



COREL™
Painter 8™

The ultimate digital sketching and painting tool™



USER MANUAL

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Corel® Painter™ 8 User Guide

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1 Welcome to Corel Painter 8

Corel® Painter™ 8 is the leading Natural-Media® painting application. Corel Painter lets you simulate a wide range of art tools, from felt pens, charcoal, and colored pencils to water color and oils.

What's New in Corel Painter 8?

Corel Painter lets you experiment with the widest range of Natural-Media tools. You can expand your digital drawing and painting techniques with a portfolio of new features.

Corel Painter features a redesigned user interface, including a new toolbox, Brush selector bar, property bar, Info palette, and new palette design and behavior.

Corel Painter also includes a Mixer palette that realistically mimics the traditional paint mixing experience.

Digital water color, a new Sketch effect, and more than 400 new brushes all expand your creative potential.

You can create custom brush variants using the new Brush Creator, which includes the Randomizer, Transposer, and Stroke Designer. Corel Painter also includes redesigned layer masks and channels that provide a smoother workflow and greater compatibility with Adobe® Photoshop®.

Redesigned User Interface

Corel Painter features a redesigned user interface, which is based on the following new elements.

Toolbox

The toolbox has been redesigned vertically and, by default, is docked to the top-left corner of the document window. The toolbox lets you access the tools in Corel Painter, as well as



the primary and secondary colors, and provides easy access to the Paper, Pattern, Gradient, Nozzle, Weave, and Brush Look libraries.

The toolbox can be undocked and moved anywhere inside the application window, or it can be turned off.

Property Bar

The property bar replaces the Controls palette. The property bar is context-sensitive depending on which tool is selected, providing commonly used controls for each tool.

The property bar is docked below the menu bar by default, but it can be undocked and moved to any location in the document window, or turned off.

Brush Selector

The Brush Selector lets you choose a brush category, using the Brush Category picker, and a brush variant, using the Brush Variant picker. The name of the selected brush category

and variant is displayed on the right side of the Brush Selector. You have the option to view the categories and variants by a thumbnail or list view.

The Brush Selector is docked, by default, to the top-right corner of the document window, beside the property bar. It can be undocked and moved to any location in the document window, or it can be turned off.

Palettes

The palettes have been redesigned for this version of Corel Painter, and they include the following new features:

- **Group/Ungroup** — You can group and ungroup palettes by dragging them together or apart to create any combination of palettes.
- **Resizable** — You can increase or decrease the size of list palettes, such as the Layers, Channels, and Scripts palettes.

Info Palette

The new Info palette provides access to the following information:

- Image size preview
- Document information, such as width and height
- X and Y coordinates and the cursor position
- Context-sensitive information based on the selected tool. For example, if the Eyedropper tool is selected, the HSV and RGB information is displayed.
- Unit information, such as pixels, inches, and resolution

Mixer Palette

The new Mixer palette lets you mix colors interactively. The Mixer palette contains a Brush tool and a Palette Knife tool for applying and mixing colors, mimicking the traditional experience of mixing two or more colors on a palette.

The Mixer palette also includes an Eyedropper tool for sampling specially mixed colors from imagery, as well as Zoom and Pan tools for easy navigation in the palette. You can choose to save your Mixer palette settings for future use, and you can create a custom color set from the colors in the Mixer palette.

Digital Water Color

Digital Water Color is a simple, transparent medium that is ideal for hand painting line drawings, touching up photographs, or creating simple water color washes.

Sketch Effect

The new Sketch effect in Corel Painter lets you convert images or photographs to simple pencil drawings, while providing controls for the amount of paper grain being applied, the heaviness of the pencil line, and the desired level of detail.

New Brush Variants

Corel Painter includes over 400 new Brush variants. New brushes are included in the following categories:

- Acrylics
- Airbrushes
- Artists
- Blenders
- Calligraphy Pens
- Chalks
- Charcoals
- Colored Pencils
- Conte
- Crayons
- Digital Water Color
- Distortion
- Erasers
- Felt Pens
- F-X
- Gouache
- Image Hose
- Liquid Ink
- Oil Pastels

- Oils
- Palette Knives
- Pastels
- Pattern Pens
- Pencils
- Pens
- Photo
- Sponges
- Sumi-e
- Tinting
- Water Colors

Brush Creator

Corel Painter features a Brush Creator, which is designed to make the brush variant creation process easy and fun. The Brush Creator includes three key features:

- **Randomizer** — The Randomizer lets you choose an existing brush variant and randomize its properties to create a new variant. You can set the amount of randomization to determine how much of the original brush's

properties remain—a low amount will result in variants that are very similar to the original, while a high amount will result in variants that are radically different. To help you visualize how the new brush variants will look, the Randomizer provides a brush stroke preview of each new variant.

- **Transposer** — The Transposer lets you change the properties of one brush variant using the properties of another. For example, you can choose the 2B Pencil and create brush variants that are mutated toward another variant, such as Charcoal. To help you visualize how the new brush variants will look, the Transposer provides a brush stroke preview of each new variant.
- **Stroke Designer** — The Stroke Designer lets you modify the properties of brush variants using advanced controls. The Stroke Designer has 16 different sets of controls: General, Size, Spacing, Angle, Bristle, Well, Rake,

Random, Mouse, Cloning, Impasto, Image Hose, Airbrush, Water, Digital Water, and Liquid Ink. To make the brush creation process more visual and interactive, the Stroke Designer includes a live preview that updates each time you make changes to the brush variant.

Industry-Standard Masks, Layer Masks, and Channels

Layer Masks: The redesigned layer masks let you hide and reveal areas of layers without making permanent changes to an image.

Channels: The Channels palette lets you use alpha channels to create and store masks to modify, separate, and preserve specific areas of an image.

And So Much More...

- Thumbnail previews for Layers, Layer Masks, and Channels
- Brush cursor preview that lets you see the size of the brush you're painting with

- Enhanced keyboard shortcuts to make it easier to transition between Corel Painter and other applications
- Enhanced file compatibility with Adobe Photoshop
- New paper textures, patterns, Image Hose nozzles, brush looks, gradients, and more!
- Extra content CD, including 100 pictures from <http://www.brandxpictures.com>, hundreds of brushes, paper textures, and more!

About Your User Guide

You can find answers to most of your questions in the Corel® Painter™ User Guide. It provides information you need to get the most out of Corel Painter.

The Corel Painter User Guide is for both the Mac OS® and Windows® platforms. As a convention, Mac OS commands precede Windows commands in the text.

When a modifier key differs between the Mac OS and Windows, the Mac OS modifier is listed first, followed by the Windows modifier. For example, **Command + I** (Mac OS) or **Ctrl + I** (Windows) means that Mac OS users would press **Command + I** and Windows users would press **Ctrl + I**.

Choosing a menu item from a menu follows the convention “Choose **menu name > menu item**.” For simplicity, the term “folder” refers to directories as well as folders. The Corel Painter interface for Mac OS and Windows platforms is identical, unless otherwise specified.

Registering Products

Registering products is important. Registration provides you with timely access to the latest product updates, valuable information about product releases, and access to free downloads, articles, tips and tricks, and special offers.

You can register a Corel product

- online—follow the instructions provided on the Corel Web site

- by mail—send the product registration card to the Corel Customer Service Center nearest you
- during installation—follow the instructions provided by the product setup

Before Calling Corel Technical Support

Before you call Corel Technical Support, please check out some of Corel's complimentary online support options. Please have the following information available to assist the Technical Support representative in helping you:

- a brief description of the problem, including the exact text of any error messages received and the steps required to re-create the problem
- the type of computer, monitor, pointing device (for example, mouse or stylus), printer, and video adapter (display adapter) you are using

- the type and version number of the operating system you are using
- the product information (version number, serial number from the product authenticity card, and PIN) of the Corel application you are using. To find the product information, choose **Help menu > About Corel Painter** in the application.
- a list of any applications loaded into RAM. Click the **Start** menu on the Windows taskbar, and click **Programs > Startup** to determine whether there are any other applications running.

Corel Customer Support Services

Corel Customer Support Services can provide you with prompt and accurate information about product features, specifications, pricing, availability, services, and technical support.

Online Support Services

For information about online support services, visit www.corel.com. Please note, some of the services at this address are available in English only.

Knowledge Base

The Corel® Knowledge Base lets you read, print, and download documents that contain answers to many technical questions.

Newsgroups

The newsgroups (peer-to-peer forums) let you exchange information, tips, and techniques with other users of Corel products.

Downloads

You can download product patches, updates, and trial versions.

Mail and Fax Support Services

You can send inquiries to Corel Support Services representatives by mail or fax.

Corel Corporation
Corel Customer Service
1600 Carling Avenue
Ottawa, Ontario, Canada
K1Z 8R7

Fax: 1-613-761-9176

Telephone Support Services

For detailed information about the levels of telephone support provided for Corel products, visit www.corel.com.

Live telephone support is available for all Corel products from warranty support (30 days) to fee-based Priority and Premium Service. OEM, “white box,” jewel case (CD only), trial, and Academic version of Corel products are eligible for fee-based support only.

North America

For pricing, purchasing, or general inquiries about Corel products, you can call customer service toll-free at 1-800-772-6735.

To speak directly to a technician, call 1-613-274-0500. The hours of operation are 8:30 a.m. to 7:30 p.m., Monday to Friday, Eastern Standard Time (EST).

Outside North America

For pricing, purchasing, or general inquiries about Corel products, you can call customer service toll-free at 1-800-267-35127. If the country you are calling from is listed below, please call the corresponding number.

Please note that these numbers may change as we adapt our services to fit user needs. Please check the international support numbers page at www.corel.com for the most up to date contact details.

Contact **Customer Service** for pricing, purchasing, general inquiries, or replacement CDs. Phone **Technical Support** if you need technical assistance operating your Corel software.

Country	Customer Service	Technical Support
Argentina	0800 777 3203	57 1 523 1240
Australia	1 800 658 850	61 2 8844 4101
Austria	0192 89600	0192 89600
Belgium (Dutch)	0240 06733	0240 06733
Belgium (French)	0240 06777	0240 06777
Brazil	0800 14 1212	55 11 5696 5797
Chile	54 0800 777 3203	57 1 523 1240
China	10 800 610 2323	10 800 610 2673
Colombia	01 800 091 9370	57 1 523 1240
Czech Republic	0224 239645	0224 239645
Denmark	352 58008	352 58008
Finland	922 906040	922 906040
France	0170 706090	0170 706090
Germany	06922 2220288	06922 2220288
Hong Kong	800 964 514	800 964 515
Hungary	204 117089	204 117089
Indonesia	1 803 61 539	1 803 61 544
Ireland	0124 77724	0124 77724
Israel	44 1628 581601	44 1628 581601
Italy	0236 003600	0236 003600
Japan	81 3554 53274	81 3531 93013
Luxembourg	44 1628 581603	44 1628 581603
Malaysia	1 800 807 895	1 800 807 899

Country	Customer Service	Technical Support
Mexico	1 800 1234 854	57 1 523 1240
Netherlands	0207 132700	0207 132700
New Zealand	0508 267 351	0800 908 592
Norway	229 71908	229 71908
Poland	071 3477279	071 3477279
Portugal	44 1628 581601	44 1628 581601
Singapore	800 6161 853	800 6161 854
South Africa	0860 223 388	0860 223 388
South Korea	82 2 3444 5166	82 2 3444 5166
Spain	0914 141500	0914 141500
Sweden	0856 610555	0856 610555
Switzerland	0158 03300	0158 03300
Switzerland	0158 03280	0158 03280
Taiwan	00801 61 1411	00801 61 1412
UK	0870 774 0202	0870 774 0202

2 The Workspace

The Corel Painter workspace has been designed to give you easy access to tools, effects, commands, and features.

The workspace is organized across a series of menus, selectors, and interactive palettes. Some features are also available in the frame of the document window.

Using the Menus and Document Window

Using the commands on the Corel Painter menu bar, you can:

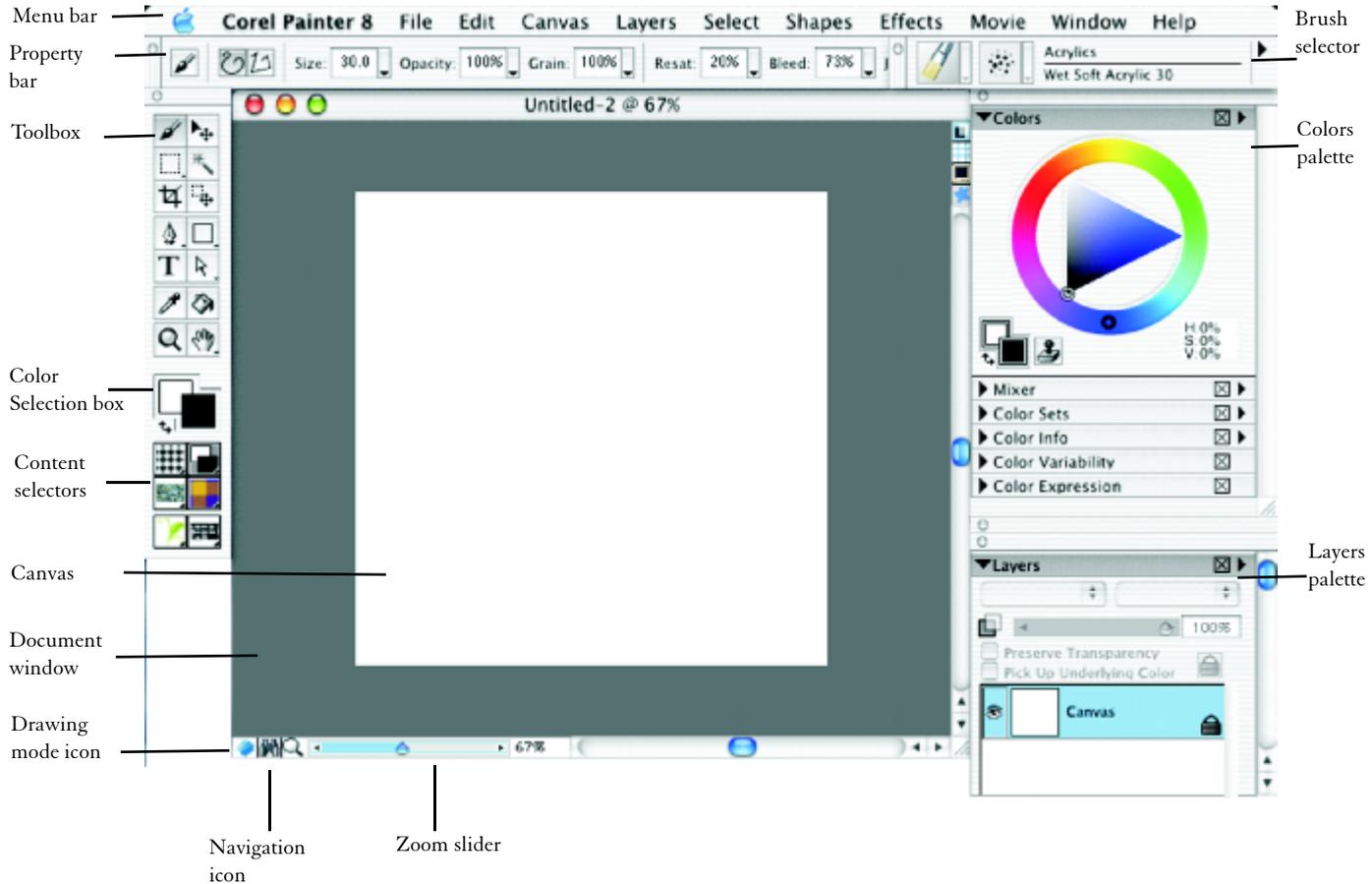
- work with files and editing commands
- adjust and apply effects
- perform selection operations, work with shapes, and create animations
- control the document window or the Corel Painter workspace

The document window lets you access the following features with the click of a button:

- tracing paper
- grid
- color correction
- impasto effect
- drawing mode
- navigation



Workspace Tour



Using the Toolbox

In the toolbox, there are tools to make marks, draw shapes, fill shapes with color, view and navigate, and make selections. There are also six selectors that let you choose papers, gradients, patterns, weaves, looks, and nozzles.



The toolbox.

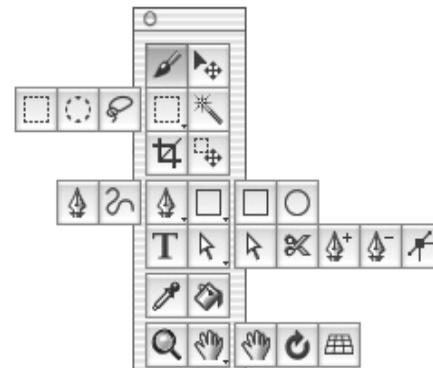
Some tools of similar function share a space in the toolbox. The button for only one of these tools is displayed at a time. Any tool that has a triangle in the bottom-right corner has one or more tools underneath it in a flyout menu.

The toolbox is open by default; however, it can be closed. You can move the toolbox around the document window, and you can dock the toolbox to the document window or to other palettes.

The current tool can be modified by options on the property bar, which change as you change tools. For more information, see “Using the Property Bar” on page 16.

To access tools grouped in flyout menus:

- 1 In the toolbox, hold down the tool icon whose flyout menu you want to open.
- 2 Choose the tool you want to use.



Some tools share a space in the toolbox. Hold down the tool button that's displayed to open the flyout menu.

To close the toolbox

- Do one of the following:
 - Click the Close button in the top corner of the toolbox.
 - Choose **Window menu > Hide Toolbox.**

To open the toolbox, choose **Window menu > Show Toolbox.**

To move the toolbox

- 1 Place the cursor over the title bar of the toolbox.

- 2 Drag the toolbox to a new location in the document window.

To dock the toolbox

- 1 Place the cursor over the title bar of the toolbox.
- 2 Drag the toolbox to the edge of the document window or a palette.
- 3 When the toolbox lines up with the edge of the document window or palette, release the mouse button.

The toolbox will snap into place.

Navigation and Utility Tools

The Magnifier Tool



You can use the Magnifier tool to magnify areas of an image when you are performing detailed work, or to reduce areas to get an overall view of an image. For more information, see “Zooming” on page 35.

The Grabber Tool



The Grabber tool gives you a quick way to scroll an image. For more information, see “Repositioning Documents” on page 37.

The Rotate Page Tool



The Rotate Page tool lets you rotate an image window to accommodate the way you draw naturally. Refer to “Rotating Documents” on page 37 for more information.

The Perspective Grid Adjuster Tool



The Perspective Grid Adjuster tool lets you select and move the location of the perspective grid lines, the vanishing point, the horizon line, the ground line, and the picture plane. See “Using the Perspective Grid” on page 43 for more information.

The Crop Tool



The Crop tool lets you remove unwanted edges from the image. For more information, see “Cropping Images” on page 38.

Tools that Apply Color

The Brush Tool



You use the Brush tool to make marks on the Canvas or a layer. The Brush tool represents a category of marking tools. Within the Brush category are pencils, pens, chalk, an airbrush, oil paints, water colors and more.

When the Brush tool is selected, you can choose specific brushes from the Brush selector bar. For more information about selecting brushes and tools, refer to “Selecting a Brush” on page 101.

You can set opacity, grain, and drawing style (freehand strokes or straight line strokes) on the property bar.

The Paint Bucket Tool



The Paint Bucket tool lets you fill an area. The property bar shows choices for what area to fill and what to fill it with. The Color Tolerance and Color Feather values let you control the extent of fill and opacity in neighboring areas. You can also choose to anti-alias a fill.

Double-click the Paint Bucket tool to specify what color in the image to lock out of your fill. For more information on the Paint Bucket tool, refer to “Filling Techniques” on page 116.

The Dropper Tool



The Dropper tool lets you pick up a color from an existing image. The property bar shows you values for the

color. When you select a color with the Dropper tool, that color becomes the current color on the Colors palette. For more information, see “Sampling Colors from Imagery” on page 78.

The Selection Tools

The Rectangular Selection Tool



You use the Rectangular Selection tool to create rectangular selections. Refer to “Using Selection Tools” on page 204 for more information.

The Oval Selection Tool



You use the Oval Selection tool to create oval selections. Refer to “Using Selection Tools” on page 204 for more information.

The Lasso Tool



The Lasso tool lets you draw a freehand selection. Refer to “Using Selection Tools” on page 204 for more information.

The Magic Wand Tool



The Magic Wand tool lets you click or drag in the image to select an area of similar color. Refer to “Using the Magic Wand” on page 205 for more information.

The Adjuster Tools

The Layer Adjuster Tool



The Layer Adjuster tool is used to select, move and manipulate layers. Refer to “Using Layers and Layer Masks” on page 227 for more information.

The Selection Adjuster Tool



The Selection Adjuster tool lets you select, move, and manipulate selections created with the Rectangular, Oval, and Lasso selection tools and those converted from Shapes.

The Shape Tools

Corel Painter creates all shapes by using Bézier curves. Every shape you create automatically becomes a separate layer in the document. Shapes are listed on the Layers palette.

The Shape Selection Tool



The Shape Selection tool is for editing Bézier curves (shape paths). You use the Shape Selection tool to select and move anchor points and to adjust their control handles. Refer to “Working with Shapes” on page 376 for more information.

The Text Tool



The Text tool creates text shapes. Use the Text palette to set the font, point size, and tracking. For more information, see “Working with Text” on page 383.

The Shape Design Tools

You use the Pen tool and the Quick Curve tool to draw shapes.

The Pen Tool



The Pen tool lets you create straight lines and curves in shape objects. For more information, see “Using Shapes” on page 363.

The Quick Curve Tool



The Quick Curve tool lets you create shape paths by drawing freehand curves. For more information, see “Using Shapes” on page 363.

The Shape Objects Tools

The Shapes Objects tools create rectangular or oval shapes. When you create a shape, the details are displayed on the property bar.

For more information, see “Creating Shapes” on page 366.

The Rectangular Shape Tool



You use the Rectangular Shape tool to create rectangular shape objects.

The Oval Shape Tool



You use the Oval Shape tool to create oval shape objects.

The Shape Edit Tools

The Shape Edit tools allow you to manipulate existing shapes. For more information, see “Editing Shapes” on page 371.

The Scissors Tool



You use the Scissors tool to cut an open or closed segment. If the segment is closed, once you click on a line or point to cut the shape path, the shape path becomes open.

The Add Point Tool



You use the Add Point tool to create a new anchor point on a shape path.

The Remove Point Tool



You use the Remove Point tool to remove an anchor point from a shape path.

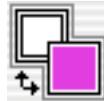
The Convert Point Tool



The Convert Point tool is used to convert between smooth and corner anchor points.

The Color Selection Box

The Color Selection box lets you choose primary and secondary colors. The front rectangle displays the primary color, and the back rectangle displays the secondary color. For more information, refer to “Understanding Primary and Secondary Colors” on page 77.



The Color Selection box.

To change the primary or secondary color

- 1 Double-click the primary or secondary color rectangle.
- 2 Choose a color from the Color dialog box.

Using Selectors

The selectors in the toolbox give you quick access to the libraries for the following Corel Painter elements: papers, gradients, patterns, weaves, looks, and nozzles.

You can display items in selectors as thumbnails or in a list. You can also access commands from each selector menu. If the command you want is not available, you can display the entire palette that corresponds to the selector.

To open a selector:

- 1 Click the flyout menu arrow on the bottom-right corner of the selector you want to open.
- 2 Choose an item from the list.

To display items as thumbnails or in a list:

- 1 Click the flyout menu arrow on the bottom-right corner of the selector you want to open.
- 2 Click the selector menu arrow, and choose List or Thumbnails.

To access selector menu commands:

- 1 Click the flyout menu arrow on the bottom-right corner of the selector you want to open.
- 2 Click the selector menu arrow, and choose a command.

To display a selector's palette

- 1 Click the flyout menu arrow on the bottom-right corner of the selector you want to open.
- 2 Click the selector menu arrow, and choose Launch Palette.

Note

- This command is not available from the *Look* and *Nozzle* selectors.

Using the Property Bar

The property bar in Corel Painter is context-sensitive — it changes according to the tool you are using.

You can access settings and options for each tool, and you can change them according to your preferences using the boxes or pop-up sliders. Tool settings are retained when you switch

from one tool to another. You can also use the property bar to restore the default settings of the selected tool.

The property bar is docked horizontally to the menu bar by default. You can move the property bar anywhere in the document window, dock it under the menu bar again, or close it.



The property bar for the Rectangular Selection tool.

To access tool settings on the property bar:

- Choose a tool from the toolbox.
Tool settings are displayed on the property bar.

To change tool settings on the property bar:

- 1 Choose a tool from the toolbox.
- 2 Do any of the following:
 - Type a value in the box next to the control, or click the arrow next to the control and adjust the pop-up slider.

- Enable or disable the check box next to the option you want to use.

Note

- *Not all of these options are available for every tool. The settings change depending on the tool selected.*

To reset the default tool settings:

- Click the Reset Tool button on the property bar.

Note

- *The Reset Tool button on the property bar has the same icon as the selected tool in the toolbox.*

To move the property bar:

- Point to the bar on the right side of the property bar, and drag it to its new location.

To dock the property bar:

- Point to the title bar of the property bar, and drag it under the menu bar.

The property bar snaps into place.

To close the property bar:

- Do one of the following:
 - Choose **Window menu > Hide Property Bar**.
 - If the property bar is undocked, click the close button on the title bar.

Tip

- *To show the property bar, choose Window menu > Show Property Bar.*

Using the Brush Selector Bar

The Brush selector bar lets you choose from a variety of brush categories and variants. Brush categories are groups of similar brushes and media. Brush variants are specific brushes and brush settings within a brush category.

The name of the selected brush category appears at the top of the Brush selector bar. The name of the selected brush variant appears under the brush category name.



The Brush selector bar.

To display the Brush selector bar:

- Choose **Window menu > Show Brush Selector Bar**.

To choose a brush from the Brush selector bar:

- 1 On the Brush selector bar, click the Brush Category arrow and choose a brush category.
- 2 Click the Brush Variant arrow, and choose a variant.

Previewing Brushes

The Brush Category selector shows you a preview of the currently selected brush category and lets you choose a new brush category. The Brush Variant selector does the same for brush variants.

You can preview brush categories and variants as thumbnails or in list format. Brush variants can also be previewed as brush strokes. The

Stroke view shows you both the dab type and brush stroke of the selected brush variant.

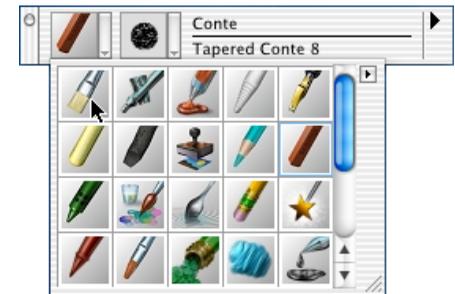
To display brush categories and variants as thumbnails or lists:

- 1 On the Brush selector bar, click the Brush Category or Brush Variant arrow.
- 2 Click the selector menu arrow, and choose List or Thumbnails.

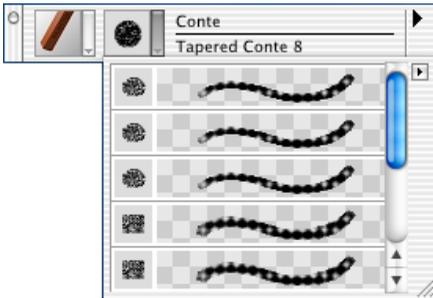
If you're displaying brush variants, you can also choose the Stroke view.

Note

- *The Stroke view is available only on the Brush Variant selector menu.*



Items in the Brush selector bar can be displayed as thumbnails.



The Stroke view is available for brush variants.

Brush Selector Bar Menu Commands

The Brush selector bar menu commands are used for creating and loading brushes, working with brush variants, and manipulating brush strokes. For more information, see “Managing Brushes” on page 181.

Moving and Docking the Brush Selector Bar

The Brush selector bar is displayed at the top-right of the property bar by default. It can be moved to a new location in the document window, or it can be docked to the edge of the document window or other palettes.

To move the Brush selector bar

- Point to the title bar of the Brush selector bar, and drag it to its new location.

