose an Effect from the Effects menu, an Effects dialog appears. If you choose another Effect, the second Effect dialog replaces the first. Most Effects dialogs have the same characteristics.



An Effects dialog, here the Colorize Effect dialog

- If the Effect dialog has a ColorLink button, click it to link to the Color Editor. Then use the Color Editor to choose the color you want.
- To control the intensity of the Effect, drag the slider.

Alternatively, type in a value in the text box and press Enter.

- Click the push button with the Effect's name to apply the Effect to the image or to image areas within ShapeLayers.
- Click **Memorize** to close the Effect and retain its settings.

REMARK

If you want to apply the Effect with a brush either close the Effects dialog or turn off Preview. If you do the latter, make sure to turn Preview on again when you are finished with the Effects brush.

Previewing and evaluating Effects

- To see how an Effect looks before you apply it, click the **Preview** button.
- To compare an image with and without the Effect, choose **View** → **Track Changes**. (If Preview is turned off, apply the Effect before using Track Changes.)
- To read before and after color values, choose **Window** → **Probe**.

For more information on using these tools, see “*Previewing the Effects of Changes*” on page 1-31.

Restricting Effects within ShapeLayers

You can preview and apply Effects to areas of the canvas image surrounded by ShapeLayers.

- If you choose **ShapeLayers** → **Render Mode** → **Selected ShapeLayers**, Eclipse previews and applies Effects only to parts of the canvas image surrounded by ShapeLayers you have selected.
- If you choose **ShapeLayers** → **Render Mode** → **All ShapeLayers**, Eclipse previews and applies Effects through all the ShapeLayers in your image, whether or not you selected them.
- If you close the ShapeLayer Toolbox, the ShapeLayers disappear and an Effect affects the entire image.

Brushing on Effects

Brushing on an Effect with the Effects brush allows you to touch up an image selectively and subtly. Air-brushing with a low-density brush gives a soft, natural effect.

To use the Effects brush

- 1 Choose an Effect from the **Effects** menu.
- 2 Set up the Effect using the Effects dialog, but do not apply it.
- 3 Either close the Effects dialog or, if you want to leave it open so you can modify the settings, turn off **Preview**.
- 4 Select the **Effects** brush from the **Brush Type** menu in the Brush Editor, or press **AltGr Q**.
- 5 Brush on the Effect.

WARNING

If you do not open an Effect dialog, Eclipse applies the last Effect you used to the areas you paint. For more information about brushing on Effects, see “Brushing on an Effect with the Effects Brush” on page 4-16.

Applying Effects to a mask

You can apply all Effects to the mask layer.

Before you apply an Effect to the mask layer, you have to first select the Active Mask and View Mask icons in the Eclipse dashboard.

For information on working with masks, see “Masking” on page 8-1.

3.2. Colorize Effect

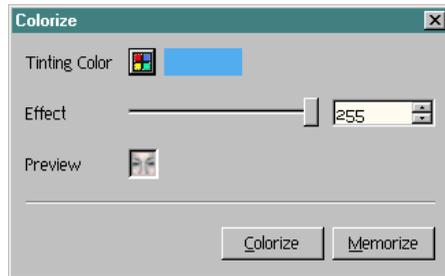
Use the Colorize Effect to replace or blend all the colors in an image with a single color. The lightness component of colors is not affected.

At full intensity all existing hues in the image are replaced with the Colorize hue. At less than full intensity, a percentage of hues is replaced and blended with the Colorize color.

The Colorize Effect is useful for adding casts or tints, such as a sepia-tone effect, to an image.

To use the Colorize Effect

1 Choose **Effects** → **Colorize**. The Colorize Effect dialog appears. The Preview shows existing colors replaced or blended with the current color.



The Colorize Effect dialog

2 To choose a different color for the Effect, click the ColorLink button.

This links the Colorize Effect to the Colorize Color Editor. If the Color Editor is not already displayed, it appears.

- 3** Use the Color Editor or the Color Palette to select a new color.
- 4** Eclipse colorizes the image with the new color.
- 5** Adjust the percentage of the Colorize color that replaces the current colors using the slider or the text box.
- 6** At its maximum value, all colors are replaced with the Colorize color.
- 7** When you are satisfied with the Colorize Effect, click **Colorize** to apply it to your image.

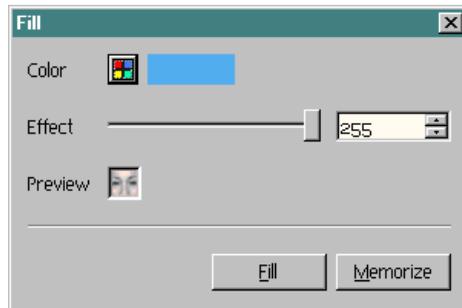
3.3. Fill Effect

Use the Fill Effect to fill your image or a ShapeLayer with a single color. This is helpful e. g. if you want to change the default white canvas when you create a new image. It is also useful for “ghosting” back an image.

To use the Fill Effect

1 Choose **Effects** → **Fill**.

Eclipse displays the Fill Effect dialog and uses the current color to fill the image.



The Fill Effect dialog

2 To choose a different color for the Effect, click the ColorLink button.

Eclipse links the Fill Effect to the Fill Color Editor.

3 Select a new color using the Color Editor or Color Palette.

4 Eclipse fills the image with the new color.

5 To adjust the intensity of the Effect, use the slider or type in a value in the text box.

6 To apply the Effect to the image, click **Fill**.

3.4. Invert Effect

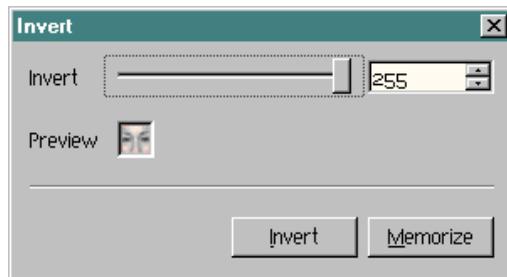
The Invert Effect converts an image's color data to negative color data, producing a color-negative or X-ray effect.

REMARK

You cannot use the Invert Effect to create real color negatives using a film recorder. It only simulates a negative for use in paper prints.

1 Choose **Effects** → **Invert**.

Eclipse previews the image as a color negative and displays the Invert Effect dialog.



The Invert Effect dialog

- 2** To adjust the intensity of the Effect, use the slider or type in a value in the text box.
- 3** To apply the Effect to the image, click **Invert**.

3.5. Despeckle Effect

Use the Despeckle Effect to reduce or remove noise and small flaws throughout an image. It can be useful on images that have been poorly scanned. It is also useful to remove banding in color gradients.

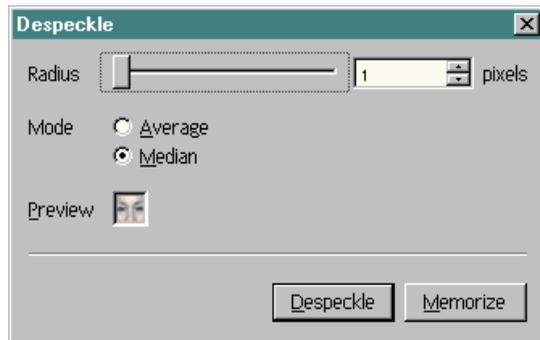
REMARKS

Since Despeckle evens out differences by changing pixels values, it produces a softening effect on the image. For another softening effect, see “Gaussian Blur Effect” on page 3-10.

For another method to remove flaws from an image, see “Blemish Removal” on page 7-31.

To remove specks

1 Choose **Effect** → **Despeckle**. You see the Despeckle Effect dialog.



The Despeckle Effect dialog

2 Adjust the **Radius**.

The **Radius** slider controls the size of the sampling square used when calculating the color of replacement pixels for the flaw. You can choose a value of 1 to 5. Generally, the default value of 3 works best. At higher levels the image may become too fuzzy. At 1 Despeckle has no effect.

3 Choose a Despeckle mode: **Average** or **Median**.

- **Median** reduces pixel differences by replacing each pixel with the median value of the pixels in the sample square. It is more effective than Average, but may remove detail you would prefer to keep. This method takes longer than Average.
- **Average** blurs differences among pixels by replacing each pixel with an average value of all pixels in the sampling square. It blurs larger flaws with the background rather than removing them altogether.

4 To apply the Effect, click **Despeckle**.

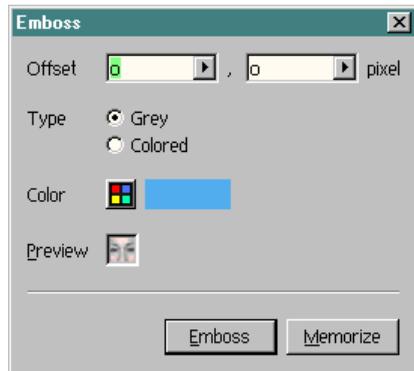
TIP

The smaller the radius and threshold, the faster the despeckling process.

3.6. Emboss Effect

Use the Emboss Effect to produce a “raised” or “relief” effect for an image. The embossed image can be a neutral gray or tinted. The raised effect can be made subtle or strong.

- 1 Choose **Effects** → **Emboss**. The Emboss Effect dialog appears.



The Emboss Effect dialog

- 2 Select a type of embossing:
 - **Grey** makes the image a neutral gray.
 - **Colored** replaces the neutral gray with any color you select.
- 3 If you select **Colored**, click the ColorLink button to link to the Color Editor and select a color.

- 4 To change the offset, type in values in the **Offset** text boxes to set the horizontal and vertical width and height (in pixels) of the Emboss Effect. The greater these values, the more “relief” effect you see in the image.

You can increase the “raised” effect by changing the offset values. An offset of 1,1 gives a lightly embossed look. An offset of 6,6 gives a heavily embossed look.

- 5 To apply the Emboss Effect to the image, click **Emboss**.

TIP

To create unusual effects with Emboss, set the Offset X and Offset Y values in the dialog to very different values.

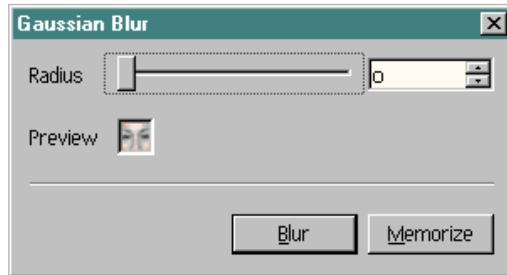
3.7. Gaussian Blur Effect

Use the Gaussian Blur Effect to make an image appear out of focus. “Gaussian” refers to a bell-shaped curve of color values in affected pixels.

To blur an image

- 1 Choose **Effects** → **Gaussian Blur**.

The Gaussian Blur Effect dialog appears.



The Gaussian Blur Effect dialog

- 2 To adjust the intensity of the Effect, use the slider or type in a value in the text box.
- 3 To apply the Effect to the image, click **Blur**.

REMARK

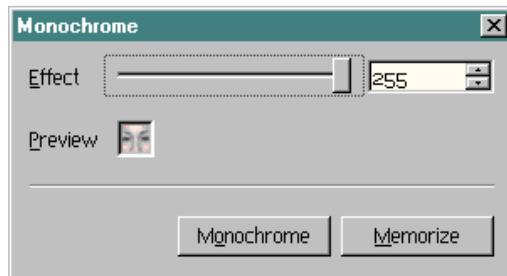
The blurring process is memory intensive. If you are blurring a large image, increase the cache size as much as possible. (For information on determining the maximum cache size, see “Cache Size” on page 9-7). If you run out of RAM while blurring, lines appear in the image.

3.8. Monochrome Effect

Use the Monochrome Effect to produce graytone images. A CMYK image becomes a 4-color graytone image, while an RGB image becomes a 3-color graytone image.

1 Choose **Effects** → **Monochrome**.

Eclipse previews your image as monochrome and displays the Monochrome Effect dialog.



The Monochrome Effect dialog

2 To adjust the intensity of the Effect, use the slider or type in a value in the text box.

A maximum Monochrome value of 100 or 255 (depending on the color range preference you select in the General Preferences) converts a color image to black and white. Lesser values make a partial change to monochrome, which can produce interesting effects.

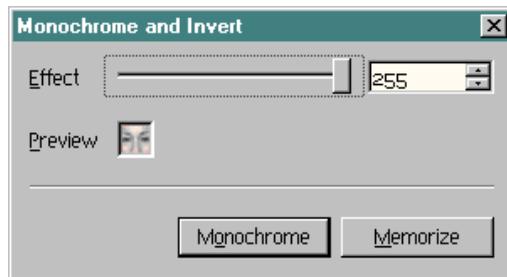
3 To apply the Effect to the image, click **Monochrome**.

3.9. Monochrome and Invert Effect

Use the Monochrome and Invert Effect to convert a color image to a graytone negative. A maximum Effect value of 100 or 255 (depending on the color range mode you select in the General Preferences) converts a color image to a monochrome negative. Lesser values produce a partial color negative of the image.

1 Choose **Effects** → **Monochrome & Invert**.

Eclipse previews your image as monochrome negative and displays the Monochrome and Invert Effect dialog.



The Monochrome and Invert Effect dialog

- 2** To adjust the intensity of the Effect, use the slider or type in a value in the text box.
- 3** To apply the Effect to the image, click **Monochrome**.

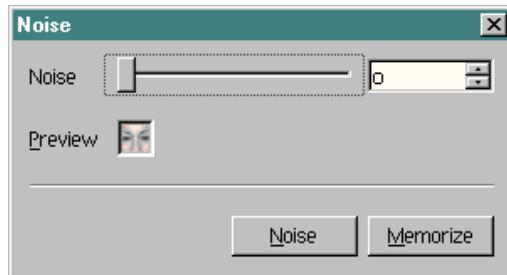
3.10. Noise Effect

The Noise Effect introduces random black and white pixels in an image, creating a grainy or mezzotint-like effect. Adding Noise does not affect the overall lightness or darkness of an image.

To add noise to an image

- 1 Choose **Effects** → **Add Noise**.

Eclipse previews the image with noise and displays the Noise Effect dialog.



The Noise Effect dialog

- 2 Adjust the amount of noise that is added using the slider or text box.

While the maximum value of the slider is 255, you can type in a value as high as 999 in the text box.

- 3 To apply the noise to the image, click **Noise**.

TIPS

You can add noise to a brush in the Brush Profile dialog, as described in “Brush attributes” on page 4-5. If Quick Dry is selected, you can add noise on top of itself to make the effect even more pronounced.

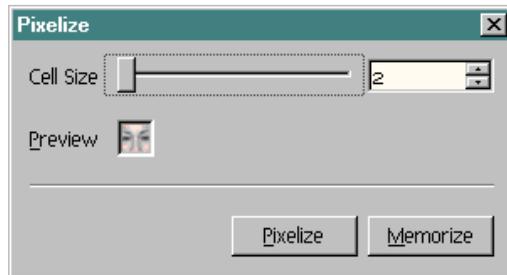
To add colored noise, apply the Noise Effect to one color channel.

3.11. Pixelize Effect

Pixelize averages a block of pixels to produce a low-resolution or “fat bits” effect, as if the image was made up of fewer but much larger pixels. Low Pixelize values produce a blurred or computerized effect. Higher values produce a mosaic effect of progressively larger squares.

To use the Pixelize Effect

- 1 Choose **Effects** → **Pixelize**. The Pixelize Effect dialog appears.



The Pixelize Effect dialog

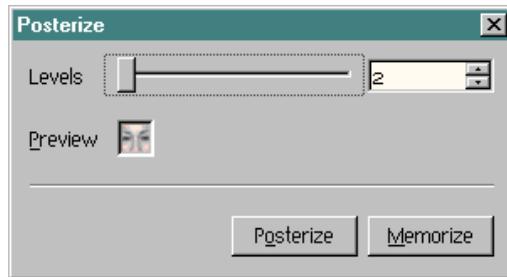
- 2 To adjust the size of the pixel blocks, use the slider or type a value in the text box.
- 3 To apply the Effect to the image, click the **Pixelize** button.

3.12. Posterize Effect

Posterize creates a “paint by numbers” effect by reducing the number of colors used in an image. It’s useful at low levels for creating a cartoon-like effect, something that looks like one of Andy Warhol’s Marilyn Monroe silk screens. A high Posterize level is useful for things like T-shirt films.

To use the Posterize Effect

- 1 Choose **Effects** → **Posterize**. Eclipse previews the image posterized and displays the Posterize Effect dialog.



The Posterize Effect dialog

- 2 To adjust the intensity of the Effect, use the slider or type in a value in the text box.
- 3 To apply the Effect to the image, click **Posterize**.

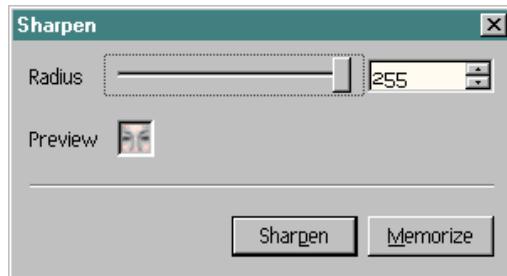
3.13. Sharpen Effect

The Sharpen Effect recognizes edges or areas of contrasting pixels and increases the difference between them to create a sharper image. Use it to improve the quality of a blurry image.

Eclipse's Sharpen Effect is a clean effect with no false colors. It can also produce an intriguing effect if you use it on top of itself at high levels—try it with a brush.

To sharpen an image

1 Choose **Effects** → **Sharpen**. The Sharpen Effect dialog appears.



The Sharpen Effect dialog

- 2 Adjust the degree of sharpening using the slider or text box.
- 3 To apply the Effect to the image, click **Sharpen**.

REMARK

Sharpening adds noise to an image. Repeated applications of sharpening degrades an image. If you apply Sharpening repeatedly with an Effects brush, the image eventually becomes black and white.

TIP

For a similar but less drastic result, use the Unsharp Masking Effect described “Unsharp Mask Effect” on page 3-18.

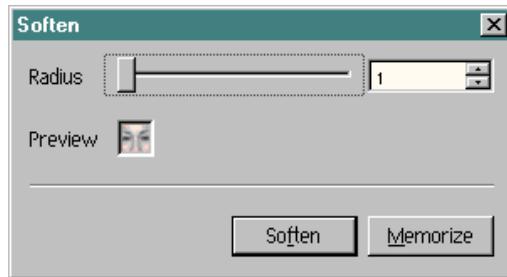
3.14. Soften Effect

Soften produces a mild blurry effect similar to that produced with low levels of Gaussian Blur. The advantage of using Soften is that it gives you more control over degrees of soft blurring—it has 255 values, whereas Gaussian Blur reaches the same blurriness at values of 2 or 3.

To soften an image

- 1 Choose **Effects** → **Soften**.

Eclipse displays the Soften Effect dialog.



The Soften Effect dialog

- 2 To adjust the degree of softening, drag the slider or type a value in the text box.
- 3 To apply the Effect to the image, click **Soften**.

TIP

To smooth edges, apply Soften with an Effects brush. Alternatively, stroke the Soften Effect around a ShapeLayer. To do this, set up the Effect and then close the Soften dialog. Then create or select a ShapeLayer, choose the Effects brush, and click Stroke in the ShapeLayer Toolbox dialog. Eclipse brushes the Soften Effect both inside and outside the ShapeLayer outline.

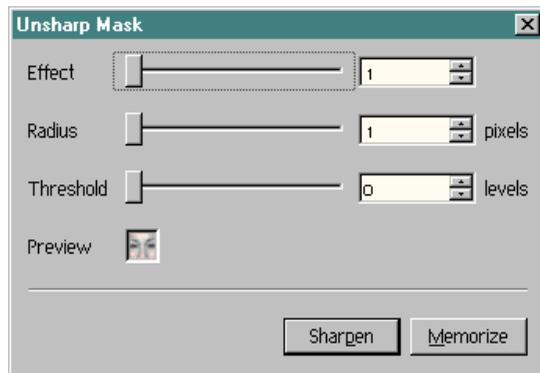
3.15. Unsharp Mask Effect

Like Sharpen, Unsharp Mask increases contrast along edges, creating a crisp image. It is most useful on a good quality image that needs minor sharpening, whereas the Sharpen Effect gives stronger results more appropriate for a poor quality image.

REMARK

The Unsharp Mask Effect is analogous to the sharpening method used by traditional drum scanners which identified sharp transitions in complex images by scanning with both focused and unfocused lenses.

- 1 Choose **Effects** → **Unsharp Mask**. The Unsharp Mask Effect dialog appears.



The Unsharp Mask Effect dialog

- 2 To adjust the range influenced by the Effect, use the Radius slider or type a value in the text box.

- 3 To adjust the sharpness of the transition, use the Threshold slider or type in a value in the text box.
- 4 To adjust the intensity of the Effect, use the Effect slider or type in a value in the text box.
- 5 To apply the Effect to the image, click **Sharpen**.

TIP

As with Sharpening, applying too much Unsharp Masking creates noise that can degenerate an image.

3.16. HSL Replace Color Effect

The HSL Replace Color Effect is only available for RGB images!

Use the HSL Replace Color Effect to adjust the hue, saturation and lightness of an RGB image. HSL Replace Color Effect is different from other Eclipse hue correction tools because you can also adjust saturation and lightness.

The HSL Replace Color Effect dialog has controls that you use to choose the values you want to change (the From values) and to specify how you want to change them (the To values). You can pick colors from an image to select From and To values.

To use the HSL Replace Color Effect

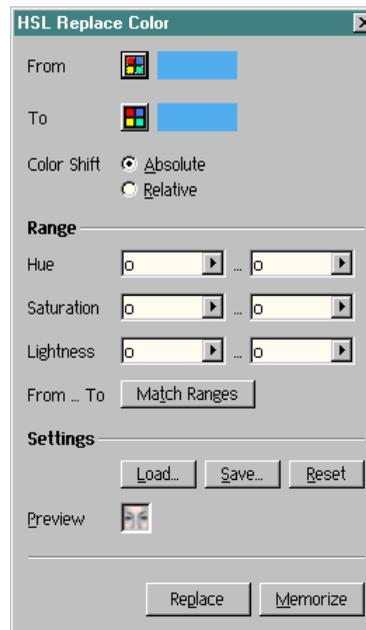
1 Choose **Effect** → **HSL Replace Color**. The HSL Replace Color Effect dialog appears.

To open an existing correction file, click **Load**.

2 To pick a color from your image to work on, click the top ColorLink button. This links the HSL Replace Color dialog to the HSL From Color Editor.

3 Click the **Pick** button in the HSL From Color Editor, then click the image to pick the color to change.

The upper color swatch displays the color you picked.



The HSL Replace Color Effect dialog

4 Select a type of **Hue Shift**:

- **Absolute** changes all colors to the same To color.
- **Relative** maintains hue differences in the image.

5 Change the HSL properties for the **To** color by dragging the **Hue**, **Saturation**, or **Lightness** popup sliders or by typing values in the text box-

es. Alternatively, you can use the HSL To Color Editor.

The lower color swatch reflects the color changes as you make them.

TIP

*To start over, click **Reset**. Eclipse resets the color swatch, sliders and text boxes to their original values.*

*To set the **To** color to the **From** color, click **Match Ranges**.*

To save your settings, click **Save**.

6 To apply the changes to the image, click **Replace**.

TIPS

The HSL Replace Color Effect is useful for food photography and other instances where highly saturated images are desirable. It does not work well on facial tones.

Increasing saturation works well for midtones but not for highlights and shadows.

4. Using Brushes

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4.1. Painting Basics

Eclipse includes a sophisticated set of brushes for painting, retouching, cloning images, creating and editing masks, rendering images, restoring parts of an image and applying special effects and color corrections. You can paint on the whole image or on individual channels.

Selecting a Brush

- 1 Select the **Brush** tool from the ShapeLayer Toolbox.



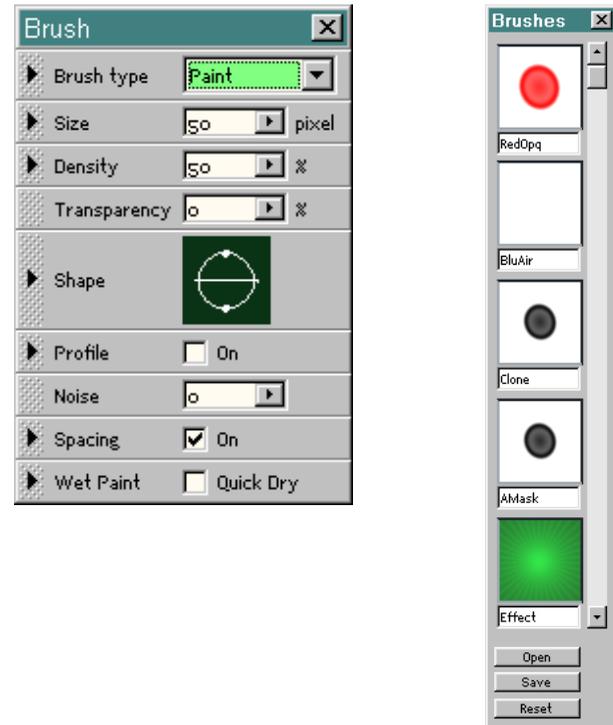
- 2 Select a brush from either the Brush shelf or the Brush Palette.

- **Brush Shelf:** Use the **Brush Shelf** to choose a brush type such as Color, Clone, or Restore and to specify brush attributes such as color, profile, size and transparency. To open it, choose **Window** → **Brush Shelf**.

The Brush shelf opens automatically when you start Eclipse.

- **Brush Palette:** Use the **Brush Palette** to store brushes you create. You can store a set of brushes as a Palette file and open it later to re-

use them. To open it, choose **Window** → **Brush Palette**.



Brush shelf (rollouts in) and **Brush Palette**

Painting and unpainting

- Drag to paint on the canvas image.
- Paint can be unpainted while it is still “wet”. This is akin to erasing or removing whatever you applied via the brush.

- Unless **Quick Dry** is checked in the Brush shelf, paint remains wet until you change the brush color or transparency, switch to a different kind of brush or switch to a different tool. If **Quick Dry** is checked, paint dries after each stroke, allowing you to build up layers.
- To unpaint “wet” paint, press the middle mouse button and drag.
- If you want to dry wet paint, click **Dry Paint** in the Brush shelf. This makes permanent everything you applied before.
- To constrain brush strokes in either vertical or horizontal direction, press the appropriate arrow key.
- When you have finished painting, select the brush icon in the ShapeLayer Toolbox to clear it or select another tool from the ShapeLayer Toolbox.

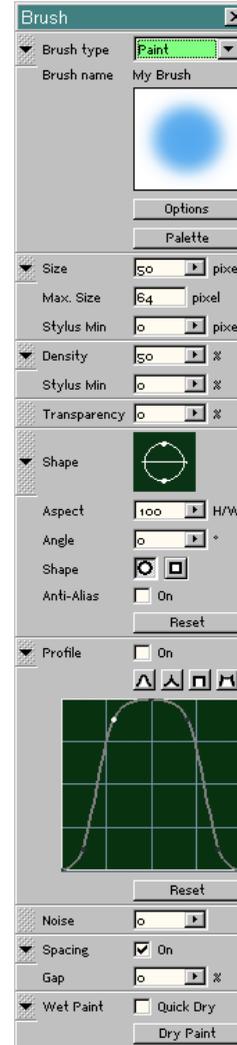
4.2. Creating a Brush

Using the Brush shelf

Use the Brush shelf to choose the brush action you want to use and the options and profile for the brush.

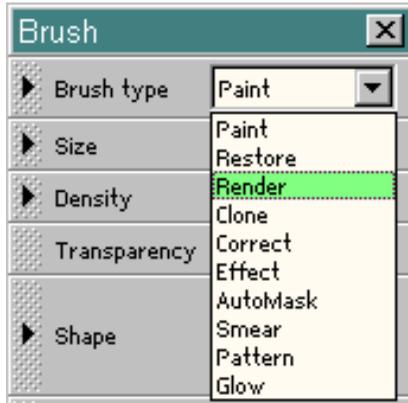
To use the Brush shelf to create a brush

- 1 If the Brush shelf is not open, choose **Window** → **Brush Shelf**.



The Brush shelf (all rollouts out)

- Choose a brush type from the **Brush type** drop-down menu at the top of the Brush shelf. The menu contains ten brush types:



Brush name shows the name of the selected brush.

The Brush preview below the name gives you an impression of what your brush looks like.

- Customize the brush by specifying its attributes in the Brush shelf, as described next.

Brush attributes

- Options:** Click to display any available options for a brush. These brushes have options: Color, Clone, Correct, Effects, AutoMask, Pattern and Glow. For information on options for these

brushes, see “*Brush Types and Their Options*” on page 4-12.

- Palette:** Click to display the Brush Palette. You can also display the Palette by choosing **Window** → **Brush Palette**. For instructions on using the Brush Palette, see “*Using the Brush Palette*” on page 4-9.
- Size:** this attribute specifies the size of the current brush.

The **Max. Size** attribute specifies a maximum size for all brushes. Its maximum value is 1024. This way, you can specify the resolution for the Size popup slider. If you type a Size value higher than the Max. Size value, Eclipse inserts the Max. Size value in the Max. Size text box.

REMARK

*If you have a Wacom tablet installed, the **Stylus Min.** text box lets you specify the Brush size when no pressure is applied to the stylus. You can control the Brush size by applying more or less pressure on the tablet. If you set the same value in both text boxes, Brush size is independent of stylus pressure.*

- Density:** this attribute is active only if **Profile** is On. In this case, the Brush resembles an airbrush (see below). **Density** controls the ratio of air to paint for airbrushes. Airbrush density is specified in percentages. A high value gives the brush more paint; a lower value gives the brush less paint and more air.

REMARK

*If you have installed a Wacom tablet, the **Stylus Min.** text box lets you specify the Density when no pressure is applied to the stylus. This is because you can change the density by applying more or less pressure on the tablet. You can control the Density by applying more or less pressure on the tablet. If you set the same value in both text boxes, Density is independent of stylus pressure.*

- **Transparency:** this attribute sets the transparency level for the brush. At a transparency setting of 100%, paint is completely clear. At 0%, paint is completely opaque.

REMARK

If you set Transparency to 100% and then paint, you will not see any paint on your image.