To dock the Brush selector bar

- 1 Point to the title bar of the Brush selector bar, and drag it to the edge of the document window or a palette.
- 2 When the Brush selector bar is lined up with the edge of the document window or palette, release the mouse button.

The Brush selector bar snaps into place.

Closing the Brush Selector Bar

You can close the Brush selector bar to hide it from view.

To close the Brush selector bar

- Do one of the following:
 - Choose **Window menu > Hide Brush Selector Bar.**

- If the Brush selector bar is undocked, click the close button on the title bar.

The Brush Creator

The Brush Creator is designed to make the brush variant creation process easy and fun. You can use the Randomizer to create random brush variants, the Transposer to blend two brush variants, and the Stroke Designer to adjust the settings of brush variants. For more information, see “The Brush Creator” on page 141.

To open the Brush Creator

- Do one of the following:
 - Choose **Window menu > Brush Creator.**
 - Press **Command + B** (Mac OS) or **Ctrl + B** (Windows).

Working with Palettes

The interactive palettes in Corel Painter let you access the commands, controls, and settings available when creating documents.

Showing and Hiding Palettes

You can show or hide a palette by choosing its name from the Window menu, from a selector, or by using the key combination shown on the Window menu.

To show or hide a palette:

- Do one of the following:
 - Choose **Window menu**, and choose the palette you want to show or hide.
 - Choose a selector from the toolbox, click the selector menu arrow, and choose Launch Palette.
 - Use the keyboard shortcut for the palette you want to show or hide:

Press **Command** (Mac OS) or **Ctrl** (Windows) +

- 1 = Colors
- 2 = Mixer
- 3 = Color Sets
- 4 = Layers
- 5 = Channels
- 6 = Text
- 7 = Info

- 8 = Gradients
- 9 = Patterns

Tip

- *You can also hide a palette by clicking the close box on the palette title bar.*

To show or hide all palettes:

- Choose **Window menu > Show/Hide Palettes**.

Exploring the Palettes

As you work with Corel Painter, you'll use the following groups of palettes.

The Color Palettes

- The **Colors** palette lets you choose primary and secondary colors for painting in Corel Painter documents. You can also use the Clone Color option on the Colors palette. For more information, see “Working with Color” on page 75.
- The **Mixer** palette lets you mix and blend colors as you would on an artist's palette. It contains its own set of tools. For more information,

see “The Mixer Palette” on page 80.

- The **Color Sets** palette displays the colors in the current color set. You use color sets to organize groups of colors. Some color sets are organized by both name and color relationship. For more information, refer to “Using Color Sets” on page 83.
- The **Color Info** palette contains color information for the selected color, in HSV or RGB values. You can also use the Clone Color option with this palette. For more information, see “Color Information” on page 87.
- The **Color Variability** palette contains sliders to adjust color variability values. For more information, see “Color Variability” on page 87.
- The **Color Expression** palette lets you determine how colors are expressed in Corel Painter documents. For more information, refer to “Color Expression” on page 89.

The Papers, Gradients, Patterns, and Weaves Palettes

- The **Papers** palette lets you choose and edit paper textures for your document. You can preview paper textures as thumbnails or in a list, and see a thumbnail preview of the selected paper. For more information, see “Using Paper Texture” on page 59 and “Choosing Paper Textures” on page 61.
- The **Gradients** palette lets you choose and edit gradients that can be applied to Corel Painter documents. You can preview gradients as thumbnails or in a list, and see a thumbnail preview of the selected gradient. For more information, see “Using Gradients” on page 91.
- The **Patterns** palette lets you choose and edit patterns. You can preview patterns as thumbnails or in a list, and see a thumbnail preview of the selected pattern. For

more information, refer to “Using Patterns” on page 64.

- The **Weaves** palette lets you choose and edit weaves. You can preview weaves as thumbnails or in a list, and see a thumbnail preview of the selected weave. For more information, see “Using Weaves” on page 70.

The Layers and Channels Palettes

- The **Layers** palette contains thumbnail previews of all the layers in a Corel Painter document. You can use the buttons on the Layers palette to arrange layers, use plug-ins, add new layers (including Water Color and Liquid Ink layers), create layer masks, and delete layers. You can also set the composite method and depth, adjust the opacity, and lock and unlock layers. For more information, see “Using Layers and Layer Masks” on page 227.
- The **Channels** palette contains thumbnail previews of all the

channels in a Corel Painter document, including RGB composite channels, layer masks, and Alpha channels. The buttons on the palette can be used to load, save, and invert existing channels, and to create new channels. For more information, see “Using Alpha Channels” on page 217.

The Text and Scripts Palettes

- The **Text** palette lets you perform all tasks relating to text in a Corel Painter document, such as choosing fonts, adjusting opacity, and applying drop shadows. For more information, refer to “Working with Text” on page 383.
- The **Scripts** palette gives you access to all commands and settings relating to scripts. For example, you can open, close, play, and record scripts from the Scripts palette. For more information, see “Scripting” on page 413.

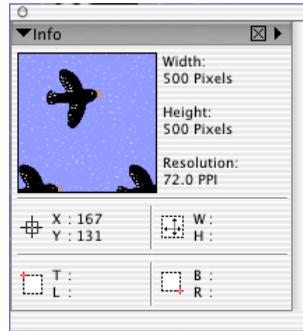
The Image Portfolio and Selection Portfolio Palettes

- The **Image Portfolio** contains all of the images in the current image library. You can view the images as thumbnails or in a list, as well as a thumbnail preview of the current image. For more information, see “Using the Image Portfolio” on page 252.
- The **Selection Portfolio** contains all of the selections in the current selection library. You can view the images as thumbnails or in a list, as well as a thumbnail preview of the current selection. For more information, see “Using the Selection Portfolio” on page 215.

The Info Palette

The new Info palette provides you with an image preview; document information, such as width and height; X and Y coordinates and the cursor position; context-sensitive information based on the selected tool; and unit information, such as pixels, inches, and resolution.

You can choose to view a canvas preview, which shows you the contents of the canvas, or a page layout preview, which shows you the entire document. You can also choose how RGB values will display on the Info palette — as actual values, a percentage of the values, or as hexadecimal values.



The Info palette.

To choose an image preview style on the Info palette:

- On the Info palette, click the palette menu arrow, and choose Canvas Preview or Page Layout Preview.

To choose how RGB values will display on the Info palette:

- 1 On the Info palette, click the palette menu arrow, and choose Display RGB Values As.
- 2 Choose an option from the list.

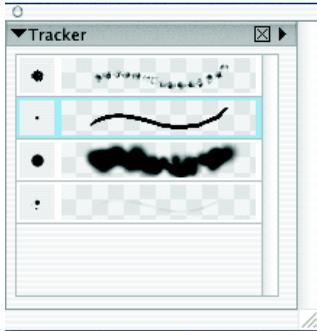
The Tracker Palette

The Tracker palette temporarily stores brush categories, variants, and dab types when you apply brush strokes to the canvas. Each time you use a new brush, the variant is saved in the Tracker palette. You can return to a brush variant you like by choosing it from the Tracker palette.

You can view the brush variants stored in the Tracker palette as thumbnail images, in a list, or as strokes. The Tracker palette can be resized to display more or fewer brush variants; however, it will only store up to 25 variants at a time.

You can clear selected brush variants, clear all brush variants, and save brush variants using the Tracker

palette. Brush variants are stored even after the document you were working on has been closed.



The Tracker palette.

To choose a brush variant from the Tracker palette:

- Click the brush variant you want to use.

To view brush variants in the Tracker palette:

- On the Tracker palette, click the palette menu arrow, and choose List, Thumbnails, or Stroke.

To resize the Tracker palette:

- Point to the resize handle in the bottom-right corner of the palette, and drag to make the palette larger or smaller.

The number of variants displayed varies according to the size of the palette.

To clear a selected brush variant from the Tracker palette:

- 1 On the Tracker palette, click the brush variant you want to remove.
- 2 Click the palette menu arrow, and choose Clear Selected.

To clear all brush variants from the Tracker palette:

- On the Tracker palette, click the palette menu arrow, and choose Clear All.

To save a brush variant on the Tracker palette:

- 1 On the Tracker palette, click the brush variant you want to save.
- 2 Click the palette menu arrow, and choose Save Variant.

- 3 In the Save Variant dialog box, type a name in the Save As box.
Enable the Save Current Colors check box to retain current color settings.

Navigating Palettes

When a palette is displayed, it must be expanded for you to access its settings. You can collapse palettes to save screen real estate, while keeping them displayed in the application.

If you have many palettes displayed and expanded, the view of other palettes can be obscured. You can scroll through palettes to locate the elements you want to work with.

To expand or collapse a palette:

- Click the palette arrow in the top corner of the palette.

When the triangle points down, the palette is expanded. When it points to the right, the palette is collapsed.

To scroll through a palette:

- Do one of the following:

- Use the scrollbar on the right side of the palette to scroll through the palette.
- Press **Option** + click (Mac OS) or **Alt** + click (Windows), and drag vertically inside the palette. The cursor changes to a hand and the palette scrolls as you drag.

Using Palette Menus

Most palettes in Corel Painter contain menus from which you can access a series of palette-specific commands. For example, you can use the palette menu on the Papers palette to capture, make, and invert paper textures, and to open the Paper Mover and library.

To access the commands on a palette menu:

- Click the palette menu arrow.

Setting Palette Layout

You can set up the palette layout in Corel Painter to best suit your working style. Palettes can be arranged in the document window to

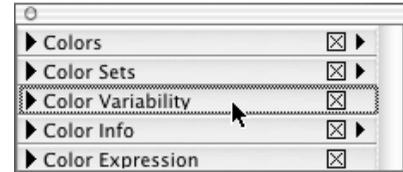
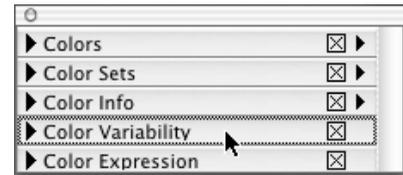
give you easy access to the tools and controls you use most often, and to maximize screen real estate.

You can also group and reposition palettes according to your preferences, and you can dock them to the edges of the document window or other palettes.

Arranging Palettes

You can drag a palette to any location that's convenient for your work. Corel Painter saves palette arrangements so that the next time you start the program, the workspace appears as you left it.

You can save several different palette layouts for future use, and you can later delete layouts. You can also return the palette layout to the Corel Painter default.



Arrange palettes to create a layout that is convenient for you.

To save a layout:

- 1 Arrange your palettes the way you want them saved.
- 2 Choose **Window menu > Arrange Palettes > Save Layout**.
- 3 In the Palette Layout dialog box, type a name in the New Palette Layout box.

To use a saved layout:

- Choose **Window menu > Arrange Palettes > Name of Layout**.

Corel Painter restores the saved palette layout.

To delete a saved layout:

- 1 Choose **Window menu > Arrange Palettes > Delete Layout.**

Corel Painter opens a dialog box listing all saved layouts.

- 2 From the list, select the layout you want to delete.
- 3 Click Delete.

To return to the default palette layout

- Choose **Window menu > Arrange Palettes > Default.**

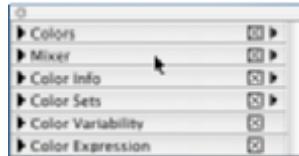
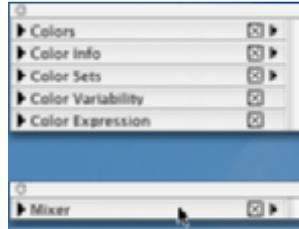
To resize palettes

- Drag the resize handle in the bottom-right corner of the open palette.

Grouping and Repositioning Palettes

In Corel Painter, palettes appear by default in small, intuitive groupings. You can customize these groupings by moving palettes from one group to another. You can include as many or as

few palettes as you want in a group. You can also reposition items to a new location within a group.



Customized palette groupings. In this example, the Mixer palette has been grouped with the other color palettes.

To group palettes

- 1 Place the cursor over the palette bar.
The cursor displays as a hand.
- 2 Drag the palette bar, and place it on top of the palette with which you want to create a group.
- 3 Release the mouse button.

A new group of palettes is formed.

- 4 Repeat steps 1 to 3 for each palette you want to add to the group.

To ungroup palettes

- 1 Place the cursor over the palette bar.
The cursor displays as a hand.
- 2 Drag the palette bar away from the group.
- 3 Release the mouse button.
The palette is removed from the group.
- 4 Repeat steps 1 to 3 for each palette you want to ungroup.

To reposition items in grouped palettes:

- 1 Place the cursor over the palette bar.
The cursor displays as a hand.
- 2 Drag the palette to a new location in the group.
- 3 Release the mouse button.

Docking Palettes

If you need some room on your screen, but don't want to collapse or group palettes, you can save valuable screen real estate by docking palettes.

This handy feature of Corel Painter lets them be docked into place when they get close to the top or bottom edge of another palette. In addition to tidying up your workspace, this feature can help keep a palette from being covered up by another palette.

To dock palettes:

- 1 Place the cursor over the title bar of the palette you want to dock.
- 2 Drag the palette to the top or bottom of a second palette.
- 3 When the first palette lines up with the second palette, release the mouse button.
The palette will snap into place.
- 4 Repeat steps 1 to 3 for each set of palettes you want to dock.

To undock palettes:

- 1 Place the cursor over the title bar of the palette you want to undock.

- 2 Drag the palette to another location in the workspace.
- 3 Repeat steps 1 and 2 for each palette you want to undock.

Libraries and Movers

What are Libraries?

A library is a saved collection of similar items that can be loaded into a selector. For example, the built-in brushes (and their variants) are contained in the default brushes library, which is loaded when you open Corel Painter. You can find more brush libraries in the Corel Painter folder. As you customize brushes and other resources, you can save them into your own libraries.

Libraries are available for paper textures, patterns, gradients, weaves, brushes, looks, nozzles, layers, selections, lighting, and scripts. You can have any number of libraries, but only one of each type can be open at a time.

When you want other items, you can load alternate libraries. Libraries allow you to extend the Corel Painter tools and resources, without overloading a selector.

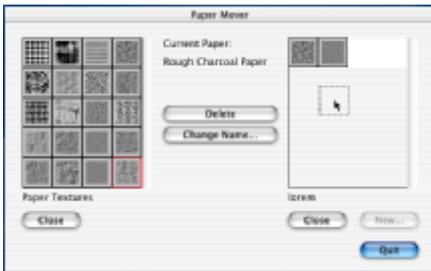
The methods for working with all libraries are the same, except for brushes. You can create new libraries, add items, or move items between libraries.

The methods for working with the libraries for Brushes, their categories, and variants are different. Brushes are loaded into memory when you open Corel Painter, so adding brushes to the default brush library increases the need for RAM. If you're working close to the memory threshold, you'll want to organize new brushes into secondary libraries. When you want a different brush set, just switch libraries. This helps Corel Painter be more efficient with memory usage. See "Using Brush Libraries" on page 28 for more information.

It is a good idea to limit the number of resources in each library. This makes it easier to find a particular tool and helps Corel Painter manage memory.

What are Movers?

The tools for creating libraries and managing their contents are contained in the Movers. A Mover is provided on the selector menu and/or the palette menu for each resource supported by libraries. Selectors and/or palettes with Movers are: Papers, Gradients, Patterns, Weaves, Nozzles, Looks, Scripts, Image Portfolio, and Selection Portfolio.



Use the Paper Mover command to customize your paper libraries. Each resource type has a mover. Most movers are located on a palette menu or selector.

Adding Resources to the Current Library

As you work with Corel Painter and create new resources, you can save them to the current library.

To add resources to the current library:

- 1 Click the selector menu arrow or palette menu arrow for the resource you want to add to the library.
- 2 Choose Save [Resource Name].
- 3 In the Save dialog box, type a name in the Save As box.

Note

- Over time, with additions and deletions, library file sizes are compounded. For best results, save new items into new libraries.

Loading Alternate Libraries

When you want to use the items of a different library, you must load the alternate library.

To load an alternate library:

- 1 Open the selector or display the palette from which you want to load an alternate library.
- 2 Click the selector menu arrow or the palette menu arrow, and choose Load Library.
- 3 In the Load Library dialog box, locate and choose the library you want to open.

Corel Painter loads the resources from that library into the selector and palette.

Tip

- When you save an item, Corel Painter puts it in the current library. If this is not where you want it, be sure to switch libraries before saving the resource. You can move items between libraries, but switching libraries before saving the resource will spare you that extra step.

Creating a Library

To create a new library:

- 1 Click the selector menu arrow or palette menu arrow for the

resource you want to use to create the new library.

- 2 Choose [Resource Name] Mover.
- 3 In the Mover dialog box, click New.
- 4 In the New Library dialog box, browse to the location where you want to save the new library.
- 5 Type a descriptive name in the File Name box, and click Save.

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

Tip

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

Customizing Libraries

The tools for creating libraries and managing their contents are contained in the Movers. A Mover is provided on the selector menu and/or palette menu for each resource supported by libraries.

Brush libraries are created and managed differently. See “Using Brush Libraries” on page 28 for procedures.

Moving Items Between Libraries

Movers copy resources from the library on one side of the Mover window to the library on the other side of the Mover window.

When you open a Mover, the resources of the current library are listed on the left. This is the library you'll move items “from.” If this is not what you want, you can open a different library as the source.

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

To open a new library as the source:

- 1 Click the selector menu arrow or palette menu arrow for the resource you want to use.
- 2 Choose [Resource Name] Mover.

- 3 In the Mover dialog box, click Close to close the current library.
- 4 Click Open.
- 5 In the Open Library File dialog box, choose a library to use as the source library.

To open a new destination library:

- 1 Click the selector menu arrow or palette menu arrow for the resource you want to use.
- 2 Choose [Resource Name] Mover.
- 3 In the Mover dialog box, click Open.
- 4 In the Open Library File dialog box, choose a library file to use as the destination library.

To move an item from one library to another:

- In the Mover dialog box, drag the item from the source library to the destination library.

Modifying a Library

You can modify a library by renaming items, deleting items, and deleting entire libraries.

Renaming Items

You can rename items in libraries to suit your preference.

To change the name of an item:

- 1 Open the Mover for the item you want to modify.
- 2 Do one of the following:
 - Double-click the icon of the item.
 - Choose the item and click Change Name.
- 3 In the Change Name dialog box, type the new name in the Change To box.

Deleting Items from Libraries

If you want to delete a resource from a library, you can—but be careful. Once you remove one of the default brushes (even if it's by mistake), the only way to retrieve it is to reinstall Corel

Painter. If you must reinstall Corel Painter, you'll lose any of the custom resources you've created and saved into the default libraries.

To delete an item from a library:

- 1 Open the Mover for the item you want to delete.
- 2 Choose the item you want delete.
- 3 Click the Delete button in the Mover dialog box.

To avoid deleting items from libraries when reinstalling:

- Move saved items to a location other than the default libraries.

Deleting a Library

To delete an entire library, delete the file from the Corel Painter directory.

Be careful not to delete the Corel Painter default libraries. Corel Painter needs them to start properly.

To delete a library on the Mac OS:

- 1 Use the Finder™ to open the folder.

- 2 Drag the library file to the Trash.

To delete a library on Windows:

- 1 Use the Windows Explorer to open the folder.
- 2 Select the file.
- 3 Press **Delete**, or drag the file to the Recycle Bin.

Using Brush Libraries

In Corel Painter, users work with brush libraries in the Brushes folder. The Brushes folder is the default library that loads when you open Corel Painter.

Each folder within the Brushes folder is a brush category. Each folder has a JPEG graphic, which is the icon seen on the Brush selector bar.

In each category folder are XML files, which are the brush variants available for that brush category.

Creating and Importing Brush Libraries

You may want to create a library of your favorite brush variants to have them all in one category. You can also import brush libraries to use on the Brush selector bar.

To create a brush library

- 1 In the Brushes folder, create and name a new folder.
- 2 In the new folder, create and name a new Brush Category folder.
- 3 In the new Brush Category folder, copy XML files from other existing folders.
- 4 In Corel Painter, click the selector menu arrow on the Brush selector bar, and choose Load Library.
- 5 In the Brush Libraries dialog box, choose the new Brush Category folder you created, and click Import.

Notes:

- *This procedure works only for brushes created in version 7 and later of Corel Painter.*

- *If you want an icon to appear on the Brush selector bar, you must create a JPEG and save it with the same name as the library. Save it at the same level as the library folder.*

To import a brush library:

- 1 On the Brush selector bar, click the selector menu arrow and choose Import Brush Library.
- 2 In the Select Brush Library dialog box, choose a library and click Open.
The Brush library is imported to the Brush selector bar.

Note

- *Brushes libraries created in version 6 or earlier of Corel Painter are imported as .BRS files.*

Deleting a Brush Library

To delete a Brush library, delete the folder from the Corel Painter Brushes directory.

Be careful not to delete the Corel Painter default libraries. Corel Painter needs them to start properly.

To delete a library on Mac OS:

- 1 Use the Finder to find the folder.
- 2 Drag the library folder to the Trash.

To delete a library on Windows:

- 1 Use the Windows Explorer to find the folder.
- 2 Select the folder.
- 3 Press **Delete**, or drag the folder to the Recycle Bin.

3 Basics



The Corel Painter application provides a digital workspace in which you can create new imagery or alter existing imagery using the Corel Painter Natural-Media tools and effects. Your working image is known as a *document* and is displayed in a document window—this document window includes navigation and productivity features to help you work efficiently.

As you create an image, you can save your document in a number of different file formats: RIFF (Corel Painter native format), JPEG, TIFF, and Photoshop (PSD), to name a few. Corel Painter also lets you open/import images in many file formats.

Every artist works in a unique way, and every computer system has its own configuration of memory, disks, printers, and accessories. Corel Painter preferences let you customize the program for your own work style and optimum performance on your

particular system. You can also optimize the features of your tablet and pens in Corel Painter.

Opening Documents

The first step to creating an image in Corel Painter is opening a document. You can open a blank Canvas by creating a new document, work with an existing image by opening a file, place a file into a document, or acquire an image from a scanner or digital camera to place directly into a document.

Creating New Documents

The New command creates a blank, untitled document based on the specifications you set in the New dialog box.

- **Canvas Size** shows the RAM requirement for creating the document at the specified width,

height, and resolution. This number does not reflect the file size for the saved document. A saved Corel Painter file is usually 25% to 50% the size of the working document, depending on the number of colors it contains.

- **Width** and **Height** determine the dimensions of the Canvas. You can change the unit of measurement using the menu. Choose from pixels (the default), inches, centimeters, points, picas, and columns (2" wide).
- **Resolution** is the number of pixels per inch (ppi) or centimeter that make up an image. In the New dialog, setting the document's pixels per inch is the same as setting its dpi. Refer to "Understanding Resolution" on page 34 for detailed information about document, screen, and print resolutions.
- **Paper Color** lets you select a background paper color—or Canvas color—when you create a

new document. The default is white.

- **Picture Type** lets you set up a document to contain a single image frame or multiple frames for a movie. The default is single frame.

To create a new document:

- 1 Choose **File menu > New**.
 - 2 In the New dialog box, enter values for the width, height, and resolution of the document. Change the unit of measurement by choosing an option from the menu.
 - 3 Click in the Paper Color box to set the document's background to a color other than white. Choose a color from the system color picker that appears.
 - 4 Choose a picture type.
 - 5 Click OK.
- A new document appears in the workspace.

Opening Existing Documents

You can open documents from other graphics applications and use Corel Painter to add brush strokes, tints, or paper textures. Or, you can clone a document to re-create it in a different medium.

Corel Painter lets you open the following file formats:

- RIFF—Corel Painter native format (RIF)
- TIFF (TIF)
- CMYK TIF (TIF)
- Photoshop formats (PSD)—Corel Painter preserves layers and alpha channels. Layer effects and adjustment layers are not supported and should be merged or flattened in Adobe Photoshop.
- Windows Bitmap (BMP)
- PC Paintbrush (PCX)
- TARGA® (TGA)
- GIF—Corel Painter does not convert GIF animations to frame stacks.
- JPEG (JPG)

- Frame stacks (FRM)—Corel Painter animation files.
- QuickTime™ (MOV), Video for Windows (AVI), and numbered files. For more information, refer to “Opening a Movie” on page 424 or “Working with Numbered Files” on page 439.

Note

• *Corel Painter does not support LZW compressed TIFF file format. Only uncompressed TIFF files open into Corel Painter.*

To open an existing document:

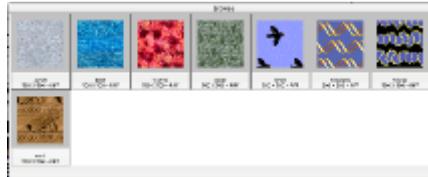
- 1 Choose **File menu > Open**.
- 2 In the Select Image dialog box, use the dialog controls to locate the file you want to open.
Corel Painter lists every image’s file size, file format, and dimensions in pixels. In addition, files saved in Corel Painter include a thumbnail image for browsing purposes.
- 3 Click Browse.

The Browse dialog box shows thumbnails for all the RIFF files in a folder.

- 4 Double-click the file name, or select a file and click Open.

Tip

• *The File menu also offers you a shortcut to previously opened documents. Before choosing Open in the File menu, check the recently opened files list at the bottom of the File menu.*



The Browse dialog box displays a thumbnail image of files.

Placing Files

Placing a file lets you import an image into an existing Corel Painter document. The placed image becomes a new reference layer in the document—you can transform (resize, rotate, slant) it on screen by dragging its handles. A placed file

maintains its link to the source file until you commit it to standard layer format.

Refer to “Working with Reference Layers” on page 244 for general information about working with reference layers.

To place a file:

- 1 Choose **File menu > Place**.
- 2 Select an image file and click Open.
- 3 In the Place dialog box, set the options:
 - **Horizontal** and **Vertical Scaling** suggests a scale to fit the image in the current document. To change the size, enter a scaling percentage in the **Horizontal Scale** and **Vertical Scale** fields.
 - **Constrain Aspect Ratio** maintains the proportions of the image. Disable this option to distort the image.
 - **Retain Alpha** retains the file’s mask. When the image is placed, the image mask

becomes the layer mask. Disable this option to discard the mask.

- 4 Do one of the following:
 - To place the image in a particular location, click on that location in the document.
 - To place the image in the center of the document, click OK.

Acquiring Images

You can acquire images for Corel Painter directly from an external device—such as a scanner or digital camera—if the device provides a:

- Photoshop-compatible plug-in module (Mac OS)
- TWAIN driver (Windows)

Before acquiring images:

- Install the device plug-in module on your computer.

This plug-in module is provided by the manufacturer of your scanner or digital camera. Refer to the device documentation for installation instructions.

Corel Painter can access plug-ins from any single folder on your computer. This location can be inside the Corel Painter folder, in a generic plug-ins folder on your hard drive, or in the Photoshop Plug-Ins folder.

- Make sure your TWAIN driver is properly installed.

Understanding Resolution

When working with images in a digital workspace, it is helpful to understand the concept and applications of *resolution*. Resolution refers to how Corel Painter measures, displays, saves, and prints images—either as small squares of color known as pixels or as mathematical objects known as vectors.

A document's resolution affects both its appearance on your computer screen and its print quality. You can specify a document's resolution when you create a new document, acquire an image, and save/export a file.

Resolution and Screen Appearance

Most monitors have a resolution of 72 dpi (dots per inch). Because of this, the Corel Painter display default is 72 ppi (pixels per inch). This means that each pixel in the Corel Painter image occupies one pixel on your monitor. The display resolution does not affect the document's actual ppi—only how the image is displayed on the monitor.

For example, a 300 ppi document displays at approximately four times its actual size. This happens because each pixel in the Corel Painter image occupies one pixel on your monitor, and the monitor's pixels are four times the size of the image's pixels. Put another way, at 300 pixels per inch, your document will be approximately a quarter of its on-screen size when printed. In this example, if you want to view the image at actual size, set the zoom level to 25%.

Keep in mind that if you leave the dimensions in pixels and then change the pixels per inch (resolution), the actual printed size will be affected by the change. If you set your document

size in inches, centimeters, points, or picas and change resolution, the dimensions will not be affected by the change.

Resolution and Print Quality

The resolution of output devices (printers) is measured in dpi and, in the case of halftones, lines per inch (lpi). Output device resolutions vary depending on the type of press and paper you're printing on. Generally, a photograph will be output at a crisp 150 lpi if printed on glossy magazine stock and at 85 lpi for more porous, and therefore more forgiving, newspaper stock.

If you are using a personal laser printer or inkjet printer, set your document size in inches, centimeters, points, or picas at the dpi specific to your printer. Most printers will produce excellent output from images set to 300 ppi. Your file will be output correctly, at the best resolution for your laser printer and at the proper size. Increasing the file's ppi setting does not necessarily improve the output, and can make for a larger and sometime unwieldy file.

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

Working with Documents

Viewing Documents

You can change your view of an image by changing its level of magnification (zooming in or out), repositioning the document in the Corel Painter workspace, or rotating the document. You can also change the characteristics of the document window by changing the screen mode, and by selecting options from the Canvas menu.

Zooming

By default, Corel Painter opens a document at 100% magnification, but you can change the level of magnification by zooming. You can zoom in and out using the Magnifier tool, reset magnification and zoom to fit the screen. You can even zoom in and out while working with other tools.



The Magnifier tool lets you zoom in and out by clicking in the document window.

To zoom in:

- 1 Do one of the following:

- Choose the Magnifier tool  in the toolbox.
- Hold down **Command + Spacebar** (Mac OS) or **Ctrl + Spacebar** (Windows).

The Magnifier cursor shows a plus sign (+) — indicating you are increasing magnification (zooming in).

- 2 Click or drag in the document window.
 - Clicking magnifies the image to the next level, as defined in the Zoom Level menu on the property bar.
 - When you drag, Corel Painter chooses the magnification level that most closely conforms to the selected area and centers the screen view on that area.

The percentage the document is magnified appears in the document window's title bar.

To zoom out:

- 1 Do one of the following:

- Choose the Magnifier tool and hold down **Option + Command** (Mac OS) or **Alt + Ctrl** (Windows).
- Hold down **Option + Command + Spacebar** (Mac OS) or **Alt + Ctrl + Spacebar** (Windows).

The Magnifier cursor shows a minus sign (-) — indicating you are decreasing magnification (zooming out).

- 2 Click in the document window. Each click reduces the magnification to the next level, as defined in the Zoom Level menu on the property bar.

Tip

- *You can also zoom in or out by moving the Scale slider, typing a value in the bottom left corner of the image window, or choosing an option from the Zoom Level pop-up menu on the property bar.*

To zoom using the Magnifier tool

- 1 In the toolbox, click the Magnifier tool.

- 2 Choose a zoom level from the Zoom Level pop-up menu on the property bar.

To reset magnification to 100%:

- Double-click the Magnifier tool.

To zoom to fit the screen:

Do one of the following:

- Choose **Window menu > Zoom to Fit Screen**.
- Double-click the Grabber tool in the toolbox .

Corel Painter generates a view of the entire document to fit the size of your screen.

To access the Magnifier tool while any other tool is selected:

- Press **Command + Spacebar** (Mac OS) or **Ctrl + Spacebar** (Windows) and click to zoom in; press **Command + Option + Spacebar** (Mac OS) or **Ctrl + Alt + Spacebar** (Windows) and click to zoom out.

Repositioning Documents

The Grabber tool allows you to reposition a document in the Corel Painter workspace and view different areas of an image.

To use the Grabber tool:

- 1 Activate the Grabber tool by:
 - Choosing the Grabber tool .
 - Holding down the Spacebar.

The cursor changes to the Grabber tool and the property bar shows the zoom level. You can change the zoom level from the property bar.

- 2 Do one of the following:
 - Drag in the document window to scroll through your image.
 - Click once in the document window to center the image.

To access the Grabber tool from any tool:

- Hold down the Spacebar.

To size your image window to fit the screen area:

- Do one of the following:

- Double-click the Grabber tool.
- Choose **Window menu > Zoom to Fit**.
- Click Fit on Screen on the property bar.

Tip

- *To return the image window to center, click once with the Grabber tool or click Center Image on the property bar.*

Rotating Documents

The Rotate Page tool lets you rotate an image on the screen to accommodate the way you draw naturally.

To rotate the page:

- 1 Activate the Rotate Page tool by:
 - Clicking it in the toolbox .
 - Holding down **Option + Spacebar** (Mac OS) or **Alt + Spacebar** (Windows).

The cursor changes to a hand with a pointing finger.

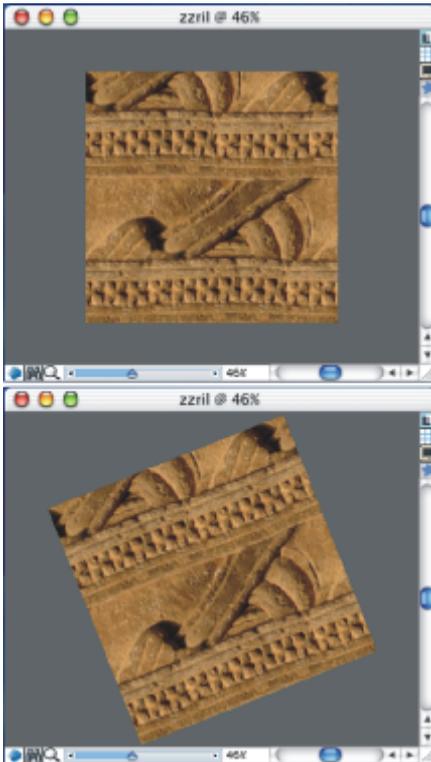
- 2 Drag in the document window to rotate the image.

Move the cursor clockwise to rotate the image clockwise. Move the cursor counter-clockwise to rotate the image counter-clockwise.

The new rotation angle appears on the property bar.

Tip

- *You can also rotate an image by specifying a rotation angle on the property bar.*



Rotate a document to accommodate the way you naturally draw.

To return an image to its original orientation:

- 1 Activate the Rotate Page tool .

- 2 Do one of the following:
 - Click once in the document window.
 - Double-click the Rotate Page tool.
 - Click the Reset Tool button on the property bar.

To constrain rotation to 90° increments:

- Hold down the Shift key while rotating.

Cropping Images

You can remove unwanted edges from the image with the Crop tool. You can adjust the ratio of the cropped image, and choose to maintain the aspect ratio.

To crop an image:

- 1 Click the Crop tool  in the toolbox.
- 2 Drag inside the image to define the rectangular area you want to keep.

You can adjust the rectangle by dragging a corner or any of its edges.

- 3 When you're ready to execute the crop, click inside the rectangle.

To constrain cropping to a square:

- Press **Shift +** drag while defining the rectangular area with the Crop tool.

To adjust the ratio of the cropped image:

- 1 Click the Crop tool in the toolbox.
- 2 On the property bar, type ratio values in the boxes.
- 3 If necessary, enable the Ratio check box to maintain aspect ratio when cropping the image.

Using Full Screen Mode

Full screen mode allows you to hide your computer's desktop and view the document window without scroll bars. When full screen mode is on, the document window is centered over a solid background. All Corel Painter

features—except the buttons on the document window—work when using full screen mode.

To toggle the full screen mode on and off:

- Press **Command + M** (Mac OS) or **Ctrl + M** (Windows), or choose **Window menu > Screen Mode Toggle**.

Tip

• *You can position the image window anywhere on the screen by holding down the Spacebar and dragging with your mouse or stylus.*

Image Size Information

You can use the Info palette to check image size. For more information, see “The Info Palette” on page 21.

Resizing the Canvas

If you want the same image at a different scale, you can resize the canvas. You can also change the size of the drawing area, and you can crop the canvas.

To resize the canvas:

- 1 Choose **Canvas menu > Resize**.
Corel Painter displays the Resize dialog box, which shows the current and new size by width, height, and resolution.
- 2 Enter a new value for width, height or resolution.
For more information on these values, refer to “Creating New Documents” on page 31.
- 3 The Constrain File Size option lets you choose how to deal with dimensions relative to resolution.
When Constrain File Size is enabled, you can change the height and width of the image together. The resolution will change accordingly.
When Constrain File Size is disabled, you can change the height and width independently of the resolution, and vice versa.
If you choose Pixels or Percent as the unit and enter a value, Corel Painter automatically disables the Constrain option.
- 4 Click **OK**.

To resize the drawing area:

- 1 Choose **Canvas menu > Canvas Size**.
- 2 In the Canvas Size dialog box, specify the number of pixels you want to add to any side of the canvas.
Enter negative values to reduce the canvas size.

To crop the canvas:

- 1 Display the image at a scale where you can see all of it.
- 2 In the toolbox, choose the Crop tool .
- 3 Drag in the image to describe the rectangular area you want to keep.
- 4 Adjust the rectangle by dragging a corner or any of its edges.
The property bar shows the size and location of the cropping rectangle.
To constrain the cropping rectangle to a certain aspect ratio, enter values for the width and height aspect, and enable the Ratio option on the property bar.

- 5 Click inside the rectangle to perform the cropping operation.

Using Rulers

Corel Painter lets you show or hide rulers along the top and left sides of the document window. Each mark on a ruler is known as a tick and represents the unit of measurement. You can set the unit of measurement to pixels, inches, centimeters, points, or picas.

As you drag an image around the document window, the rulers scroll to show the position of the Canvas in the document window. The origin of the document is the intersection of the zero (0) ticks on each ruler. By default, the origin is the upper left corner of the Canvas. Changing the origin resets the location of the 0 ticks on the rulers.

To display or hide rulers:

- Choose **Canvas menu > Rulers > Show Rulers** or **Hide Rulers**.

To set the ruler units:

- 1 Choose **Canvas menu > Rulers > Ruler Options**, or hold down **Option** (Mac OS) or **Alt** (Windows) and click in the ruler.
- 2 In the Ruler Options dialog box, choose a unit of measurement from the Ruler Unit pop-up menu.

To change the origin:

- 1 Click the box at the intersection of the rulers (upper left corner of the document window).
- 2 Drag diagonally into the document window.
Crosshairs display to mark the new origin point.
- 3 Position the crosshairs and release the mouse button.
The ruler numbers update to show the new origin as 0, 0.

To restore the origin:

- Double-click the box at the intersection of the rulers (upper left corner of the document window).

Using Guides

Guides are non-printing lines that appear over the image in the document window. They are very helpful in aligning image elements.

You can place guides at any position in the document window and easily reposition and remove them.

The Snap to Ruler Ticks option enables the guides you create to land precisely on the tick marks.

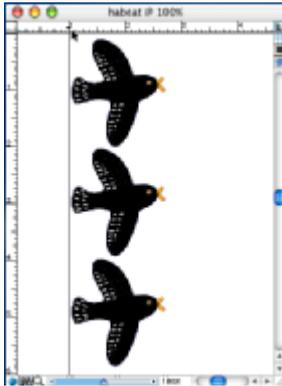
Each guide also has options that let you change its color and lock it so that it can't be dragged.

To display or hide guides:

- Choose **Canvas menu > Guides > Show Guides** or **Hide Guides**.

To create a guide:

- 1 Show the rulers and the guides.
- 2 Click in a ruler at the position where you want to place the guide.
A guide appears in the document window and a triangular marker appears in the ruler.



A black triangle marks the guide's position in the ruler.

To reposition a guide:

Do one of the following:

- Drag the guide's marker to any point of the ruler.
- Double-click the guide's marker to display the Guide Options dialog box and enter a value in the Guide Position field.

To enable the Snap to Ruler Ticks option:

- Choose **Canvas menu > Rulers > Snap to Ruler Ticks**.

To set a guide's color:

- 1 Double-click the guide's marker.
- 2 In the Guide Options dialog box, click the Guide Color color chip and choose a color.

To change the color of all guides, enable the Same Color for All Guides option.

To lock or unlock a guide:

- 1 Double-click the guide's marker to display the Guide Options dialog box.
- 2 Enable or disable the Lock Guide option.

To remove a guide:

- Drag the guide's marker off the edge of the document window.

To remove all guides:

- 1 Double-click the guide's marker to display the Guide Options dialog box.
- 2 Click the Delete All Guides button.

Setting the Snap to Guides Option

The Snap to Guides option enables selections and tool operations to “snap” to a guide within 6 pixels of the cursor (or edge).

The following operations respect Snap to Guides:

- Dragging with the Rectangular  and Oval Selection  tools.
- Dragging with the Crop tool .
- Drawing straight lines with the Brush tool .
- Clicks made with the Pen tool .
- Clicking with the Text tool  to create a text entry point.
- Clicking and dragging with the Paint Bucket tool  and Magnifier tool .
- Dragging shapes and selections. The edges of the content and the selection rectangle for the shapes and selections snap to the guides. The cursor—wherever it might be

in the object—also snaps to the guide.

- Dragging the handles of reference layers, shapes, and selections to transform them.
- Dragging with the Selection Adjuster tool  or Layer Adjuster tool  to create a selection marquee.

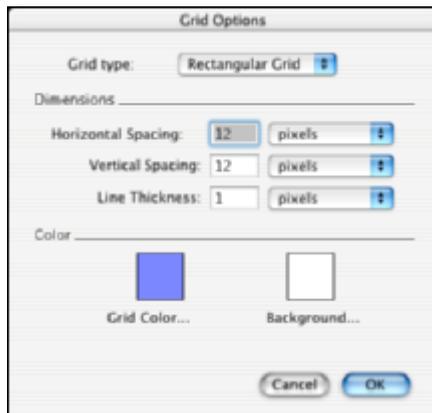
To enable Snap to Guides:

- Choose **Canvas menu > Guides > Snap to Guides**.

The option is enabled when the menu item has a check beside it.

Using the Grid

Corel Painter provides a grid to help you in laying down brush strokes or creating shapes. You can set the types, size, line thickness, color, and transparency of the grid. You can also print grid lines.



The Grid Options dialog box.

To activate the grid:

Do one of the following:

- Choose **Canvas menu > Grid > Show Grid**.
- Click the View Grid button on the right side of your image window.

Your image now has a non-printing grid.

To set grid options:

- 1 Choose **Canvas menu > Grid > Grid Options**.

- 2 In the Grid Options dialog box, choose a grid type from the Grid Type pop-up menu.
- 3 Enter values for Horizontal Spacing (the distance between horizontal lines), Vertical Spacing (the distance between vertical lines), and Line Thickness.
The unit of measure can be in pixels, inches, centimeters, points, picas, columns (2" wide), or percent.
- 4 Click in the Grid Color color chip to set the color of the grid lines.
- 5 Click in the Background color chip to set the grid's background color.

To print grid lines

- Choose **Effects menu > Esoterica > Grid Paper**.

Setting the Snap to Grid Option

The Snap to Grid option enables certain tool operations to “snap” to a grid within 6 pixels of the cursor.

The following tools respect Snap to Grid:

- Pen tool 
- Shape Selection tool 
- Convert Point tool 
- Text tool 

To enable Snap to Grid:

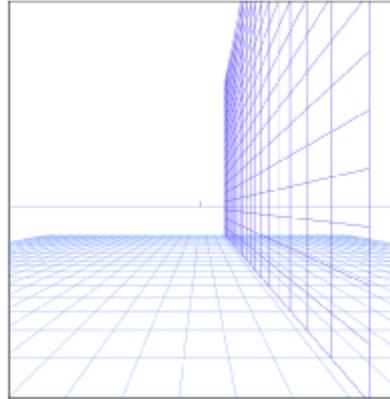
- Choose **Canvas menu > Grid > Snap to Grid**.

The option is enabled when the menu item has a check beside it.

Using the Perspective Grid

Corel Painter provides perspective grids as a guide to help you create three-dimensional images. Perspective grids are a non-printing array of lines that converge at a single vanishing point. In Corel Painter you can set the type, line color, and spacing of the perspective grid. You can modify the location of the vertical plane and horizon line by using the Perspective Grid Adjuster tool. Any perspective

grid options that you create or modify can also be opened for use in another drawing.



Use perspective grid lines to help you create 3-D images.

To activate or hide the default perspective grid:

- With an image open, choose **Canvas menu > Perspective Grids > Show Grid** or **Hide Grid**.

To create a new perspective grid:

- 1 In the toolbox, click the Perspective Grid Adjuster tool .

- 2 On the property bar, click the Add Preset button beside the Presets pop-up menu.
- 3 In the Save Preset dialog box, enter a name in the Save As box.
- 4 Enable the check boxes corresponding to the grids you want to see.
- 5 Choose a color for the horizontal and vertical grid lines in the Color boxes.
- 6 Enter a value in the Spacing box.

Tip

- *To reset the perspective grid defaults at any time, click the Reset Tool button on the property bar.*

To open a perspective grid:

- 1 In the toolbox, click the Perspective Grid Adjuster tool.
- 2 On the property bar, choose a grid from the Presets pop-up menu.

To remove a grid preset:

- 1 In the toolbox, click the Perspective Grid Adjuster tool.

- 2 On the property bar, choose an option from the Grid Type pop-up menu.
- 3 Click the Delete Preset button. The grid type disappears.

To adjust the perspective grid lines:

- 1 Choose **Canvas > Perspective Grids > Show Grid**.
- 2 Click the Perspective Grid Adjuster tool in the toolbox.
- 3 To move the horizontal plane grid, hold the cursor over the nearest edge of the horizontal plane grid. The cursor becomes a double-pointed arrow.
- 4 Drag to move the horizontal plane grid up or down.
- 5 To move the vertical plane grid, hold the cursor over the nearest edge of the vertical plane grid. The cursor becomes a double-pointed arrow.
- 6 Drag to move the vertical plane grid left or right.

Drag-and-Drop Features

Dragging Between Documents

You can copy selections and layers between Corel Painter documents by dragging from one window to the other. When you drag a selection to a new document window, Corel Painter automatically turns the selection into a layer. When you drag a layer to a new document, the layer keeps its original properties.

Dragging Between Programs (Mac OS)

Corel Painter supports drag-and-drop functionality between applications on Mac OS. This can be a quick, convenient way to acquire or export imagery.

On the Mac OS, you can drag files from Photoshop directly into Corel Painter.

Raster imagery that you drag into a Corel Painter document window becomes a layer. You can drag a PICT

file from the Finder to a Corel Painter document. The PICT image becomes a layer.

You can also drag layers out of Corel Painter to another application or to the Finder; the exported imagery is in PICT format, supported by most applications. When you drag out one of these objects, it will automatically rasterize a shape or dynamic layer (at its current settings) to become a PICT.

Note

- *Though dragging and dropping between programs is not supported on the Windows platform, computers running on either Mac OS or Windows platforms support copying and pasting between Corel Painter and other programs.*

Saving Files

Corel Painter provides several options for saving files.

To save a file in its current format:

- Choose **File menu > Save**.

To save a file with a different name or format:

- 1 Choose **File menu > Save As**.
- 2 In the Save Image As dialog box, use the controls to specify a file name, location, and format.

Saving RIF Files

RIF is the Corel Painter native format, which retains special information about your document. For example, a RIF file maintains layers so you can return to the file to re-access them.

It's a good idea to always save files in RIF format first. Think of RIF files as “work in progress” files. When a file is ready for production, then save it to GIF, JPEG, CMYK, TIF, or another file format.

Corel Painter lets you compress files and save disk space with a lossless compression method.

When saving in RIF format, leave the Uncompressed option disabled to minimize file size on your hard disk.

Saving JPEG Files

Corel Painter supports the JPEG file format. Because of its small file size and high quality, JPEG is commonly used to transmit files through a modem. Unlike GIF, JPEG displays a full range of colors.

JPEG allows you to compress your file on a scale of Fair to Excellent, where quality is directly proportional to file size. These quality settings will let you achieve compression ratios of less than 10:1 to greater than 100:1. JPEG is a “lossy” file format, meaning that a decompressed JPEG file will not be identical pixel-for-pixel to the original. However, because the JPEG algorithm takes into account the sensitivity of the eye to different colors, the higher quality settings should achieve visually satisfying results.

You can assign a URL to layers and placed images and then save the file in GIF or JPEG format to produce an image map. For more information, refer to “Client-Side Image Mapping” on page 404.

When you save a file in JPEG format, Corel Painter displays the JPEG dialog box, with the following options:

- The JPEG Encoding Quality options—Excellent, High, Good, and Fair—let you set file compression on a scale of Excellent to Fair.

The Excellent option compresses the least, but retains the most data. Fair compresses the most, but loses the most data.

- The Quality slider adjusts the quality.
- The Smoothness slider applies smoothing to the entire image. This is useful when using the Fair option, to blur the edges of JPEG artifacts. The default is 0. Keep in mind that using a high smoothness setting can cause blurring.
- The JPEG preview window displays any changes you make to the image as you work.
- The Progressive JPEG option creates a progressive JPEG file. Progressive format is useful when using a file on the Web. As the

name implies, progressive format displays an image in stages—as a series of scans—while the file downloads. The first scan is a low quality image; the following scans improve in quality. This allows the user to see the whole image very quickly.

- The HTML Map Options—National Center for Supercomputing Applications (NCSA) Map File, Conseil Européen pour la Recherche Nucléaire (CERN) Map File, and Client Side Map File—let you generate an image map. Use the NCSA Map File or CERN Map File option to generate a server-side image map. Use the Client Side Map File option to generate a client-side image map. Refer to “Image Maps” on page 404 for more information about image map types.

It is best not to decompress and recompress a file multiple times. Although JPEG can compress and

discard data not visible or obvious, the degradation of the data can affect the condition of your file.

When a file has lost a significant amount of data, block patterns can appear in areas of the image. If you try to use the Apply Surface Texture feature on a JPEG file, you may find it will accent the block patterns.

Saving GIF Files

Corel Painter allows you to save documents in GIF file format. GIF is an 8-bit (or less) file format commonly used to display graphics on the Web.

When you save a file as a GIF, you can choose from 4 up to 256 colors. You can choose how your colors will be displayed and what part of your image will be transparent.

You can use the Color Set option to force all colors to match the colors in the current color set. This option uses the colors in the color set for the color table in the GIF file. This can be useful when doing Web work, especially if you want to constrain colors to a specific color set or control

the number of colors in a Web page, thus controlling image file size. The default color set in Corel Painter is a “Web safe” color set, mapping to the default Netscape Navigator® color set.

An Imaging Method determines how your 24-bit Corel Painter document will be converted to the limited number of colors that GIF uses. If you choose Quantize to Nearest Color, Corel Painter picks the color nearest to that of each pixel. If you choose Dither Colors, Corel Painter will apply a pattern to the colors chosen to generate a more accurate, less banded result.

Corel Painter can also save a frame stack as a GIF animation file. For more information, refer to “Creating Animated GIFs” on page 408.

If you want your image to have transparency, click the checkbox for Output Transparency. Most programs that display GIF files support transparency, but for those that don’t, you should specify the color of the “transparent” area. If your image will be displayed on the World Wide Web,

click the Background is WWW Gray option. You can also choose to use the background color of your Web page by clicking the option button for Background is BG Color.

For programs that support transparency, your selection will determine which areas are transparent and which are not. The Threshold slider determines what selection (loaded mask) value becomes transparent. You can see how the Threshold slider is affecting the transparency of your image in the preview window in the dialog box. Transparency is displayed in the preview window by a rectangular lattice. You can toggle between the Preview window and your Save As GIF options to get exactly what you want. Enable the checkbox for Interlace GIF File if your image will be displayed on a Web page.

For information on creating masks, refer to “Using Selections” on page 201.

Saving RGB TIF and CYMK TIF Files

TIFF facilitates exchange between applications and computer platforms. It’s a widely supported bitmap image format, allowing you to save with either CMYK or RGB color space information. When you save a file as CMYK TIF, Corel Painter creates a color separation, which can then be used for four-color process printing.

Saving Adobe Photoshop Files

Corel Painter can save files in Adobe Photoshop format. For optimum compatibility, shapes are rasterized and masks are placed in channels.

When you save, you have RGB and CMYK options as you do when saving TIFF files.

Saving Encapsulated PostScript (EPS) Files

The encapsulated PostScript® (EPS) files in Corel Painter conform to the Desktop Color Separation (DCS) 2.0

format (EPS-DCS 5 file format). Although Corel Painter saves files in EPS-DCS, it can’t read EPS-DCS. If you plan to save an image in EPS-DCS, it’s a good idea to save it in another format first so you’ll have a copy of it that you can reopen in Corel Painter.

When you save an image as EPS-DCS with Output Preview turned on, Corel Painter uses the loaded International Color Consortium (ICC) profile to prepare the separation files. If you’re using the Hexachrome® ICC profile, Corel Painter prepares six separation files—Cyan, Magenta, Yellow, Green, Orange, and Black. For more information on Output Preview and color management, refer to “Printing” on page 443.

Although you can save your images as CMYK EPS separations, Corel Painter can’t open or edit CMYK files.

When you save a file in EPS-DCS, Corel Painter opens the EPS Options dialog box, with these options:

- **Hex (ASCII) Picture Data** provides another way of storing

PostScript information. Some page design programs require that this option be checked. The file sizes will be approximately twice as large when saved with this option.

- **Preview Options**—No preview, Black and white preview, and Color preview—specify whether to save preview data and in what format. The resulting preview file is a low-resolution (72 ppi) file.

If you have an older laser printer, you have to use the black and white preview to print these files. Although the preview or display is black and white, the color information remains intact.

Recovering Lost Work

How can you recover work lost in a corrupt image file? When you work with computers, sometimes uncontrollable events cause files to become corrupt. No backup? Lost all your work? Do you have to create the whole image again?

Maybe not. There's one way to try recovering lost work. Corel Painter records all actions into the Current Script. If Corel Painter is stopped and restarted *within 24 hours*, the old current script is still available, saved as "{date}{time}" and a new current script is started. By default, the dated scripts are saved for one day, but you can reset this to a longer time in General Preferences.

The dated scripts can be used to replay actions for recovering lost work or creating scripts for movies. Also, you can use the Script List to cut and paste portions of the dated script that are useful. Just open the dated script and delete the last few commands, then play the script to re-create the work and try saving the file again.

For more information, see "Scripting" on page 413.

Closing Documents and Quitting the Application

To close a document:

- Do one of the following:

- Click the current window's close box.
- Choose **File menu > Close**.
- Press **Command + W** (Mac OS) or **Ctrl + W** (Windows).

To quit Corel Painter:

- Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Quit Corel Painter 8**.
 - (Windows) Choose **File menu > Quit**.

Tip

- *You can also quit Corel Painter by pressing **Command + Q** (Mac OS) or **Ctrl + Q** (Windows).*

Setting Preferences

Corel Painter has several different preference dialog boxes: General, Brush Tracking, Customize Keys, Undo, Shapes, Internet, Save, Operating System, and Palettes.



Use the General Preferences dialog box to customize your application.

General Preferences

To access General preferences:

- Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Preferences > General**.
 - (Windows) Choose **Edit menu > Preferences > General**.

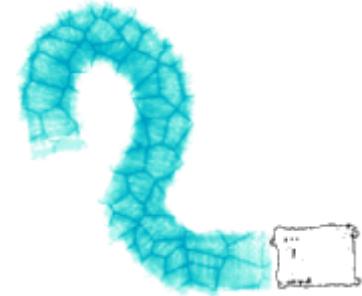
Tip

• To make changes to other preferences before closing the Preferences dialog box, choose another preference type from the pop-up menu.

Cursor Setup

Corel Painter gives you several choices for the appearance of your cursor.

- To choose whether the cursor will be a brush or a single pixel, check an option in the Drawing Cursor area.
- To determine the direction the cursor will point (depending on your design and your preferences), click the appropriate option in the Orientation area. This option is only available with the Brush cursor type.
- To set the cursor to show the brush size and shape, enable the Brush Ghosting option. Brush Ghosting gives you immediate visual feedback on the cursor, showing you the shape and size of the selected brush.



When you use a brush with “Enable Brush Ghosting” enabled, the cursor shows the shape of the brush.

Setting the Default Libraries

Corel Painter provides standard libraries that contain brushes, paper grains, selections, layers, and color sets. The Libraries section of the General Preferences dialog box lets you designate which libraries appear by default.

To set default libraries:

- Enter library file names in the Brushes, Papers, Selections, Layers, and Color Set text fields.

Note

- *The default libraries must reside in the Corel Painter folder.*

Auto-Save Scripts

When you create an image, Corel Painter records all the operations you perform. This recording is known as a background script and is saved on the Scripts palette.