- **Shape:** Here you can specify the shape, angle and aspect ratio of the brush tip as well as add anti-aliasing.

The Shape preview represents the current brush shape. You can adjust the brush shape by clicking on the graph and dragging or by setting values in the **Aspect** and **Angle** text boxes.

Use the **Aspect** slider and text box to change the shape of the brush.

If you choose a round brush and set the **Aspect** to 100, the brush is circular. As you decrease the Aspect value, the brush becomes elliptical.

If you choose a square brush and set the **Aspect** to 100, the brush is square. As you decrease the Aspect value, the brush becomes rectangular.

Use **Angle** to change the rotation of the brush. Angle values can range from 0 to 360 degrees.

Click the round icon to choose a **round brush**. Click the square icon to choose a **square brush**.

Select **Anti-alias** if you want the brush to use the Anti-alias value you set using the General Preferences dialog box or the **ShapeLayer** → **Anti-alias** command. It is useful mainly with the solid brush.

For more information about anti-aliasing, see page 9-4.

TIP

Turn Anti-aliasing on only when necessary as it slows down brush performance.

To return to the original brush shape, click **Reset**. Eclipse restores the Brush shape to its original settings.

- **Profile:** To use an airbrush instead of a solid brush, set **Profile** to On. An airbrush applies a combination of paint and air to the image or mask. If you choose an air brush, you can set the air-to-paint ratio with the **Density** attribute.

Eclipse's airbrush gives you more possibilities than a standard airbrush:

- You can draw a Brush profile dragging the five points in the profile graph. Whichever way you drag, the brush profile will always be symmetrical.
- You can use one of four preset profiles by clicking its respective buttons.

To return to the original brush profile, click **Reset**. Eclipse restores the Brush Profile values to their original settings.

- **Noise:** Adding **Noise** to a brush introduces random variations into brush strokes, creating a charcoal-like effect.

Adding **Noise** also removes ringing or banding in strokes made with an airbrush with a gap.

- **Spacing:** check **Spacing** if you want Eclipse to plot the position of the brush cursor and link paint drops to create a continuous stroke.

With **Spacing** checked you can paint quickly and the brush will follow, although not always in real time. If you paint quickly when **Spacing** is checked, you may see skipping between paint drops.

The **Spacing** attribute is computationally intensive. If you are painting with short strokes, do not select it.

Gap represents the amount of space between paint drops as a percentage of the brush size. The

default gap is 30%, which means that a brush stamp or “drop of paint” is placed at intervals spaced at a distance equal to 30% of the brush size. This should give an even stroke. The lower the Gap value, the less space between drops, the “smoother” the brush stroke, and the slower the brush.

REMARK

Spacing must be on for Gap to work.

TIP

*Giving an airbrush a high gap may cause ringing or banding in the stroke. To remove these, click **Profile** and add **Noise** to the brush.*

- **Wet Paint:** check **Quick Dry** if you want paint to build up with each brush stroke. Repeated strokes of semi-transparent paint eventually build up to 100 percent opacity.

REMARK

*When **Quick Dry** is checked, you can unpaint only your most recent stroke (the last time you pressed and released the left mouse button while painting), even if you have not changed the brush color, transparency, or type.*

*When **Quick Dry** is unchecked, you can unpaint all your strokes unless you have changed the brush color, transparency or type, in which case you can unpaint only the most recent stroke.*

Click **Dry Paint** to apply your brush strokes to the canvas image. Once paint is dry, it cannot be unpainted with the middle mouse button.

WARNING

Paint dries automatically each time you change brush type, color or transparency.

TIPS

*If you want to remove dried paint, use the **Restore** brush. It restores the image to its state when you last saved or retained it.*

4. Using Brushes

4.3. Storing Brushes on the Brush Palette

Store brushes you have created in the Brush Palette so that you can reuse them and get at them quickly. You can save a Brush Palette as a file for future use.

The Brush Palette is like a storage shelf where you keep brushes you use often. You can:

- add brushes to a Palette
- delete brushes from a Palette
- rename brushes in a Palette
- save a Palette and reuse it later
- create as many Palette files as you want.

Default Palettes

Eclipse includes two default Palettes, `def-brush.pall` and `glows.pall`, which are stored in the `C:\Program files\Eclipse\util\custom` directory.

- The `defbrush.pall` Palette is a sampling of different brush types and options. It is the default Palette.
- The `glows.pall` Palette is a set of Glow brushes that show some of the different effects you can achieve with the brush.

4.3. Storing Brushes on the Brush Palette

When you select a brush from the Brush Palette, it becomes the current brush. You can paint with it, and Eclipse displays its name and options in the Brush shelf. It remains the current brush until you select a different brush from the Brush Palette or the Brush shelf.

Using the Brush Palette

- 1 Choose **Window** → **Brush Palette** or click **Palette** in the Brush shelf.

The Brush Palette appears. It displays either the default brush Palette or the last Palette used.

4. Using Brushes



The Brush Palette

- 2 To select a brush, click it.

Eclipse displays its name and attributes in the Brush shelf. You can change the attributes or immediately use it to paint.

- 3 To open a different Palette file, click **Open**.

Eclipse displays an Open file dialog.

4.3. Storing Brushes on the Brush Palette

- 4 Select a Palette name and then click **OK**.

The brushes in the Palette file appear in the Brush Palette.

- 5 To retrieve the default Palette that comes with Eclipse, click **Reset**.

Creating your own Brush Palette

To add the current brush to the Palette

- 1 Point to a brush icon in the **Brush Palette**.
- 2 Press the Shift key and click the left mouse button.

Eclipse inserts the current brush's preview in the Palette at the point you click. Existing brushes remain in the Palette.

To delete a brush from the Palette

- 1 Point to its icon and click the middle mouse button.

Eclipse displays a warning asking whether you are sure you want to delete the brush.

- 2 Click **Yes** to delete the brush. Click **No** to keep it.

To change the name of a brush in a Palette

- 1 Click in the text box below the brush icon you want to change.
- 2 Type in a new name.

To save the Palette file

- 1 Click Save.
- 2 Type in a name in the text box or select an existing name from the scrolling list.
- 3 Click **OK**.

A Brush Palette file is given a `.pal` filename extension.

4.4. Brush Types and Their Options

Selecting a Brush type

You can choose one of 10 different brush types from the Brush type dropdown menu located at the top of the Brush shelf (see page 4-5).

TIP

By varying brush attributes such as transparency, gap, and density, you can achieve subtle and interesting effects. For example, using a partially transparent Render brush allows you to render a “ghostly” ShapeLayer fill.

Accessing Brush options

The Color, Clone, Correct, Effects, AutoMask and Glow brushes have options. The Restore, Render, Smear and Pattern brushes have no options.

To set Brush Options

Click **Options** in the Brush shelf.

The following sections describe the brush types and their options.

Brushing on paint with the Color Brush

Use the Color brush to apply the current paint color to the image canvas or the mask color to the mask layer.

For a Color brush, click **Options** to open the Brush Color Editor to change the paint color. For directions, see “Selecting colors in the Color Editor” on page 1-25.

Restoring selectively with the Restore Brush

Use the **Restore** brush to restore parts of the canvas image to its state the last time you saved or retained it. Restoring with a brush allows you to restore specific parts of an image, whereas the Restore command in the File menu restores the entire image.



This image has been embossed and then partially restored with a semi-transparent Restore brush. Transparency was set at 65.

TIP

The Restore brush is more powerful than unpainting with the middle mouse button. With it you can restore anything you have done to an image since you last saved or retained it. Unpainting only allows you to remove wet paint.

You can restore a percentage of an image by using a semi-transparent Restore brush. For example, you could colorize an image and then restore it by 50 percent.

There are no options for the Restore brush.

Rendering a ShapeLayer Fill with the Render Brush

Use the Render brush to render ShapeLayer fill elements to the canvas image.

While the Render button in the ShapeLayer Toolbox renders the entire fill of a ShapeLayer to the canvas, with the Render brush you can render specific parts of the ShapeLayer fill. You can also get interesting effects by adjusting Brush transparency and (airbrush) density when you render.

REMARK

When you select the Brush tool from the ShapeLayer Toolbox, all fill elements in ShapeLayers disappear and only the outlines remain visible. (If you close the ShapeLayer Toolbox, the outlines also disappear.) ShapeLayers or their fills do not have to be visible for you to render them, although it is easier to know where they are.

To render a ShapeLayer fill to the canvas

Brush over the ShapeLayer with the Render brush.

The fill elements appear as you render them.



This ball is being rendered from a shape fill onto the floor with a Render brush.

The rough edges can be removed by unpainting with the middle mouse button. Alternatively, they could be erased with the brush.

You can use the middle mouse button to “unrender” or unpaint with the Render brush.

There are no options for the Render brush.

Copying part of an image with the Clone Brush

Use the Clone brush to paint a copy of part of an image. Cloning is particularly useful for replacing dust and other defects with a similar but unblemished part of the image. (Other tools you can use for retouching are the Despeckle effect and the Blemish Removal tool.)

4. Using Brushes

You can clone part of the current canvas image or, if you are running two copies of Eclipse, you can clone between two canvas images. When you clone, Eclipse displays two brush cursors connected by a straight line; one is the *source brush*, and the other is the *destination brush*.

Cloning within an image

- 1 Select the **Clone** brush.

You can select it from the **Brush type** menu in the Brush shelf, from the default Brush Palette or simply press **F**.

- 2 If necessary, adjust the brush size and other attributes using the Brush shelf.
- 3 Click the area of the image that you want to clone *from*. This is the *source*.

As soon as you move the mouse after clicking, Eclipse displays a source brush cursor and a destination brush cursor. The two cursors are connected by a straight line that “rubber bands” as you move the destination brush.

- 4 Move to the area you want to clone *to*, and click to set the distance between source and clone.
- 5 Drag to paint the image.

As you drag, the two brushes move in parallel—the source brush is not anchored at its original point.

4.4. Brush Types and Their Options

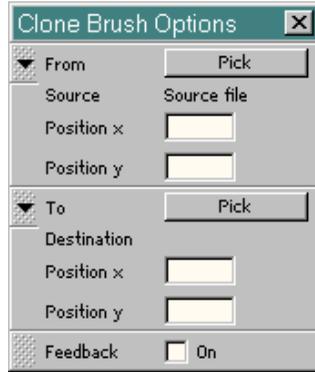
- 6 To clone from a different source, click a new area on the image and continue painting. You can also click **F** to reset the clone source.



The right part of the image has been cloned from the left part using the Clone brush.

Set the Clone Brush Options

When you click **Options**, the Clone Brush Options dialog appears.



The Clone Brush Options shelf

- 1 To set the x and y coordinates for source or destination, click one of the **Pick** buttons or type values in the appropriate text boxes and press Enter.

The **From** text boxes show the x and y coordinates of the source brush. The **To** text boxes show the x and y coordinates of the destination brush.

- 2 To turn feedback on or off, click **Feedback**. When Feedback is selected, the Clone brush is able to clone paint you have just cloned. When Feedback is not selected, the Clone brush cannot read its own data.
- 3 To change coordinates, click in a text box, type in a value and press Enter.

TIPS

If you click on an image to place the source or destination brush, the Clone Brush Options dialog displays the coordinates. This is a good way to establish the initial brush position in an image. You can then use the dialog to move the brushes precisely.

*If cloning is creating too much repetition, turn **Feedback** off.*

Brushing on a Correction with the Correct Brush

Use a **Correct** brush to apply the last used correction to an image. For example, to correct the contrast in portions of an image, use the Contrast correction to set the amount of contrast you want. Then use the brush to correct specific areas of the image.

To use the Correct Brush:

- 1 Choose a Correction from the **Correct** menu.
- 2 Set up the Correction in the correction dialog, but do not apply it.
- 3 Close the Correction dialog. Or, if you want to leave it open so you can quickly modify the correction settings, turn off **Preview**.
- 4 Select the **Correct** brush from the **Brush Type** menu in the Brush shelf, or press **N**.
- 5 Brush on the Correction.

WARNING

If you do not open a Correction dialog, Eclipse applies the last correction you used to the areas you paint.

When you click **Options**, Eclipse opens the last Correction dialog you used.

Brushing on an Effect with the Effects Brush

To brush on an Effect, select an **Effects** brush from the **Brush type** menu or press **X**.

You can open an Effects dialog, set up the Effect, and then apply it through the Brush. If you do not open an Effects dialog, Eclipse applies the last Effect you used to the areas you paint.

To use the Effects Brush

- 1 Choose an Effect from the **Effects** menu.
- 2 Set up the Effect in the Effect dialog, but do not apply it.
- 3 Close the Effect dialog. Or, if you want to leave it open so you can quickly modify the correction settings, turn off **Preview**.
- 4 Select the **Effect** brush from the **Brush type** menu in the Brush shelf, or press **X**.
- 5 Brush on the Effect.

When you select **Options**, Eclipse opens the last Effects dialog you used.

Brushing on a mask with the AutoMask Brush

Use the **AutoMask** Brush to paint areas of the mask layer that fall within ranges specified with the most recent settings in the Auto Mask, HSL Auto Mask or Mask Channel Transfer tool.

WARNING

*Be sure to select the **Active Mask** and **View Mask** icons in the dashboard before you use the **AutoMask Brush**.*

REMARK

*If you want to leave the mask tool dialog open as you work, turn off **Preview** in the **View** menu.*

When you select **Options**, Eclipse opens the last mask tool dialog you used—either Auto Mask, HSL Auto Mask, or Mask Channel Transfer.

For more information, see “*Creating a Mask with a Brush*” on page 8-11.

Smearing with a Smear Brush

Use the Smear Brush to smear or smudge paint or mask color. Smearing is like making multiple copies of whatever is under the brush and dragging them around on the image.

For a soft blurry smear use a low-density airbrush. For a stop-motion effect increase the Gap value before smearing.

There are no **Options** for the Smear Brush.

Brushing on patterns with the Pattern Brush

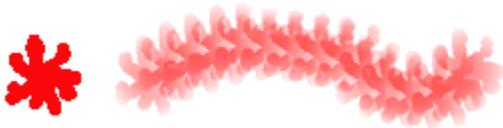
Select the **Pattern** Brush to copy a portion of the image and then “rubber stamp” it onto other areas of the canvas image. The copied portion, or pattern, has the same size and shape as the brush.

To use the Pattern Brush

- 1 Select the **Pattern** Brush from the Brush shelf and then select any attributes you want from the Brush shelf.
- 2 Choose a pattern to paint by clicking the image. The Pattern brush copies whatever is under the brush.
- 3 Move the brush to where you want to rubber stamp the pattern, and click.

Eclipse puts a single copy of the pattern at the point you click.

- 4 To apply multiple copies as a brush stroke, drag over the image. The copies will look smeared.



This pattern was created from the graphic on the left with an airbrush with the gap set at 30.



Here the gap was increased to 90 and the pattern was applied with a solid brush.

There are no specific **Options** for the Pattern brush but you have to click **Options** to set a new pattern.

Adding sparkle with the Glow Brush

Use the Glow Brush to produce realistic special lighting effects like star bursts and glows that you see typically in conventional photography. Although you can paint with the brush, you often just click to place a glow point or star burst rather than dragging to make a paint stroke.

Samples of Glow Brushes are included in the Palette file called `glows.pal`.

To see sample Glow Brushes

- 1 Open the **Brush Palette** and then click **Open** and select the `glows.pal` file. It is stored in the `C:\Program files\Eclipse\util\custom` directory.

The Glow brush Palette contains seven different glow brushes.

- 2 Select a Glow brush by clicking its icon.

4. Using Brushes

- 3 Click on the image to paint on a glow point or starburst. Or drag to produce a streak of glows.

Here are some samples of glow-brush effects.



No glow (left) and cosmic glow



Daisy glow (left) and prism glow

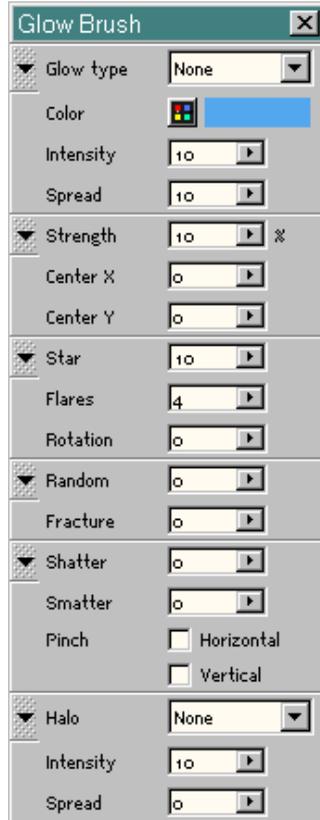
The effect of the Glow Brush depends on the settings in the Glow Brush shelf.

Glow Brushes are not as fast as other brushes as they are produced using a complex algorithm,.

4.4. Brush Types and Their Options

- 4 Click **Options** in the Brush shelf to display the options. The settings in the Glow Brush shelf allow you to customize the effect.

When you click **Options**, a dialog appears with numerous options you can use for the Glow brush. You might want to start with one of the brushes in the `glows.pal` Palette and then work with the options from there. As you change the Glow brush options, Eclipse updates the sample brush in the Brush Editor so you can see its effect.



The Glow Brush shelf

Glow type menu: Choose glow type: No Glow, Linear (linear glow), Nova (exponential glow), Orb (round ball glow), Prism (colored glow with no centre), Spectrum (colored glow with centre).

Color: links to the Color Editor and lets you define the color of the glow.

Intensity: Varies the intensity of the brush glow.

Spread: Varies the spread of brush glow. Spread is exaggerated when Intensity is high.

Strength: Adds transparency.

Centre X: Moves the glow centre left or right.

Centre Y: Moves the glow centre up or down.

Star: Creates star points and varies intensity.

Flares: Determines the number of rays extending from the star point (active only if Star is greater than 0).

Rotate: Rotates the brush.

Random: Makes star points asymmetrical.

Fracture: Determines frequency of random star points (active only when Random value is greater than 0).

Shatter: Creates random radial stars.

Smatter: Intensifies the Shatter effect (active only when the Shatter value is greater than 0).

Pinch: Pinches centre of shattered brush horizontally or vertically (active only when Shatter value is greater than 0).

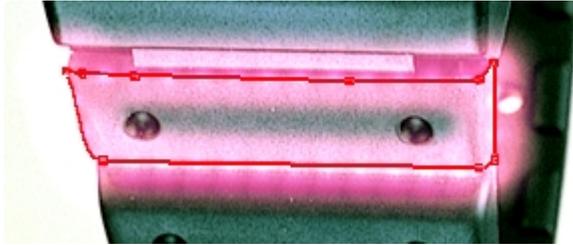
Halo Type menu: Choose halo type: None, Linear, Nova, Orb, Rim. Adds an halo effect to the centre or rim of the brush.

Halo amount: Determines the number of star points.

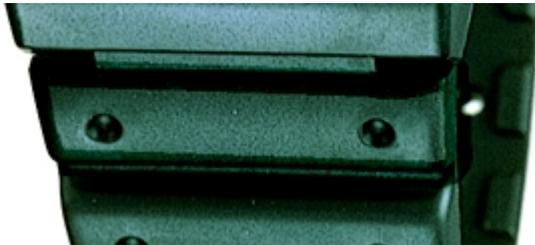
Spread: Spreads the Halo effect from the centre. Spread is more pronounced when Halo amount is high.

4.5. Stroking along a ShapeLayer

You can apply the current brush stroke around the perimeter of a ShapeLayer by using the **Stroke** option in the ShapeLayer Toolbox.



In this illustration, a Glow brush has been stroked on around a ShapeLayer.



Here, a Correct brush has been stroked around the same ShapeLayer to apply a shadow correction, and then the ShapeLayer outline was deleted.

To apply a Brush stroke around the perimeter of a ShapeLayer

1 Select the Brush tool from the ShapeLayer Toolbox.

2 Specify the Brush you want to use to apply the stroke using either the Brush shelf or the Brush Palette.

3 Use a ShapeLayer tool to create a ShapeLayer. In the illustrations above, the Bezier tool was used.

4 Click **Stroke** in the ShapeLayer Toolbox.

The brush stroke appears around the ShapeLayer.

5. Working with ShapeLayers

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5.1. ShapeLayer Basics

What are ShapeLayers?

ShapeLayers are vector objects that you can fill with images, color, vignettes and masks. Unlike raster or bitmap data, which are based on fixed pixel values, vector data can be easily resized and manipulated without any resolution or location constraints.

A ShapeLayer consists of its *outline* and its *fill*:

- The *ShapeLayer outline* is resolution-independent vector data.
- The *ShapeLayer fill* is a representation of an actual image. It retains its original resolution until you render it onto the canvas. Then it acquires the canvas resolution.

A ShapeLayer appears above the canvas image on the *ShapeLayers overlay*.

The benefits of ShapeLayers

- ShapeLayers are the core of Eclipse — they give you the means to open, edit, warp and compose multiple images interactively and simultaneously. But ShapeLayers are more than just a way to work with multiple images; they are also the tools you use for a variety of retouching, composition and special effects jobs. You use ShapeLayers to:
 - create image composites,
 - add color, vignettes or transparency to certain areas of the image,

- manipulate images by warping, rotating, skewing and adding perspective,
- create special effects such as shadow casting, 3D shading, luminance compositing, blemish removal and warp shading,
- limit effects and corrections to specific areas of the canvas image,
- create and edit masks,
- define a path along which to run a brush stroke (see “*Stroking along a ShapeLayer*” on page 4-21).

Creating ShapeLayers

You create ShapeLayers by drawing them on top of the canvas image using the tools in the ShapeLayer Toolbox. You can create:

- ellipses and circles,
- squares and rectangles,
- Bezier curves as well as polygons and B-spline curves. You can close a curve or polygon by clicking **Close** in the ShapeLayer Toolbox.
- text: Eclipse supports standard Windows fonts and you can fill and manipulate text in the same way as other ShapeLayers.

Filling a ShapeLayer

Fill a ShapeLayer with one or more of these elements:

- **Image:** Use any image file type Eclipse supports. The image's resolution and quality are maintained, even after complex edits.
- **Color:** Fill a ShapeLayer with either solid color or a color vignette.
- **Mask:** A ShapeLayer drawn on the mask layer automatically fills with mask color. You can also use a saved mask file.
- **Transparency:** You can add transparency to any ShapeLayer fill and also fill a ShapeLayer with a transparency vignette.
- **Operation:** You can limit a correction or an effect to a ShapeLayer.

Editing and manipulating ShapeLayers

You can edit and manipulate ShapeLayers, even once you have filled them. The ShapeLayer and its fill can be edited together or separately. If you fill a ShapeLayer with an image, you can edit the ShapeLayer without affecting the image, edit the image without affecting the ShapeLayer, or edit both the ShapeLayer and image simultaneously.

You can:

- move, scale, and redefine ShapeLayers and their fills,

- rotate, warp, skew and distort ShapeLayers and their fills,
- cut, copy, paste and delete ShapeLayers and their fills,
- group, combine and align ShapeLayers,
- move ShapeLayers forward or backward within the ShapeLayer overlay.

REMARK

Until the ShapeLayer fill is rendered, Eclipse provides unlimited undo and redo capabilities with ShapeLayers, so you do not have to worry about making mistakes while you are working. You can always cancel of changes or repeat them.

ShapeLayer and image Warping

Eclipse provides a powerful, object-based extension of its ShapeLayers technology for warping ShapeLayers, images and vignettes. Using filled ShapeLayers, you can see and warp multiple images simultaneously. You can also warp the canvas image.

For more information, see “*Warping ShapeLayers*” on page 7-19.

Special Effects with ShapeLayers

ShapeLayers are the basis for shadow casting, 3D shading, luminance compositing, blemish removal, and warp shading. For information on these techniques, see “*Special Effects Using ShapeLayers*” on page 7-1.

Rendering ShapeLayers

ShapeLayers and their fill elements are on an overlay that “floats” above the canvas image. They do not affect the canvas or become part of it until you render the ShapeLayers to the canvas. When you render a ShapeLayer, the ShapeLayer fill acquires the resolution of the canvas image. After rendering a ShapeLayer you can not undo the ShapeLayer operations you applied before.

REMARK

*The **Render Mode** setting in the ShapeLayer menu determines whether all ShapeLayers or selected ShapeLayers only are rendered onto the canvas image.*

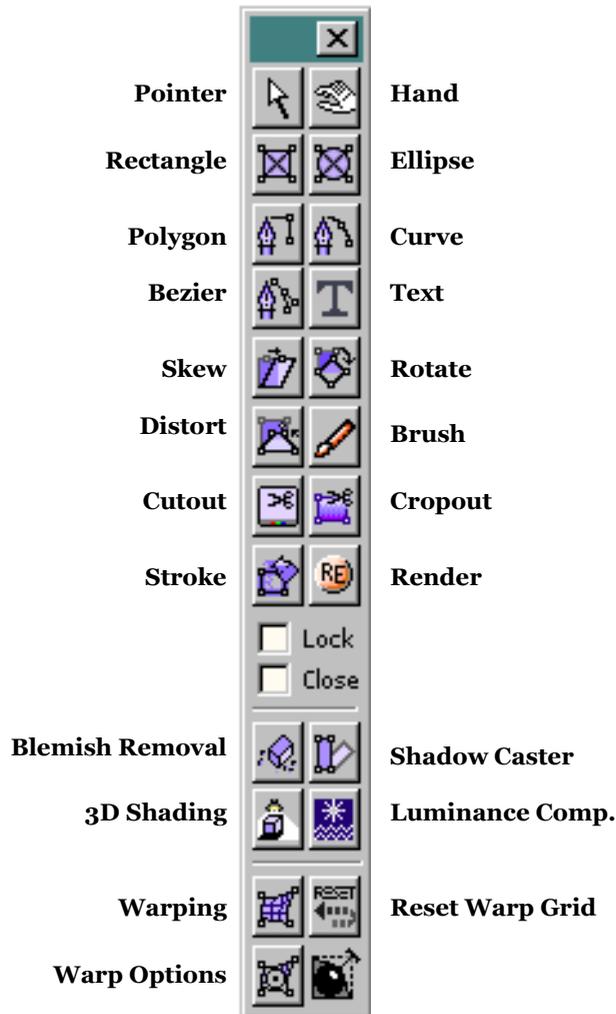
Saving and reusing ShapeLayers

You can save, open and reuse ShapeLayers. When you use the **File** → **Save As** command to save the ShapeLayers overlay, Eclipse creates a file with a .shp filename extension.

Importing ShapeLayers

You can import Adobe Illustrator vector data as Eclipse ShapeLayers files. For more information, see “Opening foreign vector data files as ShapeLayer files” on page 11-3.

5.2. The ShapeLayer Toolbox



When you open an image or create a new image, Eclipse also opens the ShapeLayer Toolbox. To create a ShapeLayer, select a tool and use it to draw the ShapeLayer on the ShapeLayer overlay.

Pointer tool: Use the Pointer tool to select or to edit a ShapeLayer and its fill.

Hand tool: Use the Hand tool to select a ShapeLayer or to edit the *ShapeLayer fill only*.

Rectangle tool: Drag to create a rectangle. Press Shift while dragging to create a square.

Ellipse tool: Drag to draw an ellipse. Press Shift while dragging to create a circle.

Polygon tool: Click to create the corners of the polygon.

Curve tool: Click to lay down points for a Bi-spline curve.

Bezier tool: Clicking creates a straight segment. Dragging creates a curve.

Text tool: Create and edit text. You can fill text the same way as other ShapeLayers.

Skew tool: Skew a ShapeLayer.

Rotate tool: Rotate selected ShapeLayers and/or their fills.

Distort: Add perspective to a ShapeLayer.

Brush tool: Activate the current brush and suspend ShapeLayer creation. ShapeLayer fills are hidden.

Cutout: Put a duplicate of the last saved canvas image into the selected ShapeLayer.

Cropout: Copy that part of the canvas image that is visible into the selected ShapeLayer and save it as a file.

Stroke: Run the current brush around the outline of a selected ShapeLayer.

Render: Apply ShapeLayer fills to the canvas. **Render Mode**, available from the ShapeLayer menu, determines whether all ShapeLayers or selected ShapeLayers are rendered (*see page 5-7*).

Lock: Affects the way overlapping ShapeLayers are combined.

Close: Closes or opens the selected Bezier curve, B-spline curve or polygon.

Blemish Removal: Remove flaws within a ShapeLayer without degrading the image.

Shadow Casting: Add shadows to areas of the canvas image surrounded by a ShapeLayer.

3D Shading: Add a 3D look to a canvas image area surrounded by a ShapeLayer.

Luminance Compositing: Transfer the luminance of the canvas image to a ShapeLayer fill.

Warp tool: Warp a ShapeLayer and its fill.

Warp Reset: Return a warped ShapeLayer and its fill to their original state.

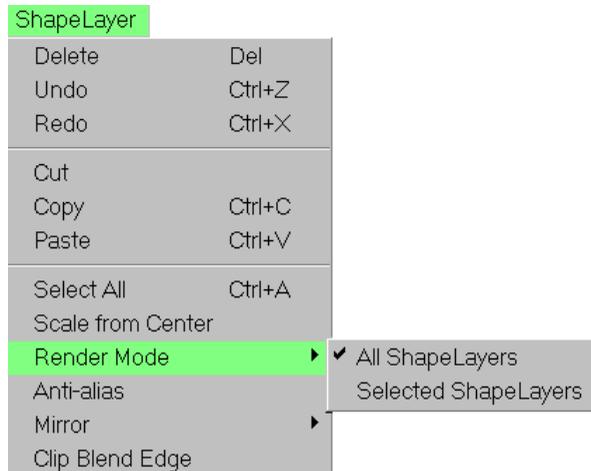
Warp Options: Access options such as Warp Shading and the warping grid.

5.3. Viewing ShapeLayers

ShapeLayers are visible only when the ShapeLayer Toolbox is open. If you draw ShapeLayers and then close the ShapeLayer Toolbox, the ShapeLayers disappear. When you reopen the ShapeLayer Toolbox, the ShapeLayers reappear.

The way Eclipse displays ShapeLayer fills depends on two settings: the **ShapeLayer** → **Render Mode** setting and the **View** → **ShapeLayers** setting.