The Auto-Save Scripts preference governs how long Corel Painter saves background scripts before deleting them. In the text field, enter the number of days for which you want Corel Painter to save background scripts.

For more information about creating and using scripts, refer to “Scripting” on page 413.

Brush Size Increment

The Brush Size Increment preference lets you set the increment value in pixels.

Magnifier Increment

The Magnifier Increment preference lets you set the percentage of magnification the magnifier will increment by.

Temp File Volume

Choosing the temp file volume selects the disk volume that Corel Painter will put its temporary file on and use to access virtual memory. Choose the volume name (Mac OS) or letter (Windows) from the Temp File Volume pop-up menu.

Units

The Units preference lets you choose units of measurement used by the application’s various sliders and other measurement options.

Cloning Preference

When you clone an image, Corel Painter uses the color information from the original as you fill in your clone. If you would like Corel Painter to display what part of the original

you’re cloning, check the box next to Indicate Clone Source With Crosshairs While Cloning.

Draw Zoomed-out Views Using Area-Averaging

When looking at an image at under 100% magnification, screen draw is faster if you leave this option unchecked, and slower but more accurate if checked.

Display Warning When Drawing Outside Selection

Checking this box enables the warning that appears when you draw outside a selection.

Show Commit Dialog When Converting to a Layer

Enable this checkbox if you want to reinstate the Commit dialog after you have selected the Don’t Ask Again button in the Commit dialog.

Brush Tracking Preferences

When you draw with traditional media, the amount of pressure you use with a tool determines how dense and how wide your strokes are. Using a pressure-sensitive stylus with Corel Painter gives you this same kind of control. Each artist has a different strength or pressure level in a stroke. The Brush Tracking preference lets you adjust Corel Painter to match your stroke strength. This is particularly useful for artists with a light touch. If a light stroke leaves no color on the Canvas, you should use Brush Tracking to increase sensitivity.

You might also change brush tracking between phases of a project. You could use a light touch when sketching with a pencil brush variant, then set tracking for more pressure when you switch to an oil paint variant.

Corel Painter saves Brush Tracking between sessions, so whatever tracking sensitivity you set will be the default next time you open the application.

To set Brush Tracking:

- 1 Do one of the following:

- (Mac OS) Choose **Corel Painter 8 menu > Preferences > Brush Tracking**.
 - (Windows) Choose **Edit menu > Preferences > Brush Tracking**.
- 2 Drag in the scratch pad in a “normal” stroke.
Use the pressure and speed you prefer when drawing or painting. For specific adjustments, you can move the sliders.



Use the Brush Tracking dialog to customize how Corel Painter responds to your stylus pressure and speed.

Customize Keys Preferences

Corel Painter lets you assign commands to your keyboard function keys (the F-keys). This saves you time by giving you immediate keyboard access to your favorite commands. Using the Shift key with the function keys lets you double the number of commands you can use.

To assign commands to function keys:

- 1 Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Preferences > Customize Keys**.
 - (Windows) Choose **Edit menu > Preferences > Customize Keys**.
- 2 Choose the function key you want to use from the menu.
- 3 If you want to use the Shift key in combination, enable the Shift checkbox.
Current Function shows the command now assigned to this key.

- 4 Choose the command you want, either from a main menu or a palette menu.
New Function shows the command you've chosen.
- 5 Click Set to assign this command to the selected key.
- 6 Repeat steps two through six for each key you want to set.
- 7 When you're finished, click OK.

Tip

- *Click Summary for a list of the function keys that have been assigned.*

Undo Preferences

Multiple Undo allows you to undo and redo up to 32 levels of changes. Corel Painter sets 32 levels as the default.

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

Multiple Undo can use a significant amount of disk space. If you perform multiple operations on the entire image, the whole image must be saved for each undo step.

To set undo levels

- 1 Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Preferences > Undo**.
 - (Windows) Choose **Edit menu > Preferences > Undo**.
- 2 Enter a number between 1 and 32 in the box.

Shape Preferences

You can set the default fill and stroke in the Shape Preferences dialog box. These settings apply to new shapes you create.

If you enable Big Handles, the Bézier curve control handles will appear larger. You may find it easier to work with them in the larger size.

You can also specify colors for the wing color, point color, and outline color.

To change shape preferences:

- 1 Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Preferences > Shapes**.
 - (Windows) Choose **Edit menu > Preferences > Shapes**.
- 2 Select your preferences from the following options:
 - **Drawing Options** — Controls how Corel Painter displays shapes as you create them (On Draw) and when a shape path is closed (On Close). The default setting is Stroke On Draw and Fill On Close.
 - **Big Handles** — Controls the size of the anchor points and direction wing handles. This can make them easier to grab and drag. If you want big points, enable this option.

- **Outline Color** — Controls the color for the shape outline paths. Double-click the color chip to change the color.
- **Selected Point Color** — Controls the color for selected anchor points (unselected anchor points appear “hollow”). Double-click the color chip to change the color.
- **Wing Color** — Controls the color for the control wings and handles. Double-click the color chip to change the color.

Internet Preferences

Corel Painter works closely with your Internet browser to help you take advantage of resources on the Internet. Whether you use Netscape Navigator, Microsoft® Internet Explorer, or another browser, you can launch your browser from within Corel Painter.

The browser will take you directly to the URL specified in the Internet Preferences dialog box. This

streamlines your access to program help, technical support, additional art materials, and libraries.

The level of memory in your system can limit your ability to run Corel Painter and your browser application at the same time. For more information, refer to “Physical Memory Usage” on page 54.

The Corel Painter installer should be able to locate and link to your browser automatically. In some cases, though, you will need to manually select the browser. For example, you’d need to do this if you have more than one browser.

To change the default URL:

- 1 Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Preferences > Internet**.
 - (Windows) Choose **Edit menu > Preferences > Internet**.
- 2 Type a new URL in the Default Library Browsing URL field.

Save Preferences

You can set color space prompt preferences automatically when saving files, so that you do not need to choose a color space every time you save.

For Mac OS only, Corel Painter allows you to select file extension preferences.

To set color space prompt preferences

- 1 Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Preferences > Save**.
 - (Windows) Choose **Edit menu > Preferences > Save**.
- 2 Choose one of the following options from the TIFF and PSD pop-up menus:
 - RGB — automatically saves the file as RGB
 - CMYK — automatically saves the file as CMYK
 - Prompt on Save — prompts you to choose a color space every time you save a file

To set file extension preferences (Mac OS)

- 1 Choose **Corel Painter 8 menu > Preferences > Save**.
- 2 Choose one of the following options from the Append pop-up menu:
 - **Always** — always adds the appropriate file extension when saving
 - **Never** — never adds a file extension when saving
 - **Ask When Saving** — prompts you to choose whether or not to add a file extension when saving

Operating System Preferences (Windows)

Computers running Windows have some additional options.

To access Operating System preferences:

- Choose **Edit menu > Preferences > Operating System**.

Configuring our Browser to Recognize Software Resources

Your browser must be set to recognize Corel Painter files and instructed what to do with them.

This is something you'll do in your browser. Consult your browser documentation for more information.

Physical Memory Usage

For best performance, choose **Maximum Memory for Painter** on the **Operating System Preferences** page, and run Corel Painter with no other programs running in the background. Choosing **Half Memory for Painter** on the **Operating System Preferences** page allows Corel Painter to run more efficiently while other Windows applications are running.

Printing Options

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

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

Display Options

If your video display driver is set to 16-bit colors, you can experience some color irregularities on your screen when using Corel Painter. Checking the **No Device Dependent Bitmaps** option will correct this problem with most 16-bit color video displays. If you are not using 16-bit colors, this checkbox will have no effect on your system.

Palettes

Palettes have been redesigned for Corel Painter, allowing you to have more control over snapping and grouping them.

To change palette behavior

- 1 Do one of the following:
 - (Mac OS) Choose **Corel Painter 8 menu > Preferences > Palettes**.
 - (Windows) Choose **Edit menu > Preferences > Palettes**.
- 2 Choose your preferences from the following options:
 - **Autoscroll** — lets you scroll through a palette with many elements automatically.
 - **Snapping Behavior** — determines where palettes are docked in relation to other elements on the user interface
 - **Snapping Tolerance** — determines the minimum distance, in pixels, between the palette and other elements on the user interface before docking

Using Two Monitors

The Corel Painter user interface can be displayed across two or more monitors. You can drag any of the Corel Painter palettes, the property bar, and the toolbox to any monitor; however, each palette must be displayed entirely on one monitor at a time.

If a palette straddles two monitors, it will automatically snap to the nearest vertical edge of the monitor with the largest portion of the palette. If the palette is displayed equally on both monitors, it will snap to the vertical edge of the left monitor.

For best performance, make sure both monitors are set to the same resolution. In Windows, you must stretch the application window to straddle both monitors, then redesign your workspace.

For information on configuring your system to display across two or more monitors, refer to your operating system documentation.

Using Plug-ins

Plug-ins are software modules that extend Corel Painter capabilities. Many plug-ins come with Corel Painter and are automatically installed in the **Corel Painter > Plug-ins** folder. Other special effects plug-ins are available for purchase from third-party software developers.

Corel Painter uses the following types of plug-ins:

- **Effects filters** offer special effects for raster images. You can access available filters at the bottom of the Effects menu, below standard effects.
- Most Photoshop-compatible filters run on Corel Painter; however, there are some exceptions. For example, because Corel Painter is an RGB-based program, it cannot run filters that are specific to CMYK or Grayscale modes. Check with the manufacturer to determine if a filter is compatible with Corel Painter.
- **Plug-in brushes** extend the power of the Brush tool.

- **Dynamic plug-ins** are different from other effects plug-ins because you can re-access their controls and change the characteristics of the effect at any time.
- **Acquire plug-ins** support acquisition of images through external devices (such as scanners and digital cameras) and file formats not built into the application.
- **Export plug-ins** export image data and support special output devices. For example, many photo-realistic dye-sublimation printers include export modules to provide better control over output quality than the standard print interface.

Note

- *Mac OS: Third-party plug-ins that are not designed for native PowerPC® architecture will not work in Corel Painter.*

Installing Plug-ins

Where you install a plug-in module depends on its type.

Plug-in brushes and dynamic plug-ins are specific to Corel Painter and must reside in a specific location in the **Corel Painter > Plug-ins** folder. The Corel Painter standard plug-in brushes and dynamic plug-ins are automatically installed in the correct location. However, if you want to install new plug-in brush and dynamic plug-in modules, you must manually place them in the correct location.

Other plug-in modules are used by multiple software applications and can reside anywhere on your computer. For Corel Painter to access such plug-ins, you must place an alias (Mac OS) or shortcut (Windows) to the source folder in the **Corel Painter > Plug-ins** folder. During start-up, Corel Painter uses the alias or shortcut to load the plug-ins.

To install a new plug-in brush:

- 1 Drag the plug-in brush module into the **Corel Painter > Plug-ins** folder.
- 2 If Corel Painter is running, restart it to activate the new plug-in.

To install a new dynamic plug-in:

- 1 Drag the dynamic plug-in module into the **Corel Painter > Plug-ins** folder.
- 2 If Corel Painter is running, restart it to activate the new plug-in.

To install an effects, acquire, or export plug-in:

- 1 Follow the installation instructions provided by the plug-in manufacturer.

You can install plug-ins anywhere on your computer—inside the Corel Painter folder, in a generic plug-ins folder on your hard drive, or in another location.

- 2 If you installed the plug-in in the **Corel Painter > Plug-ins** folder, Corel Painter automatically loads the plug-in during startup.
- 3 If you installed the plug-in in another location:
 - (Mac OS) Select the folder containing the plug-in. Choose Make Alias from the File menu.
 - (Windows) Select the folder containing the plug-in in My Computer or Windows

Explorer. Choose Create Shortcut (or **New > Shortcut**) from the File menu.

- 4 Move the alias/shortcut into the **Corel Painter > Plug-ins** folder.
- 5 If Corel Painter is running, restart it to activate the new plug-in.

Note

- *To access all Photoshop plug-ins, make an alias (Mac OS) or shortcut (Windows) to the Photoshop Plug-ins folder.*

Wacom Intuos Support

Corel Painter supports the Wacom® Intuos™ tablet, pen, and airbrush technology.

Painting with an Intuos Tablet and Pen

The Intuos tablet provides 1,024 levels of pressure sensitivity to help you create smooth curves, gradual transitions, and precise brush strokes. Corel Painter allows you to take advantage of tilt and bearing input from an Intuos pen in new and exciting ways.

Note

- *The mouse mode option in the Wacom controls panel—which causes a stylus to behave like a mouse—is not compatible with Corel Painter. Always use pen mode when painting with an Intuos tablet and pen.*

Brush Tracking

Every artist uses a different pressure when drawing on an Intuos tablet. The Corel Painter Brush Tracking preference helps you customize your Intuos tablet to meet your pressure sensitivity needs. Refer to “Brush Tracking Preferences” on page 51 for more information.

Expressions Settings

Settings you make in the Expressions area of the Brush Creator allow you to tie brush features like Opacity, Grain, Angle, Size, Jitter, Resaturation, Bleed, Flow, and Depth to stylus data, such as Velocity, Direction, Pressure, Wheel, Tilt, and Bearing. For more information about using the

Expressions section in the Brush Creator, refer to “Expression Settings” on page 162.

Minimum Size Settings

In Corel Painter, the Minimum Size setting lets you take even further advantage of stylus input data. When Size is set in the Expressions area of the Brush Creator to respond to stylus pressure, and a Min Size setting is set to a small percentage of the brush Size, the strokes you make with the stylus create amazingly realistic results. Responding to the elegance of subtle movements, as your stylus pressure eases, brush strokes taper. As pressure increases, brush strokes widen, just as they would with a real brush.

Using the Intuos Airbrush Wheel

The Intuos Airbrush—the first true computer airbrush—provides fingertip media flow control. Corel Painter airbrushes respond to angle (tilt), bearing (direction), and flow (wheel setting) data from the Intuos

stylus, allowing for a truly realistic brush stroke. For example, as you tilt your stylus, specks of media land on the paper in a way that reflects that tilt. Corel Painter airbrushes create conic-sections that mirror your stylus movements. Corel Painter airbrushes take advantage of the Intuos airbrush stylus wheel control. Like the needle control on a real airbrush, the Intuos wheel control adjusts airbrush flow, or how much medium is applied. For more information about using the new airbrushes, refer to “Painting with Airbrushes” on page 112.

Using Multiple Intuos Pens

All Intuos pens—both standard and airbrush—feature ToolID™, which allows you to configure and work with multiple pens during a Corel Painter session.

For example, let’s assume you have two Intuos pens: Pen 1 and Pen 2. Pen 1 is set to an Oil brush variant; Pen 2 is set to an Artists variant.

Every time you bring Pen 1 into the tablet’s proximity, Corel Painter automatically changes the active

brush to the Oil brush. Every time you bring Pen 2 into the tablet’s proximity, Corel Painter switches to the Artists brush. If you’ve adjusted the tool assigned to a pen’s size or other settings, Corel Painter remembers those changes for the next time you use that pen.

4 Using Textures, Patterns, and Weaves

In Corel Painter, paper textures, gradients, patterns, and weaves can all be applied to your image. You can brush some of them on, get them to interact with each other, spray them, smear them, and even create your own. Best of all, you never have to run to the store in the middle of creating to get a new tube of paint or the right kind of paper.

You'll use these items in several ways:

- to load a Brush tool with media for painting
- to fill selections with the **Effects menu > Fill** command or the Paint Bucket tool
- to control certain image effects, like Apply Surface Texture

This chapter explains how to select, customize, and create textures, patterns, and weaves, as well as how to save them to a library for future use.

Papers, patterns, and weaves all use libraries. The default libraries offer sample materials. You'll find more libraries, with additional materials, on the Corel Painter CD and on the Corel Web site. For more information about libraries, including how to load alternate libraries, create your own libraries, and manage library content, refer to "What are Libraries?" on page 25.

Using Paper Texture

In the real world, a marking tool has different results when applied to surfaces with different textures. Corel Painter allows you to control the texture of the canvas to achieve the results you'd expect from Natural-Media on a given surface—pencil on Water Color paper, felt pens on cotton paper, chalk on the sidewalk, and so on.



Of course, some brushes, like the Airbrush, don't reveal paper texture in their strokes. This follows the behavior of the natural tool.



Most of the brushes interact with the current paper texture.

Paper textures are useful in many ways. The brushes interact with paper "grain," just as natural tools react with the texture of the surfaces beneath them. Paper grains are useful in applying Surface Texture and other Effects, like Glass Distortion. You can

select different paper textures, modify them, organize them in libraries, and even create your own custom textures.

In Corel Painter, brushes that react with paper texture have a "grainy method." For more information about brush methods, refer to "Methods and Subcategories" on page 149.

Note

- *The terms "paper grain" and "paper texture" are used here synonymously.*

Adjusting the Grain

When you choose a brush that interacts with paper grain, you see the results with each stroke. When you find a brush and paper combination that you really like, you can save it as a Look.

If you have a stylus and tablet, you can adjust paper grain by changing the stroke of the stylus on a pressure-sensitive tablet. In most cases, a light stroke colors only the peaks and ridges of the grain. A heavy stroke fills color deep into the pockets and valleys. You

can also affect paper grain by using the Grain settings on the Stroke Designer tab of the Brush Creator.

When you want paper grain to appear uniformly across an image, create your artwork first and then apply the grain as a surface texture. If you apply paper texture when you create an image, the texture is erasable.

With erasable texture, you won't be able to erase brush strokes without erasing paper texture at the same time. You'll find that adding paper texture as the last step, not the first step, in developing your image often works best.

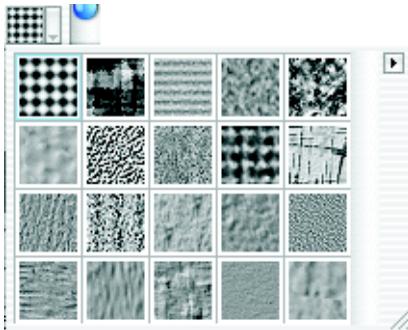
To save a Look:

- 1 In the toolbox, click the Rectangular Selection tool .
- 2 Drag in the image to make a selection of the look you want to save.
- 3 In the toolbox, open the Look selector and click the selector menu arrow.
- 4 Choose New Look.

- 5 In the New Look dialog box, type a name in the Save As box.

Choosing Paper Textures

The Papers palette is where all paper textures are stored. In addition to using it to select papers, you can use this palette to invert, resize, or randomize paper grain; control brightness and contrast; or to open other paper libraries. For more information on working with libraries, refer to “Loading Alternate Libraries” on page 26.



The Paper selector on the Papers palette.

To choose a paper texture:

- 1 Choose **Window menu > Show Papers** to display the Papers palette.
If the Papers palette is not expanded, click the palette arrow.
- 2 Click the Paper selector arrow to display the available paper textures.
- 3 Choose a paper texture from the Paper selector.

The Papers palette shows the dimensions of the selected paper (in pixels). Corel Painter tiles the paper to cover as much canvas as needed.

Tips

- *You can also choose a paper texture from the Paper selector in the toolbox.*
- *Corel Painter uses the currently selected texture, so you can make a few strokes, then change the paper and make a few more strokes with different results.*

Inverting and Scaling Paper Textures

You can think of paper texture as a three-dimensional landscape. Usually, brushes react to paper texture by coloring peaks and ignoring valleys. Enabling the Invert Paper option makes color fill the valleys, instead of the peaks.

You can adjust the paper texture scale to resize the paper texture. Scaling paper grain affects how the grain appears in brush strokes and images.

To invert paper grain:

- 1 Choose **Window menu > Show Papers**.
- 2 On the Papers palette, do one of the following:
 - Click the palette menu arrow, and choose Invert Paper.
 - Click the Invert Paper button  .

Tip

- You can also use the Paper selector in the toolbox to invert paper grain. Click the Paper selector, click the selector menu arrow, and choose Invert Paper.



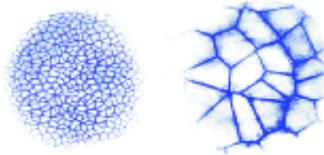
Two brush strokes overlapping. The green one was painted with the grain inverted.

To change paper texture scale:

- 1 Choose **Window menu > Show Papers**.
- 2 On the Papers palette, use the Paper Scale slider to resize the paper grain.
As you move the slider, the texture preview updates to display the new grain size. You can scale texture down to 25% or up to 400%.

Note

- Scaling large textures can use a great deal of RAM. Most textures in Corel Painter are from 50 to 400 pixels square at 100% scaling.



Brush strokes on paper grains with different scale values.

Randomizing Paper Grain

Normally, paper grain is fixed, which means the texture is in the same position each time you apply a brush stroke. You can change this when you want grain to be applied randomly.

To randomize paper grain:

- 1 Choose **Window menu > Brush Creator**.
- 2 Click the Stroke Designer tab, and choose Random.
- 3 Enable the Random Brush Stroke Grain option.

Controlling Paper Texture Brightness and Contrast

Brightness can be thought of as controlling the depth of the paper grain. Paper that is less bright acts as if the grain is shallow.

Contrast can be thought of as controlling the steepness of the paper grain. The grain in higher contrast paper goes from high to low more quickly and with fewer intermediate levels.

To change paper texture brightness:

- 1 Choose **Window menu > Show Papers**.
- 2 Adjust the Paper Brightness slider to modify the brightness of the grain.

To change paper texture contrast:

- 1 Choose **Window menu > Show Papers**.
- 2 On the Papers palette, use the Paper Contrast slider to modify the contrast of the grain.

Creating Paper Textures

The Make Paper command lets you make your own paper textures.

To create a paper texture:

- 1 Choose **Window menu > Show Papers**.
- 2 On the Papers palette, click the palette menu arrow and choose **Make Paper**.
- 3 In the Make Paper dialog box, choose a pattern from the Pattern pop-up menu to use as the basis of your paper texture.
- 4 Adjust the Spacing slider.
Moving the Spacing slider to the right opens up space between rows and columns in the selected pattern.
- 5 Adjust the Angle slider.
Moving the Angle slider changes the direction in which the pattern's rows are lined up.
- 6 When you like the look of the texture, enter a name.
Your new texture appears as the last item in the Paper selector.

Tip

• *You can also use the Paper selector in the toolbox to create paper. Click the Paper selector, click the selector menu arrow, and choose Make Paper.*



The Make Paper dialog box allows you to create your own textures based on patterns in the Pattern pop-up menu.

Capturing Paper Textures

The Capture Paper command lets you turn a section of an image into a paper texture. Once you save textures, they are available from the Papers palette.

To capture paper texture:

- 1 Open or create an image.
- 2 Select all or a piece of your source image.

- 3 On the Papers palette, click the palette menu arrow and choose **Capture Paper**.

If you want to blend the distinction between tile borders, move the Crossfade slider in the Save Paper dialog box to the right.

- 4 Type the name of your new texture.

Your texture now appears in the Paper selector and is added to the current library.

Tips

- *You can also use the Paper selector in the toolbox to capture paper texture. Click the Paper selector, click the selector menu arrow, and choose Capture Paper.*
- *The Make Fractal Pattern feature creates excellent textures. Some weaves also produce good textures. For more information, see “Turning a Fractal Pattern into a Paper Texture” on page 67.*

Using Patterns

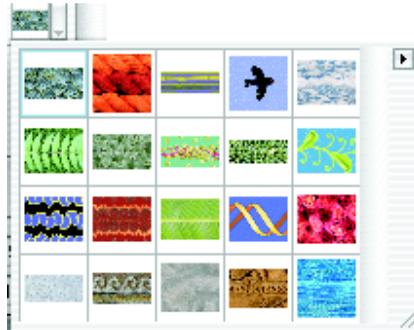
A pattern is a repeating design. The smallest unit of a pattern is known as a “tile.” When you fill an area with a pattern, the tile is repeated across the selected area.

With patterns, you can:

- fill selections with imagery
- paint patterns directly onto your image, with computed brushes that use rendered dab types
- paint using a cloning brush
- control image effects

You’ll find a sampling of patterns in the default Pattern library. You’ll find other pattern libraries on the Corel Painter CD.

The Patterns palette shows a preview of the pattern, gives tile image dimensions, and gives you options for scaling and arranging the tile when used in fills.



The Pattern selector on the Patterns palette.

Patterns are created by repeating a rectangular image tile across an area. Ideally, images intended to be tiled are created so that they tile seamlessly. Corel Painter provides ways to help you generate seamless tiles.

You can capture a pattern after you create it and manipulate it to be a half-drop design, traditionally used in wallpaper designs. Your patterns can be added to the Pattern library.

Fractal patterns can be used to create interesting landscapes in Corel Painter.

To choose a pattern:

- 1 Choose **Window menu > Show Patterns**.
If the Patterns palette is not expanded, click the palette arrow.
- 2 On the Patterns palette, click the Pattern selector.
- 3 Choose a pattern from the Pattern selector.

Tip

- You can also choose a pattern from the Pattern selector in the toolbox.

To adjust the appearance of a pattern

- 1 Choose **Window menu > Show Patterns**.
- 2 Choose a pattern from the Pattern selector.
- 3 Enable one of the following options:
 - **Rectangular** places the tile in a regular grid for fills. The Offset slider does not apply.
 - **Horizontal** offsets the tiles in subsequent rows. The Offset slider controls the amount of offset.

- **Vertical** offsets the tiles in subsequent columns. The Offset slider controls the amount of offset.
- 4 Adjust the Pattern Scale slider to control the dimensions of the pattern.
After setting these options, the pattern is ready to use.

To fill an image with pattern tiles:

- 1 On the Patterns palette, choose a pattern.
- 2 Choose **Effects menu > Fill**.
- 3 In the Fill dialog box, choose Pattern.

Note

- *To see tiling in an image, the image must be larger than the tile.*

To paint with a pattern:

- 1 From the Brush selector, choose a brush that applies media to a document.
- 2 On the Stroke Designer page of the Brush Creator, choose General.

- 3 From the Source pop-up menu, choose one of the following:
 - **Pattern** — paints with a pattern containing no mask information.
 - **Pattern with Mask** — paints using mask data contained in the pattern.
 - **Pattern As Opacity** — paints with the pattern at a reduced opacity.

- 4 Choose **Window menu > Show Patterns**.
- 5 Choose a pattern from the Pattern selector.
- 6 Paint in the image.

Notes:

- *If you have not set a clone source, Corel Painter uses the current pattern in any operation referring to clone source colors or luminance. This means you can paint with a pattern using a Cloner brush.*
- *If the Source option is not available (grayed out), the selected brush can apply color only. In that case, select a rendered brush, or choose Rendered from the Dab Type pop-up menu.*

- *When painting with a pattern, keep in mind that direction matters. Corel Painter flips the pattern you're painting when you change directions, so apply strokes in the same direction for a uniform effect.*

Editing a Pattern Tile

If a pattern preview isn't detailed enough or you want to edit an existing pattern, you can open the pattern tile in its own window. By loading a pattern as a file, you can view the pattern closely and modify it.

Once a pattern becomes a tile, you can paint off one side of the Canvas and watch your stroke appear on the opposite side of the Canvas, automatically wrapping to the other side.

Refer to “Creating Seamless Tiles” on page 66 for more information about editing pattern tiles.

To edit a pattern tile:

- 1 On the Patterns palette, choose a pattern from the Pattern selector.

- 2 Click the palette menu arrow, and choose Check Out Pattern.

Corel Painter opens the selected pattern tile in its own document window.

You can now edit the pattern tile as you would any image. To put the modified pattern back in the palette, you must save it to the Pattern library. For more information about saving patterns to a library, refer to “Adding Patterns to the Pattern Library” on page 68.

Creating Seamless Tiles

Patterns are created by repeating a rectangular image tile across an area. When you develop patterns, you’re creating images that will be tiled. Ideally, those images must tile seamlessly. That is, the eye should not be able to distinguish tile edges. Corel Painter provides ways to help you generate images that will tile easily.



The wrap-around colors feature lets you paint off one side of an image and onto the other side.

To help in making seamless tiles, Corel Painter gives documents defined as pattern tiles two special characteristics: wrap-around colors and wrap-around seams.

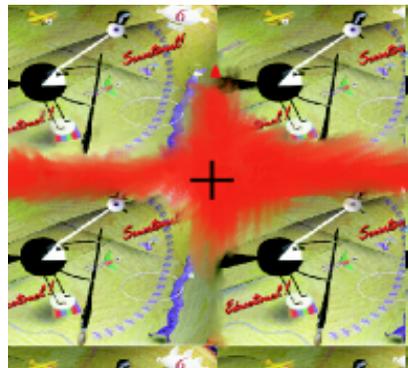
- With wrap-around colors, a brush stroke dragged off one edge of an image appears on the other side. This makes it easier to paint seamless, self-tiling patterns.
- The wrap-around seams feature lets you move the edges of pattern tiles to the center of the image, where their tonal differences are more apparent and easier to correct.

To minimize seams:

- 1 On the Patterns palette, click the palette menu arrow and choose Define Pattern.
- 2 In the toolbox, choose the Grabber tool .
- 3 Hold down the Shift key and drag inside the image.

You’ll see a horizontal and vertical line where image edges meet.

- 4 When the crossing lines are centered, release the mouse button.



The wrap-around seams feature lets you move the pattern tile edges to the middle so you can edit them.

To remove edge lines

- Do one of the following:
 - Set the Straight Cloner brush to clone from somewhere inside the image to preserve detailed imagery. Refer to “Painting in the Clone” on page 188 for more information about cloning.
 - Paint out edge lines using any color brush.
 - Smear across edge lines with a Water or Drip brush.
 - Copy a selection to a layer and move it over the line. Feather the layer and reduce opacity to help produce clean transitions. Drop the layer when you’re satisfied. Refer to “Using Layers and Layer Masks” on page 227 for more information about working with layers.

Turning a Fractal Pattern into a Paper Texture

You can turn a fractal pattern into a paper texture that will be saved to the Paper library.

To convert a fractal pattern to a texture:

- 1 On the Patterns palette, click the palette menu arrow and choose Check Out Pattern.
The pattern displays in a new image window.
- 2 Choose **Effects menu > Tonal Control** to adjust image elements such as brightness, contrast, and luminance.
- 3 When you’re satisfied with the tonal balance, choose **Select menu > All**.
- 4 Choose **Window menu > Show Papers** to display the Papers palette.
- 5 Click the palette menu arrow and choose Capture Paper.
- 6 In the Save Paper dialog box, set the crossfade to 0.00.
- 7 Name the paper texture.

Creating and Capturing Patterns

Corel Painter offers three ways to create patterns:

- Define the current image as a pattern, then add it to the Pattern library.
- Create a rectangular selection, then capture it as a pattern. For more information about creating selections, see “Creating Selections” on page 204.
- Make a Fractal pattern, then add it to the library. For more information on creating fractal patterns, see “Creating Fractal Patterns” on page 69.

After creating a pattern tile, you’ll probably want to refine it, so that it tiles seamlessly. Refer to “Creating Seamless Tiles” on page 66.

Images that you turn into patterns and save in RIF format maintain their pattern characteristics even after being saved and reopened.

Creating patterns can become addictive. It’s a good idea to keep libraries small. Use the Patterns Mover to create new libraries and delete unwanted patterns. You can switch libraries whenever you want to use a different set of patterns. For

more information about movers, refer to “Moving Items Between Libraries” on page 27.

To create a pattern:

- 1 Open the image file you want to create a pattern from.
- 2 Choose **Window menu > Show Patterns** to display the Patterns palette.
- 3 Click the palette menu arrow, and choose Define Pattern.

Tip

- *With the Grabber tool selected, you can hold down the Shift key and drag the seams to the center of the image. For best results, do this at 100% scale, not zoomed in.*

To capture a pattern:

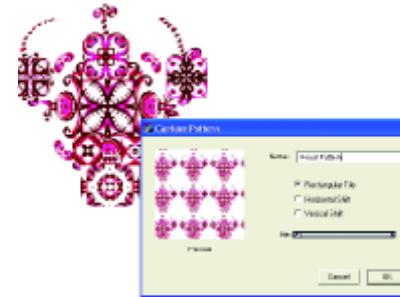
- 1 Using the Rectangular Selection tool , select the area of the image you want to use as a pattern. Remember, selection edges meet when the image is tiled, so select carefully.

- 2 Choose **Window menu > Show Patterns** to display the Patterns palette.
- 3 Click the palette menu arrow and choose Capture Pattern.
- 4 Enable one of the following options:
 - **Rectangular Tile** — places the tile in a regular grid for fills. The Bias slider does not apply.
 - **Horizontal Shift** — offsets the tiles in subsequent rows. The Bias slider controls the amount of offset.
 - **Vertical Shift** — offsets the tiles in subsequent columns. The Bias slider controls the amount of offset.

As you try different tile arrangements and Bias settings, the Preview window shows the result.

- 5 Enter a descriptive name for the pattern. Corel Painter captures the pattern and saves it to the current library. Once saved, you can find the captured pattern on the Patterns

palette. If you want to edit it, you can check it back out of the library.



The Capture Pattern dialog box lets you decide how much to offset pattern tiles and in which direction.

Adding Patterns to the Pattern Library

You can add any image as a pattern tile to the current Pattern library.

To add a pattern to the library:

- 1 On the Patterns palette, click the palette menu arrow and choose Add Image to Library.
- 2 In the Save Image dialog box, give it a descriptive name.

If a pattern with that name already exists in this library, you are prompted to replace it. If you don't want to replace the existing pattern, click No to try again with a different name.

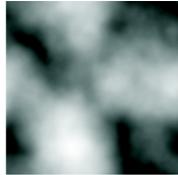
Creating Fractal Patterns

The Make Fractal Pattern command is a pattern generator that creates interesting landscapes. These topographic patterns can be filled with color and even embossed using a paper texture.

When you create fractal patterns, the following options allow you to fine-tune your creation:

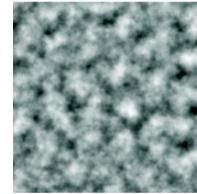
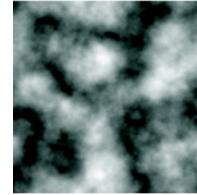
- **Size** sets the exact size of the tile you are creating. If your computer has a lot of memory, you can make a large file with a high resolution. Depending on how much memory your computer has available to Corel Painter, some of the size options may not be available.
- **Power** controls the intricacy of the pattern's definition, as if you were "zooming" in and out on a

textured surface with a microscope. Move the Power slider to the right to zoom out and see many small patterns. Move the Power slider to the left to zoom in and see fewer large patterns.



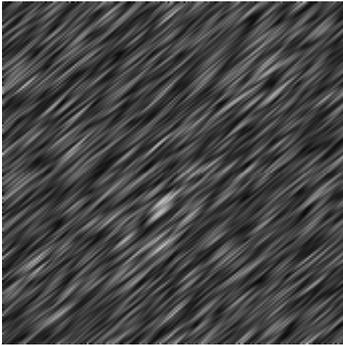
The Power slider determines the degree of detail. Top=-200%, bottom=0%.

- **Feature Size** defines the number of prominent features within the tile. Moving the slider to the left increases the number of repetitions per tile.



The Feature Size slider determines the number of repetitions per tile. Top=90%, bottom=20%.

- **Softness** adjusts the edge softness of the pattern.
- **Angle** changes the direction from which you view the fractal.
- **Thinness** emphasizes the direction suggested by the lines of the fractal pattern. Thinner lines produce a more linear look.



Low Thinness settings show the fractal as streaks. Use the Angle slider to change the direction of streaking.

Corel Painter uses four channels to store graphic information: Red, Green, Blue, and Alpha.

You can place information other than color values in these channels. Channel options allow you to visualize this information in new and different ways.

- **Height as Luminance** displays pseudo-height information as luminance. Images generated with this option are useful in conjunction with the Apply Surface Texture effect. White areas

are represented as peaks, and dark areas become depressions.

- **Gradient Bearing** uses the Red channel to display the bearing of the down angle of a height field.
- **Surface Normal** uses the Green and Blue channels to represent the X and Y components of the surface normal (angle perpendicular to the surface at a given point) of the height field (Green=X, Blue=Y).

These two latter options for viewing a fractal texture are offered for purely aesthetic reasons. One way to take advantage of them is to create color variations of the texture with the Adjust Colors feature.

To create fractal patterns:

- 1 On the Patterns palette, click the palette menu arrow and choose Make Fractal Pattern.
- 2 In the Make Fractal Pattern dialog box, adjust the fractal options. Changes you make appear in the Preview window.
- 3 When you are satisfied with your selections, click OK.

Give Corel Painter a little time to create your new pattern file. When Corel Painter is finished, your pattern file is displayed in its own document window.

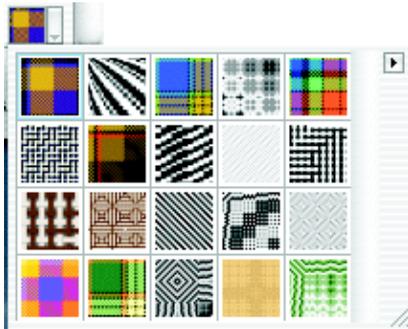
Tips

- To colorize a fractal pattern, choose an appropriate gradient and use the Express in Image feature.
- You can also create interesting patterns by choosing a colorful gradient and using the Express in Image command on the Gradients palette.

Using Weaves

The Weaves palette is, in effect, a virtual loom that you can use to create weaves to use as fill patterns.

Libraries of weaves are included with Corel Painter. You can modify a weave by changing the way it displays the scaling and thickness of its threads, or its color. You can also create and save weaves of your own. You can preview your changes before you apply them.



The Weave selector on the Weaves palette.

To choose a weave:

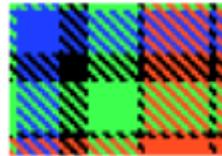
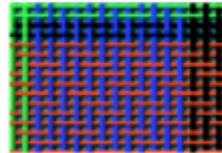
- 1 Choose **Window menu > Show Weaves**.
If the Weaves palette is not expanded, click the palette arrow.
- 2 On the Weaves palette, click the Weave selector.
- 3 Choose a weave from the Weave selector.

Tip

- You can also choose a weave from the Weave selector in the toolbox.

Changing Weave Display

Corel Painter can display a weave as two-dimensional or show the interwoven threads three-dimensionally, complete with shadows.



A weave can appear differently when displayed either as two-dimensional or three-dimensional.

To change how a weave is displayed:

- 1 Choose **Window menu > Show Weaves** to display the Weaves palette.
- 2 Click the Two-Dimensional Weave  or the Three-Dimensional Weave  icon.

The button changes to show either a two-dimensional (Blocks) or three-dimensional (Fibers) weave.

Note

- Depending on which weave is selected, you might or might not see a change in the Preview window. For different two- and three-dimensional effects, you can adjust the scaling and thickness sliders at the bottom of the Weaves palette.

Adjusting Scaling and Thickness

The four sliders at the bottom of the Weaves palette control the thickness of threads and the spacing between them. The top two sliders control horizontal dimensions; the bottom two control vertical dimensions. By adjusting these sliders, you can create a wide variety of weaves with any one of the patterns supplied.

To adjust scaling and thickness:

- 1 On the Weaves palette, choose a weave from the Weave selector.

The weave displays in the Preview window.

- 2 Click the Three-Dimensional Weave icon  to show a three-dimensional weave.
For most weaves, you won't see a change in the preview until you adjust the scale and thickness values.
- 3 Adjust the horizontal and vertical scale sliders to increase the scale, thus enlarging the weave.
- 4 Adjust the horizontal and vertical thickness sliders to reduce the thickness.

You should begin to see a change in the weave preview.

Note

• *Thickness sliders affect the three-dimensional display. When you select a two-dimensional display, the thickness sliders have no effect.*

Editing Weave Colors

Each weave uses its own Color Set. You can display the Color Set used for a weave, change the colors in the set, and apply them to the weave.

Remember that you can open several palettes and rearrange them to make it easier to see the controls you need.

For more information about Color Sets, see “Using Color Sets” on page 83.

To display the color set for a weave:

- 1 On the Weaves palette, choose a weave from the Weave selector.
- 2 Click the palette menu arrow, and choose Get Color Set.
The Color Set for the selected weave appears.

To change weave colors:

- 1 Choose a new color from the Colors palette or a color set, or sample a color with the Dropper tool .
- 2 Choose **Window menu > Show Weaves** to display the Weaves palette.
- 3 Hold down **Option** (Mac OS) or **Alt** (Windows), and double-click the color swatch on the weave Color Set that you want to replace.

The new color replaces the old one.

- 4 Click the palette menu arrow, and choose Put Color Set.

The Preview window shows the weave with the new colors. If you fill an image with the weave pattern, Corel Painter now uses the new color set.

Saving Weaves

After altering the scaling, thickness, or color of a weave, you can save your changes as a new weave.

To save a weave:

- 1 On the Weaves palette, click the palette menu arrow and choose Save Weave.
- 2 In the Save Weave dialog box, type a name for the weave.

If you don't type a new name, Corel Painter replaces the existing weave with the changed weave. The new weave pattern appears in the current weaves library.

Advanced Weaving

Corel Painter lets you create woven fabrics of virtually any description. You can create fabrics for wallpapers, carpets, clothes, and furniture.

To create your own weaves:

- 1 On the Weaves palette, click the palette menu arrow and choose Edit Weave.
- 2 In the Edit Weave dialog box, adjust the controls for drafting a weave on the 8-harness, 8-treadle loom.

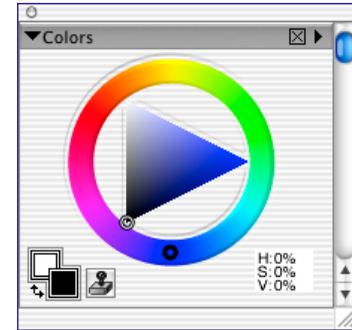
5 Color

Corel Painter offers many ways to apply color to your image, from changing the paper color, to choosing colors for your brush strokes, to applying gradients to an entire image or selection.

Working with Color

You can select colors in several ways. You can use:

- the Color pickers on the Colors palette
- the Dropper tool, which samples color from the image
- the Use Clone Color setting, which pulls color from a source
- the Mixer palette
- the Color Sets palette



The Colors palette is one place you can select a color to add to your image.

To display the Colors palette:

- Choose **Window menu > Show Colors**.

Changing Paper Color

You can change a document's paper color—the color of the background Canvas—at any time. This color appears when you delete a filled area or use the eraser to remove color.



To change the existing paper color:

- 1 Choose a primary color from the Colors palette.
- 2 Choose **Canvas menu > Set Paper Color**.
- 3 To expose the new paper color, do one of the following:
 - Make a selection, and cut or delete it.
 - Use the eraser brush to erase part of your image.

Note

- *Do not use a bleach variant to expose the new paper color, unless the paper color is white. Bleach variants will erase to white, regardless of the paper color.*

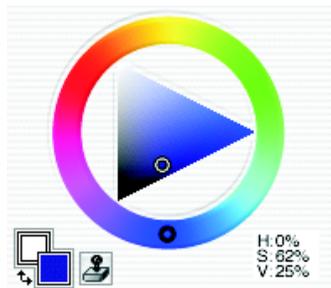
For more information about choosing colors, see “Using the Color Pickers” on page 76.



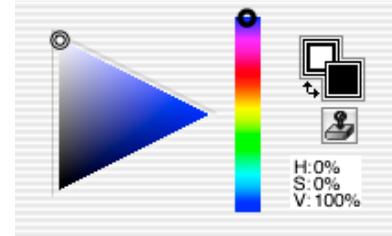
If you change the existing paper color, you must delete an area to view the change.

Using the Color Pickers

Corel Painter provides two Color pickers: standard and small. The Colors palette menu lets you select between the two pickers.



The standard Color picker.



The small Color picker.

The standard Color picker has a hue ring and a color triangle. Within the triangle, colors are organized by value and saturation.

- Values span the triangle from top to bottom, with the top of the triangle being the highest value (white), the bottom the lowest value (black).
- Saturation levels go from left to right. Dragging or clicking to the right produces the purest color within the predominant hue. Dragging or clicking to the left reduces the level of color saturation, giving “muddier” or grayer colors.

The small Color picker displays a color triangle, with the hue ring as a single bar.

To choose a hue and color from the standard Color picker:

- 1 Choose **Window menu > Show Colors** to display the Colors palette.

If the Colors palette is not expanded, click the palette arrow.

- 2 Click the palette menu arrow, and choose Standard Colors.
- 3 Drag the circle on the color ring to select the predominant hue.

You can also select a hue by clicking once anywhere on the ring.

The triangle displays all the available colors within that selected hue.

- 4 Select a color on the triangle by dragging the circle or click the color you want.

To choose a hue and color from the small Color picker:

- 1 Choose **Window menu > Show Colors** to display the Colors palette.
- 2 Click the palette menu arrow, and choose Small Colors.
- 3 Drag the slider on the color bar to select the predominant hue.

You can also select a hue by clicking once anywhere on the bar.

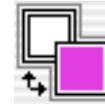
The triangle displays all the available colors within that selected hue.

- 4 Select a color on the triangle by dragging the circle or click the color you want.

Understanding Primary and Secondary Colors

The color you select appears in one of two overlapping rectangles displayed on the Colors palette. The front rectangle represents the selected primary color. The back rectangle shows the selected secondary color. By default, black is the primary color and

white is the secondary color. Most of the time you'll work with the primary color.



Overlapping rectangles display the current primary and secondary colors.

Don't confuse the secondary color with what other graphics programs call "the background color." In Corel Painter, the "background color" is the paper color.

The secondary color is for multicolor brush strokes, two-point gradients, and Image Hose effects. It's used when more than one color is applied.

To choose the primary color:

- 1 Choose **Window menu > Show Colors** to display the Colors palette.
- 2 Click the front rectangle.
- 3 Choose a color using the Color picker.



Click the front rectangle to set the primary color.

To choose the secondary color:

- 1 On the Colors palette, click the back rectangle.
- 2 Choose a color using the Color picker.

If you usually work with the Primary color, you might want to re-click the front rectangle so that it will be selected the next time you go to the color picker.



Click the back rectangle to set the secondary color.

To swap primary and secondary colors:

- Click the swap icon .

Sampling Colors from Imagery

In addition to choosing colors on the Colors palette, you can use the Dropper tool to select, or “pick up,” a color from an existing image.

To use the Dropper tool:

- 1 Click the front or back rectangle to select a primary or secondary color.
- 2 Click the Dropper tool  in the toolbox.
- 3 Move the cursor to the color you want to pick up, and click it.

The color picker updates to display the color you’ve selected.

Note

- *The Dropper tool picks up visible color only. You can’t select a hidden color with the Dropper tool.*

Tip

- *You can quickly get the Dropper tool by pressing **D** on the keyboard.*

To access the Dropper tool from other tools:

- Press **Option** (Mac OS) or **Alt** (Windows).

Note

- *The Dropper tool doesn’t work with all tools.*

Cloning Color

The Clone Color option is another way to choose color. This feature lets the brush pick up color from an original (source) image. Brushes using dab-based Dab Types take an average based on samples of color from the clone source, resulting in an approximation of the original color. Brushes using rendered Dab Types sample several colors, loading each into individual bristles of the brush, allowing for startlingly realistic results. For more information about cloning, refer to “Cloning Imagery” on page 185.

To set up a clone source

- 1 Choose **File menu > Open**, and choose the file you want to use as a clone source.
- 2 Choose **File menu > Clone**.
- 3 Choose **Select menu > All**, and press **Delete** (Mac OS) or **Backspace** (Windows).

Now you can work in the new file, taking data from the original source file.

Tip

- *You can also use this feature when creating a mosaic. For more information, see “Mosaics” on page 347.*

To use clone colors:

- 1 Set up a clone source.
If you don't set a file as the source, Corel Painter uses the current Pattern.
- 2 Choose a brush from the Brush selector bar.
- 3 Choose **Window menu > Show Colors** to display the Colors palette.
- 4 Do one of the following:

- Click the palette menu arrow, and choose Use Clone Color.
- Click the Clone Color button  on the Colors palette.

Enabling the Clone Color option disables the color picker. This is a reminder that your color information is coming from the clone source.

- 5 When you paint in the clone file, Corel Painter uses colors from the clone source image.

Note

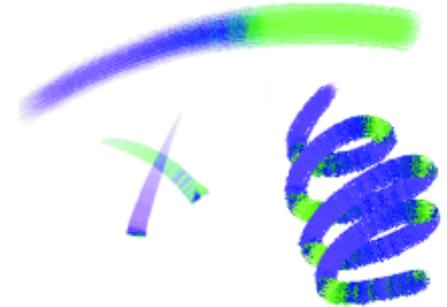
- *When you change the brush or variant, Corel Painter turns Use Clone Color off. Be sure to turn it back on to continue working with the clone color.*

Using Two Colors at Once

Usually, you'll work with only the primary color—the front rectangle of the two overlapping rectangles on the Colors palette. Using one color produces a solid-color brush stroke.

By selecting a secondary color, you can determine the colors for multicolored brush strokes. Many brush variants are able to paint with a variable range of colors.

The settings on the Color Expression palette determine when Corel Painter uses one color or the other. For more information about using color expression, see “Color Expression” on page 89.



You can use two colors at once in a brush stroke.

To set up a two-color brush stroke:

- 1 Choose a brush from the Brush selector bar.

- 2 Choose **Window menu > Show Colors** to display the Colors palette.
- 3 Choose a primary and secondary color from the standard or small Color Picker.

Refer to “Understanding Primary and Secondary Colors” on page 77 for more information about setting primary and secondary colors.

- 4 Choose **Window menu > Show Color Expression** to display the Color Expression palette.
- 5 Choose Direction from the Controller pop-up menu.
- 6 Paint in the document.

The primary color is used in one direction and the secondary color is used in the other.

Note

- You can also choose a color from a color set.

Tip

- You might want to try a different setting from the Controller pop-up menu on the Color Expression palette. Try setting it to Pressure instead of Direction.

The Mixer Palette

The Mixer palette mimics the traditional experience of mixing colors on an artist’s palette. You can apply two or more colors to the Mixer Pad, blending them together to get the color you want.

Colors can be saved, loaded, and reset on the Mixer palette, saved as color swatches, and saved to color sets.



The Mixer palette.

To display the Mixer palette

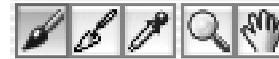
- Choose **Window menu > Show Mixer**.

To change the Mixer Pad background

- 1 Choose **Window menu > Show Mixer**.
- 2 Click the palette menu arrow, and choose Change Mixer Background.
- 3 In the Color dialog box, choose a background color.

The Mixer Palette Tools

The tools on the Mixer palette are used to apply, mix, sample, and clear color on the Mixer Pad.



The Mixer palette tools.

The Brush Tool



The Brush tool acts as a loaded paint source, applying color to the Mixer Pad. Color loaded on it also blends with color already on the Mixer Pad.

The Palette Knife Tool



The Palette Knife mixes colors already on the Mixer Pad. It does not add new colors to the Mixer Pad.

The Eyedropper Tool



The Eyedropper tool samples color on the Mixer Pad for use on the canvas. The sampled color becomes the primary color on the Colors palette.

The Zoom Tool



The Zoom tool lets you zoom in and out of areas on the Mixer Pad.

The Pan Tool



The Pan tool lets you scroll through the Mixer Pad.

The Clear and Reset Canvas Tool



The Clear and Reset Canvas tool erases the contents of the Mixer Pad and resets the zoom level to 100%.

The Brush Size Slider

The Brush Size slider lets you increase or decrease the size of the Brush tool and the Palette Knife tool. If you adjust the Brush Size slider, the new value is retained when you reopen the application.

The Mixer Palette Colors

Color wells at the top of the Mixer palette store commonly used colors you can use on the Mixer Pad. A series of colors appears by default; however, these colors can be changed to suit the individual preferences of the artist. Mixer colors can be saved, loaded, and reset to the default.

To change Mixer palette colors

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.

If the Mixer palette is not expanded, click the palette arrow.

- 2 Choose **Window menu > Show Colors** to display the Colors palette.
- 3 On the Colors palette, choose a color from the standard or small Color Picker.
- 4 On the Mixer Color palette, choose the color well you want to change on the Mixer Color selector.
- 5 In the color well, press **Command + click** (Mac OS) or **Ctrl + click** (Windows).

The new color appears in the color well.

To save Mixer palette colors

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the palette menu arrow, and choose Save Mixer Colors.
- 3 In the Save Mixer Colors dialog box, type a name for the mixer colors and choose where you want to save the Mixer swatches (MSW) file.
- 4 Click Save.

To load Mixer palette colors

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the palette menu arrow, and choose Load Mixer Colors.
- 3 In the Load Mixer dialog box, choose the Mixer swatches (MSW) file you want to load.
- 4 Click Open.

To reset the Mixer palette colors

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the palette menu arrow, and choose Reset Mixer Colors.

Mixing Colors

Using the Mixer Pad, the color wells, and the Brush and Palette Knife tools, you can create new colors for use in your images.

When you have finished mixing and sampling colors, you can clear the Mixer Pad, or save it as a Mixer Pad (MXS) file that you can open and use later.

To mix colors

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the Brush tool .
- 3 Choose a color from the color well, and paint on the Mixer Pad.
- 4 Choose a second color from the color well, and paint on the Mixer Pad.
- 5 Do one of the following:
 - Use the Brush tool to add to and blend the colors.
 - Use the Palette Knife tool  to blend the colors.

To sample a color from the Mixer Pad

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the Eyedropper tool .
- 3 On the Mixer Pad, click the color you want to sample.
The sampled color becomes the primary color in the image.

To clear the Mixer Pad

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Do one of the following:
 - Click the palette menu arrow, and choose Clear Mixer Pad.
 - On the Mixer palette, click the Clear and Reset Canvas button .

To save a Mixer Pad

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the palette menu arrow, and choose Save Mixer Pad.
- 3 In the Save Mixer Pad dialog box, type a name for the mixer colors and choose where you want to save the Mixer Pads (MXS) file.
- 4 Click Save.

To load a Mixer Pad

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the palette menu arrow, and choose Open Mixer Pad.

- 3 In the Open Mixer Pad dialog box, choose the Mixer Pads (MXS) file you want to open.
- 4 Click Open.

Creating Color Swatches

If you have mixed colors that you are particularly happy with, you can save them as color swatches and add them to color sets. For more information about color sets, see “Using Color Sets” on page 83.



Color swatches that you create on the Mixer palette can be saved.

To add a color swatch to the color set

- 1 On the Mixer palette, click the Eyedropper tool , and choose the color you want to save as a color swatch.
- 2 Click the palette menu arrow, and choose Add Swatch to Color Set.
The selected color is added to the current color set.

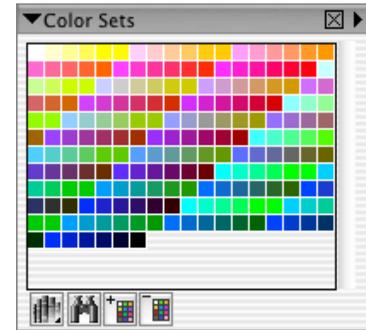
To create a color set from the Mixer Pad

- 1 Choose **Window menu > Show Mixer** to display the Mixer palette.
- 2 Click the palette menu arrow, and choose New Color Set from Mixer Pad.

Using Color Sets

Corel Painter uses color sets to organize groups of colors. Some color sets are organized by both name and color relationship.

Corel Painter provides several color sets—Corel Painter Colors, Mac OS and Windows system palettes, and the PANTONE Matching System® are a few. Only one color set can be open at a time, but you can easily load a different set.



The Color Sets palette.

To display the Color Sets palette:

- Choose **Window menu > Show Color Sets**.

To choose a color from a color set:

- On the Color Sets palette, click a color.

To open a different color set:

- 1 On the Color Sets palette, click the palette menu arrow or the Library Access button , and choose Open Color Set.
- 2 In the Select Color dialog box, choose a color set and click Open.

You can set a default color set in the Preferences dialog box. For more information, refer to “Setting Preferences” on page 48.

To save a color set

- 1 On the Color Sets palette, click the palette menu arrow or the Library Access button, and choose Save Color Set.
- 2 In the Enter Color Set Name dialog box, choose where you want to save the file.
- 3 Type a name for the color set in the File Name box.
- 4 Click Save.