When you choose **ShapeLayer** → **Render Mode**, a submenu appears.



All ShapeLayers: Fills are displayed for all ShapeLayers, whether or not they are selected.

Selected ShapeLayers: Only fills for selected ShapeLayers are displayed.

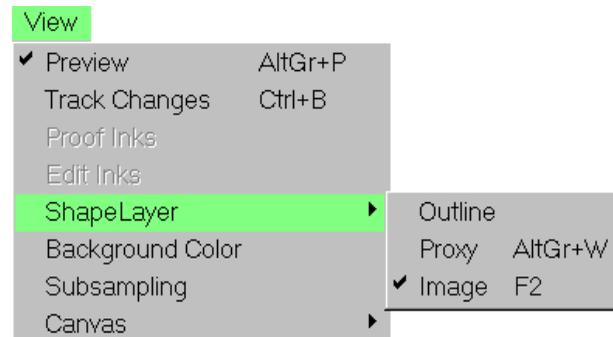
TIP

To toggle between the two render modes, press **F11**.

REMARK

The **Render Mode** setting, as its name implies, also affects whether rendering affects all ShapeLayers or only selected ShapeLayers.

When you choose **View** → **ShapeLayers**, this submenu appears.



Outline: Displays only the outline of the ShapeLayer; any image or mask in the ShapeLayer does not appear.

Proxy: Displays proxies of the image and mask. Use this view for optimal performance when you are working with images in ShapeLayers.

Image: Displays the full image and mask within a ShapeLayer. Use this view for high-quality display of images in ShapeLayers.

Hiding the ShapeLayer overlay

You can hide ShapeLayers by pressing Ctrl H. ShapeLayer fills remain visible even when the ShapeLayers overlay is hidden.

Changing the color of the ShapeLayer overlay

By pressing **AltGr C** you can cycle through a series of colors for the ShapeLayers overlay. Pick a color that is visible against the canvas image.

5.4. Creating ShapeLayers

Creating a rectangle or square

Use the Rectangle tool to create rectangles or squares. You can move and size a rectangle after you create it, but you cannot add points to or delete points from a rectangle.

Creating or editing a rectangle

- 1 Select the **Rectangle tool** from the ShapeLayer Toolbox.

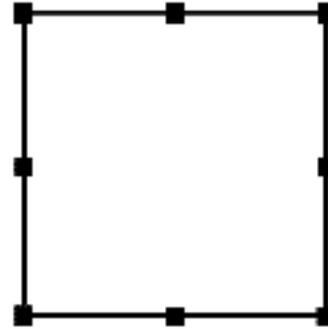


Rectangle tool selected in the Toolbox

- 2 Point to where you want one corner, and drag.

To create a square, press Shift while dragging.

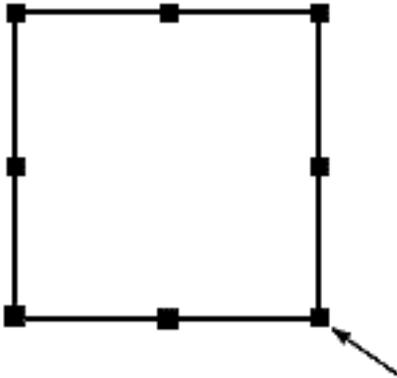
- 3 Release the mouse button. The rectangle remains selected so you can edit it. To do so, select the Pointer tool in the ShapeLayer Toolbox.



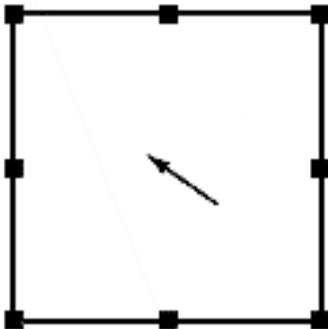
A rectangle with its edit points

- 4 To change a rectangle's width or height, drag an edit point on one of its sides.
- 5 To change both width and height, drag a corner edit point.

To maintain the aspect ratio, press Shift while dragging.



- 6 To move a rectangle or square, point inside it and drag.



Creating an ellipse or circle

Creating an ellipse or circle is much like creating a rectangle or square, as shown in the preceding section.

To create an ellipse or circle

- 1 Select the **Ellipse tool** in the ShapeLayer Toolbox.



Ellipse tool selected in the Toolbox

- 2 Point to where you want to place one point on the ellipse and drag. To create a circle, press the Shift key as you drag.
- 3 When the ellipse or circle is the right size, release the mouse button.

Creating a polygon

Use the Polygon tool to create an open or closed polygon.

To create a polygon

- 1 Select the **Polygon tool** in the ShapeLayer Toolbox.



Polygon tool selected in the Toolbox

- 2 Click on the canvas to place edit points at the corners of the polygon. Adjacent edit points are joined by a line segment.
- 3 To connect the first and last edit points, select **Close** in the ShapeLayer Toolbox. To open a closed polygon, deselect **Close**.

To stop adding points, select the **Pointer tool** or press **V**.

Creating a Bi-spline curve

Use the Curve tool to create an open or closed Bi-spline curve.

Bi-spline curves are not as versatile as Bezier curves since you cannot directly control the curvature at each edit point. Instead, the curvature of a segment is controlled by the next point.

To create a Bi-spline curve

- 1 Select the **Curve tool** in the ShapeLayer Toolbox.



Curve tool selected in the Toolbox

- 2 Click on the canvas to place the edit points of the curve. Two edit points are joined by a curved line segment.
- 3 To adjust the curve, place a new edit point and drag it. The further you drag a point from the preceding segment, the more it curves.

TIP

To create a straight line or corner, place points close together.

- 4 To join the first and last points, click **Close** in the ShapeLayer Toolbox. To open a closed ShapeLayer, deselect **Close**.
- 5 When you are finished, select the **Pointer tool** or press **V**.

Editing points in a polygon or Bi-spline curve

You can add, delete and move points belonging to a polygon or B-spline curve while you are creating it or once you have finished.

Selecting a polygon ShapeLayer and displaying its points

If you are not currently creating a polygon or Bi-spline curve, first select it with the Pointer tool, then select the tool you used to create the ShapeLayer. This displays the ShapeLayer's edit points. If you are still creating a ShapeLayer, the points are already visible, so you do not have to select the ShapeLayer or the tool.

To edit points in a polygon or Bi-spline curve

- 1 To add a point, click on a line segment.
- 2 To delete a point, click it with the middle mouse button.
- 3 To move a point, drag it. This is how you can stretch the side of a polygon or adjust a curve.
- 4 When you finished editing, select the **Pointer tool** or press **V**.

The points disappear and a bounding box surrounds the ShapeLayer.

Creating a Bezier curve

Use the Bezier tool to draw ShapeLayers that combine curves and straight lines. Clicking creates straight lines; dragging creates curves.

TIP

The Bezier tool is a versatile, all-purpose tool you can use to create both straight and curved segments. Once you become familiar with it, you may not need the Polygon and Curve tools anymore.

To create a Bezier curve

- 1 Select the **Bezier tool** from the ShapeLayer Toolbox.



Bezier tool selected in the Toolbox

- 2 Click on the canvas to place the first edit point.
- 3 To draw a straight segment, click to place a second edit point.

Eclipse draws a straight line between the two points.
- 4 To draw a curve segment, drag as you place the edit point.

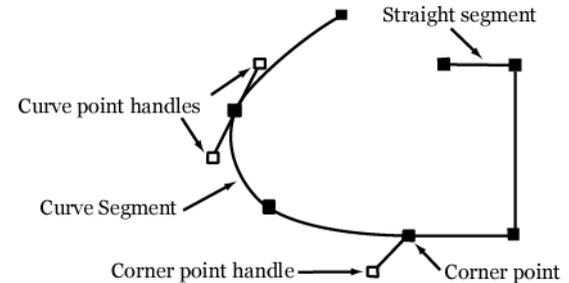
When you first press the mouse button, Eclipse places another edit point and draws a straight segment between it and the last point. As you drag, Eclipse changes the segment to a curve and displays two handles attached to the edit point.

- 5 To adjust the angle of the curve segment, drag one of the handles. Both handles move as you drag.
- 6 Click to place additional straight segments; drag and click to place curved segments.
- 7 To join the first and last edit points, click **Close** in the ShapeLayer Toolbox.

To open a closed ShapeLayer, click **Close** again.
- 8 When you are finished creating the Bezier curve, select the **Pointer tool** or press **V**.

Editing a Bezier curve

A Bezier curve ShapeLayer has three different kinds of points: curve points, straight points and corner points (the point where a curve segment meets a straight segment). Eclipse displays all the points as small squares. In addition to adding, deleting, and moving edit points, you can use handles on the curve and corner points to adjust the angle, size and direction of the curve segments. You can also change a curve to a straight segment or change a straight segment to a curve.



The elements of a Bezier curve

To edit the points in a Bezier ShapeLayer

- 1 Select the **Pointer tool**, and use it to select a ShapeLayer.

The selected ShapeLayer appears surrounded by a bounding box.

- 2 Select the **Bezier tool**.

Eclipse removes the bounding box and displays the points that define the ShapeLayer.

A *curve point* displays *two* handles when you click on it.

A *corner point* displays *one* handle when you click on it.

A *straight point* does not display any handles.

TIP

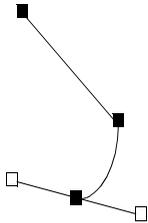
To see the points and their handles clearly, zoom in on the ShapeLayer.

- 3 To change a curve to a straight segment or to change a straight segment to a curve, press and hold the Shift key and click the segment.

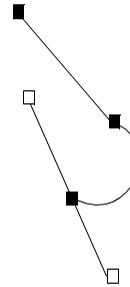
TIP

Make sure you click the segment, not a point, when converting a curve to a straight segment or vice versa.

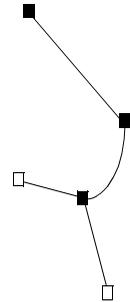
- 4 To adjust a curve segment, click one of its points so two small handles appear. Then drag a handle.



When you click a curve point, two small handles appear attached it.



Drag a handle to adjust the curve. Both handles move in tandem and the curve distorts in the direction you drag.



To move only one handle, press Shift, and click the handle. Now you can drag it without moving the other handle.

To rejoin the handles, press Shift and click one of the handles.

- 5 To adjust a corner point, click it so that one handle appears. Then drag the handle.

The curve segment attached to the corner point moves in the direction you drag. The straight segment does not move.

6 You can also edit Bezier points using these standard techniques:

- To move a point, drag it.
- To delete a point, click it with the middle mouse button.
- To add a point, click on the line or curve between two existing points. If you add a point to a straight segment, you add a straight point. If you add a point to a curve, it is a curve point.

7 When you are finished, select the **Pointer tool** or press **V**. Eclipse hides the points and displays the bounding box around the ShapeLayer.

Adding Text

Use the Text tool to add text to an image. Eclipse treats text like a ShapeLayer. You can edit text as you do other ShapeLayers. You can move, size and warp text as well as fill it with any combination of color, image or mask.

To add text

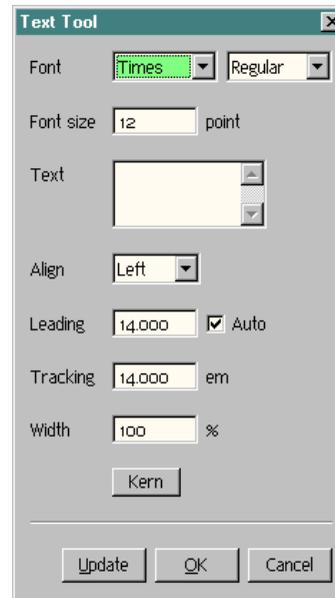
1 Select the **Text Tool** from the ShapeLayer Toolbox.



Text tool selected in the Toolbox

2 Click approximately where you want the text to appear.

The Text Tool dialog appears.



The Text Tool dialog

To choose a font

Select the name of the font you want to use from the **Font** list. Use the dropdown menu to see more available fonts.

In Eclipse, you can use all fonts which are installed in your system. Eclipse looks for fonts in the Fonts folder of your system directory.

To specify other Text properties

In the Text dialog box you can select these text attributes:

- **Font size:** Select the font size (in points) from the pop-up menu, or type a font size in the text box.
- **Leading:** Leading is the amount of space between lines, measured from base line to base line. Select the leading (in points) by typing a value in the text box. To let Eclipse choose the optimum leading for you, select **Auto**.
- **Tracking:** Tracking is the amount of space between letters. The tighter the tracking, the less space between letters. Type the amount of tracking you wish into the text box.
- **Align:** Use the Align menu to select left, right or centre justified text.
- **Width:** The Width box increases or decreases the horizontal size of both letters and the spaces between letters. Type a positive or negative percentage value in the box.

- **Kern:** Click Kern to adjust the spacing between specific pairs of letters.

To type and preview Text

- 1 Click in the **Text** area to display the text cursor, and begin typing your text. If you type to the end of a line, the text in the text box wraps to the next line.
- 2 To create a line break in the ShapeLayer, press Enter.
- 3 To select text, drag over it or hold down the Shift key and press the arrow keys.
- 4 To cut selected text, press the Delete or Backspace key.
- 5 Click the **Update** button to preview the text on the canvas. You can continue typing or editing after clicking **Update**.
- 6 When you are finished typing, click **Ok**.

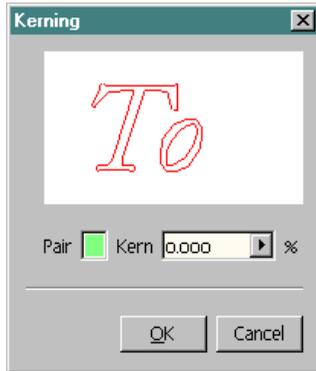
Eclipse closes the dialog box, draws the text, and selects it. You can edit text like any other ShapeLayer.

Kerning Text

Kerning adjusts the spacing between specific pairs of letters. It affects all occurrences of the specified letters in the same font. If the same letter pair occurs in a different font, kern the pair in that font separately.

- 1 Click **Kern** in the Text dialog box.

The Kerning dialog box appears.



The Kerning dialog

- 2 Type in a pair of letters to be kerned.
- 3 Type in the value by which you want the letter spacing adjusted. Use negative values to reduce spacing.
- 4 The effect of the current kerning values is displayed.

To edit existing text

- 1 Select the text by clicking it with the Pointer or Hand tool so that a bounding box appears around the text.
- 2 Select the **Text Tool** from the ShapeLayer Toolbox.

The Text Tool dialog box appears containing the text you selected. Use it to edit text in the same way you did to create text.

TIP

To blend the text edge with the canvas image, type in a value in the Blend Edge text box at the bottom of the ShapeLayer Toolbox. For more information, see “Blending the edge of a ShapeLayer fill” on page 5-30.

Deleting a ShapeLayer

To delete a ShapeLayer:

- 1 Select the Pointer tool from the ShapeLayer Toolbox.
- 2 Select the ShapeLayer or ShapeLayers you want to delete.
- 3 Choose **ShapeLayer** → **Delete** or press the Delete key.

TIP

To delete only a ShapeLayer’s fill, select it with the Hand tool, and then choose **ShapeLayer** → **Delete** or press the Delete key.

For more information on removing or replacing ShapeLayer fills see “Removing or replacing a ShapeLayer fill” on page 5-31.

5.5. Filling ShapeLayers

You can fill any closed ShapeLayer with solid or vignette color, an image, a mask, solid or vignette transparency or any combination of these elements. Use the ShapeLayer Fill shelf to select the color, image or mask and to choose fill options such as transparency and blending.

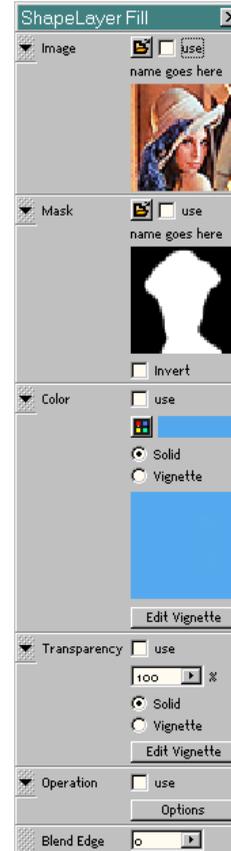
To fill a closed ShapeLayer

- 1 Select the ShapeLayer with the **Pointer tool** or **Hand tool** so that its bounding box appears.
- 2 Choose **Window** → **ShapeLayer Fill**. The ShapeLayer Fill shelf appears.

TIP

You can also open the ShapeLayer Fill shelf by double-clicking inside a ShapeLayer with the Hand tool.

You can leave the ShapeLayer Fill shelf open as you work.



The ShapeLayer Fill shelf displays the attributes of currently selected ShapeLayer Fill.

Image: Any image file type Eclipse supports can be placed inside a ShapeLayer.

Mask: Since ShapeLayers are resolution-independent, any mask file can be placed inside a ShapeLayer. You can manipulate an image fill and its mask at the same time.

Color: Select Color to fill a ShapeLayer with a solid color or with a color vignette.

Transparency: Select Transparency and **Solid** to add a degree of transparency to a fill. Use the text box or popup slider to control the amount of transparency.

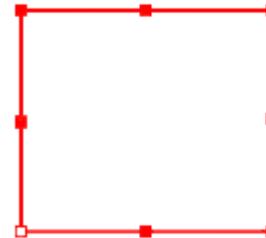
You can also turn on **Vignette** to create a transparency vignette within a ShapeLayer.

Operation: Allows to apply an effect or correction to the selected ShapeLayer only.

Blend Edge: Soften the edges of the fill by typing a value in the Blend Edge text box. The higher the value, the greater the area of edge softening.

Filling a ShapeLayer with an image

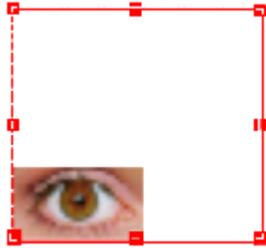
1 Select a closed ShapeLayer with the Pointer tool or the Hand tool.



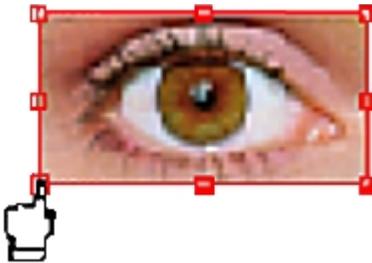
2 Click the Open file button in the Image Section at the top of the ShapeLayer Fill shelf. Use the Open File dialog that appears to select an image. The image appears as a preview in the ShapeLayer Fill shelf.



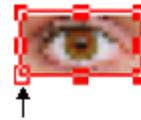
3 To use the image as the fill check the **Image: use** checkbox.



- 4 To fit the image to the ShapeLayer, select the **Hand tool** and double-click on the magic handle. The magic handle is the hollow handle at the lower-left corner of an unrotated bounding box.



- 5 To fit the ShapeLayer to the image, select the **Pointer tool** and double-click on the magic handle.



To select a different fill image

- Click the Open file button.
- Then use the Open File dialog that appears to choose a different image for the ShapeLayer.

To remove the image from the ShapeLayer

Deselect the **Image: use** checkbox.

Eclipse removes the image from the ShapeLayer. Alternatively, select the ShapeLayer with the **Hand tool**, and then press Delete.

TIP

To delete a ShapeLayer and its fill elements, select the ShapeLayer with the **Pointer tool**, and then press Delete.

Putting the Canvas image inside a ShapeLayer

You can put the canvas image inside a ShapeLayer using the Cutout button in the ShapeLayer Toolbox. The ShapeLayer then references the entire canvas image. This function is most useful when you want to warp parts of the canvas image (see “*Warping ShapeLayers*” on page 7-19).

- 1 Create a closed ShapeLayer.
- 2 Click the **Cutout** button in the ShapeLayer Toolbox.

In the ShapeLayer Fill shelf, the canvas image appears in the image sample box.

- 3 To move the canvas image around inside the ShapeLayer, drag it using the **Hand tool**.

WARNING

Cutout uses the most recently saved version of the canvas image. Modifications you make to the canvas image will not be picked up by the cutout image.

Copying only part of the canvas image into a ShapeLayer

If you want to copy part of the canvas image into a ShapeLayer, rather than making reference to the canvas image, use the **Cropout** button in the ShapeLayer Toolbox. This operation also saves the copied portion of the canvas image as a file.

- 1 Select the part of the canvas image you want to copy by enclosing it within a ShapeLayer.
- 2 Click the **Cropout** button in the ShapeLayer Toolbox.
- 3 Use the Save File dialog that appears to save the selected area as an image file.

The ShapeLayer is now filled with the copy of a cropped portion of the canvas image. In the ShapeLayer Fill shelf, the cropped image appears in the image sample box.

Filling a ShapeLayer with a mask

- 1 Select a closed ShapeLayer.
- 2 Click the Open file button in the Mask section of the ShapeLayer Fill shelf.

An Open File dialog appears like the one you see when you choose **Open** → **Mask** from the **File** menu.

- 3 Select the name of the mask you want from the file dialog, then click **OK**. The mask appears as a preview in the ShapeLayer Fill shelf.

REMARK

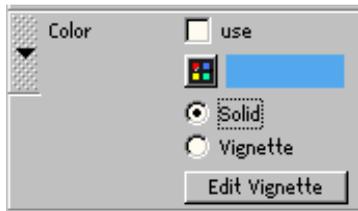
You must have already created and saved the mask file you want to use.

- 4 To fill the ShapeLayer with the mask you selected check the **Mask: use** checkbox.
- 5 To invert the mask, check **Invert** in the ShapeLayer Fill shelf. Doing this has the same effect as choosing **Mask** → **Invert**: all opaque portions of the mask become transparent; all transparent portions become opaque. The mask file itself is not affected.

For more information on ShapeLayers and masking, see “*Creating a Mask with ShapeLayers*” on page 8-13.

Filling a ShapeLayer with solid color

Check **Color** in the ShapeLayer Fill shelf. Then turn on **Solid**.



The color swatch and the ShapeLayer are filled with the current color and the Color Editor appears.

To change the fill color, pick a color using the Color Editor.

You can blend the edge of the color fill or make it partially transparent as described in “*Blending the edge of a ShapeLayer fill*” on page 5-30.

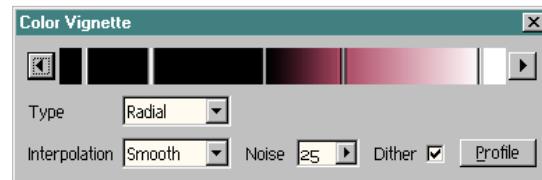
Filling ShapeLayer with Color Vignettes

Use a color vignette to add gradual transitions of color. You can choose different types of color vignette and adjust features such as color values, spread, transparency, dithering and noise.

To fill a ShapeLayer with a Color Vignette

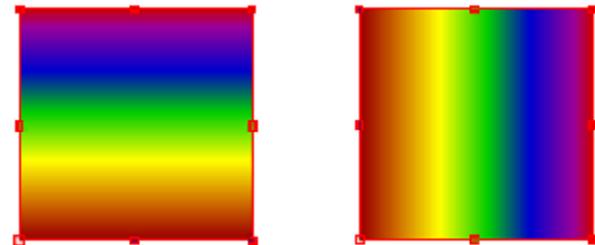
- 1 Select the ShapeLayer you want to fill using the **Pointer** or **Hand tool**.
- 2 Check **Color** and turn on **Vignette** in the ShapeLayer Fill shelf.

The Color Vignette dialog appears and the ShapeLayer fills with the current vignette. The default colors are black and white.

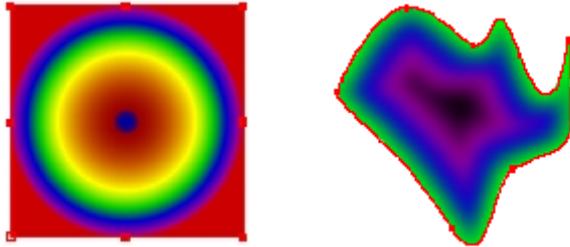


The Color Vignette dialog

Choose from four types of color vignettes. (A contour vignette cannot be used with text.)



Horizontal and vertical color vignette



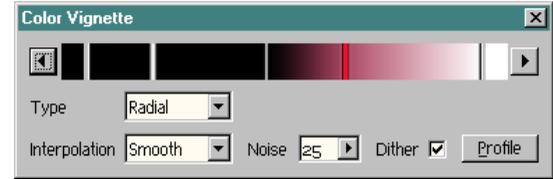
Radial and Contour color vignette

There are two ways to add and adjust colors in a Color Vignette.

- **Color ramp:** Use the color ramp in the Vignette dialog. This is a quick and easy way to create a simple color vignette.
- **Vignette Profile Editor:** Use the Vignette Profile Editor if you want precise control over color values and their positions.

How to adjust a Color Vignette using the color ramp

Using the color ramp to adjust colors and the spread between them is a fast way to create or modify a Color Vignette.



- 1 Red markers control colors in a Color Vignette. To adjust how the colors blend, drag a marker.
- 2 To change the color of a marker, select it and choose a color from the Color Editor or Color Palette.
- 3 To select a marker, either click it or click the arrows at either end of the ramp to select the next marker.
- 4 To add a marker, click in the color ramp. Then use the Vignette Color Editor to select a color.
- 5 To delete a marker, click it with the middle mouse button.

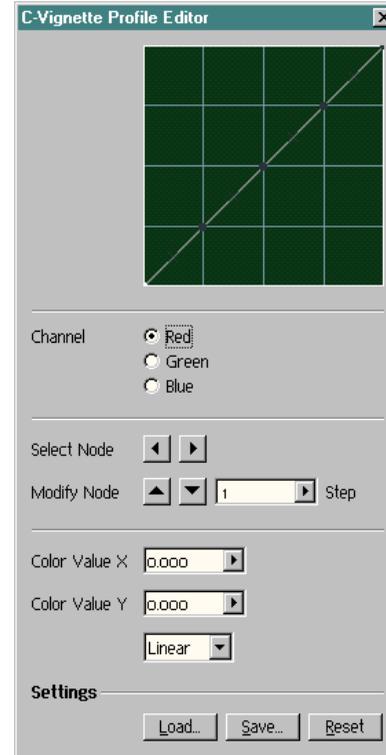
The way the color ramp maps to vignettes of different types is shown in the following table.

Vignette Type	Colors on the left side of the color ramp map to this area of the vignette	Colors on the right side of the color ramp map to this area of the vignette
Horizontal	Left side	Right side
Vertical	Bottom	Top
Radial	Centre	Outside edge
Contour	Centre	Outside edge

How to adjust a Color Vignette using the Profile editor

For precise control over color values and positions in a complex vignette, use the Vignette Profile Editor. The Profile Editor's graph offers another view of the vignette data displayed in the color ramp of the Vignette dialog. Changes made in the Vignette Profile Editor are reflected in the Vignette dialog, and vice versa.

To access the **Vignette Profile Editor**, click **Profile** in the Vignette dialog.



The Color Vignette Profile editor

The horizontal axis of the graph represents the stretch of the vignette. The vertical axis represents the color value.

Each point on the graph corresponds to a marker on the color ramp. Both points and markers represent changes in color gradation.

- Adjust each channel separately.
- To add a gradation point to the vignette, click a point on the curve. A corresponding marker is added to the color ramp in the Vignette dialog.
- To delete a point, click it with the middle mouse button.
- To adjust the gradation spread, drag a point horizontally.
- To change the color value for a point, drag it up or down on the graph.
- You can also change the color of a point via the arrow buttons and the Color Value text boxes and popup sliders.

Dithering a Vignette

Dithering helps eliminate color banding in the vignette colors.

To dither the vignette, select **Dither**.

Adding Noise to a Vignette

Smooth the transition between colors in a vignette by adding noise.

To add noise, click the **Noise** text box, type in a pixel value and press Enter or use the popup slider.

REMARK

The proxy version of a vignette with a high noise level may look coarse. Its quality improves when you render it.

Linear vs. Smooth Gradation

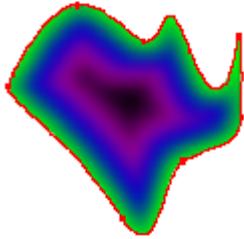
Both the Vignette dialog and the Vignette Profile Editor have a pop-up menu that offers two choices: Linear and Smooth.

- **Linear** produces a more abrupt transition between colors.
- **Smooth** produces more blending between color.

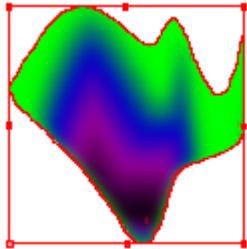
To adjust the focal point of a contour vignette

A small square handle marks the focal point of a contour vignette. When you create a contour vignette, this handle is in the centre.

Select the pointer tool and drag the inner handle.



The focal point of a color contour vignette is in the ShapeLayer's centre by default.



Here the focal point has been moved to the bottom of the ShapeLayer by dragging its inner handle.

TIPS

You can also add transparency and blending to a Color Vignette. For directions, see page 5-26.

To edit a Color Vignette, use the Hand tool and press the S key.

Adding Transparency

You can add transparency to a color, image or mask fill using the Transparency slider and text box near the bottom of the ShapeLayer Fill shelf.



To add transparency to a ShapeLayer fill

- 1 To turn on transparency for a ShapeLayer fill, check **Transparency** in the ShapeLayer Fill shelf.
- 2 Also select **Solid**.
- 3 To adjust the transparency level, type a percentage value in the text box or use its popup slider. A value of 0 is completely opaque — 100 is completely transparent.

REMARK

This slider and text box affect only solid transparency. Vignette transparencies have a separate shelf.

For instructions on creating a transparency vignette, see below.

Filling a ShapeLayer with a Transparency Vignette

Use a transparency vignette to create gradations of transparency and shadow around an image in a ShapeLayer.

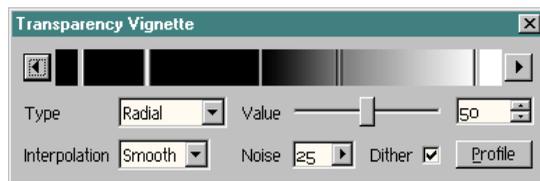
- 1 Select a closed ShapeLayer filled with an image or another kind of fill.

REMARK

A transparency vignette is not visible unless you fill the ShapeLayer with an image, color, or a mask.

- 2 Select **Transparency** in the ShapeLayer Fill shelf.
- 3 Select **Vignette**.

The Transparency Vignette dialog appears.



The Transparency Vignette

The Transparency Vignette dialog works in much the same way as the Color Vignette dialog described on page 5-23.

The levels of grey in the **Transparency ramp** represent levels of transparency. The darker the grey, the greater the transparency.

- 4 Use the slider or the text box above it to control the transparency level of the selected marker.

There are two ways to adjust transparency levels and gradation: using the transparency ramp or using the Vignette Profile Editor.

Adjusting a Transparency Vignette using the transparency ramp

- 1 To insert a new transparency point, click the transparency ramp. Eclipse inserts a vertical marker in the ramp.
- 2 To adjust the spread between transparency points, drag the markers left or right.
- 3 To adjust the transparency level of a marker, select it and move the slider above the Profile button. Black represents total transparency; white represents total opacity.

You can also type in a value from 0 to 100 in the text box to the right of the ramp. The higher the value, the greater the transparency at the selected marker.

TIP

If markers are close together, they can be hard to select by clicking. In this case, click on one of the arrows at either end of the ramp to select the next marker.

- 4 To remove a marker, click it with the middle mouse button.
- 5 To choose a type of vignette effect, use the drop-down menus at the bottom of the shelf.
 - **Horizontal/Vertical/Radial/Contour:** A horizontal vignette produces differing levels of transparency “side to side.” A vertical vignette produces a “top to bottom” effect. A radial vignette produces a circular effect with transparency radiating out from the centre in concentric circles. A contour vignette follows the outline of the ShapeLayer. Contour vignettes are particularly useful with irregular ShapeLayers.
 - **Smooth/Linear:** Smooth produces more blending between transparency levels. Linear produces a more abrupt change between transparency levels.
- 6 To reduce or eliminate banding in the transparency vignette, click **Dither**.
- 7 To smooth transition steps between transparency levels in a vignette, type a pixel value in the **Noise** text box and press Enter or use its popup slider.

Adding noise mixes pixel values along the edges of transparency steps, creating a more pleasing vignette.

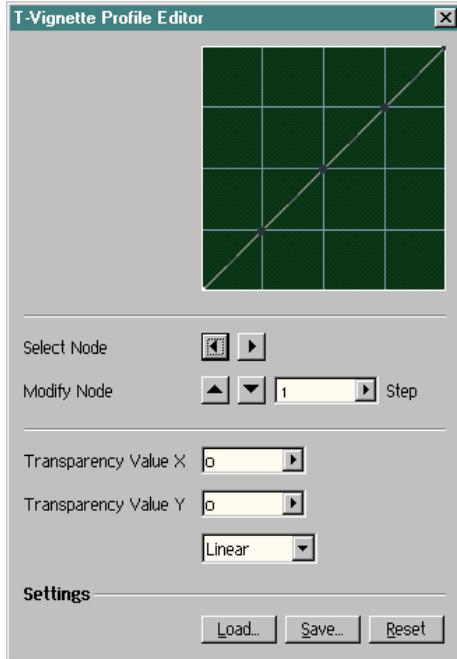
REMARK

The proxy version of a vignette with a high Noise level may look coarse. Its quality improves when you render it.

Adjusting a Transparency Vignette using the Vignette Profile Editor

To create a complex or precise transparency vignette, use the Vignette Profile Editor. It contains a graph that offers another view of the vignette data displayed in the Transparency Vignette dialog. Changes in the Profile Editor are reflected in the Transparency Vignette dialog, and vice versa.

- Click the **Profile** button in the Transparency Vignette dialog. The Vignette Profile editor dialog appears.



The Transparency Vignette Profile Editor

The horizontal axis of the graph represents the stretch of the vignette. The vertical axis represents the transparency value. 0 is totally opaque, 100 is totally transparent.

Each point on the graph corresponds to a marker on the ramp in the Vignette dialog. Both points and markers represent changes in transparency.

- To add a transparency point to the vignette, click on the curve. A corresponding marker is added to the ramp in the Transparency Vignette dialog.

- To delete a graph point, click it with the middle mouse button.
- To adjust the spread between transparency levels, move a point horizontally.
- To adjust a point's transparency level, move it up or down. Black represents total transparency; white represents total opacity.

Adjusting the focal point of a Contour Transparency Vignette

A small square handle marks the focal point of a contour vignette. When you create a contour vignette, this handle is in the center.



Here a contour transparency vignette is used to blend an image placed within an irregular ShapeLayer. The vignette is transparent in the center and becomes more opaque near the edges.



The vignette's center has been moved to the half-hidden eye by dragging the small square handle in the centre of the vignette.

To adjust the focal point of a contour vignette

Select it with the Pointer tool and drag the inner handle.

TIPS

If you change a ShapeLayer's size, a contour vignette also changes.

To edit a transparency vignette without affecting other fills, use the Hand tool and press the A key.

Blending the edge of a ShapeLayer fill

Use the Blend Edge text box in the ShapeLayer Fill shelf to soften the edge of a fill.

Type a value in the Blend Edge text box at the bottom of the ShapeLayer Fill shelf and then press Enter or use the text box' popup slider.

Eclipse blends the fill from the edge of the ShapeLayer towards the middle. For example, if you type 10, Eclipse softens the fill starting at the edge of the ShapeLayer and moving in 10 pixels.

Filling a ShapeLayer with an Effect or Correction

You can apply any effect or correction to the selected ShapeLayer.

- 1 Select the ShapeLayer you want to work with.
- 2 Open any effect or correction dialog and adjust it to your satisfaction.
- 3 Check use in the Operation section.



Eclipse applies the effect or correction to the fill.

- 4 If you want to adjust the effect or correction again at a later time, click Options to open the respective dialog.

Filling a ShapeLayer with more than one object

You can fill any ShapeLayer with more than one object, e. g. an image and an operation. This is what happens for the different possible combinations:

- just an image or color: what you fill is what you get.
- just a mask: the canvas below the ShapeLayer is masked.
- just an operation: the operation works on the part of the canvas which is beneath the ShapeLayer.
- Mask plus image, color or operation: under the mask the canvas remains unchanged.
- Image plus color: the ShapeLayer is filled with the image.
- Image plus color plus mask: the mask area is filled with the color, the unmasked area is filled with the image.
- Operation plus mask: the operation works on the unmasked part of the fill.

Finally, the Transparency blends the outcome of your different fills with the canvas.

Stroking a Brush along a ShapeLayer

To apply the current brush along the outline of a selected ShapeLayer, click **Stroke** in the ShapeLayer

Toolbox. For more information, see “*Stroking along a ShapeLayer*” on page 4-21.

Removing or replacing a ShapeLayer fill

Use the ShapeLayer Fill shelf to remove or replace specific fill elements without deleting all of them or deleting the ShapeLayer. For example, suppose you fill a ShapeLayer with a color, an image and a mask. You can remove or replace the mask without affecting the color and image.

- 1 Select the ShapeLayer you want to work with.
- 2 If the ShapeLayer Fill shelf is not displayed, open it by choosing **Window** → **ShapeLayer Fill** or by double-clicking inside the ShapeLayer with the **Hand tool**.

The ShapeLayer Fill shelf shows you the fill elements for the selected ShapeLayer. The fill types used for the ShapeLayer are selected and you see a sample of the elements in the appropriate boxes.

- 3 To remove a fill element, simply deselect it.
- 4 To replace a fill element, click its Open file button. The appropriate editor or Open File dialog appears so you can select a new color, image or mask.

REMARK

If you have scaled, warped, distorted or otherwise manipulated a ShapeLayer fill, the replace fill assumes the same aspects. These aspects are lost, however, if you remove the ShapeLayer fill.

5.6. Rendering ShapeLayers

As you create, fill and edit ShapeLayers, you are working on the ShapeLayer overlay. The ShapeLayer overlay is like a layer above the canvas image. ShapeLayer fills do not become part of the canvas image until you render them. Once rendered, fills acquire the resolution of the canvas image and can no longer be edited.

You can render ShapeLayers using the Render button in the ShapeLayer Toolbox or using a Render brush. This section describes using the Render *button*. For directions on using a Render *brush*, see “*Rendering a ShapeLayer Fill with the Render Brush*” on page 4-13.

REMARK

*Rendering ShapeLayers is different from using the **Standalone renderer** command in the Window menu. The Eclipse Standalone renderer renders an entire image, mask or ShapeLayer file to a separate image, mask or linework output file. For more information, see “Eclipse Standalone Renderer (ecrender)” on page 11-11.*

Using the Render button in the ShapeLayer Toolbox

Use the Render button in the ShapeLayer Toolbox to apply ShapeLayer fills to the canvas image.

Eclipse can render all the ShapeLayers in the image at once, or render only those ShapeLayers you select. You use the **Render Mode** option in the

ShapeLayer menu to choose the way you want to work. There are two options:

- **All ShapeLayers:** Eclipse renders all the ShapeLayers in the image, whether or not they are selected.
- **Selected ShapeLayers:** Eclipse renders only selected ShapeLayers.

To render ShapeLayers

- 1 If the ShapeLayer Toolbox is not displayed, open it by choosing **Window** → **ShapeLayer Toolbox**.
- 2 If you selected the **Render Mode** → **Selected ShapeLayers** option in the ShapeLayer menu, first select the ShapeLayers you want to render.
- 3 Click **Render** in the ShapeLayer Toolbox.

Eclipse displays a confirmation box asking if you really want to render the ShapeLayer. (This box appears only if **Show requester dialogs** is turned on in the General Preferences dialog.)

- 4 Click **Yes** to render; click **No** to cancel.

A status box indicates the rendering progress.

TIP

*To halt the render, click **Stop** in the status box.*

When the render is complete, copies of each rendered ShapeLayer remain on top of the rendered

fill elements. You can delete the copies or continue editing them.

TIPS

*If you do not like the rendered images, you can restore the canvas image to its last saved or retained state by choosing **File** → **Restore**. Alternatively, use the Restore brush to remove parts of the rendered ShapeLayer fills.*

For high quality image rendering, set the anti-aliasing level to 3 or 4. For information on anti-aliasing, see “Anti-Alias” on page 9-4.

5.7. Saving and Opening ShapeLayer Files

Saving a ShapeLayer overlay

You can save ShapeLayers and their fills and open them later to reuse them. Eclipse saves ShapeLayers on the ShapeLayer overlay of the current canvas in a file with a `.shp` filename extension.

To save the ShapeLayers on the ShapeLayer overlay

- 1 Choose **File** → **Save As** → **ShapeLayers**. A Save file dialog appears.
- 2 Use the file dialog to name the ShapeLayer file and specify a pathname for the file.

TIP

*To automatically save the ShapeLayer overlay along with the canvas image, choose **File** → **Save As** → **All**. The ShapeLayer file is given the same name as the image file with a `.shp` filename extension.*

Opening a ShapeLayer file

Before you can open a ShapeLayer file, you must first open or create an image file.

To open a ShapeLayer file

- 1 Choose **File** → **Open** → **ShapeLayers**. An Open File dialog appears.
- 2 Use the dialog to select the ShapeLayer file you want to open.

TIP

*If you have saved a ShapeLayer overlay with the same name as a canvas image, you can open them both by choosing **File** → **Open** → **All**.*

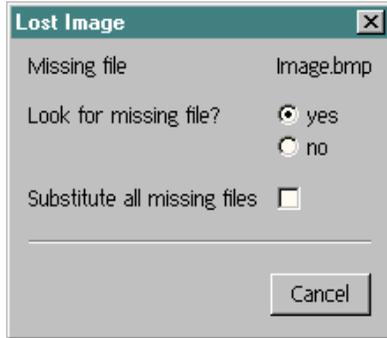
Locating ShapeLayers

If you are opening a ShapeLayer file created with a different canvas image or using a different application, the ShapeLayers are sometimes hard to locate. Sometimes zooming down to 1:16 makes them visible, but occasionally they are located too far from the current canvas view to find. If this happens, open **File** → **Preferences** → **General** in the main menu, select **Fit to Screen** in the New/Open File section and open the ShapeLayer file again.

Locating lost images or masks in a ShapeLayer file

When you open a ShapeLayer file, Eclipse searches the ShapeLayer file directory for any image or mask files you used to fill the ShapeLayers. If it cannot find a file, a Lost File dialog appears.

5. Working with ShapeLayers



The Lost Image dialog

- To look for the lost file, select **Yes**.

Either the Open Image or Open Mask File dialog appears. Use it to try to locate the file.

TIP

Select **Substitute all missing files** in the Lost File dialog box to try to locate any other lost files as you search for the currently named file.

If you locate the file, Eclipse retrieves it and continues opening the ShapeLayer file. If Eclipse encounters other lost files, it redisplay the Lost File dialog.

If you click **Cancel** in the Open Image or Open Mask File dialog, Eclipse skips the lost file it is looking for and continues trying to open the ShapeLayer file. This is equivalent to choosing the **Look for missing files: No** checkbox.

5.7. Saving and Opening ShapeLayer Files

- To skip the lost file and continue opening the ShapeLayer file, choose **No**.

If Eclipse encounters other lost files it redisplay the Lost File dialog.

- If you decide not to open the ShapeLayer file, click **Cancel**.

REMARK

If you do not have permission to open an image or mask file, Eclipse displays a warning, but does not let you search for the file. To use the file, you must change its permission status. See your system documentation for information on determining and setting file permissions or ask your system administrator.

6. Editing ShapeLayers and Their Fills

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6.1. Editing Basics

You can move, scale, rotate and distort ShapeLayers and fills using the Pointer and Hand tools. For precise control, you can also edit ShapeLayers and fill elements by typing values in the ShapeLayer Geometry shelf. For instructions, see “*Editing ShapeLayer Geometry*” on page 6-13.

Eclipse treats ShapeLayers and their fills as distinct entities. You can edit a ShapeLayer and its fill independently. To choose between editing a ShapeLayer or editing its fill, use different tools to select the ShapeLayer:



ShapeLayer Toolbox with Pointer tool selected

- To select and edit a ShapeLayer *and* its fill together or to edit the ShapeLayer *only*: use the **Pointer tool**.
- To select and edit the fill elements *only*: use the **Hand tool**.

Editing specific elements

You can also limit editing to specific ShapeLayer elements by using the Alt and Ctrl modifier keys, as shown in the table below.

Tool	Modifier Key	Effect
Pointer tool	None	Edit a ShapeLayer and all its fill elements together
	Alt	Edit the ShapeLayer without editing the fill
Hand tool	None	Edit image fill
	Alt	Edit color vignette fill
	Ctrl	Edit transparency vignette fill
Pointer tool or Hand tool	Shift	Maintain aspect ratio when scaling a ShapeLayer or its fill elements

You can use the Shift key in combination with the Alt and Ctrl keys. For example, to scale the color vignette fill and the transparency fill at the same time while maintaining the aspect ratio of both elements, use the Hand tool and hold down Shift + Alt + Ctrl.

REMARK

The Warp tool has its own controls for determining which ShapeLayer elements to warp.

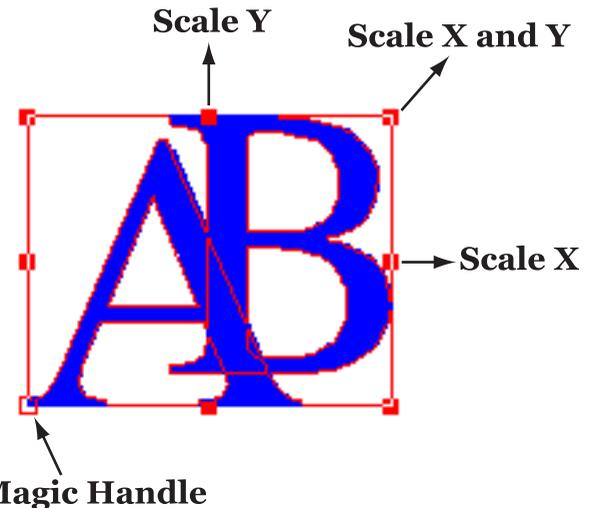
Selecting a ShapeLayer

To edit a ShapeLayer, you must first select it.

- To select a ShapeLayer, select the **Pointer tool** or the **Hand tool** and click the ShapeLayer.

- To select additional ShapeLayers, hold down the Shift key as you select.
- To deselect a ShapeLayer, click anywhere outside the ShapeLayer.
- To select a ShapeLayer that is surrounded by an already selected ShapeLayer, hold down the Ctrl key and then click the ShapeLayer with the Pointer tool.

When you select a ShapeLayer, Eclipse draws a rectangular *bounding box* around it. The bounding box has eight handles — one on each corner and one in the middle of each side. Use these handles to scale and stretch the ShapeLayers.



A ShapeLayer and its bounding box (shown in red)

The Scale X handles can also be used to mirror or flip the ShapeLayer. To do this, drag one of the Scale X handles beyond the other.

The **Magic handle** is used to fit an image to the ShapeLayer.

REMARK

If you select a rectangle or square the handles appear on the sides and corners of the ShapeLayer itself; there is no additional bounding box.

Selecting all ShapeLayers

Use the **Select All** command in the ShapeLayer menu or **Ctrl A** to select all the ShapeLayers in your

image. This is a convenient way to work on all the ShapeLayers, even those that are not currently visible.

Moving a ShapeLayer or its fill

You can move any kind of ShapeLayer, including text, by dragging it. You can also move a fill within a ShapeLayer.

- 1 To move the ShapeLayer and its fill simultaneously, select the **Pointer tool**.

To move the fill only, select the **Hand tool**.

- 2 Point inside the ShapeLayer and drag in the direction you want the ShapeLayer or fill to move.

TIP

To move the ShapeLayer without affecting the fill, use the Pointer tool and press the Alt key as you drag.

Scaling a ShapeLayer or its fill

There are three different methods to scale a ShapeLayer.

Scaling by dragging

- 1 To scale the ShapeLayer and its fill together, select the **Pointer tool**.

To scale a ShapeLayer without affecting its fill, use the **Pointer tool** and press the Alt key as you drag.

To scale the fill only, select the **Hand tool**.

- 2 Drag the handles on the bounding box. The handles have different functions:

- Use the corner handles to scale horizontally and vertically at the same time. Press the Shift key to maintain the ShapeLayer's aspect ratio.
- Use the middle handles on to scale the ShapeLayer either horizontally or vertically.

Scaling using the Magic Handle

The handle at the lower left corner of the bounding box is the **Magic handle**. Use the magic handle to fit a fill image inside a ShapeLayer, or to make the ShapeLayer fit the fill image.

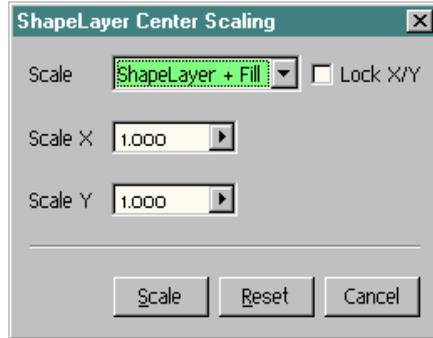
- To fit a ShapeLayer to an image fill, double-click the magic handle with the Pointer tool.
- To fit an image fill to a ShapeLayer, double-click the magic handle with the Hand tool.

For more information, see “Filling a ShapeLayer with an image” on page 5-19.

Scaling a ShapeLayer from the centre

Scale a ShapeLayer, its contents or both using the ShapeLayer Centre Scaling dialog. Scaling from the centre is useful for defining trapping for the ShapeLayer fill.

- 1 Choose **ShapeLayer** → **Scale from Centre**. You will see this dialog.



The ShapeLayer Centre Scaling dialog

- 2 Choose what to scale: ShapeLayer + Fill, ShapeLayer only, Fill only.
- 3 Change the ShapeLayer's width using the **Scale X** setting. Change its height using the **Scale Y** setting. To maintain proportions, turn on **Lock X/Y**.
- 4 To apply the scaling, click **Scale**.

REMARK

You can only scale one ShapeLayer at a time in this way.

To mirror a ShapeLayer

You can mirror a ShapeLayer horizontally or vertically by dragging one side beyond the other or by using the Mirror command in the ShapeLayer menu. When you mirror a ShapeLayer, the fill elements also get mirrored; you cannot mirror Shape-

Layers and fills independently. Mirroring amounts to inverse scaling.

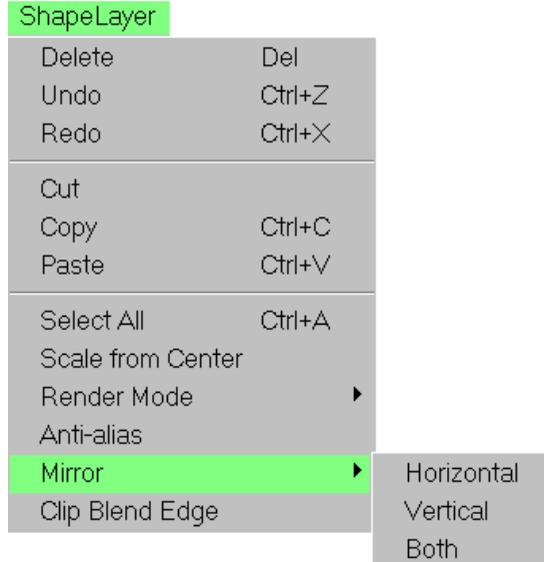
To mirror a ShapeLayer by dragging

- 1 Use the **Pointer tool** to select the ShapeLayer.
- 2 Drag one of the middle handles beyond the handle on the opposite side.

For example, to mirror the ShapeLayer to the left, drag the middle handle on the right side of the ShapeLayer's bounding box beyond the handle on the left.

To mirror a ShapeLayer using the Mirror command

- 1 Choose **ShapeLayer** → **Mirror**. A submenu appears.



- 2 Choose a command from the Mirror submenu to mirror the selected ShapeLayer and its fill.

REMARK

If the hand tool is selected, only the content of the ShapeLayer is mirrored.

Aligning ShapeLayers

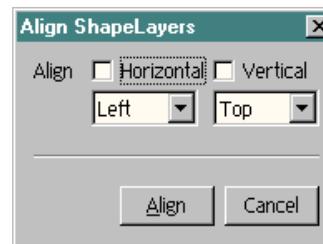
Use the Align command in the Organize menu to align ShapeLayer vertically or horizontally. Eclipse uses the bounding boxes around the ShapeLayers as guides for alignment.

To align ShapeLayers

- 1 Select the ShapeLayers you want to align.

The order in which you select the ShapeLayers determines how **Align** works: the ShapeLayers align themselves with the first ShapeLayer you select. For example, suppose you have a square, a circle and a triangle that you want to align. If you select the square first, Eclipse aligns the circle and the triangle with the square.

- 2 Choose **Organize** → **Align**. The Align ShapeLayers dialog appears.



The Align ShapeLayers dialog

- 3 Select an alignment orientation: **Horizontal** and/or **Vertical**.
- 4 For Horizontal alignment, select **Left**, **Centre**, or **Right**.
 - **Left**: Aligns the ShapeLayers along their left sides.

- **Centre:** Aligns the ShapeLayers through their centres.
- **Right:** Aligns the ShapeLayers along their right sides.

5 For Vertical alignment, select **Top**, **Middle** or **Bottom**.

- **Top:** Aligns the objects along their top sides.
- **Middle:** Aligns the objects through their middle.
- **Bottom:** Aligns the objects along their bottom sides.

6 Click **Align**.

TIP

If you first group ShapeLayers, you can then align the groups.

Grouping ShapeLayers

Use the Group command in the Organize menu to group ShapeLayers together. You can work with a group of ShapeLayers as you would with a single ShapeLayer. You can also create hierarchies of groups. For example, suppose you group two rectangles together and then group two circles together. You could then combine the two groups into a third group.

REMARK

While you can edit grouped ShapeLayers, you cannot warp them or fill them. You can warp combined ShapeLayers.

To group ShapeLayers

1 Select the ShapeLayers you want to group. Hold down the Shift key while you select the ShapeLayers.

2 Choose **Organize** → **Group**.

A single bounding box appears around all the selected ShapeLayers.

3 To add a ShapeLayer to a group, first select the group. Hold down the Shift key, select the additional ShapeLayer, then choose **Organize** → **Group**.

4 To group two groups together, select the first group, hold down the Shift key and select the second group, then choose **Organize** → **Group**.

Use the **Ungroup** command to break up grouped ShapeLayers. If a group consists of other groups, **Ungroup** breaks it into the component groups.

To break up a group of ShapeLayers

1 Select the group you want to break apart.

2 Choose **Organize** → **Ungroup**.

Eclipse breaks the group into its components. If you break up a group composed of other groups, those groups remain as groups.

Combining ShapeLayers

You use the Combine command to create new ShapeLayers or combinations of ShapeLayers from existing, overlapping ShapeLayers.

A combined ShapeLayer is either a union or intersection of its component ShapeLayers, depending on whether the ShapeLayers are locked or unlocked.

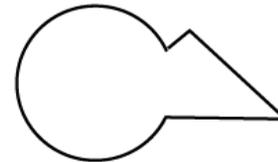
- If you lock two ShapeLayers before you Combine them, you get a union of the two ShapeLayers.
- If one or both ShapeLayers are unlocked, you get an intersection of the ShapeLayers.

Using Lock and Combine is a good way to share mask edges for adjacent portions of an image.

The following examples illustrate how Lock and Combine work together.



Circle and triangle
before Lock/Combine



Circle and triangle locked,
then combined



Circle locked, triangle unlocked,
then combined



Circle unlocked, triangle locked,
then combined



Circle and triangle unlocked,
then combined

Try creating a couple of ShapeLayers, then using different variations of Lock and Combine on them to see how the commands work.

REMARK

You can combine warped and distorted ShapeLayers.

Locking a ShapeLayer

You lock and unlock ShapeLayers with the Lock button on the ShapeLayer Toolbox.



- To see whether a ShapeLayer is locked, select it. If **Lock** is selected, the ShapeLayer is locked.
- To lock a ShapeLayer, select it and then select **Lock**.
- To unlock a ShapeLayer, select it and then deselect **Lock**.

To combine ShapeLayers

- 1 Select the overlapping ShapeLayers you want to combine.
- 2 Choose **Organize** → **Combine**.

Eclipse uses the selected ShapeLayers to create a new, combined ShapeLayer. When you combine ShapeLayers, you still see the outline of each individual ShapeLayer. You do not actually see the ShapeLayer of the new, combined ShapeLayer unless you fill it.

When you combine filled ShapeLayers, Eclipse uses only one set of fill attributes for the new combined ShapeLayer. For example, if you combine two ShapeLayers each filled with a different image, the new combined ShapeLayer holds only one image. A ShapeLayer can only have one image, color, or vignette at a time; you can not fill the same ShapeLayer with two different images.

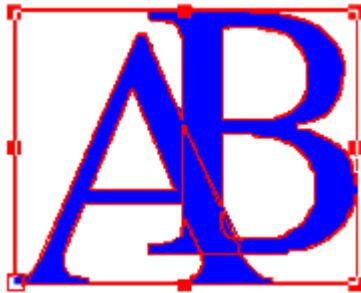
Eclipse uses the ShapeLayer in front, or on the top, of the canvas to determine which fill attributes to use for the new combined ShapeLayer. The ShapeLayer in front of the canvas is usually the last ShapeLayer you drew, unless you rearranged the order of the ShapeLayers using the layering commands (Front, Forward, Back or Backward).

TIP

A quick way to see filled ShapeLayers front-to-back order is to drag one ShapeLayer on top of the other. The ShapeLayer whose fill is preserved is the ShapeLayer closest to the front.



These letters are not yet combined. The letter B is in front of the letter A on the ShapeLayers overlay.



When the letters are combined, they both use the fill of the letter closest to the front—in this case, the letter B.

TIP

*If the ShapeLayer that has the fill you want for the new combined ShapeLayer is not on top, choose **Organize** → **Front** to bring it to the front.*

To break a combined ShapeLayer into its original component ShapeLayers, use the Split command in the Organize menu.

To split a combined ShapeLayer

- 1 Select the combined ShapeLayer.
- 2 Choose **Organize** → **Split**.

The combined ShapeLayer breaks into its original components.

If you split a filled combined ShapeLayer, each component ShapeLayer contains the same fill as the combined ShapeLayer.



When the letters used in the preceding example are split, they retain the fill that was used for the combined ShapeLayer.

Layering ShapeLayers on the ShapeLayer overlay

Use the Front, Forward, Back and Backward commands in the Organize menu to move ShapeLayers forward and backward on the ShapeLayers overlay.

Think of ShapeLayers as a deck of cards lying on the ShapeLayers overlay above the canvas image; you can rearrange them to change their top-to-bottom order. When Eclipse redraws the canvas image (when you pan or zoom in or out, for example), it draws the ShapeLayer at “the bottom of the deck” first and draws the remaining ShapeLayers in order from the bottom to the top. The ShapeLayer that is “on top of the deck” appears last.

To reorder a selected ShapeLayer

Choose a command from the Organize menu:

- **Front:** Bring a ShapeLayer to the top, or front, of the ShapeLayers overlay. When you combine overlapping filled ShapeLayers, the fill belonging to the ShapeLayer closest to the front is used for the combined ShapeLayer.
- **Forward:** Bring a ShapeLayer one level closer to the front of the ShapeLayers overlay.
- **Back:** Push a ShapeLayer to the bottom, or back, of the overlay.
- **Backward:** Push a ShapeLayer one level closer to the back of the ShapeLayers overlay.

To change the layering of ShapeLayers

- 1 Select the ShapeLayer or ShapeLayers you want to move.
- 2 Click the **Organize** menu, and then choose one of the layering commands: **Front**, **Forward**, **Back** or **Backward**.

Eclipse moves one or more of the ShapeLayers forward or backward and then redraws them so you can see the result.

For more information on the effects of ShapeLayer order, see “Combining ShapeLayers” on page 6-8.

Cutting, copying and pasting ShapeLayers

Like many applications, Eclipse has a *clipboard* on which cut and copied ShapeLayer information is placed. Each time you cut or copy ShapeLayers, the new information replaces whatever was on the clipboard. When you quit Eclipse, the clipboard is cleared and all information is deleted.