Finding Colors in a Color Set

There are two ways to find a particular color in a color set. You can search for the color by name or have Corel Painter find the color that comes closest to matching the current color.

To find a color:

- 1 On the Color Sets palette, do one of the following:

- Click the Find Color button .
- Click the palette menu arrow, and choose Find Swatch.

- 2 In the Find Color dialog box, do one of the following:

- Enable the By Name option, and type a name in the box.
- Enable Closest to Current Color.

- 3 Click Begin.

- 4 Click OK when the desired color is found.

If the color set is visible, Corel Painter surrounds the found color with a selection frame.

If you search for a color by name, but a color with that name is not found, the OK button is not available (grayed out).

Customizing Color Set Layouts

You can arrange colors in a color set in a variety of ways. You can sort by hue, luminance, and saturation; determine the size of color swatches; decide whether to have grid lines; and

indicate whether the colors in the set are named. You can change a color set until it’s exactly the way you want it.

To change how colors are sorted:

- 1 On the Color Sets palette, click the palette menu arrow and choose Sort Order.
- 2 Choose one of the following options:
 - **Saved** — sorts colors in the order they were originally entered.
 - **HLS** — sorts colors by hue, luminance, and saturation.
 - **LHS** — sorts colors by luminance, hue, and saturation.
 - **SHL** — sorts colors by saturation, hue, and luminance.

To adjust color swatch size:

- 1 On the Color Sets palette, click the palette menu arrow, and choose Swatch Size.
- 2 Do one of the following:
 - Choose a pixel value.
 - Choose Customize.

- 3 If you choose Customize, move the Width and Height sliders in the Customize dialog box, or type values in the Width and Height boxes.

To turn the grid on or off:

- On the Color Sets palette, click the palette menu arrow, and choose Show Grid to toggle the display of the grid on and off.

Turning the grid off eliminates lines between colors. You can see more colors, but the separations between colors are not as distinct as when the grid is on.

To turn color names on or off:

- Click the palette menu arrow, and choose Display Name to toggle the display of color names on or off.

Creating Color Sets

You can create your own color sets to control the colors in particular projects or to create groups of favorite painting colors. Creating clearly named color sets can be very useful. For example,

you could call a color set Shades of Purple, Hero Image, My Crayons, or Rollover Buttons—all offering you easy access to recognizable color sets.

You can create color sets from:

- the Color pickers on the Colors palette
- an image
- a selection on an image
- a layer
- the Mixer palette

Before you create a new color set, you may be prompted to save the current color set. For more information, see “To save a color set” on page 84.

To create a new color set using the Color pickers

- 1 On the Color Sets palette, click the palette menu arrow, and choose New Empty Color Set.
- 2 On the Colors palettes, choose a color from the standard or small Color picker.
- 3 On the Color Sets palette, click the Add Color to Color Set button .

Notes:

- For information about adding colors to a color set, see “Editing Color Sets” on page 86.
- For more information about selecting colors, refer to “Using the Color Pickers” on page 76.

To create a color set from an image, selection, layer, or the Mixer palette

- On the Color Sets palette, click the palette menu arrow or the Library Access button , and choose one of the following:
 - **New Color Set from Image** — This option is available only if you have an image open. A color set appears, containing all the colors in the image.
 - **New Color Set from Layer** — This option is available only if an active layer is selected in your image. A color set appears, containing all the colors in the active layer.
 - **New Color Set from Selection** — This option is active only if you have an active selection on

your image. A color set appears, containing all the colors in the selected area of the image.

- **New Color Set from Mixer** — A color set appears, containing all of the colors used in the Mixer palette.

Tip

- *When working on Web pages, you can keep the number of colors used in an image (and subsequent image size) low by creating a color set and using only colors in that set.*

Editing Color Sets

You can customize color sets by adding, deleting, or replacing colors. You can also name or rename individual colors in a color set.

Naming colors in a color set can be useful. You can then search for a color by name or annotate the colors you use, right in the document window. For more information on searching for a color, refer to “Finding Colors in a Color Set” on page 84. For more

information about annotating colors, refer to “Annotating Colors” on page 89.

To add a color:

- 1 Choose the color you want to add from the Colors palette, from a color set, or from an existing image.
- 2 On the Color Sets palette, click the Add Color to Color Set button . The color is added to the current color set.
- 3 If you like, double-click the color swatch to enter a name for the color. You can change the name later by double-clicking on the swatch again and entering a new name.
- 4 Repeat this procedure for all the colors you want to add.

Note

- *Because Corel Painter closes the current color set before displaying a new one, if you want to add a color from an existing color set, select the color in the existing color set before you open the destination set.*

To delete a color:

- 1 Choose **Window menu > Show Color Sets**.
- 2 On the Color Sets palette, click the Delete Color from Color Set button .
- 3 In the warning dialog box, click Yes. Corel Painter deletes the chosen color from the color set window.

To replace a color:

- 1 Choose the color you want to add from the Colors palette, from a color set, or from an existing image.
- 2 Hold down **Option** (Mac OS) or **Alt** (Windows), and click the color you want to replace. The new color replaces the old one in the color set.

To name or rename a color:

- 1 Choose **Window menu > Show Color Sets**.
- 2 Double-click a color swatch on the Color Sets palette.

- 3 Type a color name in the Set Color Name dialog box.

Color names can be up to characters long.

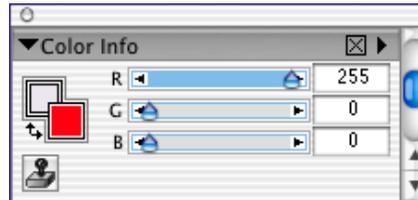
Color Information

Color information for a selected color is available on the Color Info palette.

The Color Info Palette

The Color Info palette shows the HSV and RGB values for the selected color. Corel Painter gives RGB values in decimal format. These values can be adjusted by moving the sliders, or by typing new values in the corresponding boxes.

You can also use the Color Info palette to enable the Clone Color option. For more information on clone color, see “Using Clone Color” on page 196.



The Color Info palette.

To display the Color Info palette

- Choose **Window menu > Show Color Info.**

To set RGB or HSV values

- 1 On the Color Info palette, click the palette menu arrow and choose one of the following:
 - Display as RGB.
 - Display as HSV.
- 2 Move the sliders to adjust the values, or type new values in the boxes.

You can preview the new color in the primary and secondary color rectangles on the Color Info palette.

Tip

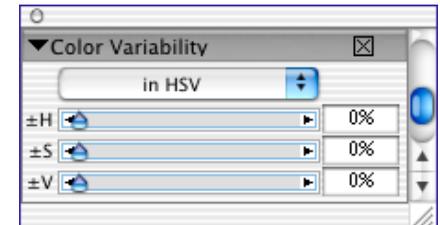
- You can display hexadecimal RGB values on the Colors palette by pressing **Shift + click** in the HSV/RGB square. Hexadecimal RGB values can be useful when authoring for the Web.

Color Variability

Color variability allows you to create brush strokes of more than one color. Variability can be used to enhance the Natural-Media appearance of your work.

The Color Variability Palette

The Color Variability palette contains sliders to adjust color variability values.



The Color Variability palette.

To display the Color Variability palette

- Choose **Window menu > Show Color Variability**.

Setting Color Variability

Color variability can be set according to HSV or RGB mode, and it can be based on the current gradient or color set.

To set color variability:

- 1 On the Colors palette, choose a primary color from the standard or small Color picker.
- 2 Choose **Window menu > Show Color Variability** to display the Color Variability palette.
- 3 Choose In HSV from the pop-up menu.
- 4 Adjust the Hue, Saturation, and Value sliders to control hue, saturation, and value ranges for color variability.
 - Move the **±Hue** slider to the right to increase the number of hues in the resulting brush

stroke. These colors are the ones adjacent to the selected color on the color wheel.

- Move the **±Saturation** slider to the right to increase variability in the color intensity of the brush stroke.
- Move the **±Value** slider to the right to increase variability in the brightness of the brush stroke.

You can try different **±HSV** settings with any of the brushes to get interesting results.

Note

- *When you save a brush variant, the current color variability setting is also saved.*

Tip

- *When working with brushes like the Loaded Oils brush or the Van Gogh and Seurat variants of the Artists brush, moving these sliders to the right can add natural, almost 3D-looking effects to your Web page images.*

To set color variability in RGB mode:

- 1 On the Colors palette, choose a primary color from the standard or small Color picker.
- 2 Choose **Window menu > Show Color Variability** to display the Color Variability palette.
- 3 Choose In RGB from the pop-up menu.
- 4 Move the R, G, and B sliders to control color variability of red, green, and blue values.

To set color variability based on the current gradient:

- 1 On the Colors palette, choose a primary color from the standard or small Color picker.
- 2 Choose **Window menu > Show Color Variability** to display the Color Variability palette.
- 3 Choose From Gradient from the pop-up menu.

From Gradient causes random colors from the current gradient to be chosen for color variability.

To set color variability based on the current color set:

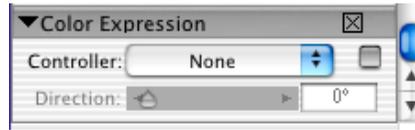
- 1 On the Colors palette, choose a primary color from the standard or small Color picker.
- 2 Choose **Window menu > Show Color Variability** to display the Color Variability palette.
- 3 Choose From Color Set from the pop-up menu.
From Color Set causes random colors from the current color set to be chosen for color variability.

Color Expression

Color expression determines where Corel Painter should use the primary or secondary color in an image.

The Color Expression Palette

The Color Expression palette lets you introduce input, such as direction, that controls output when applying two-color brush strokes.



The Color Expression palette.

To display the Color Expression palette

- Choose **Window menu > Show Color Expression**.

To set Color Expression controls

- 1 Choose **Window menu > Show Color Expression** to display the Color Expression palette.
- 2 From the Controller pop-up menu, choose one of the following:
 - **None** — applies no adjustment to the color expression
 - **Velocity** — adjusts the color expression based on the dragging speed
 - **Direction** — adjusts the color expression based on the direction of the stroke, and according to the value you set with the slider or in the box

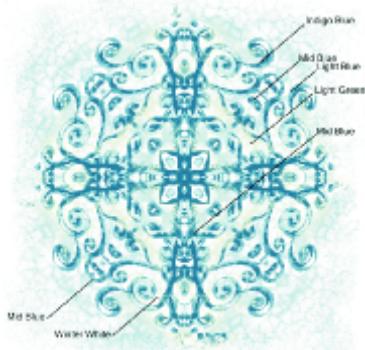
- **Pressure** — adjusts the color expression based on stylus pressure
 - **Wheel** — adjusts the color expression based on the wheel settings on an airbrush stylus, specifically the Wacom Intuos Airbrush stylus
 - **Tilt** — adjusts the color expression based on the angle of the stylus from the tablet
 - **Bearing** — adjusts the color expression based on the direction in which the stylus points
 - **Source** — adjusts the color expression based on the luminance of the clone source
 - **Random** — adjusts the color expression at random
- 3 If you want to switch the primary and secondary colors, enable the Invert check box to invert the color expression.

Annotating Colors

The Annotation feature uses color names as labels for the colors in your images. Labels are small text boxes

connected to lines that point to an individual color in your on-screen or printed image. Annotating colors in an image can help you track, and limit, which colors are used, which can help you control image size. After you create annotations, you can hide or show them, or delete them.

You must name color swatches in the active color set to generate useful annotations. You can change color names after you have added them as annotations. For information about naming color sets, see “To name or rename a color:” on page 86.



Create labels, or annotations, for individual colors in your image.

Annotations are kept in a separate layer on top of the image and can be saved in the RIF format with your image. Annotations are included when you record a script, and are properly scaled when you play back at a different resolution.

When you move a layer, its annotations go with it. If you move an annotated layer on top of another, the visible annotation might actually belong to the underlying layer, even though it appears to be labeling the top one.

When you annotate a color that doesn't exactly match a color in the active color set—for example, when you're annotating brush strokes applied at less than 100% opacity—Corel Painter approximates the color, displays the name of the nearest match, and adds an asterisk after the color name to indicate a near match.

When you refill an annotated area using the Cartoon Cel or Contiguous Pixel Fill options, the annotation is updated to reflect the new color. Refer

to “Filling Cells” on page 118 for more information about using the Cartoon Cel Fill Method.

To create annotations:

- 1 Use a color set that includes names for the colors.
- 2 Choose **Canvas menu > Annotations > Annotate**.
- 3 Position the cursor on the color you wish to annotate and drag to an area outside the color's boundaries.
When you release the mouse or stylus button, a color name appears, attached to a line that points to the annotated color.
- 4 After annotating as many colors as needed, click Done in the Annotation dialog box.

To delete an annotation:

- 1 Choose **Canvas menu > Annotations > Annotate**.
- 2 Click the annotation tag (name) to select it.
- 3 Press **Delete** (Mac OS) or **Backspace** (Windows).

To show or hide annotations:

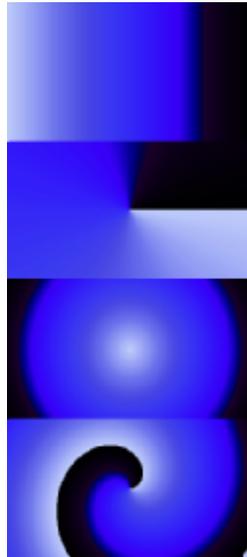
- 1 Choose **Canvas menu > Annotations > Show Annotations**.
The annotations appear.
- 2 Choose **Canvas menu > Annotations > Hide Annotations** to hide the annotations.

To change color names after annotating an image:

- 1 Choose the annotation you want to rename.
- 2 Press **Delete** (Mac OS) or **Backspace** (Windows).
- 3 On the Color Sets palette, double-click the color swatch of the color you want to rename.
- 4 Type a new name in the Set Color Name dialog box.
- 5 Choose **Canvas menu > Annotations > Annotate**.
- 6 Re-create the deleted annotation.
- 7 Repeat the procedure for each annotation you want to rename.

Using Gradients

A gradient is a gradual transformation from one color into another. Sometimes they are called blends or fountains. Corel Painter provides several different types of gradients: linear, radial, circular, and spiral.



Examples of gradient types, from top to bottom: linear, radial, circular, and spiral.

You can use gradients to:

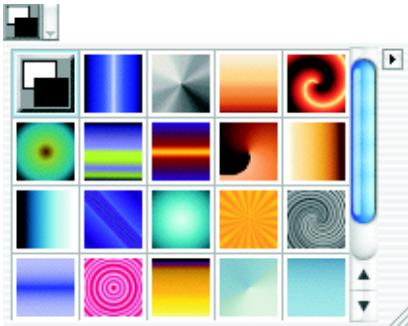
- Fill an image selection, layer, or channel. For more information, see “Using Selections” on page 201, “Using Layers and Layer Masks” on page 227, and “Using Alpha Channels” on page 217.
- Control a Pop-Art Fill effect. (Other effects work best when you use a filled mask.) For more information, see “Pop Art Fill” on page 309.
- Express the gradient in an existing image by mapping gradient colors to image luminance. For more information, see “Creating Texture Using Image Luminance” on page 278.
- Brush with a gradient with one of the computed brushes (using one of these dab types: line airbrush, projected, or rendered). For more information, see “Dab Types” on page 146.

Although Corel Painter comes with libraries full of gradients, you’ll invariably want to create some of your

own. To do that, you just need to define two colors and create a gradient between them.

You can also capture gradients from existing images or create your own libraries of gradients. Use the options on the Gradients palette to select and adjust Corel Painter gradients.

Gradients are stored in libraries. You can load alternate libraries of gradients to increase your choices. For more information about working with libraries, refer to “Loading Alternate Libraries” on page 26.



The Gradient selector on the Gradients palette.

To select a gradient:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
If the Gradients palette is not expanded, click the palette arrow.
- 2 Click the Gradient selector and choose a gradient style.
- 3 Click one of the Gradient Types on the right of the palette to select between the four types of gradients—linear, radial, spiral, or circular.

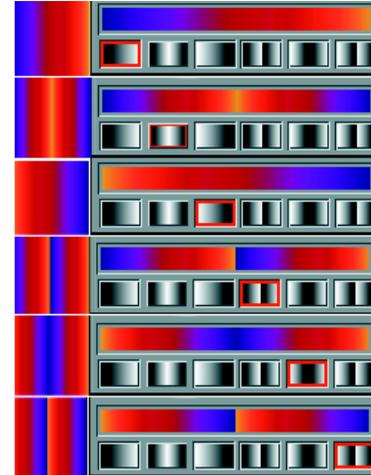
The Preview window shows how current settings affect a selected gradient.

To change gradient order:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Click one of the Gradient Orders at the bottom of the palette to determine how the gradient behaves:
 - left to right
 - left to right and mirrored
 - right to left

- left to right and doubled
- right to left and mirrored
- right to left and doubled

The Preview Strip (above the gradient orders) shows the selected gradient order.



Examples of gradient orders.

To change a gradient angle:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Drag the red ball in the gradient angle ring, or click once anywhere

on the ring to change the gradient angle.

A corresponding numeric value appears below the gradient preview.

To change spiral tension:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Do one of the following:
 - Hold down **Command** (Mac OS) or **Ctrl** (Windows) while you drag the red ball in the gradient angle ring to change how tightly wound the spiral gradient becomes.
 - Click inside the gradient preview to cause Corel Painter to rotate the gradient for you.

Click anywhere outside the preview to stop the rotation.

Creating and Editing Gradients

You can create from very simple to very complex gradients. For a simple two-point gradient, you just need to

choose a primary and a secondary color, then have Corel Painter create a gradient between them. For more complex gradients, use the Gradient Editor or capture gradients from existing artwork. Color control points in the Gradient Editor are used to control at which point a new gradient starts.

You can save gradients and use them to fill a selected object. For more information on filling an object, refer to “Filling Techniques” on page 116.

To create a two-point gradient:

- 1 Choose **Window menu > Show Colors** to display the Colors palette.
- 2 On the Colors palette, click the primary color rectangle and choose a primary color.
- 3 Click the secondary color rectangle and choose a secondary color.
- 4 Choose **Window menu > Show Gradients**.
- 5 Choose Two-Point from the Gradient selector.

Note

- *When creating a two-point gradient, set a color for the right control point, and then set a color for the far left control point.*

Tip

- *You can also select colors in between the end colors to create interesting gradient effects.*

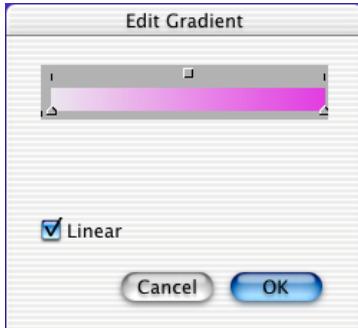
To edit or create a complex gradient:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Click the palette menu arrow, and choose Edit Gradient.

The colored ramp across the top of the Edit Gradient dialog box displays the current gradient. The pointed gray markers along the bottom of the bar are color control points. You can position these pointed markers to change the color of the blend at individual gradient points.

- 3 Click a color control point to select it.

- 4 On the Colors palette, click the primary color rectangle and choose a primary color.
- 5 Repeat steps three and four for each color control point you want to edit.



Use the Edit Gradient dialog box to create or edit gradients.

To add color control points

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Click the palette menu arrow and choose Edit Gradient.
- 3 In the Edit Gradient dialog box, click anywhere in the color ramp bar.

The control point is added, without affecting color.

- 4 Click the new color control point to select it.
- 5 Open the Colors palette and choose a color.

Tip

- You can press **Option + click** (Mac OS) or **Alt + click** (Windows) in the bar to both create a control point and set it to the current color

To delete a control point:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Click the palette menu arrow, and choose Edit Gradient.
- 3 In the Edit Gradient dialog box, click a control point to select it.
- 4 Press **Delete** (Mac OS) or **Backspace** (Windows) to delete a selected color control point.

To save a gradient:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.

- 2 Click the palette menu arrow, and choose Save Gradient.
- 3 In the Save Gradient dialog box, enter a name for the gradient.

Creating Blending Ramps

Blending ramps determine how a gradient blends: linearly or non-linearly.

To create ramps that blend linearly:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Click the palette menu arrow, and choose Edit Gradient.
- 3 In the Edit Gradient dialog box, enable the Linear check box. Linear is the default gradient.

To create non-linear gradients:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Click the palette menu arrow and choose Edit Gradient.

- 3 Disable the Linear check box.
All ramps within the gradient are now non-linearly blended using smooth curves.

Tip

- *When using non-linear ramps, use the Color Spread slider to control the color smoothness at each color control point.*

Changing Gradient Color Hue

Color hue is represented in the Edit Gradient dialog box by boxes located at the midpoints between the adjacent color control points. They allow you to change the hue of the blend within that segment.

To change the color hue:

- 1 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 2 Click the palette menu arrow, and choose **Edit Gradient**.
- 3 In the Edit Gradient dialog box, click a square hue box above the color ramp bar.

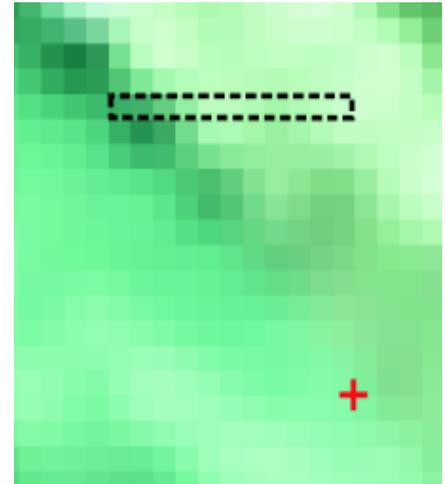
- 4 Select an option from the Color Hue pop-up menu:
 - **RGB** blends directly between the red, green, and blue components of the two colors.
 - **Hue Clockwise** and **Hue Counterclockwise** blend between the endpoint colors by rotating around the color wheel.

Note

- *For a better understanding of this concept, refer to the standard Color picker (ring and triangle) and note the order of the colors on the Hue ring. Notice that as you change parameters within the Edit Gradient dialog box, gradient previews are updated on the Gradients palette.*

Capturing a Gradient from an Image

You can use any existing imagery as a source for creating new gradients. You could capture the colors in a photo of a sunset or paint your own range of colors as the content of a gradient.



To make perfect blends between a series of colors, it's better to work with a row of single pixels rather than a large piece of an image.

To capture a gradient:

- 1 Select a horizontal or vertical area. Make the selection as narrow as possible.
If the selection is horizontal, Corel Painter uses the first row of pixels starting at the upper left for the gradient.
If the selection is vertical, Corel Painter uses the first column of

pixels, starting at the upper left for the gradient.

- 2 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 3 Click the palette menu arrow, and choose Capture Gradient.
- 4 In the Save Gradient dialog box, type a name for the gradient.

The new gradient is saved in the current library. In the future, you can choose it by name from the Gradients palette.

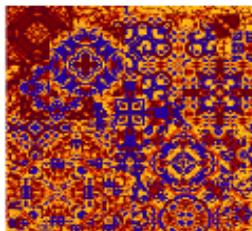
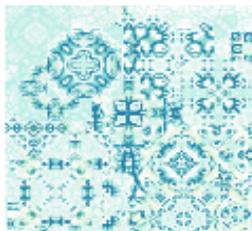
For information about working with libraries, refer to “Libraries and Movers” on page 25.

Note

- *Once a gradient is captured, it can no longer be edited. To change a captured gradient, change the artwork from which it was captured, and then recapture the gradient.*

Mapping a Gradient to Luminance in an Image

You can map a gradient to an existing image, replacing an image’s colors with those of the gradient. This effect applies gradient colors to the pixels of the image, based on their luminance values.



Corel Painter allows you to apply a gradient based on the luminance value of existing colors.

To express a gradient in an image:

- 1 Open the image you want to use.

Select part of the image or use the entire image.

- 2 Choose **Window menu > Show Gradients** to display the Gradients palette.
- 3 Select the gradient you want to use.
- 4 Click the palette menu arrow, and choose Express in Image.
- 5 In the Express in Image dialog box, adjust the Bias slider to define how the gradient is mapped.

Corel Painter replaces the colors in the image with the colors in the gradient, based on matching luminance.

6 Painting

The Corel Painter application lets you draw and paint, as you might in the real world. In your studio, you use brushes, pens, pencils, chalk, airbrushes, and palette knives to make marks on a canvas or piece of paper. With Corel Painter, an infinite variety of marks are possible. Like a fully stocked art store, Corel Painter supplies you with many different brushes and drawing tools, each with modifiable characteristics.

Exploring Painting

Many of the Corel Painter pre-built brushes (known as brush variants) are digital equivalents of real-life brushes you might already use. Others let you create imagery that isn't possible with real-life tools.

Corel Painter features “computed” brushes that create smooth, continuous strokes. Use these brushes to apply color, brush on gradients, or

paint with patterns. For more information about computed brushes, refer to “Using Computed Brushes” on page 100.

Corel Painter brushes can be changed in many ways to create the look you desire. For example, you can start with a pencil, then change the settings until it works like an airbrush. You can also modify an oil pastel to create a pastel brush, or make a leaky pen act like a camel hair brush. Suddenly, the art store has unlimited aisles and floors, giving you the freedom to create whatever you imagine. For more information about using controls to customize brushes, refer to “Customizing Brushes” on page 141.

The result of any single mark or stroke you make with a Corel Painter drawing tool depends on:

- the brush category (or drawing tool) you choose. Refer to “Brush



Categories” on page 98 for more information.

- which brush variant is selected within the brush category. Refer to “Selecting a Brush” on page 101 for more information about selecting a specific brush variant.
- controls such as brush size, opacity, and how much color penetrates paper texture. Refer to “Brush Settings” on page 102 for more information.
- the current paper texture. Refer to “Choosing Paper Textures” on page 61 for more information about selecting paper.
- the color, gradient, or pattern you select to use as media. Refer to “Painting with Color” on page 106 and “Painting with Gradients and Patterns” on page 110 for more information about choosing media to apply.
- the brush method. Refer to “Methods and Subcategories” on page 149.

Understanding Brushes

The Brush tool represents a wide variety of tools you can use to mark on your document, including oils, sponges, pencils, and chalk. Brush strokes are created when you use the tools to drag on the canvas.

On the Brush selector bar, pre-built brushes (brush variants) are arranged into recognizable categories. Corel Painter brushes are built to emulate Natural-Media tools. This lets you select a tool with a reasonable expectation of how it will behave. In an art store, if the tools in one aisle don’t produce the results you want, you can try a different aisle. Similarly, with Corel Painter, you can try different brush categories to find the tool you want.

You can use the pre-built Corel Painter brushes as they are, or you can adjust them to suit your purposes. Many artists use Corel Painter brush variants with only minor adjustments—to size, opacity, or grain (how much color penetrates paper texture). If you want to make more extensive modifications to a brush or

create a totally new brush variant, there are controls for doing just that. Refer to “Customizing Brushes” on page 141 for more about using the Brush Creator to customize brushes, and to “Saving Brush Variants” on page 181 for how to save modified brushes as custom variants.

Most Corel Painter brushes apply media (a color, gradient, or pattern) to an image. Some brushes, however, do not apply media. Instead, they make changes to pixels already in the image. For example, the Just Add Water brush smudges and dilutes existing colors in the image with smooth, anti-aliased strokes. Using one of these brushes on a blank area of the canvas has no effect.

Brush Categories

On the Brush selector bar, you can choose from a list of brush categories. Brush categories are designed with real media in mind, so you can select a tool with an expectation of how it will behave.

Users of previous versions of Corel Painter may notice changes in brush categories and variants. This was done to take advantage of new brush stroke capabilities. If you're looking for a brush from a previous version, you can reload the old brush library. For more information, refer to "Loading Alternate Libraries" on page 26.