To cut a ShapeLayer

Choose **ShapeLayer** → **Cut**.

You can then paste this ShapeLayer in the current image or a different image by choosing **ShapeLayer** → **Paste**.

By using Cut and Paste, you can move a ShapeLayer from one canvas image to another.

To copy a ShapeLayer

Choose **ShapeLayer** → **Copy**.

Then paste the copy into the current image or a different image.

Use the **Paste** command to paste cut or copied ShapeLayers onto the ShapeLayers overlay of the current image.

To paste cut or copied ShapeLayers

1 Choose **ShapeLayer** → **Paste**.

A message appears in the message area saying **Click to position ShapeLayer**.

2 Click where you want to paste the ShapeLayer onto the ShapeLayers overlay.

You can paste cut or copied ShapeLayers as often as you want. You can work with a pasted ShapeLayer like any other ShapeLayer.

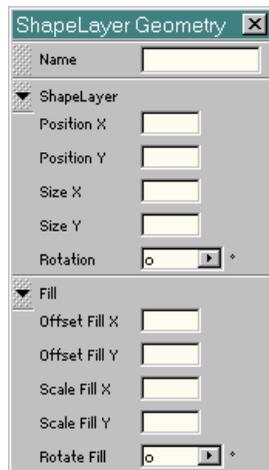
6.2. Editing ShapeLayer Geometry

Using the ShapeLayer Geometry shelf

For precise adjustments to the size, position and rotation of a ShapeLayer and its fill, use the ShapeLayer Geometry shelf. The ShapeLayer Geometry shelf contains text boxes that display a ShapeLayer's current position, size and rotation. You can type numbers in the text boxes to numerically adjust any of these attributes.

To edit ShapeLayer geometry

- 1 Select a ShapeLayer using the **Pointer tool**.
- 2 Double-click inside the ShapeLayer. The ShapeLayer Geometry shelf appears.



The ShapeLayer Geometry shelf

- 3 Select a text box with a value you want to change, type a new value and press Enter.

The ShapeLayer changes to reflect the new value. For example, if you change the ShapeLayer's X Position, you see the ShapeLayer move to the right or left.

To help identify a ShapeLayer, type a name in the **Name** text box at the top of the ShapeLayer Geometry shelf.

TIP

Naming a ShapeLayer is most useful if you save and share ShapeLayer files.

In the upper section you find the geometrical properties of the ShapeLayer itself:

- **Position X:** The horizontal position of the ShapeLayer relative to the left edge of the page or canvas.
- **Position Y:** The vertical position of the ShapeLayer relative to the bottom edge of the page or canvas.
- **Size X:** The current width of the ShapeLayer as defined by the ShapeLayer's bounding box.
- **Size Y:** The current height of the ShapeLayer as defined by the ShapeLayer's bounding box.
- **Rotation:** The amount of rotation of the ShapeLayer in degrees.

The lower section shows the properties of the ShapeLayer fill:

- **Offset Fill X:** The horizontal position of the fill relative to the left edge of the ShapeLayer.
- **Offset Fill Y:** The vertical position of the fill relative to the bottom edge of the ShapeLayer.
- **Scale Fill X:** The horizontal scale of the image relative to its original size.
- **Scale Fill Y:** The vertical scale of the image relative to its original size.
- **Rotate Fill:** The amount of rotation of the fill in degrees.

6.3. Transforming ShapeLayers

Skewing ShapeLayers

When you skew a ShapeLayer, one side of its bounding box remains fixed and you can drag the other sides to new positions. To skew a ShapeLayer and/or its fill, use the Skew tool in the ShapeLayer Toolbox.

To skew a ShapeLayer

- 1 Select a ShapeLayer.

To skew the ShapeLayer *and* its fill, select the ShapeLayer with the **Pointer tool**.

To skew *only* the fill, select the ShapeLayer with the **Hand tool**.

- 2 Select the **Skew tool** from the ShapeLayer Toolbox.



Four handles appear in the *middle* of each side of the ShapeLayer's bounding box.

- 3 Drag one of the handles.

Eclipse skews the ShapeLayer. The side of the bounding box opposite the handle you drag maintains its size and position.

If you selected the ShapeLayer with the **Hand tool**, Eclipse skews the fill — the ShapeLayer does not change.

- 4 To stop using the **Skew tool**, deselect it.

REMARK

While the Skew tool is active, it also functions like the Pointer tool or the Hand tool. You can use it to select and move ShapeLayers.

Rotating ShapeLayers

You can rotate ShapeLayers and their fills using the Rotate tool in the ShapeLayer Toolbox. When you select the Rotate tool, Eclipse displays a centre of rotation (a small triangle) around which the ShapeLayer rotates. You can move the centre of rotation as you work.

To rotate a ShapeLayer

- 1 Select the **Pointer tool**, then select the ShapeLayer.

To rotate only the fill, use the **Hand tool** to select the ShapeLayer.

- 2 Select the **Rotate tool** in the ShapeLayer Toolbox.



Eclipse displays a small triangle in the centre of the ShapeLayer; the triangle is the centre of rotation.

- 3 Drag anywhere to rotate the ShapeLayer or its fill.

If you select the ShapeLayer with the **Pointer tool**, both the ShapeLayer and its fill elements rotate. Press and hold the Alt key to rotate only the ShapeLayer—the fill elements maintain their position.

If you select the ShapeLayer with the **Hand tool**, only the image fill rotates. To rotate a different fill element, press and hold the following keys:

Key	Effect
S	Rotate only the color vignette fill
A	Rotate only the transparency fill
S + A	Rotate the color vignette and the transparency vignette

- 4 To move the centre of rotation, drag the small triangle to a new position. This works for both the ShapeLayer and the fill. You can move the centre of rotation as often as you like.
- 5 To move the centre of rotation back to the centre of the ShapeLayer (its original position), press **A** and click on it.
- 6 If you rotate the ShapeLayer again later, the triangle appears at its most recent location, not at the center.
- 7 When you are finished, deselect the **Rotate tool**.

Eclipse removes the centre of rotation, but the bounding box around the ShapeLayer remains.

Distorting ShapeLayers

Use the Distort tool to add perspective to or distort a ShapeLayer and its fill.

To distort a ShapeLayer

- 1 Select a ShapeLayer.

To distort the ShapeLayer *and* its fill, select the ShapeLayer with the **Pointer tool**.

To distort *only* the fill, select the ShapeLayer with the **Hand tool**.

- 2 Select the **Distort tool** from the ShapeLayer Toolbox.



Four handles appear at the *corners* of the ShapeLayer's bounding box. You use the handles to distort the ShapeLayer or to anchor the corners while you use the tool.

The handles initially are hollow, this means they are not anchored. Anchored handles are solid.

- 3 To anchor a handle, click it.
- 4 To free the handle, click it again so that it becomes hollow.
- 5 To distort or add perspective, drag an unanchored, hollow handle.

WARNING

At least one handle must be anchored.

The ShapeLayer distorts. The anchored corners maintain their position.

If you selected the ShapeLayer with the Hand tool, only the image fill is distorted; the ShapeLayer does not change.

- 6 When you stop dragging a handle, Eclipse automatically anchors (and fills) the handle.

You can anchor and free the handles and distort a ShapeLayer as often as you like.

REMARK

You can also use the Distort tool to select and move ShapeLayers.

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7.1. Shadow Casting

Create the impression of lighting and depth by adding a drop shadow to a ShapeLayer or to an object you have selected with a ShapeLayer.

Using the Shadow Casting tool, you can create a shadow, position and scale it by adjusting the light source, make it transparent and feather its edges. The shadow is a *servant* ShapeLayer that changes with the *source* ShapeLayer. You can also work with it like any other ShapeLayer—fill it, warp it and save it.

Creating a drop shadow

- 1 Create a closed ShapeLayer around the object you want shadowed.

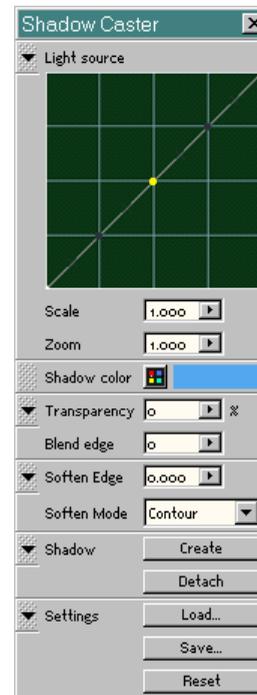
The ShapeLayer surrounding the object you want to shadow is referred to as the *source* ShapeLayer.

When adding shadows to text, use the text's bounding box as the source ShapeLayer. There is no need to outline the text with a Bezier tool unless you want a customized effect.

- 2 Select the **Shadow Caster tool** from the ShapeLayer Toolbox.



The Shadow Caster shelf appears.



The Shadow Caster shelf

- 3 Create the shadow by clicking **Create** in the **Shadow Caster** shelf. The shadow ShapeLayer is a duplicate of the source ShapeLayer except its content is filled with a shadow.

TIP

If you do not see the shadow clearly, enlarge it by dragging the scale slider in the Light Source section of the shelf.

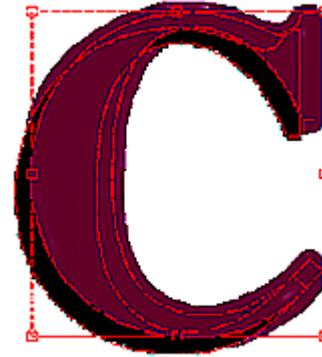
The shadow ShapeLayer has the following properties:

- When the source ShapeLayer is modified (for example, moved, transformed, closed, deleted), the shadow ShapeLayer follows.

WARNING

Changing a shadow ShapeLayer does not affect the source ShapeLayer with one exception: deleting a shadow also deletes the source.

- The source ShapeLayer masks the shadow ShapeLayer.
 - If you have skewed the source ShapeLayer or given it perspective, the shadow conforms to the skew or perspective. For more information, see *page 7-5*.
- 4 Modify the shadow. Use the controls in the Shadow Casting editor to adjust the shadow. These controls are described later in this section.



The default shadow



Here the shadow is repositioned by moving the light source. It is also more transparent and its edges are softened.

- 5 If you want to, anchor the shadow to the object.

To anchor a shadow, use the right mouse button to click a vertex of the source ShapeLayer. An anchored vertex becomes solid. To unlock the shadow, click a solid vertex again with the right mouse button so it becomes hollow.

For a circle or rectangle ShapeLayer, lock onto vertices of the ShapeLayer's bounding box, using either a midpoint or two adjacent corners.

For a ShapeLayer created with the Polygon, Curve or Bezier tool, you can anchor the shadow onto either the vertices of the ShapeLayer or those of the bounding box.

To anchor the shadow onto the ShapeLayer's vertices, select the tool used to create the ShapeLayer (for example, the Bezier tool) and click a vertex with the right mouse button.

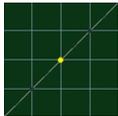
To anchor the shadow onto the bounding box vertices, select the pointer tool and click a vertex with the right mouse button.

6 Render the shadow onto the canvas.

Click **Render** in the ShapeLayer Toolbox to apply the shadow to the canvas. Then delete the shadow outline by selecting it and pressing the Delete key.

Shadow Casting Editor controls

- **Light Source:** The dot represents the light casting the shadow. Drag it to position the light.



- **Zoom:** Lengthens the shadow cast by the light.
- **Scale:** Controls the size of the shadow.
- **Shadow Color:** Click to link to the Shadow Color Editor. Then change the color of the shadow.
- **Transparency:** Determines the transparency of the shadow.
- **Blend Edge:** Feathers the shadow edge with the background, moving it inward from the ShapeLayer outline.
- **Soften Edge:** Adds degrees of softness to the shadow edge. You can choose from two kinds of softening: Contour and Vertical.
 - If you select **Contour** softening, the edge fades inward along the contour of the ShapeLayer.
 - If you select **Vertical** softening, manually adjust the softening by pressing the Ctrl key while dragging along the shadow with the hand tool.
- **Detach:** Detaches the shadow ShapeLayer from the source ShapeLayer. You can move and transform the detached shadow, but you can no longer modify it using the controls in the Shadow Caster dialog.



TIP

*Detaching a shadow is useful for creating multiple shadows. Once you have positioned a shadow and set its properties, click **Detach** and render it down. Then create a new shadow using the **Create** button and repeat the process.*

- **Create:** Creates a shadow ShapeLayer from the selected ShapeLayer. A shadow can be created only if:
 - The selected ShapeLayer is not a shadow ShapeLayer itself.
 - The selected ShapeLayer does not already have a shadow.
- **Load:** Loads the shadow casting parameters from a saved file.
- **Save:** Saves the settings in the Shadow Casting editor to a file that you name. By default the file is placed in

C:\Program files\Eclipse\util\custom, but you can place it anywhere you want.

- **Reset:** Sets the Shadow Casting values to their defaults.

TIP

Position, transform, and render a shadow like any other ShapeLayer.

Shadow Casting for a distorted ShapeLayer

If you have skewed the source ShapeLayer or given it perspective, the shadow conforms to the distorted ShapeLayer. It will appear to be on a plane parallel to the source ShapeLayer.



A shadow for a ShapeLayer that has been distorted appears on a parallel plane.



If this is not the effect you want, detach the shadow and adjust it manually.

7.2. 3D Shading

Add depth to 2D images with the 3D Shading tool. Use it to:

- give an image a three-dimensional lift by introducing depth.
- add specular highlights to an image by changing the light source and shading properties.

Overview

The following example uses 3D shading to give a stronger three-dimensional feel to a coffee mug.

- 1 Open an image of a coffee mug.



Plain mug before 3D shading.

- 2 Create a closed ShapeLayer around the coffee mug.
- 3 Select the **3D Shading tool** from the ShapeLayer Toolbox.



- 4 Fill the coffee mug ShapeLayer with a depth map that gives the desired shading effect. Since the coffee mug is cylindrical, we have used a horizontal shading vignette with a half sphere profile. (We could also have used a customized cylinder image depth map.)
- 5 Adjust the light source and other properties in the 3D Shading editor until you are satisfied with the effect.

A preview of the effect appears in the 3D Shading editor.

- 6 To see the shading, click **Preview**.

REMARK

Even if you turned on Preview in the View menu, there is no automatic Preview for the 3D Shading.

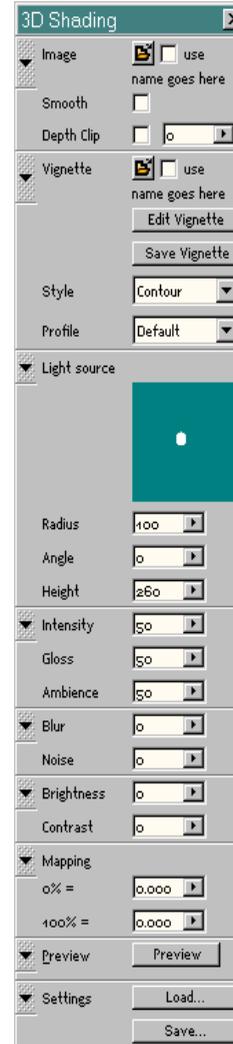
- 7 When you are satisfied with the effect, render the ShapeLayer.



The coffee mug after the 3D Shading tool has added shading and specular highlights.

Two types of 3D Shading depth maps

In the 3D Shading shelf, you can choose from two kinds of shading depth maps: vignette or image. Using a **vignette depth map** is faster and easier. For customized needs, use an **image depth map**—a grayscale image with the shading you want.



The 3D Shading shelf

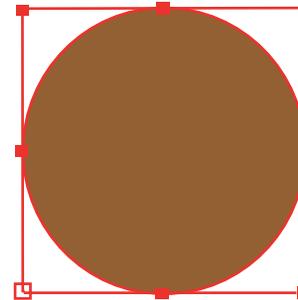
Choosing a Vignette depth map

With a Vignette depth map, shading is generated from a combination of a vignette (horizontal, vertical, radial, or contour) and a profile (one of seven possible side views).

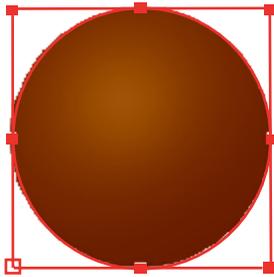
These profiles,...	combined with these vignettes, produce the shading effects shown below...	
	Horizontal or vertical	Radial
Default	Slope	Cone
Half Sphere	Cylinder	Torus/Doughnut
Quarter Sphere	Half Cylinder	Sphere
Small Sharp	Flat surface with small, sharp-edged slope	Round button
Large Sharp	Flat surface with large, sharp-edged slope	Round button
Small Smooth	Flat surface with small, smooth-edged slope	Round button
Large Smooth	Flat surface with large, smooth-edged slope	Round button

Horizontal and vertical shading vignettes generate identical profiles but with a different orientation (rotated 90 degrees).

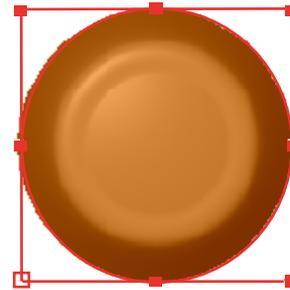
The shading produced by a contour vignette depends on the selected ShapeLayer. For example, if a rectangular ShapeLayer is used with a Default profile, Contour produces a pyramid effect.

Examples of 3D Shading with Vignette depth maps

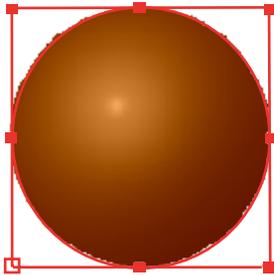
Take a flat circle ShapeLayer.



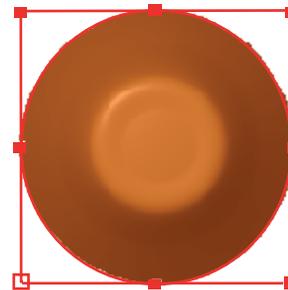
Make it look three dimensional using a radial vignette with a quarter sphere profile. Intensity and Ambience are also increased in the 3D Shading controls.



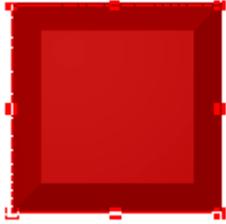
Using a small smooth profile makes the circle look like a button or knob.



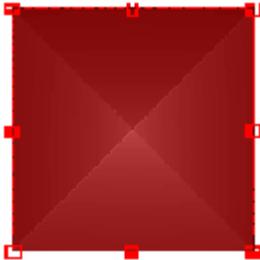
The surface is made shiny by adding gloss. Brightness is also increased.



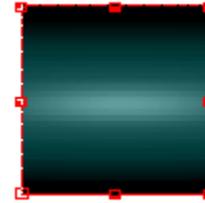
A different button effect is achieved by using a large smooth profile.



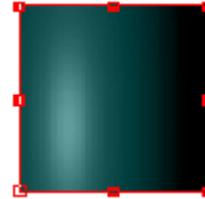
A square button is created with a contour vignette and a small sharp profile.



This pyramid look is created with a contour vignette and a default profile.



A vertical vignette and a half sphere profile create a side view of a cylinder.

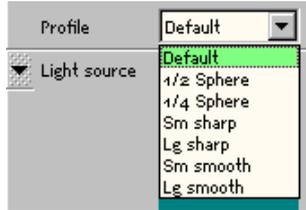


A horizontal vignette and a quarter sphere profile create the effect of a curved surface.

Editing a Vignette depth map profile

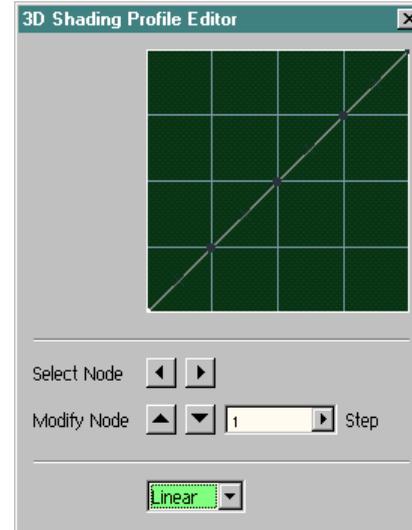
You can modify each depth map profile using the Profile editor available from the 3D Shading editor.

- 1 Choose a default profile from the **Profile** drop-down list.



- 2 To open the **Profile Editor**, click **Edit Vignette** in the 3D Shading shelf.

You see a graphical view of the profile. Points at 0 on the vertical axis are shaded; higher points are increasingly lighter.



The 3D Shading Profile Editor

To edit the 3D Shading Vignette depth map profile

- Select a point on the curve and drag it up or down. Or use the arrow buttons to select and move a point. Use the left or right arrow buttons to select the next point on the left or right. Use the up or down arrow buttons to move the point up or down on the graph.
- To add a point, click an empty point on the curve.
- To delete a point, click it with the middle mouse button.

- To change the mapping of the vertical axis, use the mapping sliders at the bottom of the 3D Shading shelf. If 255 maps to -255, the shading effect is inverted; in this case e. g. a button looks pushed in instead of raised.

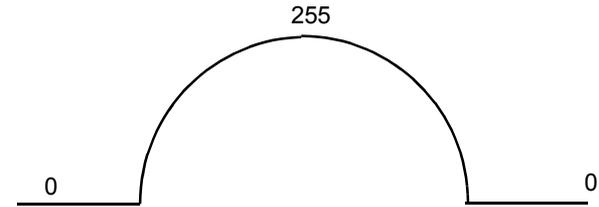
Saving and reusing a Vignette depth map

- To save a shading vignette depth map, click **Save Vignette** in the 3D Shading shelf. In the file dialog that appears, type a pathname and a filename, and then click **OK**. The filename extension .prof is added to a profile file.
- To reuse a vignette depth map, select a ShapeLayer, and select the 3D Shading tool. In the 3D Shading editor, choose **Use** and click the Open File button. Then choose the vignette profile file you want.

Choosing an image depth map

An image depth map is simply an image that contains the 3D shading you want to apply. Only luminance values are used for shading information, so the image can be grayscale. Luminance values range from 0 to 255. A value of 0 is low. A value of 255 is high.

The following picture shows as side view of a spherical depth map:



A luminance value of 255 represents the highest point in a depth map and gives a raised effect. A luminance value of 0 represents the lowest point in a depth map.

Because a depth map image has a low resolution with only 256 luminance values, noise reduction is applied automatically to reduce banding and pixelation.

To use a 3D Shading image depth map

- 1 Select an object with a ShapeLayer. If you use the Polygon, Curve or Bezier tool, close the ShapeLayer by clicking **Close** in the ShapeLayer Toolbox.
- 2 Select the 3D Shading tool from the ShapeLayer Toolbox.



- 3 In the 3D Shading shelf, turn on **Use Image**. An Open File dialog appears.
- 4 Choose an image. You will find predefined image depth maps such as **cylinder**, **sphere** and **square** in the directory `C:\Program files\Eclipse\util\depthmaps`

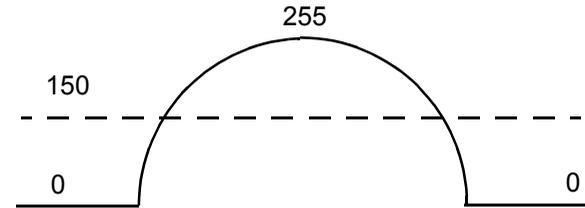
The image depth map is scaled automatically to fit the selected ShapeLayer.

- 5 Adjust the controls described on the following page if you want.
- 6 Render the ShapeLayer.

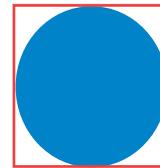
Image depth map controls

Smooth: Add smoothing to remove hard edges in an image depth map.

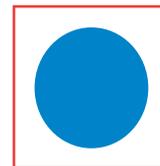
Depth Clip: Remove luminance values from the depth map using the depth clip slider and text box. As you drag the slider, the preview image in the 3D Shading editor shows the effect on the image. Areas that are black are not part of the depth map.



To remove luminance values below 150, set the Depth Clip to 150.



Here depth clip is turned on but is set at 0. The entire spherical map is visible.



Depth clip is set to 150, so part of the map is masked or removed.

Modifying the Light source

- **Light source:** To position the light source, drag the white dot on the light source map.
- **Radius, Angle:** These controls allow you to position the light source in the plane.
- **Height:** This lets you adjust the third dimension of the light source's position. To make the light more diffuse, increase its height.
- **Intensity:** Make the light source brighter by increasing its intensity.
- **Gloss:** Make the ShapeLayer fill appear shiny or metallic by adding a specular reflection.
- **Ambience:** Add ambient light to increase the amount of atmospheric light. Ambient lights are independent of the light source.

Touching up the shading

- **Brightness:** Control the brightness of the shaded image.
- **Contrast:** Increase or decrease contrast within the shaded image.
- **Noise:** Reduce color banding by adding random pixels to the image.
- **Smooth:** If you add noise, soften it by adding an equal amount of smoothing.

Saving and reusing 3D Shading settings

To save all settings in the 3D Shading editor, click **Save**. In the Save file dialog that appears, type a pathname and filename, then click **OK**. The saved settings are given a `.shading` filename extension.

To reuse 3D shading settings, click **Load**. Then use the Open file dialog that appears to select the settings file you want.

7.3. Luminance Compositing

Use the Luminance Compositing tool to transfer the luminance of a base image to a ShapeLayer image being rendered onto the canvas. Preserving luminance makes the ShapeLayer image appear part of the original image rather than an obvious collage. Possible uses include adding new labels to objects and replacing pictures of products in a catalogue.

Overview

Here is an example that illustrates luminance composition: adding a label to a coffee mug.

- 1 Open the image of the coffee mug.
- 2 Create a ShapeLayer, and fill it with the label image. Move the ShapeLayer onto the coffee mug. Warp the ShapeLayer (see “*Warping ShapeLayers*” on page 7-19) so it fits the curve of the mug.
- 3 Select the Luminance Compositing tool from the ShapeLayer Toolbox.



The Luminance Compositing editor appears.

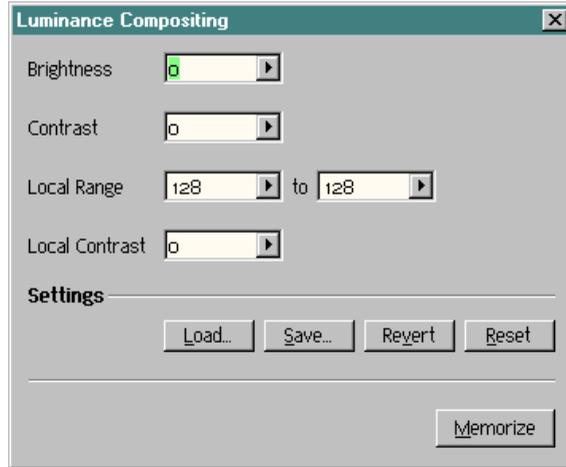
- 4 Adjust the controls on the Luminance Compositing editor until the label has a luminance similar to that of the mug. (For a description of the controls, see the next section.)
- 5 Render the ShapeLayer to the image.



To adjust luminance when compositing

- 1 Select the image-filled ShapeLayer with the Pointer tool.
- 2 Choose the Luminance Compositing tool from the ShapeLayer Toolbox.

The Luminance Compositing dialog appears.



The Luminance Compositing dialog

Brightness and **Contrast** are global controls that affect the composition of the ShapeLayer and canvas images.

Use **Local Range** to specify a range of contrast that you want to control independently from the global controls. Then adjust the contrast within this range using Local Contrast.

- 3 Adjust the controls if necessary. You may only need to make adjustments if you need to remove patterns and texture from the composite, as described in the following section. If you do not like your alterations, you can:

- click **Revert** to return to the values that were in the dialog when you opened it.

- click **Reset** to return to the default values.

- 4 Click **Memorize** to close the dialog but preserve the settings.
- 5 To render the ShapeLayer, click **Render** in the ShapeLayer Toolbox. Delete the ShapeLayer when you no longer need it.

If you want to reuse the Luminance Composite settings, use the **Save** and **Load** buttons.

Removing patterns and texture when Compositing

The local controls are useful for removing midtone patterns and texture while preserving the highlights and shades.

Suppose you want to put a flat label on a patterned coffee mug. You want to transfer the highlights and shades of the coffee mug onto the label, but not the patterns.

If the luminance range of patterns is localized within the midtones, you can remove or reduce them using the local controls.

To remove or reduce patterns while preserving highlights and shadows

- 1 Set **Local Contrast** to high. (Depending on your range settings, type either 100 or 255 into the text field or drag the popup slider to its maximum.)

- 2 Specify the **Local Range**. Adjust the Local Range sliders until the pattern dims or disappears.
- 3 Adjust **Local Contrast** to a suitable level. Local Contrast affects only tones with the local range.
- 4 Now adjust global **Contrast**. Global Contrast (the one near the top of the editor) controls highlights and shadows outside the local range.
- 5 Adjust **Brightness**. Brightness affects the overall brightness of the composition.
- 6 Render the ShapeLayer. Click **Render** in the ShapeLayer Toolbox.

REMARK

When the Luminance Compositing tool is active, the Canvas Mode menu along the bottom of Eclipse is disabled.

7.4. Warping ShapeLayers

Eclipse includes a sophisticated warping technology that you can use to warp ShapeLayers and their fills, including a canvas image that you have cut out into a ShapeLayer.

Warping is ShapeLayer-based; only ShapeLayer fills can be warped. You warp a ShapeLayer, and the ShapeLayer, in turn, warps the view of whatever is inside of it. Think of the warped ShapeLayer as a lens through which you view the contents of the ShapeLayer. The warp effect is attached to the ShapeLayer, and the effect is transferred to the ShapeLayer's contents. For example, if you warp the canvas image, you can move the warped ShapeLayer around on the canvas to warp different areas of the image.

You can warp a ShapeLayer and its fill elements independently or in combination. For example, you can warp an image and a color vignette in a ShapeLayer at the same time, or warp each individually. However, once you warp a combination of elements, you can not warp them individually anymore. For example, if you warp an image fill and color vignette fill together, you can not warp just the image or just the vignette afterwards. Of course, you can undo or reset the warp effects and start over.

As you warp a ShapeLayer and its fill, you can edit it. You can move or scale a warped ShapeLayer, and then warp it so more. You can warp ShapeLayers that are behind other ShapeLayers and you can cut, copy and paste warped ShapeLayers.

You can also create a 3D effect by adding shading while warping. For information, see *“Warp Shading” on page 7-28*.

Warping simplified

Here is a simple example of the warping procedure. More detail and alternative methods are given later in this section.

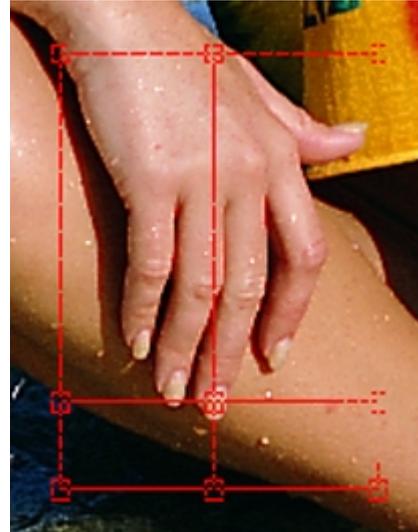
When warping, start with a filled ShapeLayer. Fill the ShapeLayer with an image, a color vignette, or a transparency vignette. If you want to warp the canvas image, surround it with a ShapeLayer and click Cutout or Cropout in the ShapeLayer Toolbox. For more information, see *“Putting the Canvas image inside a ShapeLayer” on page 5-20*.



Select a filled ShapeLayer. To warp part of the canvas image, select the area with a ShapeLayer and click **Cutout** in the ShapeLayer Toolbox.



Select the Warp tool in the ShapeLayer Toolbox.

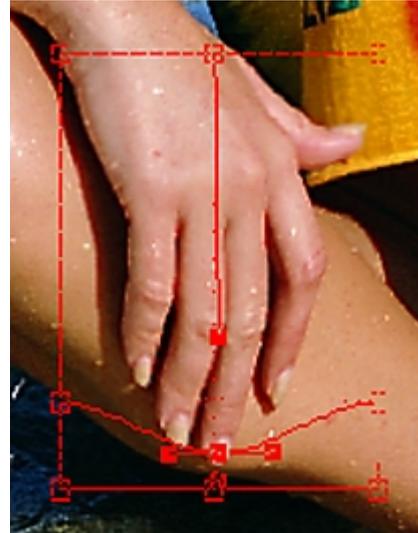


Create a warp control point by double-clicking in the ShapeLayer.

You can also click outside the ShapeLayer to add grid lines or lay down a grid using the Warp Options.



Click a warp control point to see its handles.



Warp the ShapeLayer by dragging its control points or handles.

When finished, click the Warp tool again to clear it.



Render the warped area to the canvas image using either the Render brush or the Render button in the ShapeLayer Toolbox.

Adding Warp control points

A warp control point is defined by the intersection of a horizontal and vertical grid line on a ShapeLayer.

To create a warp control point, you can double-click on a spot you want to warp or you can create a grid over the ShapeLayer, either by clicking outside the ShapeLayer or by entering grid information in the Warp Options dialog box.

To create a single Warp control point

Double-click anywhere inside the ShapeLayer to place a control point at a specific area of the image.

Eclipse draws one horizontal and one vertical grid line that intersect at the point you clicked. You can add as many of these control points to the ShapeLayer as you want.

This method is especially effective for warping a specific part of an image. For example, if you have an image of a face and you want to warp the nose, you can double-click directly on the nose to define a warp control point.

To lay down individual grid lines

Double-click just outside the ShapeLayer's bounding box to place a single horizontal or vertical grid line through the ShapeLayer.

- To place a vertical grid line, double-click outside the top or bottom of the bounding box.
- To place a horizontal line, double-click outside the left or right side of the bounding box.

Points where grid lines intersect are warp control points.

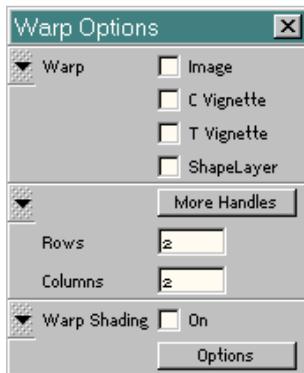
To add a perpendicular grid line through an existing grid line, double-click on the existing line.

To create a grid using the Warp Options dialog

- 1 Select the **Options** button below the **Warp tool** in the ShapeLayer Toolbox.



Eclipse displays the Warp Options dialog.



You choose which parts of a ShapeLayer to warp, how many grid lines you want and whether you want extra handles on the control points.

- 2 To specify the number of rows in the grid, click in the **Rows** text box and type a value.
- 3 To specify the number of columns in the grid, click in the **Columns** text box and type a value. Eclipse creates a symmetric grid on the Shape-

Layer with the number of rows and columns you specify. The grid looks like a collection of rectangular cells.

For example, if you create a grid with four rows and four columns, Eclipse uses grid lines to create sixteen cells. Each intersecting horizontal and vertical grid line defines a control point. The intersection of a grid line and the bounding box also defines a control point.

This ShapeLayer has twenty-five control points: nine at the intersecting grid lines inside the ShapeLayer, three on each side where a grid lines intersect the bounding box, and one at each corner.

TIP

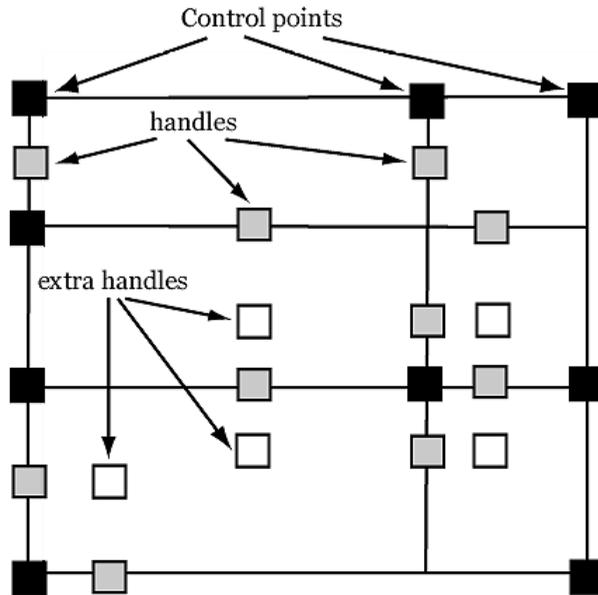
*If you have cut out the canvas image into the ShapeLayer or filled the ShapeLayer with an image, Eclipse automatically selects the **ShapeLayer** and **Image** buttons in the Warp Options dialog box, so you are ready to warp the image and the ShapeLayer. If a color or transparency vignette is inside the ShapeLayer, you can specify whether or not you want it warped using the corresponding buttons in the Warp Options dialog.*

Adjusting Warp control points

To display a warp control point, click on a grid-line intersection or a corner of the bounding box.

Eclipse displays five small squares that mark the control point and its handles. The control point sits right at the grid-line intersection; the handles sit

farther out along the grid lines above, below, to the left and to the right of the control point.



REMARK

A corner control point has only two handles.

- To move a warp control point and warp that portion of the ShapeLayer, drag the point.

The point and its handles move, and the grid lines bend. The portion of the image beneath the control point warps in the direction you drag.

- To move a handle, point to it, click and drag.

Notice that the handles move in tandem. If you drag one vertical handle, the other vertical handle moves with it. If you drag one horizontal handle, the other one moves, too.

- To break the handles apart so you can move them separately, hold down the Shift key as you drag a handle. The handle is no longer locked to its partner—you can now move it by itself.
- To reconnect broken handles, hold down the Shift key and click the handle again.
- To add an extra set of handles for each selected warp control point, select the **Move Handles** push button in the Warp Options dialog.

Four new handles appear at what would be the corners of a rectangle around the warp control point. You can move these handles independently from the others to create more subtle warping.

- Move multiple warp control points or handles at the same time by holding down Shift as you select the control points you want.

Now when you move one control point or handle, all the other corresponding points or handles move in the same direction.

TIP

To select all the control points on a grid line, hold down the **Shift** key and click on the line. You can also use this method to select multiple grid lines. This is helpful when you want to warp grid lines symmetrically.

Adding or deleting Warp control points

Once you have started warping a ShapeLayer, you can add or delete warp control points using two methods:

- To add a warp control point, double-click within the ShapeLayer or on an existing grid line.
- To delete a point, press the middle mouse button and click it.

Resetting a warped ShapeLayer

To reset the image to its unwarped state, click **Reset Warp Grid** in the ShapeLayer Toolbox.

Eclipse hides any selected control points, displays the grid lines in their original positions, and restores the image to its condition before you warped it. Notice also that the **Rows** and **Columns** text boxes are active again—you can type in them to change their values.

TIP

Use the **Undo** and **Redo** commands in the ShapeLayer menu to undo or redo warp actions one step at a time.

Rendering a warped ShapeLayer

To end warping, deselect the **Warp** tool in the ShapeLayer Toolbox.

Eclipse removes the control points and grid lines from the ShapeLayer and displays the normal bounding box. The ShapeLayer remains warped.

As with other filled ShapeLayers, you can now render the warped ShapeLayer to the canvas image either by clicking **Render** in the ShapeLayer Toolbox or by using the **Render** brush. The latter method is useful for blending a warped area of the canvas image with the surrounding area, as shown in the illustrations below.

REMARK

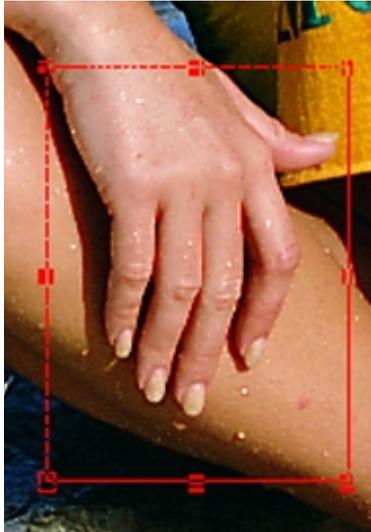
Depending on the size and geometry of the area you want to warp, Eclipse needs a minimum number of vertical grid lines. If your warping grid does not have enough vertical grid lines, you get an error message. This message specifies the number of lines to add.

Then delete the ShapeLayer or perhaps copy and paste it somewhere else or save it as a ShapeLayer file.

TIPS

For high-quality rendering, set the anti-aliasing level to 4. To set the level, choose **ShapeLayer** → **Anti-alias**.

*Before deleting a warped ShapeLayer, take a look at how the warping effect is attached to the ShapeLayer. Select the **Hand tool** and use it to drag the image around inside the ShapeLayer. As you move the image, Eclipse applies the warp effect to whatever portion of the image is visible beneath the warped portion of the ShapeLayer.*



This is the original hand.



Here the hand has been warped to lengthen the fingers. The warped area has been rendered using the Render brush.

Some unwanted skin was rendered around the fingertips.



The unwanted skin has now been removed using the Restore brush.

Clean up like this is easier if you zoom in. You can easily switch between the Render and Restore brushes by pressing **M** and **Q**.

7.5. Warp Shading

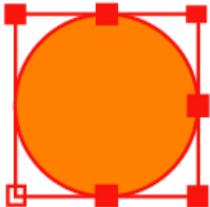
Eclipse has a special Warp option — Shading. With the Warp Shading default settings, shadows are added to areas that are compressed during warping, and highlights are added to areas that are expanded.



You can control the way a warped image is shaded using the Warp Shading editor.

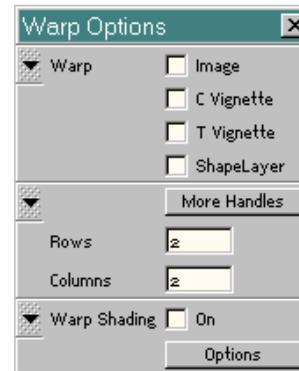
To add shading to a warped image

Select a filled ShapeLayer.



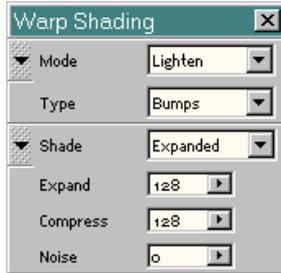
Select the Warp tool in the ShapeLayer Toolbox.

Click **Warp Options**. The Warp Options shelf appears.



At the bottom of the Warp Options shelf, turn on **Shading** and click **Options**.

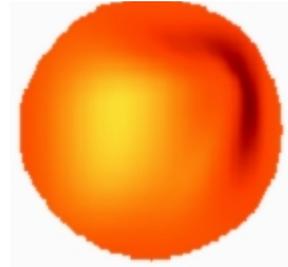
The Warp Shading shelf appears.



The Warp Shading shelf

Use the Warp Shading shelf to control the way shading is applied to the warped image.

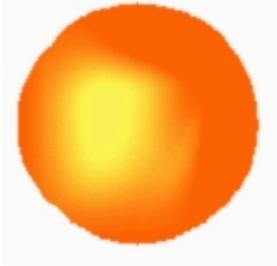
- **Mode:** When *Applied on Both* is selected, the default Shading setting (Lighten) applies highlights to expansion cells and shadows to compression cells. Areas that shrink during warping become darker while areas that expand become lighter. When **Shade: Expanded** or **Shade: Compressed** is selected, you can choose to have the specified areas darkened or lightened.
- **Type:** Wrinkles have more oscillation than Bumps and guarantee continuity at the grid line junction. Bumps are less rugged and do not guarantee continuity at the grid line junction.
- **Shade:** When *Applied on Both* is selected, all areas of a warped image are given shading. You can also choose to have shading applied to only expansion cells or compression cells. The Shade settings are available for Wrinkles only.



Warp shading applied to both expansion and compression cells—the default.



Warp shading applied to only the compression cell, which is darkened.



Warp shading applied to only the expansion cell, which is lightened.

- **Expansion, Compression:** You can control the magnitude of lightening and darkening by modifying Expansion and/or Compression, depending on the Shade setting. If you want a stronger effect than the maximum available with the slider, you can type in higher values in the text boxes, to a maximum of 999.
- **Shading Noise:** If banding appears in the shading, remove it by adding noise. Too much noise adds graininess.

REMARK

In the Warp Shading shelf, options that would have no effect are gray. For example, when you select Bumps, the Applied On settings are gray and unavailable.

7.6. Blemish Removal

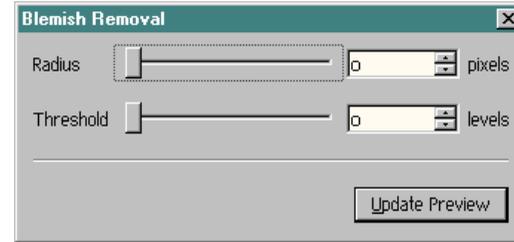
The Blemish Removal tool removes large blemishes such as dust, scratches, and other imperfections without affecting the surrounding area. It is a high-quality touch-up tool that is far superior to the Clone brush alone. It can be used only within a ShapeLayer. Blemish removal does not cause softening the way the Despeckle effect does.

To remove blemishes

- 1 Select the blemished area with a ShapeLayer. The ShapeLayer should be big enough to include neighboring pixels of the desired replacement color, but not so big that it includes elements that might mistakenly be considered blemishes. For example, when removing a skin blemish, include only skin of the same color.
- 2 Select the Blemish Removal tool from the ShapeLayer Toolbox.



The Blemish Removal dialog appears.



The Blemish Removal dialog

3 Adjust the Blemish Removal settings.

- **Radius** determines the width of the sampling region, in pixels, used to replace the blemish. The pixels in the area are examined to determine the color of the pixels used to replace the blemish. If there are variations in color around the blemish, increasing the radius from the default, 5, may make the replaced color more accurate. For solid colors, a small radius is fine. At 1, Blemish Removal has no effect. The ShapeLayer size constricts the maximum radius size.

REMARK

The larger the radius, the longer blemish removal takes.

- **Threshold** controls the sensitivity of blemish identification. The lower the threshold, the smaller the difference in color must be for pixels to be considered blemishes. At very low settings, even slight variations in color are removed. The higher the setting, the more tol-

erant the tool is of color variations—and the less likely it is to detect blemishes. If no blemish is detected, Blemish Removal has no effect. The default setting is 25.

REMARK

While working with the Blemish Removal, there is no automatic Preview, even if Preview in the View menu is on.

*To see the result of changes you have made to Blemish Removal values, click the **Update Preview** button.*

4 Render the ShapeLayer by clicking **Render** in the ShapeLayer Toolbox. Then either delete the ShapeLayer or use it to remove blemishes from other areas of the image.



Electrical and telephone wires pose a common retouch problem.



With the Blemish Removal tool set to Radius 2 and Threshold 2, the lines disappear.

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8. Masking

A mask is a layer that protects portions of a canvas image from paint, corrections and effects. Each Eclipse canvas image has a mask layer with its own 8-bit channel, sometimes called an *alpha* (A) channel. Because it is 8-bit, a mask has 256 lightness (L) values ranging from transparent to opaque. This allows you to give a mask differing degrees of protection.

Once you have created a mask you can:

- sharpen or soften it using commands in the Mask menu,
- apply effects and corrections that vary lightness (L) values,
- invert it,
- clear parts of it using a completely transparent brush or ShapeLayer,
- save the mask as a file and reuse it,
- combine saved masks into one mask file.

REMARK

You can sometimes skip the need for a mask by applying corrections or effects within a ShapeLayer. Reduce or remove the ShapeLayer's hard edges by using Blend Edge in the ShapeLayer Toolbox.

8.1. Making the Mask Layer Active



To work on the mask layer, click the View Mask (upper button) and Active Mask icons (lower button) so they become orange.

When the mask layer is active, all color channels become inactive automatically. To turn off the mask layer and reactivate the color layers, click the **Active Mask** icon again.

TIP

*Make sure that **View** → **Preview** is turned on so that you can see the mask as you create it.*

8.2. Creating a Mask

Once you have made the mask layer active, you can create a mask by using any of the following techniques, alone or in combination:

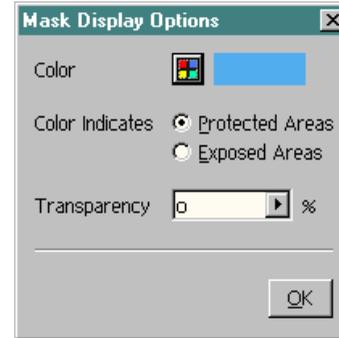
- mask color ranges in the canvas image with the Auto Mask, HSL Auto Mask or Transfer Mask tools
- mask enclosed areas of the canvas image by surrounding them with filled, rendered ShapeLayers
- mask specific parts of the canvas image by painting over them with a Color brush. You can also mask color ranges in specific areas using the AutoMask brush.

Mask display color and transparency

Areas on the mask layer that you fill in become solid blue. If you want, you can change the color and make it more transparent so you can see through it. These controls affect only the appearance of the mask, not how it functions.

To change the mask display color and transparency

- 1 Choose **Mask** → **Display Options**. The Mask Display Options dialog appears.



The Mask Display Options dialog

- 2 To change the mask color, click the ColorLink button. In the Mask Color Editor that appears, choose a different color.
- 3 Select how to view the mask. You can choose between the mask showing either the protected or the exposed areas.
- 4 To change the transparency of the mask color, use the Transparency popup slider or text box. At 0 the mask is displayed as totally opaque. At 100, the mask is displayed as totally transparent.

REMARK

Mask Color Transparency changes the transparency for viewing purposes only, so you can see the image beneath the mask. It does not change the actual transparency of the mask.

TIPS

When you set a display transparency value for the mask color, you may be unable to visually determine the actual tonal values in the mask. Return the display transparency to 0 in the Mask Color dialog to view the actual tonal variations in the mask.

*If you want to make the mask invisible once it is created, turn off the **View Mask** button in the dashboard instead of setting the Mask Color Transparency to 0.*

Controlling the actual transparency of the mask

You can also vary the actual transparency of the mask (as opposed to its display transparency). A semi-transparent mask is only partially protective.

The method you use to control mask transparency depends on the tool you are using. For example, when painting on the mask layer with a brush, control transparency in the Brush shelf. When using a ShapeLayer fill, give it transparency in the ShapeLayer Fill shelf. Methods for adding transparency are described later in this chapter.

8.3. Using a Mask

When you have finished creating a mask and are ready to use it, turn off **Active Mask** and turn on **Use Mask**.



Select **Use Mask** to protect the canvas image as you use other tools.

TIP

*If you do not want to see the mask, click the **View Mask** icon to turn it off. The mask is invisible but it will protect your work as long as **Use Mask** is selected.*

8.4. Masking Color Ranges

Using Auto Mask and HSL Auto Mask

Use Auto Mask and HSL Auto Mask to create a mask based on a selected range of colors. You specify the color range by typing values or by picking colors from the image.

REMARK

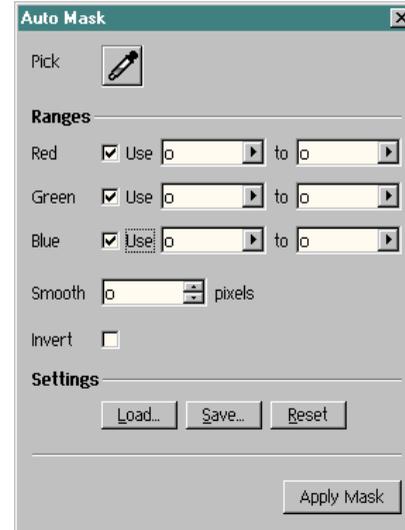
If you have ShapeLayers on your image and the ShapeLayer → Render Mode → All ShapeLayers is selected, the Auto Mask and HSL Auto Mask tools create the mask within the ShapeLayers even if they are not selected.

To avoid this, either select ShapeLayer → Render Mode → Selected ShapeLayers or close the ShapeLayer Toolbox to hide the ShapeLayers.

To create a mask by building a color range

1 Choose **Mask** → **Auto Mask**. The mask layer becomes active.

The **Auto Mask** dialog appears. All the color channels, RGB or CMYK, are selected and all sliders are set to 0.



The Auto Mask dialog

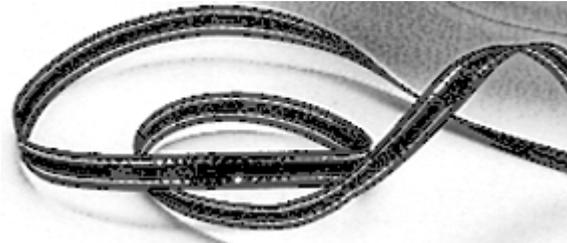
- 2 If you want a color channel included in the mask, select it.
- 3 Establish the core range for each color using one of the following techniques:
 - either pick a range of colors by clicking the **Pick** button and then dragging through colors in the image. If you want to remove colors from the mask, press and hold the middle mouse button and drag through the image.
 - or specify the maximum and minimum color values you want to mask in each channel by dragging the channel popup sliders or by typ-

ing the color values in the text boxes next to the sliders. The right slider and text box control the maximum color value. The left slider and text box control the minimum color value.

EXAMPLE

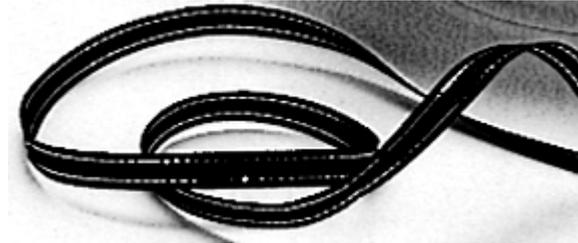
If the Red channel has a maximum value of 60 and a minimum value of 20 and the Green and Blue channels are set to 0, all colors in the image that have a red value between 60 and 20 and Green and Blue values of 0 are captured for the mask.

- 4 When the core areas you want to mask are blue (or whatever the current mask color is), switch to using the **Smooth** spin buttons to soften and blend the edges of the mask. When you use Smooth, Eclipse builds a transition from the mask area out to the clear areas.



A **Smooth** value of 0 means that there is no transition between the clear (0) mask areas and the opaque (100) mask areas.

In the picture above, the areas that look black have been masked by using the Pick feature to select pixels.



Here the mask has been extended over the whole ribbon by increasing the **Smooth** value.

The higher the Smooth value, the softer and larger the transition area.

A Smooth level of 100 creates a maximum transition and replaces the clear areas with transparent mask values.

- 5 If you want to see how the mask will look if you invert it, select **Invert**. All opaque portions of the mask become transparent, all transparent portions become opaque. You can apply it in its inverted state, or you can choose **Mask** → **Invert** after you apply the mask.
- 6 If you decide you do not like what you have done or if you want to start over, click **Reset**.
- 7 After you have built the color ranges, click **Apply Mask** to apply the specified color ranges to the mask layer.

A confirmation dialog box appears.

- Click **Yes** to apply the mask, or click **No** to cancel the operation. The **Auto Mask** dialog remains open no matter which option you select, and the mask layer remains active.

REMARK

The mask layer also remains active when you close the Auto Mask or HSL Auto Mask shelves.

To create a mask by building HSL color ranges

When working on an RGB image, you can use HSL Auto Mask to create a mask using hue, saturation and lightness color properties rather than ranges of CMYK or RGB colors. The HSL Auto Mask dialog looks and functions just like the Auto Mask dialog and you use it the same way. The only difference is that you select HSL ranges rather than selecting color channel ranges.

Using Auto Mask with ShapeLayers

You can use ShapeLayers to limit an Auto Mask or HSL Auto Mask to specific areas of an image. This is helpful because different areas of an image often have unique color ranges; by working within a ShapeLayer, you can capture the color ranges unique to that area.

- Draw and select one or more ShapeLayers.
- Choose either **Auto Mask** or **HSL Auto Mask** from the **Mask** menu.

- Use the tool dialog to set a color range as described under “*To create a mask by building a color range*” on page 8-7.

Eclipse restricts the mask to the area inside the ShapeLayer, even if you pick colors outside the ShapeLayer.

- Click **Apply Mask**.

REMARK

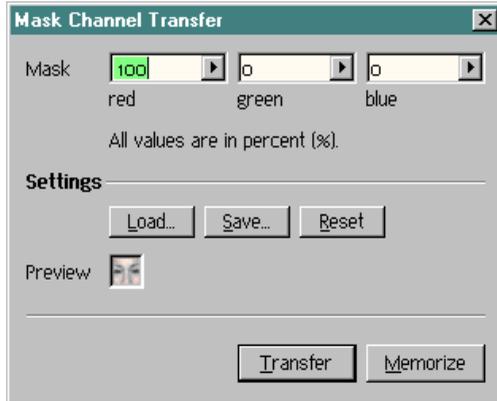
You can apply the most recent Auto Mask or HSL Auto Mask color range to the mask layer with the AutoMask brush. For more information, see page 8-11.

Using Mask Channel Transfer

Use the **Mask** → **Transfer** tool to add or subtract colors used on the mask layer.

To transfer colors to or from the mask

- Choose **Mask** → **Channel Transfer**. The mask layer becomes active automatically and the Mask Channel Transfer dialog opens.



The Mask Channel Transfer dialog

- 2 To increase or decrease the amount of color in a channel that Eclipse uses to build the mask, type in percentages in its text boxes or use the popup sliders.

For example to increase the amount of red by 20 percent, type **120** in the **red** text box. To decrease red by 20 percent, type **80**.

Eclipse shows you the effect on the mask layer of your image.

- 3 To reset the text boxes to 0 and start over, click **Reset**.
- 4 To apply color changes to the mask, click **Transfer**.

- 5 To save Transfer mask settings, click **Save** and name the file in the File Save dialog that appears.

A default filename TransM4C is proposed for CMYK images. For RGB images the default filename is TransM3C. You can type a different filename if you want. A filename extension similar to the default filename is assigned automatically.

- 6 To reuse saved Transfer settings, click **Load**.

Then use the File Open dialog that appears to select the Transfer Mask file you want. A Transfer Mask file has a `.transm4c` or `.transm3c` filename extension.

8.5. Creating a Mask with a Brush

Using a brush to make a mask is much the same as painting on an image's color channels, except that you work on the mask layer.

You can use a Color brush, a Correct brush, an Effects brush and so on. The Brush shelf also includes an AutoMask brush that you can use to brush on the most recently used Auto Mask, HSL Auto Mask or Mask Channel Transfer color ranges. Using the AutoMask brush is similar to brushing on effects or corrections.

To create a mask with a brush

- 1 Make the mask layer visible and active by selecting the **View** and **Active Mask** icons.
- 2 Choose **Brush** or **Brush Palette** from the Window menu to choose the type of brush you want. In general, you will want to use the Color or AutoMask brush, although you can use others, like Smear or Pattern.
- 3 Paint on the image. To unpaint, use the middle mouse button.
- 4 To adjust the transparency of the mask paint, use the Brush shelf's **Transparency** slider or text box before or as you paint.
- 5 To use the mask:
 - make the color channels active once more by clicking the **Active Mask** icon to deselect it.

- click **Use Mask**.

TIP

*If you do not want to see the mask as you work, click the **View Mask** icon to turn it off.*

Using the AutoMask Brush

Use the AutoMask brush to paint on the mask layer color ranges you select in the Auto Mask, HSL Auto Mask or Mask Channel Transfer shelves. Using the AutoMask brush is similar to using a Correct or Effects brush, except you are painting the mask rather than painting an effect or correction.

To use the AutoMask Brush

- 1 Make the mask layer active.
- 2 In the Brush shelf, choose the **AutoMask** brush.
- 3 The AutoMask brush uses the last color range you selected in the Auto Mask, HSL Auto Mask or Mask Channel Transfer dialog to paint on the mask layer.
- 4 Paint on the canvas image.

Wherever the AutoMask brush passes over a color range that matches the range set in the Auto Mask, HSL Auto Mask or Mask Channel Transfer dialog, Eclipse applies mask color.

- 5 If you want to unpaint the mask, use the middle mouse button.

- 6 If you want to change the AutoMask settings, click **Options** in the Brush shelf.

The last mask shelf you used (Auto Mask, HSL Auto Mask or Mask Channel Transfer) appears.