Here are a few Corel Painter brush categories that apply media:

- **Liquid Ink** brushes combine ink with paint to create a thick, liquid paint effect. Refer to "Setting Liquid Ink Controls" on page 177 for more information about setting controls for Liquid Ink brushes.
- **Water Color** brushes allow you to control the wetness and evaporation rate of the paper to effectively simulate the natural media. Refer to "Setting Water Controls" on page 174 for more information about setting controls for Water Color brushes.
- **Pens**, like the Scratchboard Rake and Bamboo Pen, never clog, spatter, or run dry.
- **Image Hoses** let you paint with multiple images. Image Hose variants are named in a way that tells you which animation parameter and animator is in effect. For example, the Size/P Angle/R Image Hose variant links size to stylus pressure and sets the angle randomly. Refer to "Using the Image Hose" on page 332 for more information.
- **Airbrushes** apply fine sprays of color. Computed airbrushes carefully mirror the feel of a real airbrush in action.
- **Oils** and **Acrylics** give effects you'd expect from oil paints and acrylics. All of the variants cover underlying brush strokes, many are capable of multi-colored strokes, and others interact with underlying pixels to create realistic effects.

The Smeary Flat variant in the Oils category combines Bearing sensitivity, Brush Loading, and an inverted Pressure setting for Bleed. This causes the brush to drag underlying pixels more than it

applies media, resulting in a very realistic brush stroke.



The Smeary Flat brush variant (from the Oils category) illustrates how Bearing, Brush Loading, and an inverted Pressure setting for Bleed combine to give realistic results.

The following Corel Painter brush categories affect only existing pixels and do not apply media:

- **Erasers** let you remove color down to the paper color or white. You can also use erasers to increase color density, building toward black.
- **Photo** tools can be used for photo correction and manipulation.

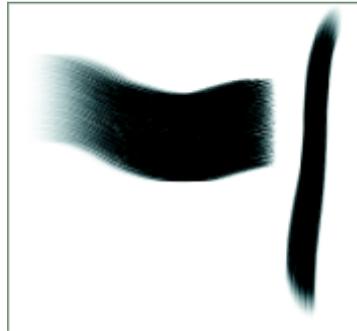
Using Computed Brushes

Corel Painter includes a batch of Natural-Media brushes that use a media application method called “rendered dab types” to produce “computed” brush strokes. These brushes create wonderfully realistic, continuous, smooth-edged strokes. They are fast and more consistent because the strokes are computed as you draw, not created by applying dabs of color. In fact, you can’t draw fast enough to leave dabs or dots of color in a stroke because they’re just not there. These brushes allow for rich features that are not possible with dab-based media application. You can take better advantage of tilt and angle, and you can paint with patterns or gradients. For information about using rendered dab types when customizing brushes, refer to “Dab Types” on page 146.

Using a Stylus or Mouse

When you reach for a wide, flat brush, you expect the stroke you make with it to be dependent on how you hold the

brush. A stroke using the face of the brush comes out wide. A mark using the edge is narrow.



Paint with the face of a flat brush for a wide stroke use the edge for a narrow stroke.

Corel Painter produces realistic brush strokes that fade in and out; change width, tilt and angle; or penetrate based on the stylus input. Brush variants that use computed brushes, such as the Smearly Flat variant in the Oils category, also react to stylus tilt (how vertical the stylus is held) and bearing (the compass direction in which the stylus is pointing).

Tilt can significantly affect brush strokes. If you get unexpected results, especially with bristle-type brushes or

airbrushes, try reducing the tilt of your stylus. Extreme tilt angles are usually undesirable.

Many Corel Painter brushes also respond to stylus pressure (how hard you press with the stylus). Depending on variant settings, greater stylus pressure can increase the width of a brush stroke, the penetration of color, or the degree of other effects. The Corel Painter airbrushes also respond to the finger-wheel on the Wacom Intuos airbrush, simulating a needle control that adjusts how much ink is sprayed.

You can link brush settings, like size, opacity, and angle, to stylus input data such as velocity, direction, pressure, airbrush wheel, tilt, and bearing. Refer to “Expression Settings” on page 162 for more information about linking brush settings to stylus input controls.

In theory, a mouse has no pressure information. A mouse button is either “on” (button down), or “off” (button up). Corel Painter introduces mouse controls that let you simulate stylus pressure, tilt, bearing, and wheel settings.

If you are using a mouse with Corel Painter, you can compensate for the lack of pressure information by adjusting size, opacity and grain on the property bar. For example, reducing opacity or grain can produce the same results as pressing more lightly with a stylus.

The content CD contains brushes designed specifically for use with a mouse. For information about loading alternate brush libraries, refer to “Loading Alternate Libraries” on page 26.

Corel Painter lets you record brush strokes, save them, and use stroke data. This means you can record a brush stroke created using a stylus, save it, and then have Corel Painter use the recorded stroke data. This makes it possible to paint using a mouse and get results based upon a stroke made with a stylus. Refer to “Recording and Playing Back Strokes” on page 115 for more information about recording brush strokes to further enhance mouse functionality.

To adjust pressure, tilt, and bearing when using a mouse:

- 1 On the Stroke Designer page of the Brush Creator, click Mouse.
- 2 Move the Pressure slider.
A 100% setting uses maximum pressure.
- 3 Move the Tilt slider.
A 90-degree setting simulates a stylus that is perpendicular to the tablet.
- 4 Move the Bearing slider.
A setting of zero indicates that if a stylus were in use, it would be pointing left.

Tip

- *To see the effect of the tilt setting, use the Fine Spray variant of the Airbrush category.*

To adjust wheel settings when using a mouse:

- 1 On the Stroke Designer page of the Brush Creator, click General.
- 2 Choose Wheel from the Expression pop-up menu.
- 3 Choose Mouse.

- 4 Move the Wheel slider.

A 90-degree setting indicates that if a stylus were in use, it would be perpendicular to the tablet.

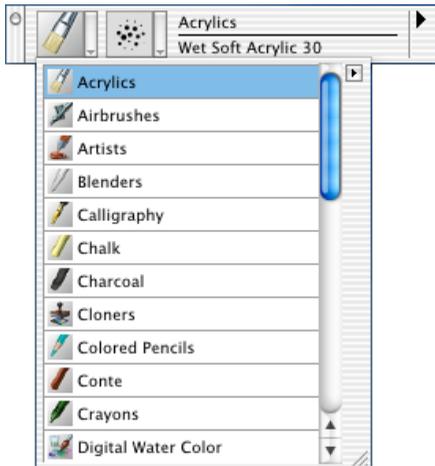
Selecting a Brush

To show the Brush selector bar:

- Do one of the following:
 - In the toolbox, double-click the Brush tool .
 - Choose **Window menu > Show Brush Selector Bar**.

To choose a brush:

- 1 On the Brush selector bar, choose a brush category from the Brush selector.
- 2 Choose a variant from the Variant selector.



The Brush selector lists the brush categories.

Brush Settings

Basic brush controls for size, opacity, and grain are located on the property bar. The property bar may also contain additional controls for the selected brush category, such as resaturation, bleed, and jitter.

When a brush is selected and positioned over the canvas, the cursor changes, by default, into a “ghost” of the brush—mirroring size and shape—so you can see the area that

you’re about to paint. This is a handy way to see if a change in size is required.

The Brush Creator contains other controls, depending on the selected variant. You’ll want to eventually learn about these and other advanced controls. For example, the Brush Creator offers more sophisticated controls for resizing and shaping brushes, including a Minimum (Min) size setting. When a brush takes advantage of the Min size setting, you’ll see strokes taper and widen as stylus pressure or direction is varied. For complete information about using the Brush Creator, refer to “Customizing Brushes” on page 141. For more about saving customized brushes as custom variants, refer to “Saving Brush Variants” on page 181.

Setting Brush Size

The Size slider on the property bar determines the size of a single brush dab. The text field next to this slider lets you enter a specific size (in pixels).

To set brush size:

- 1 Choose the Brush tool from the toolbox.
- 2 Choose a brush.
- 3 On the property bar, type a value in the Size box, or adjust the pop-up slider.

Corel Painter may need to rebuild the brush after you resize it. Automatic building of modified brushes is the default in Corel Painter. Expect a short delay while this happens.

To use the resize shortcut:

- 1 Hold down **Command + Option + Shift** (Mac OS) or **Ctrl + Alt + Shift** (Windows).
- 2 With the Brush tool, drag in the image window.

A circle representing the brush size is displayed beside the pointer. When the circle is the size you want, release the mouse button.

- 3 Click the image to reactivate the Brush tool.



A handy way to set brush size is to use the keyboard shortcut.

Adjusting Opacity

The Opacity slider controls the degree to which a stroke “covers” or “builds up” on the underlying pixels.



80% opacity (top), and 20% opacity (bottom).

To set opacity:

- 1 Choose the Brush tool from the toolbox.
- 2 Choose a brush.
- 3 On the property bar, type a percentage in the Opacity box, or adjust the pop-up slider.

When Opacity is set low, the applied color is thin, allowing you to see through to the underlying colors. When set high, color being applied covers underlying pixels more completely.

Note

- *Some methods and dab types do not allow for adjustments in opacity.*

Setting Grain

The Grain slider controls how much color penetrates into the paper texture. Lower settings show more of the grain.



89% grain (top), and 12% grain (bottom).

To set grain:

- On the Brush property bar, type a percentage in the Grain box, or adjust the pop-up slider.

Move the slider to the left to reduce penetration and reveal more texture. Move it to the right to increase penetration and reveal less grain.

Note

- *For liquid media brushes, grain controls the amount of “pull”. For Image Hose brushes, grain controls the mixture with the secondary color. For other brushes, such as airbrushes, the Grain slider is not available (grayed out).*

Where You Can Paint

You can paint on the Canvas or on a layer above the Canvas. When a layer is selected (highlighted on the Layers palette), it is the target for your brush strokes.

If you are using a Water Color brush, you can paint only on a Water Color layer. If you are using a Liquid Ink brush, you can paint only on a Liquid Ink layer. For more information, refer to “The Water Color Layer” on page 123 and “The Liquid Ink Layer” on page 129.

If you try to paint on a shape, dynamic layer, or reference layer, you must commit it to a standard layer so that your brush strokes are accepted.

Another possible destination for your brush strokes is a channel or layer mask. When a channel or layer mask is selected, it is the target for your brush strokes. For more information, refer to “Editing Channels” on page 223 or “Working with Layer Masks” on page 253.

When you have an active selection, painting is confined to the selection by default. Refer to “Working with Selections” on page 201 for more information about selections.

In all cases, your brush strokes go to the selected target, so make sure of the destination before starting to paint.

Marking the Canvas

You mark the canvas by dragging in the document window with a Brush tool that applies media. Each time you drag, you create a brush stroke.

When you use complex brushes, you see a dotted line on the canvas before the mark appears. For example, the Gloopy variant of the Impasto brush requires complex computations that delay the stroke’s appearance on the screen. When you experience a delay, you can queue up strokes, without losing any stroke data.

Freehand vs. Straight Line Drawing

You can draw unconstrained lines, called freehand, or you can draw straight lines. Options on the property bar let you choose the drawing style.

With the Freehand drawing style, you can drag with any motion or in any direction. The stroke follows your drag path.



Drag to create strokes using the Freehand drawing style.

With the Straight Lines drawing style, Corel Painter connects points with a straight line.



Click to create the first point. Click or drag to create a stroke using the Straight Lines drawing style.

To draw freehand lines:

- 1 On the Brush property bar, click the Freehand Strokes button .
- 2 Drag on the canvas.

Tip

- You can use shortcut keys to toggle between freehand and straight line drawing styles. Press **B** to choose freehand style, or press **V** to choose straight line style.

To draw straight lines:

- 1 On the Brush property bar, click the Straight Line Strokes button .
- 2 Click the canvas at the point where you want to start your line.

- 3 Do one of the following:

- Click at the point where you want to end the line.
- Drag to place the end point exactly where you want it.

Corel Painter connects the first and second points with a straight line.

- 4 To continue drawing from the second point, click or drag to create additional points on the canvas.

Corel Painter connects each point with a straight line.

- 5 To end a line, do one of the following:

- Press **Return** (Mac OS) or **Enter** (Windows) to close the polygon. The final point is connected to the origin with a straight line.
- Click the Freehand Strokes button to return to the freehand drawing style without closing the polygon.
- Press **V** to end the current polygon, so you can begin a new one.

Constraining Stroke Angles

In either drawing style, you can constrain your strokes to 45° increments. With the Freehand style, each stroke is constrained to a straight line with the angle depending on the orientation of the stroke. With the Straight Lines style, points are connected with lines at angles of 45° increments.

To constrain strokes to 45° increments:

- Hold down **Shift** (Mac OS) or **Alt+Shift** (Windows) as you drag or click.

Tip

- In Straight Line mode, you can also constrain lines to the grid by enabling the Snap to Grid option. Choose **Canvas menu > Grid > Snap to Grid**.

Undoing Strokes

If you make a stroke you don't like, you can use the Undo command to remove it. Repeat the command to remove previous strokes. You can set

how many individual strokes can be undone. For more information, refer to “Undo Preferences” on page 52.

To undo a stroke:

- Choose **Edit menu > Undo**.

Tip

*You can also undo a stroke by pressing **Command+Z** (Mac OS) or **Ctrl+Z** (Windows).*

Fading Strokes

Sometimes you apply a stroke, but want it to be less opaque, or faded.

To fade a stroke:

- 1 Choose **Edit menu > Fade**.
- 2 Set the undo amount for the opacity you want.

The preview shows the results of your selection.

Letting Media Pool

Corel Painter computed brushes allow media to build up or “pool” when you move a brush slowly. Pooling creates very realistic strokes, especially with airbrushes.

You can also cause media to pool by simply touching and pausing with the selected brush. You can enable this feature in the Brush Creator.

To enable media pooling

- 1 On the Stroke Designer page of the Brush Creator, click Spacing.
- 2 Enable the Continuous Time Deposition check box.

Note

- *When this option is disabled, you must move the brush (even just slightly) to cause media to be deposited.*



Using an airbrush, paint pools when pausing a stroke for 1 second, 4 seconds, and 7 seconds.

Making 360-Degree Strokes

There are no restrictions on bearing (stylus direction) in Corel Painter. This lets you create full 360-degree strokes by completing the arc of a stroke, without interruption. This is true for non-computed brushes. Computed brushes use bearing, with the exception of those that use the Rendered dab type.

Painting with Color

Before actually painting, you must choose what media to apply. Most often, you’ll probably choose to apply a color, but selecting a color is just the beginning. Corel Painter offers a powerful range of color features, including random color variability

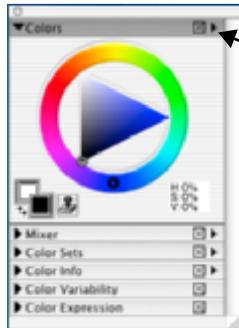
and color sets. For more detailed information about using color, refer to “Working with Color” on page 75.

To paint with color:

- 1 Select a brush that applies media to a document.

If the Colors palette is not displayed, choose **Window menu > Show Colors**.

- 2 On the Colors palette, click the palette menu arrow and choose Standard Colors.



Palette menu arrow

Use the Colors palette to choose a color for painting.

- 3 Drag or click in the ring to select a hue.

- 4 Drag or click in the triangle to pick the saturation.

The color you select is displayed in the front rectangle below the color ring. This is the primary color. The back rectangle shows the secondary color. The secondary color is not the canvas color; it is used to create two-color brush strokes and two-point gradients. Refer to “Understanding Primary and Secondary Colors” on page 77 for more information.



Drag in the ring to select a hue. Drag in the triangle to pick the saturation.

To paint with a color already in the image:

- 1 Select a brush that applies media to a document.
- 2 Hold down **Option** (Mac OS) or **Alt** (Windows), and click a color in the image.

The Brush tool toggles to the Dropper tool . The color is “picked up” by the Dropper tool and becomes the primary color. Refer to “Sampling Colors from Imagery” on page 78 for more information about using the Dropper tool.

Creating Two-Color Brush Strokes

Usually, you work with only the primary color—the front rectangle of the two overlapping rectangles on the Colors palette. Using one color produces a solid, one-color brush stroke. By selecting a secondary color, you can create a two-color brush stroke.

To set up a two-color brush stroke:

- 1 On the Brush selector bar, choose a brush category from the Brush selector.
Not all brushes can create two-color brush strokes. Acrylics, Calligraphy, and Chalk make good choices.
- 2 From the Variant selector, choose a variant with a non-computed dab type; for example, Circular.
If the Colors palette is not displayed, choose **Window menu > Show Colors**.
- 3 On the Colors palette, click the palette menu arrow and choose Standard Colors.
- 4 Click the Primary Color (front) rectangle .
- 5 Choose a color on the Colors palette or the Color Sets palette.
The front rectangle shows your selection.
- 6 Click the Secondary Color (back) rectangle .
- 7 Choose a color on the Colors palette or the Color Sets palette.

The back rectangle shows your selection.

- 8 Click the Primary Color (front) rectangle.
This reactivates the primary color for the next time you pick a color.
- 9 Choose **Window menu > Show Color Expression** to display the Color Expression palette.
If the palette is not expanded, click the palette arrow.
- 10 On the Color Expression palette, choose Direction from the Controller pop-up menu.
- 11 Paint a “T” in your document.
Draw some loops and circles to see how the transition between colors depends on brush stroke direction.

Note

- *For information about using the Color Sets palette to choose a color, refer to “Using Color Sets” on page 83.*

Tip

- *For different results, try different Controller settings. For example, choose Pressure to create color transitions based on the pressure you apply with your stylus.*

Loading Multiple Colors

Imagine the ability to load color at a bristle level, picking up different colors with each “hair” of a brush—like filling tiny ink wells. Imagine also the ability to move multiple colors along with a palette knife, dragging them across your canvas or paper. The Brush Loading feature affects how paint comes off a brush and what happens to the pixels underneath.

When Brush Loading is not active, brushes interact with previously applied colors by sampling underlying pixels, then loading the brush with one new color—the average of those that were sampled. With Brush Loading active, brushes can literally “pick up” existing colors, hair by hair. This capability offers truer color interaction, astounding color variations, and better cloning results.

To paint with multiple colors:

- 1 Choose a brush.
- 2 On the Stroke Designer page of the Brush Creator, click General.
- 3 Choose Static Bristle from the Dab Type pop-up menu.

- 4 Choose Multi from the Stroke Type pop-up menu.
- 5 On the Stroke Designer page, click Well, and enable the Brush Loading check box.

This enables the brush's ability to pick up underlying colors.

- 6 Adjust the Resaturation and Bleed sliders.

The Bleed setting determines how much underlying paint is affected by the brush stroke. A low Resaturation setting, combined with a higher Bleed setting, can enhance the Brush Loading feature. A resaturation value of 0, combined with differing levels of bleed, will cause your brush to smear image color, rather than deposit it. In this case, the lower the bleed, the longer the smear.

- 7 On the Stroke Designer page, click Spacing, and adjust the Spacing and Min Spacing sliders to create fewer "echo" artifacts in your smeared stroke.
- 8 Drag a brush stroke through existing paint to see how paint is "picked up" from the underlying

pixels and moved across the Canvas.

Tips

- *It is easier to see the Brush Loading feature if the canvas is not white. To fill the canvas with another color, refer to "Filling an Area with Media" on page 116.*
- *You can tie brush controls like Bleed to the Controller setting on the Color Expression palette. For example, if you choose Pressure, each stroke bleeds more or less, depending on how hard you press the stylus. For more information, refer to "Expression Settings" on page 162.*

Troubleshooting

Why doesn't your brush stroke appear? What to check:

- Primary color—on the Colors palette, what color is the Primary Color (front) rectangle? Is it a color that will show up when applied to your image? Click the Primary Color rectangle to be sure it's selected, and then set the correct color.

- Opacity—check the Opacity setting on the property bar and, if necessary, adjust the pop-up slider to increase opacity.
- Brush method—Brush method describes the basic nature of a brush. To check the brush method, click General on the Stroke Designer page of the Brush Creator. If you're drawing with a light color on a dark background, the method must be set to Cover, in order to show the lighter color.
- Drawing mode—if you have made a selection, the drawing mode determines what part of the selection is protected. Refer to "Selecting a Drawing Mode" on page 202 for more information.
- Layers—are you drawing on the canvas with a layer blocking your view of the brush stroke? On the Layers palette, close the visibility eye of each layer to see only the canvas.

Painting with Gradients and Patterns

With the Corel Painter computed brushes, you can brush on gradients, which are gradual transformations of one color into another. Refer to “Using Gradients” on page 91 for more information. The Corel Painter computed brushes can also brush on patterns (repeating designs). Refer to “Using Patterns” on page 64 for more information.

When you paint with a pattern, you can adjust the pattern’s scale. Scale affects a pattern brush stroke in a special way—it determines the resolution of the painted patterns. Small scale causes blurry computed brush strokes. Large scale causes sharper strokes. Here’s why:

The brush stroke is always drawn as the entire pattern, sized to fit in the current dab size. Scaling the pattern down very small (say to 20%), makes the brush stroke appear blurry, because the dab is significantly bigger than the pattern. Scale the pattern up to 100% and the dab is as clear as it

can get. Settings over 100% have no effect on the appearance of the brush stroke.

Here’s how to picture what’s going on:

Imagine that the current pattern is 100 pixels across and the current brush size is fifty pixels across. With the pattern set to 100%, Corel Painter shrinks 100 pixels into a 50 pixel area, which is easy for it to do without visible loss of accuracy. If you scale the pattern up to 200%, it looks just as clear as the original, and fitting it into the 50-pixel brush size creates a brush stroke that looks the same as when the pattern was scaled at 100%. Scale the pattern to 50% and the original will be the same size as the brush, so still there is no difference in the resulting brush stroke.

Now, keep scaling downward. As the size of the pattern is scaled below the size of the brush, Corel Painter must increase the size of the pattern to fit the 50 pixel area of the brush stroke. When images are scaled up, after being first scaled down, the image becomes blurry. This is especially

noticeable if you scale the pattern well below brush size. At 20%, the pattern now only consists of 20 pixels and has lost eighty percent of the original data. When Corel Painter expands that to 50 pixels (the brush stroke size), the loss of data becomes very visible. Smaller scale settings result in even blurrier brush strokes. Go down to 2%, and the pattern is only 2 pixels across and is able to contain, at most, four colors (two across and two down). When Corel Painter expands that to fit the brush stroke, you won’t see any of the original pattern, just a fairly uniform color, across the dab.

To paint with a gradient:

- 1 Select a brush that applies media to a document.

If the Gradients palette is not displayed, choose **Window menu > Show Gradients**.

If the Gradients palette is not expanded, click the palette arrow.



The Gradients palette

- 2 On the Gradients palette, choose a gradient from the Gradient selector.

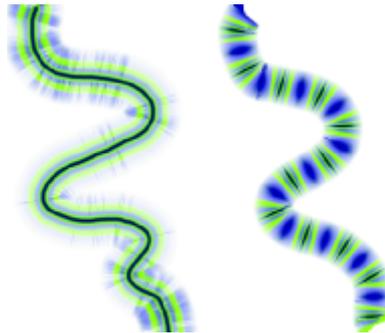
In the center of the palette, the Preview window shows the selected gradient.

- 3 Click one of the following Gradient Order buttons:
 - Left to Right
 - Mirrored Left to Right
 - Double Left to Right
 - Right to Left
 - Mirrored Right to Left
 - Double Right to Left

The preview above the Order buttons illustrates how the selected

order affects the gradient. Refer to “Using Gradients” on page 91 for more information about gradient order.

- 4 On the Stroke Designer page of the Brush Creator, click General.
- 5 From the Dab Type pop-up menu, choose a dab type that activates Source; for example, Rendered.
- 6 Choose one of the following from the Source pop-up menu:
 - **Gradient**—apply the current gradient across the width of the stroke.
 - **Gradient Repeat**—repeat the current gradient along the length of the stroke.



Painting with a gradient using Gradient (left) and Gradient Repeat (right)

Notes:

- If the Source option is not available (grayed out), the selected brush can apply color only. In that case, select a computed brush or choose a dab type that activates Source.
- Although you can choose a gradient type (Linear, Radial, Circular, or Spiral) on the Gradients palette, a Linear gradient type is always used when painting with a gradient.

Tips

- You can also choose a gradient from the Gradient selector in the toolbox. Corel Painter uses the current gradient order.
- Keep in mind when painting with a gradient that direction matters. Corel Painter flips the gradient when you change direction, so apply strokes in the same direction for a uniform effect.

To paint with a pattern:

- 1 Select a brush that applies media to a document.

If the Patterns palette is not displayed, choose **Window menu > Show Patterns**.

If the Patterns palette is not expanded, click the palette arrow.

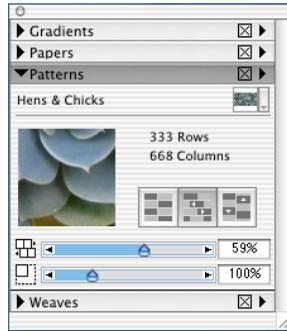
- 2 On the Patterns palette, choose a pattern from the Pattern selector.
- 3 Adjust the Pattern Scale slider.
- 4 On the Stroke Designer page of the Brush Creator, click General.
- 5 From the Dab Type pop-up menu, choose a dab type that activates Source, for example, Rendered.
- 6 Choose one of the following from the Source pop-up menu:
 - **Pattern**—paint with a pattern containing no mask information.
 - **Pattern with Mask**—paint using mask data contained in the pattern.

Note

- *If the Source option is not available (grayed out), the selected brush can apply color only. In that case, select a computed brush or choose a dab type that activates Source.*

Tip

- *Keep in mind when painting with a pattern that direction matters. Corel Painter flips the pattern when you change direction, so apply strokes in the same direction for a uniform effect.*



The Patterns palette

To paint with pattern opacity:

- 1 Select a brush that applies media to a document.
- 2 On the Patterns palette, choose a pattern from the Pattern selector.
- 3 On the Stroke Designer page of the Brush Creator, click General.
- 4 From the Dab Type pop-up menu, choose a dab type that activates Source, for example, Rendered.
- 5 Choose Pattern As Opacity from the Source pop-up menu.

Pattern As Opacity is the only computed dab type that responds to methods (Cover and Buildup), allowing it to respond to Graininess.

- 6 Paint on your image.

Corel Painter applies the current color, using luminance in the pattern to control opacity. Light colors in the pattern are rendered as transparent (or very low opacity). Dark colors in the pattern are rendered as very dark (or high opacity).

Painting with Airbrushes

The Corel Painter computed airbrushes are so realistic, you feel as though you're using the real thing. Taking advantage of computed dab type technology, most airbrush functionality is now available. For more about computed brushes, refer to "Using Computed Brushes" on page 100.

The best way to get used to the Corel Painter airbrushes is to play with them. Select each variant and spray paint onto the Canvas, without worrying about running out of compressed air. Computed airbrushes can paint with color, patterns, or variants. There's a variant that blows hair-like strokes, as well as a variant

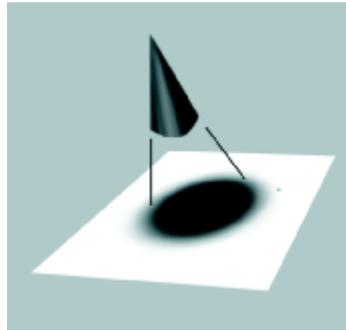
that just blows existing paint around on the Canvas, like using the hose without an airbrush attached.

Try out the Fine Spray variant in the Airbrushes category for an example of how Bearing and Flow settings combine to give realistic airbrush results.

For information about the Airbrush controls in the Brush Creator, refer to “Setting Airbrush Controls” on page 173.

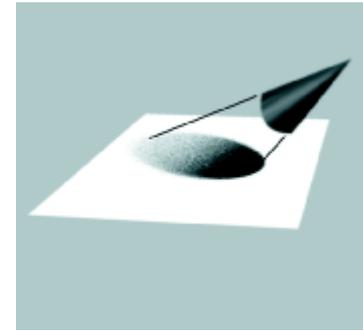
Conic Sections

Previously, digital airbrushes projected a thin mist of dots (or paint dabs) onto the Canvas. The Digital Airbrush variant (named Fat Stroke in previous versions of Corel Painter) is included in the default brush library. With a digital airbrush, dots are laid down, or sprayed, within a circular area, like the circle of light thrown by a flashlight that is perfectly perpendicular to a piece of paper. The area of application remains circular, regardless of tilt, bearing, or stylus pressure. Density, or flow, adjustments can be mimicked with adjustments to the Opacity setting.



Previous airbrushes sprayed a thin layer of dots within an area that was always circular, like a circle of light from a flashlight that's perpendicular to a piece of paper.