REMARK

When you open Auto Mask, HSL Auto Mask or Mask Channel Transfer with the Options button of the Brush shelf, Eclipse applies mask color to the image based on its settings. This may obscure your paint strokes. Change the settings in the Auto Mask, HSL Auto Mask or Mask Channel Transfer dialog, and then close the dialog to resume Auto-Mask brushing.

*Alternatively, if you want to leave the mask dialog open, turn off **Preview** in the **View** menu.*

- 7 When you want to use the mask, make the color channels active again and click **Use Mask**.

8.6. Creating a Mask with ShapeLayers

You can create a mask inside any closed ShapeLayer. When you draw a ShapeLayer on the mask layer, it fills automatically with the mask color.

To create a mask with a ShapeLayer

- 1 Make the mask layer active.
- 2 Select the ShapeLayer tool you want from the ShapeLayer Toolbox.
- 3 Draw a ShapeLayer on your image. Select **Close** if necessary.
- 4 When you finish drawing the ShapeLayer, Eclipse fills it with mask color.
- 5 To adjust the mask transparency, use the **Transparency** slider or text box in the ShapeLayer Fill shelf.
- 6 Render the ShapeLayer onto the mask layer by clicking **Render** in the ShapeLayer Toolbox.
- 7 To use the mask, clear **Active Mask** and select **Use Mask**.

Masking a ShapeLayer Fill

An image used as a ShapeLayer fill cannot be masked directly, but you can mask it by following this procedure.

To mask an image inside a ShapeLayer

- 1 Open the image as a canvas image.

- 2 Create the mask over the canvas image using any of the techniques described in this chapter.
- 3 Save the mask and close the image.
- 4 Open the image you want to use as a canvas image.
- 5 Create a ShapeLayer and fill it with the image you masked.
- 6 Click the **Mask** button in the **ShapeLayer Fill** shelf to open the mask you created.

TIP

If you distort a masked ShapeLayer fill and then want to replace the mask, click the picture of the mask in the ShapeLayer Fill shelf to select the new mask. If you turn off the mask fill first, the mask is cleared and the new mask may not assume the proper distortion.

8.7. Mask Operations

Sharpening a mask

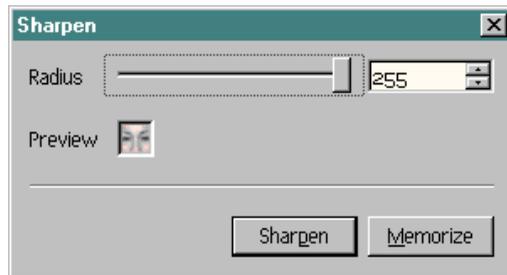
If you have a mask that is too soft or blurry, you can improve its quality with the mask's Sharpen effect. Sharpening increases the visual differentiation of pixels on the mask layer. This process is analogous to sharpening a canvas image.

REMARK

Apply color corrections to the mask before using Sharpen.

To sharpen the mask

- 1 Choose **Mask** → **Sharpen**. The mask layer becomes active automatically.
- 2 Specify the amount of sharpening using the slider or text box.



- 3 Click **Sharpen** to apply the sharpening.

TIPS

The sharpening process introduces distortion into tonal areas of the mask. Avoid using Sharpen repeatedly. If a mask becomes degraded by sharpening, try restoring it with the Soften command in the Mask menu.

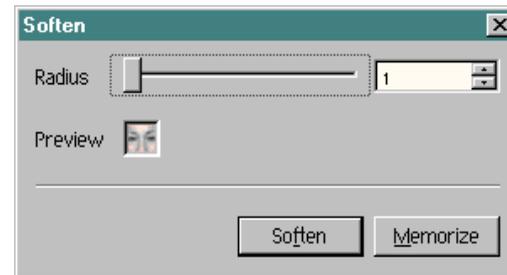
To sharpen specific areas of a mask, paint on it with an Effects brush.

Softening a mask

Use the Soften command to even out differences among pixels in a mask. The resulting effect is a softer, even blurry mask. This process is analogous to softening the canvas image.

To soften a mask

- 1 Choose **Mask** → **Soften**. The mask layer becomes active.



- 2 Specify the amount of softening and click **Soften**.

Applying Effects and Corrections to a mask

You can apply all effects and corrections to a mask.

To apply effects and corrections to a mask

Make the mask layer active by clicking on the **Active Mask** icon (see page 8-3).

REMARK

When applying a correction to a mask, also make one of these color channels active in the correction dialog:

*For an RGB image, select the **Red** channel in the correction dialog before making the correction.*

*For a CMYK image, select the **Cyan** channel in the correction dialog before making the correction.*

Inverting a Mask

When you invert a mask, all opaque portions become transparent, and all transparent portions become opaque.

To invert the mask

- 1 Choose **Mask** → **Invert**.

Eclipse displays a warning box that asks if you want to invert the mask.

- 2 Select **Yes** to invert the mask or **No** to cancel the command.

Eclipse displays a status box as it inverts the mask and displays the result when it is done.

TIP

*The **AutoMask** and **HSL Auto Mask** shelves contain an **Invert** checkbox that you can use to invert a mask as you create it.*

Clearing the Mask Layer

Use **Clear** to erase paint that you have applied to the mask layer. Paint that has not been applied to the mask is not cleared. For example, a **ShapeLayer** fill that has not been rendered to the mask remains after clearing.

To erase the mask

- 1 Choose **Mask** → **Clear**.
- 2 In the confirmation box that appears, select **Yes** to clear the mask or **No** to cancel the command.

TIP

*If you are working in **Copy** mode, you can restore the mask to the state it was in when you last saved or retained it by choosing **File** → **Restore**.*

Saving and Opening Masks

Once you create a mask, you can save it as a file and use it again with the same image or with other images that are the same size.

To save a mask

Choose **File** → **Save As** → **Mask**.

Use the file dialog that appears to name and save the mask file.

To open a mask file

Choose **File** → **Open** → **Mask**.

Use the file dialog that appears to select the mask file you want.

Combining Masks

Use the Combine command in the Mask menu to combine the current mask layer with a mask you created and saved previously. The saved mask must be the same size as the current image.

To combine a mask file with the current mask

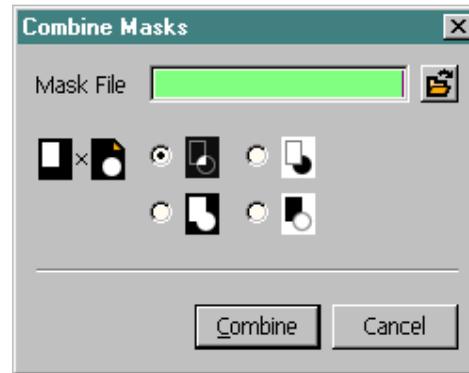
- 1 Choose **Mask** → **Combine**.
- 2 In the file dialog that appears, select the mask you want.

A Combine Mask dialog box appears with four icons that show four ways Eclipse can combine the mask you selected with the current mask.

For example, if the current mask is square and you want to combine it with a saved circular mask, the options in the Combine Mask would appear as follows.



Current mask (right) and selected mask



Combine Masks dialog

The four ways to combine masks are (Counter-clockwise from top left):

- **Intersection:** Eclipse uses those parts of each mask that overlap, or intersect, to create the new mask.
- **Combination:** Eclipse combines the two masks to create the new mask.
- **Add to Current Mask:** Eclipse adds to the current mask a negative of the selected mask file.

- **Subtract from Current Mask:** Eclipse adds the selected mask file to a negative of the current mask.

3 Select the icon that represents the way you want Eclipse to combine the mask, and then click **Combine**.

Eclipse opens the mask file, combines it with the existing mask and displays the result on the image.

4 To undo the combination, close the Combine dialog box and then choose **File** → **Restore**.

Editing a saved mask

Removing parts of a mask

You can remove parts of a mask with a brush or a ShapeLayer by using the **Transparency** option in the Brush shelf or the ShapeLayer Fill dialog.

For example, if you set the **Transparency** of a Color brush to **100**, and then use the brush to paint over an existing mask, you remove the mask. You are actually making the mask color completely transparent. You can do the same thing with a ShapeLayer. Draw a ShapeLayer over an existing mask, and then use set the Fill Attributes **Transparency** to **100**.

Adding to a mask

You can add to an existing mask using any of the following techniques:

- paint on the mask layer with a Color brush or one of the AutoMask brushes
- apply a ShapeLayer to the mask layer
- use the Auto Mask or HSL Auto Mask tool to extend the mask.

Then save the mask file with the same name.

9. Setting Preferences

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9.1. Preferences

Preferences are operating parameters that you use to customize the way you work with Eclipse. The preferences you choose remain in effect until you change them and Eclipse uses them whenever you start the program. You can select the Preferences commands before you open or create an image in the main window. Eclipse maintains your preferences settings in a file named `.EclipsePrefs`, which is stored in your home directory.

There are two types of preferences: **General** and **Stylus Pressure**.

- Use **General** preferences to affect general operating conditions for Eclipse such as the default display size of an image, the anti-aliasing level, the number range used for specifying color values and the separation file that is used for converting an RGB image to CMYK. Also use it to choose whether you work on images in Copy or Original mode, to set a directory path for temporary image files and to set the cache size.
- Use **Stylus Pressure** preferences to adjust the pressure sensitivity of your tablet.

WARNING

You must quit and restart Eclipse for new Preferences to take effect.

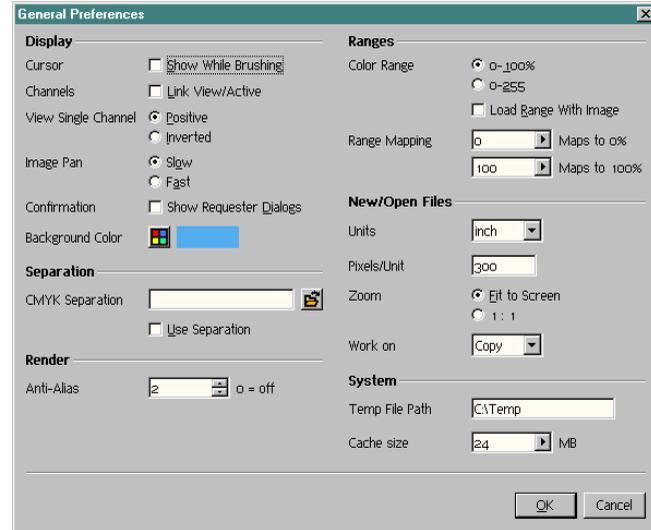
9.2. Setting Preferences

The **File** → **Preferences** submenu contains two commands: **General** and **Stylus Pressure**. Each command displays a dialog box. Because preferences affect the way the system works, these dialog boxes are modal—you can not do any other work with Eclipse until you close them. You can open only one Preference dialog box at a time. The following sections explain what the preferences do and how to set them.

General preferences

Choose **File** → **Preferences** → **General**.

Set the preferences you want in the Controls Preferences dialog that appears.



The General Preferences dialog

The dialog displays the most recent settings for the preferences. When you start Eclipse for the first time, it displays the default settings. You do not have to change any settings to use Eclipse.

- **Cursor - Show While Brushing:** When painting, the circumference of the brush is outlined in whatever color is used for the overlay (controlled by AltGr C). If you do not want to see this outline, turn off **Cursor - Show While Brushing**.

TIP

Turning off the brush cursor improves brush performance.

- **Channels - Link View/Active:** When **Link View/Active** is turned *on* (the default condition), making a color channel visible also makes it active, and vice versa. This means you can only work on a color channel that you can see.



When **Link View/Active** is turned *off*, you can view a color channel without being able to work on it or, alternatively, you can work on a color channel without viewing it.



REMARK

Link View/Active also affects the mask layer.

- **View Single Channel:** Determines how Eclipse displays a color layer of your image when you view only one layer at a time.
- **Image Pan:** The **Image Pan** preference determines how Eclipse displays your image as you pan with the right mouse button.

- **Slow** displays the image interactively as you pan. You get visual feedback about the position of the image but panning is slower.
- **Fast** does not display the image again until you release the right mouse button.

- **Confirmation - Show Requester Dialogs:** This determines whether Eclipse displays confirmation dialog boxes when you execute commands such as applying effects and color corrections or rendering ShapeLayers. The confirmation dialog boxes give you the chance to cancel or abandon a command before it starts. If you turn this preference *off*, the program *does not* display the confirmation dialog boxes.

TIP

While you are learning to use Eclipse it is best to leave Active Confirm Messages turned on.

- **Background Color:** Push the ColorLink button to open the Background Color Editor.
- **Separation:** Use Separation if you output image files to different color models (for example, if you convert an RGB image to CMYK). You create a separation file with the CMYK Separator. Load a separation file by clicking the Open file button. If no file is specified, but Use Separation is on, Eclipse uses a default separation file.
- **Anti-alias:** This property sets the level of Anti-aliasing. Anti-aliasing smooths jagged edges within images for image rendering. Anti-aliasing

produces an array of pixels for each pixel Eclipse calculates. For example, an Anti-alias level of 3 produces a 3x3 array for each pixel. The higher the value, the more processing Eclipse must perform. An anti-aliasing level of 0 turns anti-aliasing off. The anti-aliasing range is 0 to 3.



When anti-aliasing is set at 0 so it is turned off, rendering a ShapeLayer fill with diagonal edges can result in “the jaggies.”



You can get rid of jagged edges by setting anti-aliasing to 3.

Remember to turn anti-aliasing off by setting it to 0 when you no longer need it.

TIPS

You can also set the anti-alias level by choosing ShapeLayer → Anti-alias.

Anti-aliasing is memory intensive. Each additional level doubles rendering time. For best performance, keep anti-aliasing turned off (at 0) and turn it on when rendering filled images. Use an anti-aliasing level of 1 or 2 when scaling up an image fill. Use a level of 3 when rotating or warping or for any operation where diagonal edges look jagged.

- **Color Range:** Determines whether Eclipse uses dot percentage (0-100) or system color (0-255) for numeric display of color values.

When 0-100 is selected, values you type in correction and effects windows and the Color Editor are percentage values. When 0-255 is selected, values you type are actual pixel values.

- **Load Range With Image:** File formats such as TIFF and Eclipse Tile File can include color range information. When **Load Range With Image** is turned on, color range information included in an image file overrides the Color Range setting in Eclipse.
- **Range Mapping:** Determines the lower and upper limits of the Color Range preference. Binary values can range from 0 to 255; the 0% value can-

not be larger than the 100% value. Use this preference to adjust how Eclipse displays images from peripheral equipment such as scanners, which may use different color range values.

- **Units:** Use the **Units** pop-up menu to choose the unit of measurement for Eclipse operations: **Inch**, **mm**, **cm**, **Point**, **Pica**, or **Pixel**. Units determine such things as the calibration of rulers and the way resolution is calculated and displayed.
- **Pixels/Unit:** This gives the resolution of the image.

To change the output resolution for your images, type a value in the Resolution text box. When Units is set to Pixel, the resolution cannot be changed.

- **Zoom:** Determines the zoom level Eclipse uses to display images when it opens them.

1:1: Eclipse displays the image at a 1:1 zoom level.

Fit to Screen: Eclipse adjusts the zoom level automatically so that the entire image is displayed. This is the default.

- **Work on:** Use the **Work on** preference to choose how you want to work with your image files: in **Copy** mode or **Original** mode.
 - **Copy mode:** When you open an image, Eclipse makes a copy of the image file, and

you work on the copy. Any changes you make are made to the working copy of the image. In Copy mode, you can use the Retain and Restore commands in the File menu to keep or discard changes you make to the working copy without affecting the original image file. You do not affect your original image until you use the Save command.

- **Original mode:** When you open an image, you work on the original image file. Choose Original mode only if you have extremely limited disk space. In Original mode, you cannot use the Restore or Retain commands in the File menu. You work directly on the source image. If you must work in Original mode, make a backup copy of your image file before you start.

WARNING

We strongly suggest that you ALWAYS work in Copy mode!!!

- **Temp File Path:** As you work on images, Eclipse makes copies of image files called temporary files or *tempfiles*. The **Temp File Path** text box indicates the pathname of the directory in which Eclipse stores these temporary image files. By default, temporary files are stored in the C:\Temp directory.

If you want to change your directory, type the name of another directory in the Temp File Path text box.

You might want to create a new directory in your home directory to use for temporary files. To operate properly, Eclipse must be able to write temporary files to the directory, so be sure to choose a directory for which you have write permission.

TIPS

Eclipse runs faster if you specify a temp file directory on a fast internal hard disk drive that has plenty of room.

Do not specify a temporary directory where image, mask or other files are stored.

- **Cache Size:** Eclipse uses a memory caching scheme that automates the way it uses your computer's memory and disk space. Depending on the size of the images you are working with, Eclipse caches some or all of the image into memory to provide real-time, interactive manipulation.

The amount of memory (RAM) that Eclipse needs depends on how much editing or composing you do during a work session. In general, you need approximately 35 MB of RAM for each Eclipse main window that is running. Therefore, if your computer has 64 MB of RAM, do not increase the cache size above 29 MB (64 MB - 35 MB = 29 MB).

If your computer has more RAM available, and if you do not want to run other programs while you are running Eclipse, you can increase the cache size up to 200 MB.

The following rule allows you to calculate cache size:

$$\text{Total RAM} - 35 \text{ MB} = \text{Cache Size}$$

WARNING

If you set Cache Size too high, the operating system places some Eclipse processes in swap space on your hard disk, making Eclipse run slowly. If you run out of swap space, the operating system kills Eclipse.

TIPS

Do not lower Cache Size below 24 MB.

- Click **OK** to activate your changes to the Preferences or **Cancel** to close the dialog without adopting the changes.

WARNING

You must quit and restart Eclipse for new Preferences to take effect.

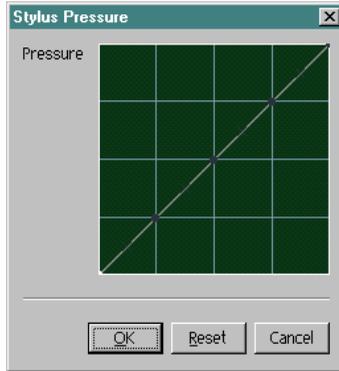
Stylus Pressure Preferences

Use Stylus Pressure preferences to adjust the pressure sensitivity of your tablet.

To set Stylus Pressure preferences

1 Choose **File** → **Preferences** → **Stylus Pressure**.

Eclipse displays a dialog box that contains a graph. You adjust the pressure sensitivity of the tablet stylus by reshaping the graph's curve.



The Stylus Pressure dialog

- 2 Point to a graph point on the curve, then click and drag the point. To increase sensitivity, drag the point above the curve. To decrease sensitivity, drag the point below the curve. To reset the curve, click the **Reset** button.
- 3 Click **OK** to close the dialog box and save the changes. Click **Cancel** to abandon the changes.

TIPS

If you have a tablet with its own pressure adjustment, adjust the tablet's settings first, and then fine-tune the pressure using the Eclipse Stylus Pressure preferences.

10. Creating Color Separations

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10.1. Integrated CMYK Separation

Integrated into Eclipse is a fully featured set of tools for creating high-quality CMYK separations from RGB images. You can use CMYK Separation without making any adjustments to produce color separations for SWOP color printing. (SWOP is an acronym for Standard for Web Offset Publications.)

CMYK Separation features a system that uses the density properties of process printing inks to determine the exact amounts of cyan, magenta, yellow, and black necessary to accurately match a particular color. For customized needs such as this, Eclipse's CMYK Separation provides all the tools you need to create professional-quality image separations for print.

CMYK Separation provides tools for color correction, black generation and on-screen proofing of the printed piece. CMYK Separation, through Eclipse, supports connectivity to desktop publishing software applications for sharing image separation files with desktop systems.

With CMYK Separation you can control:

- scaling of RGB values during conversion to CMYK
- Gray Component Replacement (GCR)
- ink optical properties, dot coverage and dot gain

- Undercolor Removal (UCR) and Undercolor Addition (UCA)
- ink values according to hue and tone curve
- highlight and shadow offset
- black generation including K curve adjustment, K boost and K shadow offset.

To help you evaluate the quality of the conversion to CMYK you can preview the separations as you work. For accurate color readings you can use a special separation probe. You can save and customize separation settings and use them again.

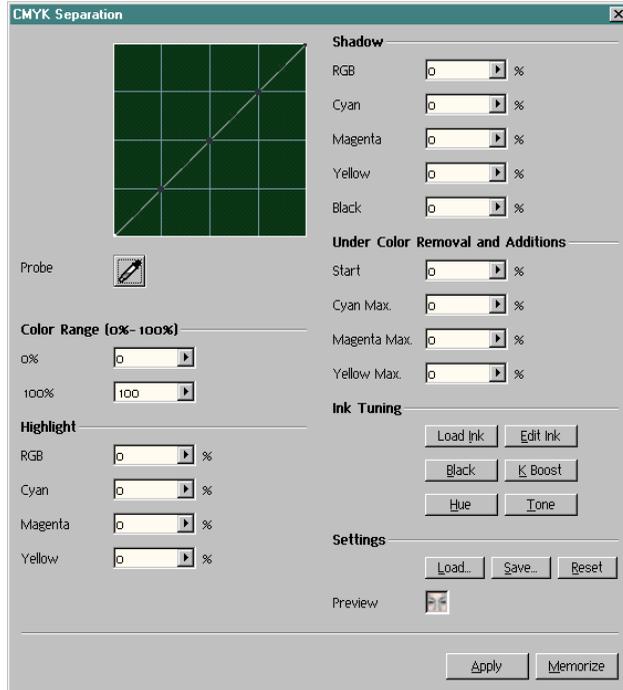
To open the CMYK Separation

Choose **Window** → **CMYK Separation**.

The CMYK Separation dialog appears.

REMARK

The separation is available only when working on an RGB canvas.



The CMYK separation dialog

The graph depicts output values for all shades of gray ($R = G = B$) to give the feel of the separation. If you want to know how a gray value of 50 percent will be separated, look at the graph lines intersecting the middle vertical line in the graph.

10.2. Making CMYK Color Separations

CMYK Separation's default settings, ink densities and dot gain compensation values yield good results for most images using standard SWOP inks. If you want to make custom color separations, you can make the following adjustments.

Scaling RGB Highlights and Shadows

RGB input values can be scaled according to the RGB highlight and shadow values. By default, RGB values between 0 to 100 are converted to CMYK values between 0 to 100, so no scaling occurs.

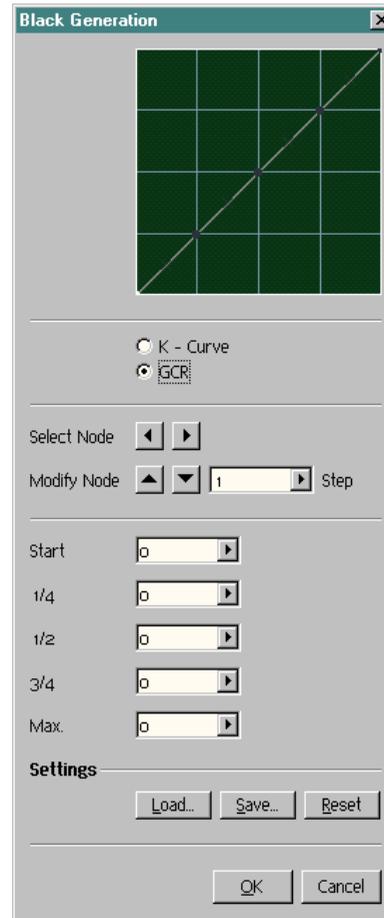
Unless you want to re-interpret the RGB input, there is no need to change the Highlight or Shadow RGB values. If, however, you want to lose shadow detail, raise Shadow to e. g. 10. Then all RGB values below 10 would be considered 0 (solid black), all other RGB values stay the same. Alternatively, you can remove highlight detail by lowering Highlight to e. g. 90. Then all RGB values above 90 would be scaled to 100 (white, no ink).

Adjusting Gray Component Replacement (GCR)

The purpose of gray component replacement (GCR) is to control ink flow, to provide better neutrality, and to enhance contrast. During the GCR process, CMYK Separation replaces the three-color gray component (cyan, magenta, and yellow) with a proportional amount of black ink. The gray component is equivalent to the minimum percentage of cyan, magenta, and yellow in any color. Eclipse automatically estimates the GCR value, but you can alter it.

To alter the GCR

1 Click **Black**. The Black Generation dialog appears.



The Black Generation dialog

- 2 Select **GCR**.
- 3 Change the **Start**, **Max** and quarter tone values for GCR by adjusting points on the graph or by entering values in the text boxes below the graph. All colors having a gray component within this range are produced with a percentage of black and are correspondingly reduced in the other three colors (C, M, Y).

When **Start** is set to **0** and **Max** is set to **100**, the percentage of black generated is equal to the percentage of the gray component. The amount of gray component “going out” is equivalent to the amount of black “going in.”

When **Start** is greater than 0 percent and **Max** is less than 100 percent, the amount of black generated and the amount of three-color reduction is proportionally *less* than the gray component. Entering a Max value of 0 percent turns off the black film. This means the image is printed in three colors instead of four.

Using Black to control ink flow on the press

When you replace an image’s gray component with black, the maximum dot coverage of that image is reduced, which controls ink flow when printing. It can also result in a significant reduction of ink on the press. Replacing too much gray component results in too little ink on the press and causes a desaturation of color. Maximum dot coverage is the highest *total* percentage of dot (combining all four separations) anywhere on the image. You should

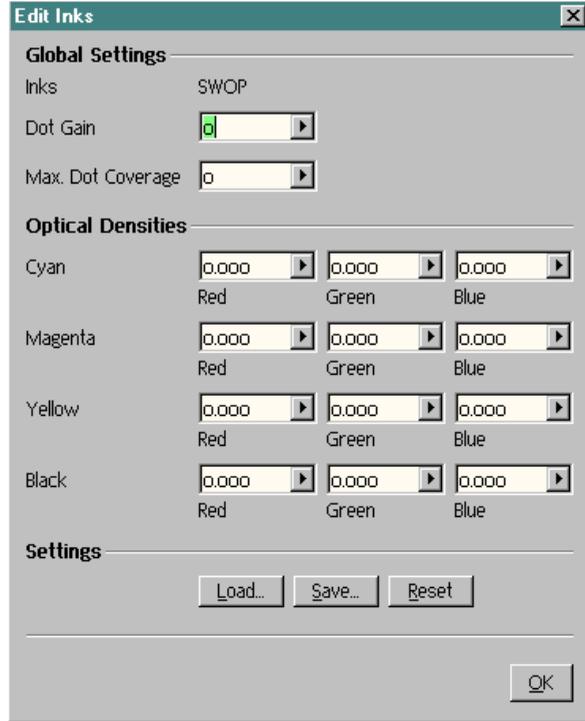
control the maximum dot coverage in order to meet most printing requirements, as described under “Dot coverage and dot gain” on page 10-6.

Editing the inks’ optical properties

An RGB image is converted to CMYK based on the inks’ optical properties. By default, separations are prepared based on SWOP inks. You can instruct the separation to use non-standard inks using the Edit Inks and Load Inks buttons.

To specify new ink values

- 1 Click **Edit Ink** in the CMYK Separation dialog. The dialog that appears is the same as the one that appears when you choose **View** → **Edit Inks**.



The Edit Inks dialog

- 2 Type new values for **Cyan**, **Magenta**, **Yellow** and **Black** inks.
- 3 To save the new ink values, click **Save**. Type a name for the new ink file, and click **OK**. Ink files are saved in a directory called
C:\Program files\Eclipse\util\custom.

To use a saved Inks file

Click **Load Ink** in the CMYK Separation.

Dot coverage and dot gain

You can cap the maximum dot coverage and compensate for dot gain using options in the Edit Inks dialog box. If you save an Edit Inks file, dot coverage and dot gain values are also saved. If the image will not be printed, there is no need to set dot coverage or dot gain values.

CMYK Separation automatically ensures that the total ink values do not exceed the maximum dot coverage value specified in the Edit Inks dialog box. The maximum dot coverage value is set to 360 by default. The value you need varies with the target output media.

To limit dot coverage

Set a value for **Max. Dot Coverage** in the Edit Inks dialog.

As for dot coverage, the compensation necessary for dot gain varies with the target output media. A typical dot gain value is 7. To compensate for dot gain, set Dot Gain to the percentage by which you want dot size reduced.

To compensate for dot gain

Set **Dot Gain** to the percentage by which you want dot size reduced.

The dot gain compensation value reduces the dot size of the midtone. Its effects are reduced along either side of the curve from the midtone.

Undercolor Removal and Additions (UCR/UCA)

Once the initial CMY values are derived, you can further adjust inks by setting Undercolor removal (UCR) or Undercolor addition (UCA). UCR is similar to GCR in that it changes cyan, magenta, and yellow levels, primarily to achieve color balance and match ink values to those in Proof Inks. Adjusting UCR also reduces ink coverage and neutralization. UCA is used for media that require higher ink coverage.

The process of UCR/UCA is controlled by the four parameters located under the Undercolor Removal and Additions section of the CMYK Separation.

- **Start** value sets a threshold for where the UCR/UCA process will start to take effect. For example, a Start value of 70 percent will not allow the UCR/UCA to affect any ink value below 70 percent.
- **Cyan Max.** specifies the offset value to be subtracted or added at the 100 percent cyan ink level. A negative value removes ink (UCR). A positive value adds ink (UCA). The amount of UCR/UCA is proportionally adjusted for the ink between the start and the 100 percent level.
- **Magenta Max.** and **Yellow Max.** are the maximum UCR/UCA offsets for magenta and yellow inks.

Hue Correction

To adjust ink values according to hue, click **Hue**. You will see a dialog similar to the dialog that appears when you choose **Correct** → **Selective Color Replacement**. (For information on the Selective Color Replacement correction, see *page 2-23*)



The Selective Color Replacement dialog

To correct a target hue

- 1 Select the hue to alter.

Click one of the ColorLink buttons along the top of the Selective Color Replacement Correction dialog to link to the Color Editor, then use it to choose a hue.

To pick a hue from the image, click **Pick** in the Color editor.

- 2 Specify how you want the hue altered.

Type the percentage of Cyan, Magenta or Yellow that you want to add or subtract in the text boxes below the color swatch.

3 Establish a target range, if desired.

To extend the range of hues that will change, type a value in the Range text box. A range of 10 means hues with values 5 percent above and 5 percent below the target hue will also change. The values entered in the Cyan, Magenta and Yellow boxes apply equally to all hues in the target range.

4 Create a gradual tonal drop off using Smooth.

A Smooth value of 20 means that there will be a gradual reduction in change to colors within 20 percent on either side of the target hue range.

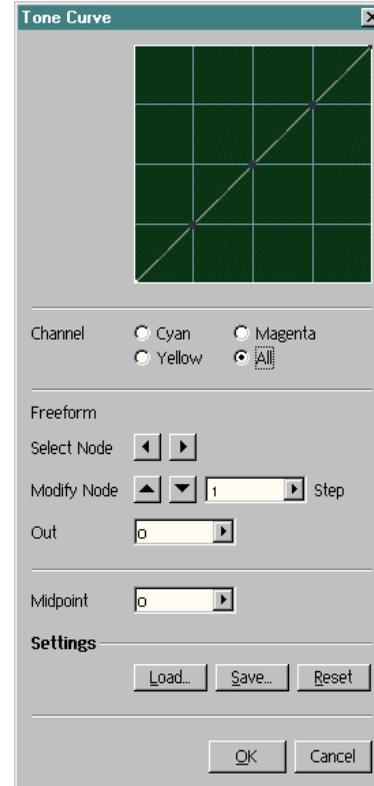
Tone Curve

You can further fine-tune Cyan, Magenta and Yellow inks by adjusting the tone curve. The benefit of color correcting at this point is that the correction is restricted by the dot coverage and compensated by the dot gain.

To adjust the Tone Curve

Click **Tone**.

A correction dialog appears similar to those accessed from the Correct menu.



The Tone Curve dialog

Highlight and Shadow offset

You may also scale the range of the output by the highlight and shadow values for each color ink. For example, if the lightest printable highlight has values that are too high (as measured with the separation probe), reduce them by lowering the value of

Cyan, Magenta or **Yellow** in the **Highlight** column of the CMYK Separation dialog.

Black generation

Besides adjusting GCR and UCR/UCA values, you can affect how black is generated in three ways: K Curve, K Boost, and K Shadow offset.

K Curve adjustment

You can fine-tune black by adjusting the K curve—just as you can fine-tune Cyan, Magenta and Yellow using the Tone curve.

To adjust the K curve

- 1 Click **Black**.
- 2 In the Black Generation dialog box that appears, select **K-Curve**.
- 3 Adjust the amount of black at each eighth tone either by dragging a knot on the graph or by using the arrow buttons.
- 4 Click **OK**.

K Boost

When black replaces the gray component of an image, it can enhance that image's contrast. You can use the CMYK Separation to increase the amount of black generated within a particular color. Use Black Boost to add or “boost” black ink for a specific hue.

Using Black Boost is similar to using the Selective Color Replacement correction (described on *page 10-7*).



The Black Boost dialog

For example, to print more black wherever red appears, put red in a color swatch and type the percentage of black you want added. Use Range and Smooth to encompass more hues and create a gradual tonal change.

K Shadow offset

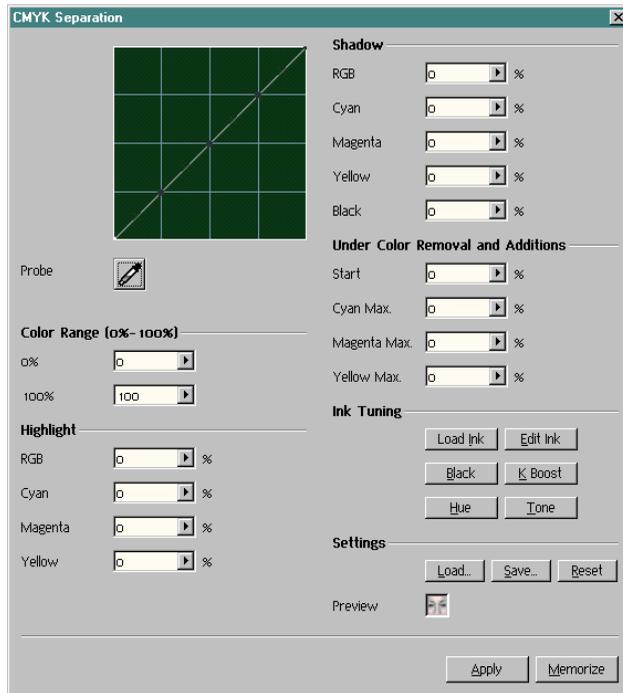
Scale the black ink output according to a shadow value you specify using the Black setting at the bottom of the Shadow column.

Making CMYK Separations

Once you have made any necessary adjustments, click **Convert**.

The actual separation process for the image takes place pixel by pixel. When it is finished, the RGB image becomes a CMYK image.

10.3. Other Separation Controls



The CMYK separation dialog

Color Range mapping

The percentage CMYK inks are mapped to physical pixel values between 0 and 255 for storage. By default, 0 percent maps to 0 and 100 percent maps to 255. You can specify a different mapping by modifying the Color Range output values in the CMYK Separation dialog.

For example, an image setter may view 0 percent as 28 and 100 percent might be considered 228. The out-of-range values are left for other purposes.

Separation Preview

To see an approximation of the CMYK conversion, turn on **Preview** in the CMYK Separation dialog. As you modify separation parameters, changes are visible in the image.

WARNING

Keep in mind that the preview is approximate, since all CMYK images are displayed in the monitor's RGB space. If your monitor is well calibrated, however, there should only be very slight differences between your screen image and the proofed output.

Separation Probe

To find out actual CMYK values that will result from a conversion, click the Probe button in the Separation dialog. Then click on the image to place the probe. As for the regular probe, each probe you place is numbered sequentially. You can move a probe by dragging it—there is no need to click the Move button in the Probe shelf.

Reusing Separation parameters

You can save customized separation parameters in a .sep file for use in other conversions. Using different separation settings is useful for creating separations for different types of output. A .sep file can also be used when rendering RGB images to CMYK in the Eclipse Standalone Renderer and Eclipse I/O, plus it can be called upon from the General Pref-

ferences dialog box. Saved separation parameters also can be used for foreign format conversion processes via Eclipse I/O.

To save separation parameters

Click **Save**.

The current settings are saved in a file with the same filename as the image plus the extension `.sep`; for example, `myimage.sep`. If you want to use a different filename, click **Save As**.

To open a saved separation file

Click **Load**.

Then use the Open File dialog that appears to locate the `.sep` file you want.

11. Appendix A: Managing/Translating Files

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11.1. Overview of File Operations

Although Eclipse works with images in its own native Tile file format, it supports over 12 different industry-standard image formats. For example, you can open a TIFF image in the main window, work on it as a Tile file and then save it to disk as an EPS file.

Eclipse includes a program called Eclipse I/O (ecio), which is installed when you install Eclipse. The Eclipse I/O program performs the file format conversions. When you open a foreign format file, you will notice that Eclipse displays a status box in the upper left corner of the screen as it converts the file. Depending on whether the image is RGB or CMYK, the status box displays a three or four-color horizontal band to mark the progress of the conversion.

You can use Eclipse I/O by itself to preview images on the screen and convert files to and from any supported format. When you run Eclipse I/O by itself, you type commands from the command line. For more information, see *page 11-7*.

TIP

For basic information on file management, see “Opening and Saving Images” on page 1-4 and “How Eclipse Handles Images” on page 1-9.

Opening files

- Open over 12 foreign-format images in the Eclipse main window by choosing

File → **Open** → **Image** as described under “Opening Images” on *page 11-3*.

- Open Adobe Illustrator files as ShapeLayers files by choosing **File** → **Open** → **ShapeLayer** as described under “Opening foreign vector data files as ShapeLayer files” on *page 11-3*.
- Fill ShapeLayers with foreign-format images by clicking the **Image** button in the **ShapeLayer Fill** shelf. For more information, “Working with ShapeLayers” on *page 5-1*.

Saving files

- Save an image file under the same format and name by choosing **File** → **Save**.
- Save an image in a different format or with a different name by choosing **File** → **Save As**.
- Crop an image and save it as a file by choosing **File** → **Crop As**, as described on *page 1-40*.

Translating files using Eclipse I/O

Run the Eclipse translator, Eclipse I/O, by itself as described on *page 11-7*.

11.2. Opening Images

When you choose **File** → **Open** → **Image**, the Open Image dialog box displays the names of all the files it recognizes as images, including foreign-format files. Eclipse recognizes the file formats shown in the following tables.

Image file formats Eclipse recognizes

Alias PIX	JPEG
Adobe Photoshop	Raw RGB
Adobe Illustrator	SGI RGB
DCS CMYK	Softimage RGB*
Eclipse RGB and CMYK	Targa RGB
EPS RGB and CMYK	TIFF RGB, CMYK
Iris Graphics CMYK (Jet Printer)	Wavefront RGB

REMARKS

* denotes file formats that Eclipse can read but not write.

For Adobe Photoshop EPS and DCS files, use Save As and Macintosh preview; binary or ASCII encoding.

An Illustrator file which includes fills has to be rasterized before it can be opened in Eclipse. An Illustrator file without fills can be opened in Eclipse as a ShapeLayer file.

Mask file formats Eclipse recognizes

Eclipse recognizes only its native Eclipse format masks.

REMARK

A mask must have the same resolution as the image it is masking.

Opening foreign vector data files as ShapeLayer files

ShapeLayer files are generic vector data files that are resolution-independent. Native Eclipse ShapeLayers have a .shp filename extension. You can also open Adobe Illustrator vector data as Eclipse ShapeLayer files.

Because the ShapeLayer overlay is resolution independent, vector data imported from another image or application may be a disproportionate size and hard to locate. Sometimes zooming down to 1:16 makes them visible but occasionally they are too big to find. If this is the case, turn on **Fit to Canvas When Open** as described in the procedure below.

REMARK

To import an Adobe Illustrator file as a ShapeLayer file, first delete its guides in Illustrator and save it in any Illustrator format.

To open a vector data file

- 1 Choose **File** → **Open** → **ShapeLayer**. An Open ShapeLayer file dialog appears.
- 2 Select the vector data file you want.
- 3 To scale ShapeLayers to fit the canvas and position them in them at (0,0) turn on **Fit to Canvas when Open**.
- 4 Click **OK**.

If you turned on **Fit to Canvas When Open**, the ShapeLayers open with their lower left corner positioned at the lower left corner of the canvas image (0,0) and scaled to fit as big as possible within the canvas.

11.3. Saving Images

Use the Save As command in the File menu to save the current image in a foreign format or with a different name. You can also use the Save As command to save the current mask or ShapeLayers overlay. To save the image, mask, and ShapeLayers overlay in files with the same name (but different extensions) choose **File** → **Save As** → **All**.

To save the current file with a different format or filename

- 1 Choose **File** → **Save As**. The Save As submenu appears.
- 2 Choose **Image**. A Save Image file dialog appears.
- 3 Choose a folder and filename.
- 4 Select one of the following file formats.

Eclipse CMYK	Eclipse native 4-color
Eclipse RGB	Eclipse native 3-color
EPS CMYK	Encapsulated Post-Script CMYK
EPS RGB	Encapsulated Post-Script RGB
Photoshop CMYK	Photoshop native CMYK
Photoshop RGB	Photoshop native RGB

DCS	Desktop Color Separation
Iris Graphics	Iris Graphics printer image
SGI Image	Silicon Graphics image
Targa	Targa 24-bit
Targa 16	Targa 16-bit
Compressed Targa	Targa 24-bit compressed
RGB Tiff	3-color TIFF
CMYK Tiff	4-color TIFF
JPEG	JPEG compressed
RGB Tiff (LZW)	3-color TIFF with LZW compression
CMYK Tiff (LZW)	4-color TIFF with LZW compression
Alias PIX	Alias format

- 5 Click **OK** to save the file.

REMARK

Because JPEG compresses images by removing nonessential data, there is a trade-off between image quality and image storage size: the more compression, the greater the likelihood of image degradation.

Mask formats Eclipse can save

When you choose **File** → **Save As** → **Mask**, you can save a mask file in Eclipse mask file format.

REMARK

*When you choose **File** → **Save As** → **ShapeLayer**, the current ShapeLayer overlay is save in Eclipse ShapeLayers file format. This format can be read only by Eclipse.*

11.4. Eclipse I/O (ecio)

Introduction

Eclipse I/O (ecio) is an image file conversion program that converts files to and from a wide variety of formats or sends files to output devices. You work with Eclipse I/O by typing commands from the command line.

To convert files from the command line, you type the program name **ecio**, the name of the file you want to convert, a list of any options you want to use and the destination for the converted file. For example, the command:

```
ecio mypicture.als -dev sgi_image -o newpicture.sgi
```

takes the file `mypicture.als` in its Alias file format (`.als`) and converts it to a file named `newpicture.sgi` in the SGI image format (`.sgi`).

The other two statements in this command, `-dev` and `-o`, are switches that you use to tell Eclipse I/O that you are giving it information it needs to perform the conversion properly. In this example, use the `-dev` switch to tell Eclipse I/O to convert the file to SGI image format and use the `-o` switch to tell it to name the output file `newpicture.sgi`.

Most switches include one value as a parameter. In the example above, the `-dev` switch uses the `sgi_image` parameter to tell Eclipse I/O what file format to use. Some switches do not use parameters

– they simply tell Eclipse I/O to perform some specific action.

To see a summary of the switches and parameters you can use

- 1 Go to the command line.
- 2 Type **cd C:\Program files\Eclipse\bin** and press Enter to change to the Eclipse install directory.
- 3 Type **ecio**, then press Enter. Be sure you type the command as shown, with all lower case letters.

Eclipse I/O displays a example of using the command and a list of all available switches and parameters.

File formats

-dev: Specifies the file name. You must specify both the `-dev [format_name]` and `-o [filename.ext]` switches when doing image conversions.

```
ecio mypicture.als -dev sgi_image -o newpicture.sgi
```

See the `-o` switch description in the following section.

Output control

-o: This switch specifies the output file name. You must tell Eclipse I/O where to put the output file and what to call it. If you do not include the path, Eclipse I/O places the file in the current directory. You *must* specify both `-dev [format_name]` and

`-o [filename.ext]` switches when you do an image conversion. For example:

```
-dev targa -o C:\files\project\vase.tga
```

This command puts the image in a targa file in the `C:\files\project` directory with `vase.tga` as the image name.

Positioning, sizing and cropping

-xo: Use this switch to crop an image. Specifies the left edge relative to the original image, for cropping or viewing. To view an image 500 pixels from the left edge, type:

```
ecio imagename.ext -xo 500
```

-yo: Use this switch to crop an image. Specifies the bottom edge relative to the original image.

-xc: Use this switch to crop an image. Specifies how many pixels horizontally should be copied to the new image.

-yc: Use this switch to crop an image. Specifies how many pixels vertically should be copied to the new image.

Color corrections

-gamma: Applies a gamma correction curve to the image before sending it to the output device or file. To apply a CRT correction gamma of .45, type:

```
-gamma .45
```

Gamma values range from 0.0 to 4.0. Values less than 1.0 darken the image, values greater than 1.0 lighten it (a value of 1.0 makes no change). Gamma correction operates by bending the curve up or down in the middle, leaving pure white and pure black unchanged. The mid-tones are affected the most.

-rfac, -gfac and -bfac: Applies a color gain correction to the image before sending it to the output device or file. There are three independent switches, one each for the red, green, and blue components of an image. For example, to boost the amplitude of the red component of an image, you could type:

```
-rfac 1.10
```

This multiplies the red value of all the pixels by 1.10. Note that this has the effect of increasing the contrast of the red component of the image. The dark values remain dark, and the brighter ones are boosted. To increase the contrast of the image uniformly in all components, specify all three channels. For example, type:

```
-rfac 1.1 -gfac 1.1 -bfac 1.1
```

-radr, -gadr and -badr: Applies a color additive correction to the image before sending it to the output device or file. These switches are similar to the previous two, but the amount specified is added to each pixel value. You can specify either a positive or negative value. A positive value brightens the red, green, or blue component of each pixel; a negative value darkens it.

Special purpose

-sep: This switch specifies a separation parameter file to be used for controlling the RGB to CMYK process when converting to a four-color file format or driving a four-color printer. The file must have been created by Eclipse CMYK Separator. The example below instructs Eclipse I/O to use the file `abc.sep` as a separation control file:

```
-sep abc.sep
```

File formats and devices

The Eclipse I/O program reads and writes images in the formats listed below. Be sure to use the correct filename extension, and type it as shown in the following table.

Eclipse reads and writes the following workstation product formats:

Image format	Filename extension
alias	.als
softimage	.pic (currently read only)
wavefront	.rla or .rlb
sgi_image	.sgi or .rgb
targa	.tga (read 16, 24, or 32 bit; write 24 bit)
targa16	.tga (to write 16 bit)
compressed_targa	.tga (to write 24 bit compressed)
raw_rgb	.usr (raw or user data, read only)
Tiff	.tif
tiffb	.tiffb
Tiled_cmyk	.tile (Eclipse format)
Tiled_rgb	.tile (Eclipse format)

Eclipse reads and writes the following Prepress and Graphic Arts formats:

Image format	Filename extension
iris_graphics	.irg (for their printer)
4-color Tiff	.tif (CMYK)
3-color Tiff	.tif (RGB)
1-bit Tiff	.tifb

Eclipse reads and writes the following PostScript formats

Image format	Filename extension
PostScript	.ps (Monochrome, write only)
ColorPostScript	.ps (Color PostScript, write only)

You can use Eclipse I/O to read and write image files of plain RGB data with no header information and no encoding or compression. This can be useful if you want to exchange images with other software systems, or for custom or experimental applications. For example, to write out the RGB pixel data to the file `cars.usr` type:

```
ecio cars.sgi -dev user_defined -o cars.usr
```

To read a `.usr` file, type:

```
ecio image.usr -dev sgi_image -o image.sgi
```

Eclipse I/O prompts for the image width and height in pixels and you also must specify the direction and interleaving. You are prompted to specify whether you want to write the image out Top-to-Bottom (T) or Bottom-to-Top (B).

Eclipse I/O then asks if you want Row Interleaving of the data (R) or Pixel Interleaving (P). Row interleaving means that for each row, all the red data is written, then all the green, then all the blue. Pixel interleaving means that for each row, the red, green, and blue data for each pixel is written consecutively. Write `row interleaving` as **RRR...RGGG...GBBB...B** and pixel interleaving as **RGBRGBRGB**.

You must also tell the system what block size to use and how many bytes of header information to skip over. If no header information is present, enter a header skip value of **0**. Enter **0** for block size in all cases, except for the Kodak LVT—in which case, enter **512**.

You must also specify either 3 or 4 bytes per pixel. In most cases, enter 3 bytes. For Quantel, enter 4.

Top to Bottom, Interleaving, and header information is device-specific. Please refer to the instructions for your particular device.

11.5. Eclipse Standalone Renderer (ecrender)

Use the Eclipse Standalone Renderer (**ecrender**) to render images, masks or ShapeLayer fills. The images you render do not have to be the ones you are working on in Eclipse—you can render one image while you are working on another. You can also use **ecrender** to set up a list of images and then render them all as a batch job. **ecrender** includes options for manipulating an image as you render it. You can change the resolution, size, and orientation, add width and height and flip it vertically or horizontally.

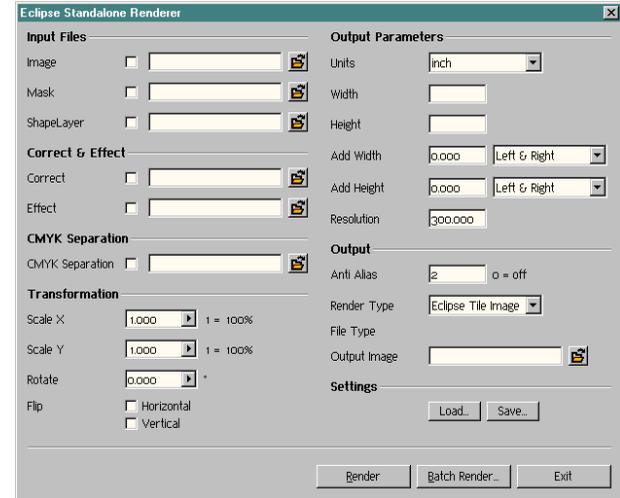
Starting **ecrender**

Start **ecrender** using any of these methods:

- Within Eclipse, choose **Window** → **Standalone Renderer**.
- From the command line change to the C:\Program files\Eclipse\bin directory, type **ecrender** and press Enter.
- From the Desktop, double-click the **ecrender** icon.

REMARK

If the Render dialog does not appear, it may already be open behind the Eclipse main window. Minimize Eclipse and try to find it.



The **ecrender** dialog

To choose the input files you want to render

- 1 Select **Image**, **Mask** and/or **ShapeLayers**.
- 2 In the Open File dialog that appears, select the file you want to render.

After you choose your input files, select the type of file you want to render to. Eclipse Render can render files as:

- **Images:** can contain ShapeLayers and masks
- **Masks**

11. Appendix A: Managing/Translating Files

To choose the type of file you want to render to

- 1 From the Output, Render Type dropdown menu choose **Tile Image**, **Tile Mask** or **Line Art**.
- 2 Click the Open File button. A file dialog appears.
- 3 If you want to render over an existing file, locate and select the file.
- 4 If you want to create a new file, type a name for it in the **Save Image** Name text box.
- 5 To render the file in a different format, click the pop-up menu at the bottom of the file dialog and choose the file format you want.
- 6 Click **OK** to choose the file as the render output file. Click **Cancel** to close the dialog box without selecting a file.

Eclipse Render displays the filename you selected (and its directory path) below **Render Type**.

Now that you have selected the input and output files for the render, you can select options.

Choosing render options

You can specify the following options for the render output file:

- a separation file for use when converting RGB to CMYK images
- one or more correction files

11.5. Eclipse Standalone Renderer (ecrender)

- anti-aliasing level
- image size, resolution, scaling, rotation and other factors.

Using a separation file

If you are rendering RGB images to CMYK, you can use a *separation file* you have created in CMYK Separator. If you do not choose a separation file, Eclipse Render uses default separation parameters.

1 Select **CMYK Separation**.

2 Click the Open File dialog and use it to select the separation file you want.

3 Click **OK**.

Using Corrections files

If you have saved corrections settings using the Save button in the correction tool shelves, you can apply them to a rendered file. See “*Correcting Color*” on page 2-1 for instructions on using and saving color correction files.

1 If you want to use a correction file for the render, select **Correction**.

2 Click the Open File dialog and use it to choose the corrections you want applied to the rendered file.

3 Click **OK**.

11. Appendix A: Managing/Translating Files

Setting the anti-aliasing level

To use anti-aliasing for the render, select the **Anti-alias** text box, type a value and then press Enter.

See *page 9-4* for information about anti-aliasing.

Specifying image size, resolution and other factors

Choose the remaining render options of the Render dialog. Start with the transformations:

- **Scale X:** the horizontal scaling of the input file.
- **Scale Y:** the vertical scaling of the input file.
- **Rotate:** use this box to rotate the input image or file. Type a percent value in the box (for example, type **90** for 90°).
- **Flip:** click **Vertical** or **Horizontal** to flip the image.

Next choose the output parameters. Since many of the options involve changing the size and orientation of the input image, first choose the unit of measurement you want to use.

- 1 Click the **Units** pop-up menu, then choose **Inch**, **cm**, **Mm**, **Point**, **Pica** or **Pixel**.
- 2 To change other option settings, click the appropriate buttons or type values in the appropriate text boxes. The available options are:

- **Width:** the width of the output file.

11.5. Eclipse Standalone Renderer (ecrender)

- **Height:** the height of the output file.
- **Add Width:** adds width to the border of the output file. If you are rendering an image, it adds space to one or more sides of the file, but it does not make the image larger. Choose **Left**, **Right** or **Both** from the dropdown menu to choose which sides you want add width to.
- **Add Height:** adds height to the border of the output file. If you are rendering an image, it adds space to one or more sides of the file, but it does not make the image larger. Choose **Top**, **Bottom**, or **Both** from the dropdown menu to choose which sides you want add height to.
- **Resolution:** the current number of pixels per unit of measurement.

Starting to render

After you have chosen the options you want, click **Render** to render the file.

ecrender displays a status box as it renders the image.

Saving and reusing render settings files

If you want to render a number of images the same way, you can save the settings in the Render dialog.

To save render settings files

- 1 Specify input and output files and set the Render options you want.

- 2 Click **Save** in the Render dialog. A Save Render file dialog appears.
- 3 Type or select a name for the render settings file, then click **OK**.

Eclipse saves all the information in the Eclipse Render dialog.

To use an existing render settings file

- 1 Click **Load** in the Render dialog.

An Open Render file dialog appears.

- 2 Select the render settings file you want and click **OK**.

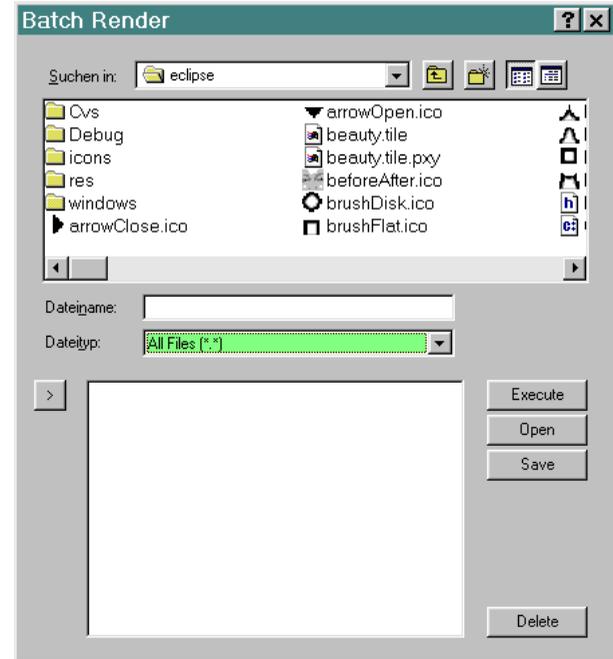
Eclipse fills in the Eclipse Render dialog with the information in the file. You can change any options you want. For example, you might want to change the names of the input and output files.

Setting up a batch list of Render files

If you save render settings files, you can set up a list of these files and have Eclipse Render render them all at once. For example, if you have a lot of images you want to render, you can select the output files and options for each image and then create a batch list of all these files. Then you can render them all while you work on other projects.

To set a batch list of render files

- 1 After you have created and saved all the render settings files, click **Batch Render** in the Render dialog. The Batch Render dialog appears.



The Batch Render dialog

- 2 Locate and select the name of a render settings file from the box at the top.
- 3 To add the selected file to the Batch List, click the arrow button.
- 4 To remove a filename from the Batch List, select the name, then click **Delete**.
- 5 When you have got the list of files ready, click **Execute** to render all the files in the batch list.

You will see a prompt box that informs you of ecrender's progress as it renders the files.

To save the Batch list

- 1 Click **Save**.
- 2 In the Save file dialog that appears, type or select a name for the batch list.
- 3 Click **OK**.

This creates a batch list file that you can reuse.

To open a Batch List you have saved

- 1 Click **Load**.
- 2 Use the Open file dialog that appears to select the batch list file you want.
- 3 Click **Okay**.

In the Batch List box you will see the names of the render settings files in the batch list you selected.

- 4 To render all the files in the batch list, click **Execute**.

A prompt box informs you of ecrender's progress as it renders the files.

12. Appendix B: Keyboard Shortcuts

12. Appendix B: Keyboard Shortcuts

Tool Shortcuts

V	Pointer Tool
H	Hand Tool
R	Rectangular ShapeLayer Tool
E	Ellipse Tool
Y	Polygon Tool
C	(Bi-Spline) Curve
Z	Bezier (Curve) Tool
T	Text Tool
J	Skew Tool
O	Rotate Tool
D	Distort Tool
B	Brush Tool
W	Warp Tool
Ctrl Shift D	Probe
AltGr M	Brush shelf
Ctrl E	Color editor
AltGr O	Pick color

View Shortcuts

Ctrl W	Window refresh
F5	Switch to Red/Cyan channel
F6	Switch to Green/Magenta channel
F7	Switch to Blue/Yellow channel
F8	Switch to Black channel
F9	Switch to Mask
F10	Step through color channels
AltGr P	Preview
Ctrl o	Zoom to Fit
Ctrl 1	Zoom to 100% (1:1 Pixels)
Ctrl +	Increase Zoom Level
Ctrl -	Decrease Zoom Level
Space	Pan on/off
Ctrl F	move a guide
Ctrl D	Add a guide
Ctrl Alt D	Delete a guide
Tab	Hide/Show Windows

12. Appendix B: Keyboard Shortcuts

Shift Tab	Hide/Show Windows except Toolbox
Ctrl B	Track changes
AltGr C	color of ShapeLayer border

Shapelayer Shortcuts

AltGr L	Align
AltGr Q	Show ShapeLayer Fill as image
AltGr W	Show ShapeLayer Fill as proxy
Ctrl H	hide ShapeLayers
F11	Toggle between Render modes
1,2,3...0	Shape Layer Transparency 10%, 20%...100%

Operations Shortcuts

Ctrl A	Select all
AltGr D	Back
AltGr F	Front
Ctrl G	Group
Ctrl Alt G	add to group
Ctrl Shift G	Ungroup
Ctrl C	Copy

Ctrl V/Ctrl Ins	Paste
Ctrl Shift V	paste cropped
Ctrl Z	Undo
Ctrl X	Redo

File/General Shortcuts

Ctrl N	new file
Ctrl S	save file
Ctrl F4	Close file
Ctrl Q/Alt F4	Quit
Ctrl Alt S	subsampling on/off
F1	Help

Mask Shortcuts

AltGr A	Auto Mask
AltGr H	Auto HSL Mask
Ctrl I	Invert

Brush Shortcuts

X	Effects brush
Q	Restore brush
F	Clone brush

12. Appendix B: Keyboard Shortcuts

A	Color brush
M	Render brush
N	Correct brush
+ / -	In/decrement brush size
Alt + Right Mouse button	Use for middle mouse button while brushing