Now, airbrushes respond to angle (tilt), bearing (direction), and flow (wheel setting) data from a stylus, allowing for a truly realistic brush stroke. For example, as you tilt your stylus, specks of media land on the paper in a way that reflects that tilt. Imagine, again, the circle of light thrown by a flashlight. The moment the flashlight is no longer perpendicular to the paper, the shape of the cone of light changes, creating a “conic-section.” In the same manner, Corel Painter airbrushes create conic-sections that mirror your stylus movements.



Angle and tilt determine the shape and size of the conic-section created by Corel Painter airbrushes, like a circle of light from a flashlight that is no longer perpendicular to the paper.

Extreme tilt angles affect large areas of the canvas. This can slow the brush down, as it tries to squirt paint too far from the stylus.

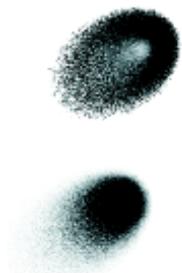
Adjusting Spread

You can adjust airbrush spread in the Brush Creator. Airbrush spread controls affect how paint spreads out as it is applied. In other words, it sets the size of the cone of spread from the tip of the airbrush or spray can.

A good range for the Spread setting is 30-40%. Narrow Spread and Angle settings can cause problems. Narrow Spread combined with a very tilted stylus can cause paint to be deposited away from the cursor.

Varying Edges

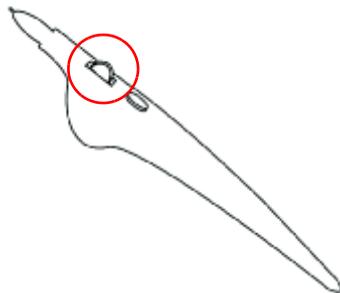
You can vary the edges of the paint sprayed from an airbrush to achieve desired softness. You do this by selecting a brush tip or “profile” in the Brush Creator. Each profile gives you a different edge to the paint you spray. For more information, refer to “Brush Tips” on page 154.



Airbrush edges created with the Water Color profile (top) and the Medium profile (bottom).

Adjusting Flow

Although you can still adjust Opacity to apply fainter or darker dots of media, some Corel Painter airbrushes, for example, the Fine Wheel Airbrush variant, take advantage of stylus wheel controls. Like the needle control on real airbrushes, the wheel control adjusts airbrush flow, or how much media is applied.



Adjust airbrush flow with the wheel control on many airbrush styluses.

To increase or decrease media flow from an airbrush:

- Do one of the following:

- Move the stylus wheel toward the tip, or forward, to decrease flow. Move it away from the tip, or backward, to increase flow.
- On the Stroke Designer page of the Brush Creator, click Airbrush, and adjust the Flow and Min Flow sliders. Flow sets the maximum flow. Min Flow sets the minimum amount of flow as a percentage of Flow.

Tips

- You can reverse the effect of moving the airbrush wheel by enabling the Invert check box on the Color Expression palette, or by enabling the Invert Flow Expression check box on the Stroke Designer page of the Brush Creator.
- In the Brush Creator, you can also determine flow based on stylus information, such as velocity or pressure, by choosing an expression from the Flow Expression pop-up menu.

Controlling Droplet Size

You can control the size of the airbrush droplets. This is not the same as adjusting the size of the brush. The larger the brush, the more droplets are sprayed.

To change the size of airbrush droplets:

- 1 On the Stroke Designer page of the Brush Creator, click General.
- 2 Choose Airbrush from the Dab Type pop-up menu.
- 3 Choose Size.
- 4 Move the Feature slider left for smaller droplets, or right for larger droplets.

Notes:

- *Very large droplets may produce unexpected results.*
- *The Feature setting is not available for variants using the Pixel Airbrush or Line Airbrush dab types.*

Recording and Playing Back Strokes

Corel Painter will play back any stroke you record, wherever you click. This is a great way to create a series of identical strokes, for example, when creating hatching.



A brush stroke (top) is recorded and played back within a triangular selection.

Another way to use a recorded stroke is with Auto Playback. Auto Playback repeats the recorded stroke at random positions on the page.

You can also save recorded strokes for later use. You can play back saved strokes, and you can paint with the data from a saved stroke. This can be particularly useful if you work part of

the time with a stylus and other times with a mouse. You can record brush strokes made with a stylus, save them for later use, then use the data from that stroke, allowing stylus type results while using a mouse for input.

To record a stroke:

- On the Brush selector bar, click the menu arrow and choose Record Stroke.

The next brush stroke you make is saved in memory.

To play back a stroke:

- 1 On the Brush selector bar, click the menu arrow and choose Playback Stroke.
- 2 Click where you want to repeat the stroke.

Corel Painter centers the stroke on the point you click. You can repeat the stroke as many times as you like.

- 3 On the Brush selector bar, click the menu arrow and choose Playback Stroke to turn off playback.

To play back strokes randomly:

- On the Brush selector bar, click the menu arrow and choose Auto Playback.

Corel Painter repeats the stroke at random positions until you click.

To save a stroke:

- 1 On the Brush selector bar, click the menu arrow and choose Save Stroke.
- 2 In the Save Stroke dialog box, type a name.
Corel Painter adds the stroke to the list of saved strokes.

To select a saved stroke:

- On the Brush selector bar, click the menu arrow, choose Strokes, and choose a saved stroke.
The selected stroke is used when you play back strokes or use stroke data.

To use stroke data:

- 1 Select a saved stroke.

- 2 On the Brush selector bar, click the menu arrow and choose Use Stroke Data.
- 3 Draw brush strokes.
The resulting strokes will vary pressure based on the recorded stroke, but will be shaped like the stroke you draw.

Filling Techniques

Filling an Area with Media

You can fill an area of an image with a gradient, pattern, weave, or color.

What about filling with paper? The paper is a texture; it has no color by itself. However, you can get texture into an image with various image effects. Many surface control effects let you use paper as the control medium. For more information about surface control effects, refer to “Apply Surface Texture” on page 275 and “Other Surface Control Effects” on page 284.

To fill an area of an image:

- 1 Do one of the following :

- If you want to fill only part of an image, make a selection.
 - If you want to fill a layer, select the layer on the Layers palette.
 - If you want to fill an alpha channel, select the channel on the Channels palette.
 - If you want to fill the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Fill** or press **Command+F** (Mac OS) or **Ctrl+F** (Windows).
 - 3 In the Fill dialog box, enable one of the following to fill with:
 - Current Color
 - Pattern
 - Gradient
 - Weave
 - 4 Adjust the Opacity slider.

Note

- *Corel Painter uses the current color, pattern, gradient, or weave. Before filling, choose the media you want from the corresponding selector in the toolbox.*

Filling Images Based on Color

You can use the Paint Bucket tool to fill image areas based on pixel color. This method can be used on the canvas or in a channel. Corel Painter fills areas based on color boundaries and the current Tolerance and Feather settings.

Tolerance sets the amount of variance allowed from the color of the pixel you click on. With Tolerance set low, the Paint Bucket fills only contiguous pixels that are very close to the color of the pixel you click on. With Tolerance high, the Paint Bucket fills a greater range of colors.

Feathering softens the edges of the fill by controlling the fill opacity for pixels with colors outside the Tolerance range. With Feather set to zero (the default), only pixels in the Tolerance range are filled. With Feather set low, pixels with colors just outside the Tolerance range receive partial fill. Increasing the Feather setting increases the range of colors that receive partial fill. Pixels with colors further from the Tolerance range

receive a more transparent fill. Typically, when Feather is high, Tolerance is set low.

The Lock Out Color feature protects areas of a given color from accidental filling. You can choose a color that will not accept filling when clicked with the Paint Bucket. Black is the default locked-out color.

To fill an image based on color:

- 1 Choose the Paint Bucket tool  from the toolbox.
- 2 Click the Fill Image button  on the property bar.
- 3 Choose one of the following from the Fill pop-up menu:
 - **Current Color**—fills with the selected color
 - **Grad**—fills with the selected gradient
 - **Clone Source**—fills using the current clone source image. If you haven't defined a clone source, Corel Painter fills with the current pattern.
 - **Weave**—fills with the selected weave

- 4 Choose the specific material you want from the Fill selector.
- 5 Type a value in the Tolerance box, or adjust the pop-up slider, to specify the range of colors to be filled.
- 6 Type a value in the Feather box, or adjust the pop-up slider, to specify the fill opacity for pixels outside the Tolerance range.

If you want to create intermediate fill values on the boundaries, enable the Anti-Alias check box. This gives soft edges to the fill. Anti-aliasing is desirable when Feather is zero or extremely low.

- 7 Click the area of the image you want to fill.

If the result is not what you want, undo the fill, change the settings, and try again.

Tips

- *To see how Fill Image works, do the following:*
 1. On a blank document, draw several brush strokes of different colors.
 2. Select a new color.
 3. Choose the Paint Bucket tool and click the Fill Image button on the property bar.

4. Click an area of the image.
5. Choose **Edit menu > Undo**, and click an area of the image containing a different color.
6. Change the **Tolerance and Feather settings** and repeat steps 4-5.
 - You can constrain the fill to a rectangular area by dragging with the **Paint Bucket tool**.

To choose a lock-out color:

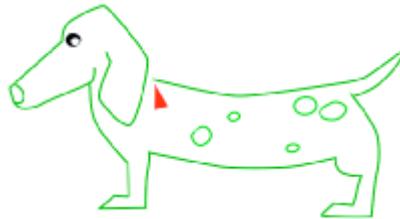
- 1 On the **Colors palette**, choose the color you want protected.
- 2 Double-click the **Paint Bucket tool** in the toolbox.
- 3 In the **Lock Out Color dialog box**, click **Set**.

The color swatch updates to the new color, and the **Lock Out Color** check box is enabled.

Filling Cells

You can use the **Paint Bucket tool** to fill the interior of areas bounded by lines. This is especially good for producing solid fills of regions bounded by anti-aliased lines.

If you want to fill regions completely, without affecting the lines, you can first copy the lines to a selection. Then, when you fill the cells, the lines are protected. For information about the method used to copy lines to a selection, refer to “Creating an Auto Selection” on page 206. You can also control how well the **Paint Bucket** respects the selection by setting the mask threshold.



Cartoon animators used to paint lines first and then fill them by painting on the back of the cell.

To copy lines to a selection:

- 1 Choose **Select menu > Auto Select**.
- 2 In the **Auto Select dialog box**, choose **Image Luminance** from the **Using pop-up menu**.
- 3 Click **OK**.

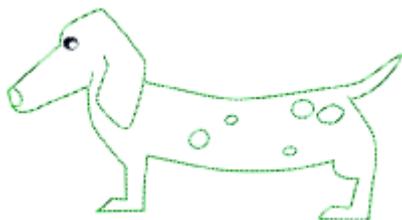
Corel Painter creates a selection that will protect the dark lines.

When you protect anti-aliased or non-black lines in this way, the lines in the selection have varying levels of transparency—depending on the pixel luminance. The **Mask Threshold** lets you compensate for the semi-transparency of the selection to get just the fill you want.

To set the mask threshold for the Paint Bucket:

- 1 Double-click the **Paint Bucket tool**  in the toolbox.
- 2 In the **Lock Out Color dialog box**, move the **Mask Threshold slider**.

This slider controls how well the **Paint Bucket** respects the selection. At zero, the fill will overrun the selection boundaries. Higher threshold values force the fill to respect the boundaries. The appropriate threshold setting depends on the softness of your lines. You’ll have to experiment with the **Mask Threshold slider** settings until the fill is limited to the area within the line.

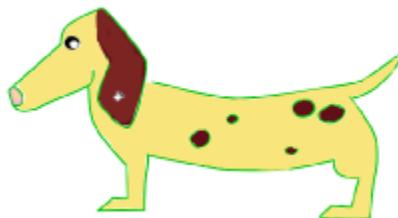


14% is a good setting for lines created with the Scratchboard tool variant.

To fill cells:

- 1 Choose the Paint Bucket tool from the toolbox.
- 2 Click the Fill Cell button  on the property bar.
- 3 Choose one of the following from the Fill pop-up menu:
 - **Current Color**—fills with the selected color
 - **Grad**—fills with the selected gradient
 - **Clone Source**—fills using the current clone source image. If you haven't defined a clone source, Corel Painter fills with the current pattern.
 - **Weave**—fills with the selected weave

- 4 Choose the specific material you want from the Fill selector.
- 5 Click inside a bounded region. Corel Painter fills the area. If the fill overruns the lines, you should increase the Mask Threshold setting. If the fill leaves line pixels anti-aliased to the background color, you should reduce the Mask Threshold setting.



The finished cartoon after filling the cells.

Tips

- To see how Fill Cell works, do the following:
 1. Draw a black circle on a blank document.
 2. Select a new color.
 3. Choose the Paint Bucket tool, and click the Fill Cell button on the property bar.

4. Click inside the circle.
5. Choose Edit menu > Undo.
6. Select another color.
7. Click outside the circle.

- You can constrain the fill to a rectangular area by dragging with the Paint Bucket tool.
- If you are recording your session as a script, cell fills are captured as well. When playing back at a different resolution, cell fills (and their limiting rectangles) are properly scaled. For information on recording and playing back sessions, refer to “Understanding Scripting” on page 413. For information on limiting rectangles, refer to “Limiting and Preventing Leakage” on page 119.

Limiting and Preventing Leakage

In complex drawings, lines don't always meet. This can create fill leaks into areas you don't want to be filled—sometimes through the whole image.

You can't always tell if there's a leak just by looking at your image. If you click a small area and see the prompt, “Now Looking for Extent of Fill,”

there's probably a leak and Corel Painter is preparing to fill a bigger area than you had in mind. In this case, you can abort the fill.

You can limit leakage to a specific rectangular area. In typical cartoon line work, unbounded areas—for example, hair, tail feathers, and brush bristles—sometimes must be filled. By limiting leakage to a specific area, you can close off these items.

You can also close leaks by copying the lines to a selection (refer to “To copy lines to a selection:” on page 118), saving the selection to a channel, editing the channel, and then reloading it to the selection. For more information about editing channels, refer to “Editing Channels” on page 223.

To abort a fill:

- Press **Command+.** (period) (Mac OS) or **Ctrl+.** (Windows).

Note

• *If you don't catch the fill in time, choose Edit menu > Undo or press Command+Z (Mac OS) or Ctrl+Z (Windows) to undo a fill that has leaked outside of the boundaries.*

To limit leakage:

- 1 Choose the Paint Bucket tool from the toolbox.
- 2 On the property bar, click the Fill Cell button or the Fill Image button.
- 3 Drag to create a rectangle that just covers the area you want to fill.
If there is no leak, only the area within the lines is filled. If there is a leak, the fill will go outside the area, but not beyond the constraints of your rectangle.

To close a leak:

- 1 Copy the lines to a selection. Refer to “To copy lines to a selection:” on page 118.
- 2 Choose **Select menu > Save Selection**.

- 3 In the Save Selection dialog box, choose New from the Save To pop-up menu.

- 4 Click OK.

A new channel is displayed on the Channels palette.

- 5 On the Channels palette, display and select the channel.
- 6 On the Brush selector bar, choose the same brush you used to create the lines.
- 7 On the Colors palette, set Black as the current primary color.
- 8 Paint in the channel to close the gaps.
- 9 Choose **Select menu > Load Selection**.
- 10 In the Load Selection dialog box, choose the modified channel from the Load From pop-up menu.

- 11 Enable the Replace Selection option to replace the original with the edited version.

If you want to adjust the mask threshold, double-click the Paint Bucket tool in the toolbox and move the slider.

Note

- *The channel does not have to be selected to contain the fill. If you deselect the channel on the Channels palette, the loaded selection is still in effect.*



Edit the channel to close leaks. Remember to load the channel back into the selection after editing.

7 Using Water Color

Corel Painter features two ways to work with water colors: the Water Color layer and Digital Water Color.

The Water Color Layer

Water Color brushes paint into a water color layer, which enables the colors to flow and mix and absorb into the paper.

In Corel Painter, you can edit the Water Color layer as you would any other layer, including erasing and blurring, without changing anything in the image layer. For example, you can draw pencil outlines in the image layer, then overlay water color shading without smudging the pencil lines.

You can lift the canvas to the Water Color layer, which transfers information from the canvas to the Water Color layer. This is useful if you want to apply Water Color effects to a photograph, for example.

You can wet the entire Water Color layer, which activates a diffusion process that you can control.

Unless a Water Color layer is already selected, a new Water Color layer is automatically created when a Water Color brush is applied to an image.

The Water Color layer appears on the Layers palette and is characterized by a blue water droplet icon. When the icon is falling, it indicates that the drying process is underway. It is a good practice to monitor the Water Color icon while painting with Water Color brushes. If too many strokes are laid down, particularly with respect to slow-drying brushes, the application can become slower. In this situation, it is best to wait for the drying process to finish before continuing.



To create a new Water Color layer:

- 1 Choose **Window menu > Show Layers** to display the Layers palette.
If the Layers palette is not expanded, click the palette arrow.
- 2 Do one of the following:
 - On the Layers palette, click the palette menu arrow, and choose New Water Color Layer.
 - Click the New Water Color Layer button  at the bottom of the Layers palette.

To lift the canvas to the Water Color layer:

- 1 Apply one or more strokes to the canvas with a Water Color brush variant.
- 2 Choose **Window menu > Show Layers** to display the Layers palette.
- 3 Click the palette menu arrow, and choose Lift Canvas to Water Color Layer.

To wet the Water Color layer:

- 1 Apply one or more strokes to the canvas with a Water Color brush variant.
- 2 Choose **Window menu > Show Layers** to display the Layers palette.
- 3 Click the palette menu arrow, and choose Wet Entire Water Color Layer.

Tip

- *To stop the diffusion process, click the palette menu arrow on the Layers palette, and choose Dry Water Color Layer.*

Working with Water Color Variants

The Water Color brush variants produce natural looking water color effects. All the Water Color variants, except Wet Eraser, interact with the canvas texture.

Stylus pressure affects the width of the brush stroke for all the Water Color brush variants (except Wet Eraser). Increased pressure widens a brush stroke; less pressure narrows a stroke.

Water Color Dab Types

Refer to “Dab Types” on page 146 for more information about Water Color Dab Types.

Water Controls

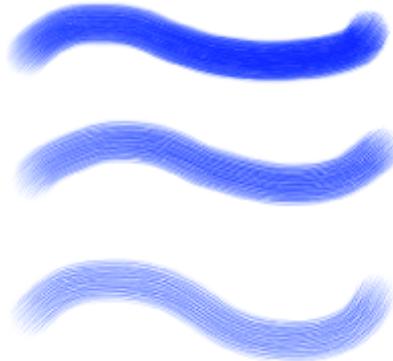
You can adjust the Water controls when you have selected a Water Color brush from the Brush selector bar.

The Water controls on the Stroke Designer page of the Brush Creator allow you to specify various settings for your Water Color brushes. For example, you can adjust brush size, control diffusion, and determine how the paper texture will interact with the brush strokes. Refer to “Setting Water Controls” on page 174 for more information.

Size

The Feature setting in the Size area of the Stroke Designer separates bristles. The higher the setting, the farther apart hairs appear. Use a low setting to make more solid strokes. When using Water Color brushes, the diffusion of

the brush stroke eliminates the appearance of individual bristles. You can experiment with the feature slider and its effect on different Water Color brushes.

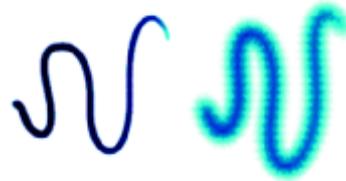


The Feature slider and its effect on Water Color brushes.

Diffusion

With natural water colors, wet paper produces more diffused strokes. Diffusion mimics this effect in Corel Painter by creating soft, feathery edges on the strokes of some water color variants.

Diffusion spreads color into the grain. Make sure the current texture is appropriate for the diffusion effect you want. For more information about adjusting the amount of diffusion in a brush stroke, see “Diffuse Amount” on page 175.



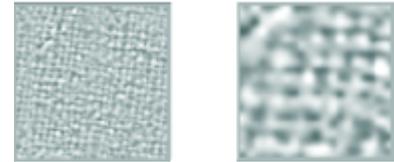
A water color stroke before and after diffusion.

Applying a Paper Texture

The Water Color brushes interact with paper grain — the colors flow, mix, and are absorbed into the paper. The luminance information of the current paper grain is used to determine how the paint diffuses into the paper and how it dries.

You can experiment with adjusting the sliders on the Papers palette and seeing their effect on the Water Color brushes. The Scale slider controls the size of the grain. The Contrast slider,

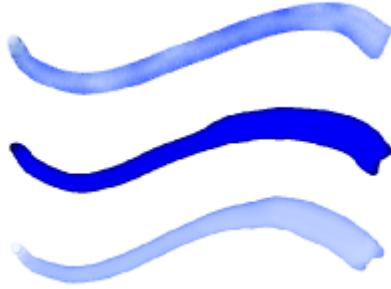
as it applies to the Water Color layer, controls the height of the grain surface. Adjusting the Contrast slider to the right increases the height of the grain and adds more texture as a result. Refer to “Using Paper Texture” on page 59 for more information.



The Scale slider controls the size of the paper grain. Left=50%, right=200%.

Digital Water Color

The Digital Water Color brushes paint directly on the canvas or on a regular layer so you can create effects similar to those of Water Color brushes without using a separate layer.



The Digital Water Color brushes create effects similar to those of Water Color brushes, but without creating a separate layer.

Digital Water Color Diffusion

Digital Water Color brushes also use diffusion to create soft, feathery edges on the brush strokes. You can adjust the amount of diffusion using the controls on the Stroke Designer page of the Brush Creator.

To adjust diffusion:

- 1 Apply one or more strokes with a Digital Water Color variant.
If you would like to restrict the diffusion to a region, make a selection with any selection tool.

The diffusion effect will apply only within the selection.

- 2 On the Stroke Designer page of the Brush Creator, click Digital Water Color.
- 3 Adjust the Diffusion slider.
Drag the slider to the right to increase diffusion, to the left to decrease diffusion.
- 4 Paint on the Scratch Pad of the Brush Creator to preview the settings.

Note

- For more information, see “Setting Digital Water Color Controls” on page 180.

Tips

- You can also adjust the amount of diffusion in the Digital Water Color area of the Stroke Designer before applying brush strokes.
- You can also adjust the Diffusion slider on the property bar.

Wet Fringe

The Wet Fringe slider controls the amount of pooling of water and paint at the edges of Digital Water Color brush strokes.

To adjust Wet Fringe:

- 1 Apply one or more strokes with a Digital Water Color variant.
If you would like to restrict the diffusion to a region, make a selection with any selection tool. The pooling effect will apply only within the selection.
- 2 On the Stroke Designer page of the Brush Creator, click Digital Water Color.
- 3 Adjust the Wet Fringe slider.
Drag the slider to the right to increase pooling, to the left to decrease pooling.
- 4 Paint on the Scratch Pad of the Brush Creator to preview the settings.

Note

- *You can also adjust the amount of wet fringe in the Digital Water Color area of the Stroke Designer before applying brush strokes.*

Tips

- *You can also adjust the Wet Fringe slider on the property bar.*
- *For more information, see “Setting Digital Water Color Controls” on page 180.*

8 Using Liquid Ink

Liquid Ink brushes in Corel Painter create liquid paint effects that simulate traditional ink-based media.

The Liquid Ink Layer

Liquid Ink layers are displayed on the Layers palette. They are identified by an ink droplet icon.

Unless you have a Liquid Ink layer already selected, a new Liquid Ink layer is automatically created when a Liquid Ink brush is applied to an image.

You can experiment with the settings in the Liquid Ink Layer Attributes dialog box, which let you control the appearance of depth and adjust the threshold of the edges of the ink.

To create a new Liquid Ink layer:

- 1 Choose **Window menu > Show Layers** to display the Layers palette.

If the Layers palette is not expanded, click the palette arrow.

- 2 Do one of the following:
 - On the Layers palette, click the palette menu arrow, and choose **New Liquid Ink Layer**.
 - Click the **New Liquid Ink Layer** button  at the bottom of the Layers palette.

To adjust Liquid Ink layer attributes:

- 1 On the Layers palette, double-click the Liquid Ink layer you want to modify.
- 2 In the Liquid Ink Layer Attributes dialog box, do any or all of the following:
 - Type a name for the layer in the **Name** box.
 - Adjust the position of the layer in the **Top** and **Left** boxes.
 - Type layer information in the **Notes** box.



- Adjust the Threshold slider to increase or decrease the width of the brush stroke.
- Adjust the Amount slider to increase or decrease the height, or three-dimensional appearance, of the brush stroke.

Liquid Ink Controls

You can adjust the Liquid Ink controls when you have selected a Liquid Ink brush from the Brush selector bar.

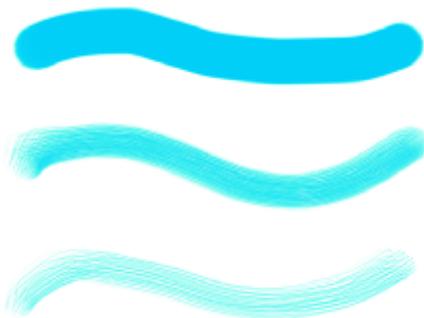
The controls on the Stroke Designer page of the Brush Creator allow you to specify various settings for your Liquid Ink brushes. For example, you can select Liquid Ink brush type, size, smoothness, and stroke volume. Refer to “Setting Liquid Ink Controls” on page 177 for more information.

Size

The Feature slider in the Size area of the Stroke Designer page lets you determine the space between bristles. You can experiment with the Feature slider and its effect on different Liquid

Ink brushes; the higher the setting, the farther apart hairs appear. Use a low setting to make more solid strokes.

When using Liquid Ink brushes, the adhesion of the bristles minimizes the appearance of individual bristles.

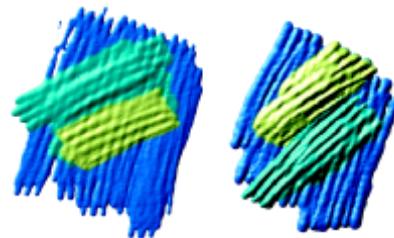


The Feature slider and its effect on Liquid Ink brushes.

Expression

You can use the Expression settings in the Liquid Ink area of the Stroke Designer page to vary Liquid Ink effects, such as volume, in response to controllers like stroke direction or velocity. Use the Pressure controller to

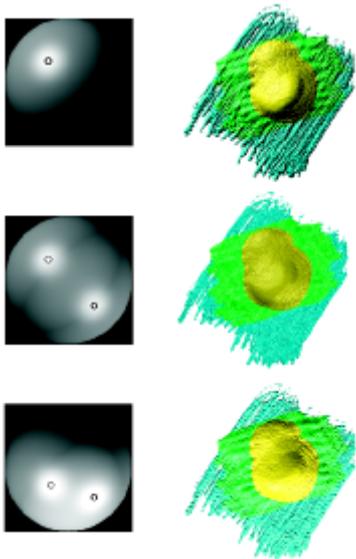
create layered Liquid Ink strokes. Refer to “Expression Settings” on page 162 for more information.



Light pressure is used to apply overlapping strokes (left). Increased pressure produces a heavier layering effect (right).

Applying Lighting Effects

You can use the Surface Lighting controls to add light sources and change lighting angles to give the appearance of height to a Liquid Ink brush stroke. Refer to “Apply Lighting” on page 272 for more information about applying lighting effects.



Adjusting the lighting angles and adding multiple light sources add height to Liquid Ink brush strokes.

9 Impasto

Impasto is the classic technique of applying thick paint on a canvas to create depth. In Corel Painter, impasto refers to the brush feature that allows brushes to paint with the illusion of depth. You can use different brushes to simulate different types of Natural-Media, such as thick oil paint or chalk with texture.

To create an impasto effect, you must first activate the Impasto layer. Next, you choose the Impasto brush category and a variant. Impasto brush strokes appear textured and three-dimensional. You can alter the appearance of impasto brush strokes using depth and lighting controls.

In Corel Painter, most brush variants can be transformed into custom impasto brushes using the Brush Creator.



Impasto creates wonderful textured paintings.

The Impasto Layer

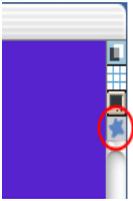
When you use an Impasto brush, you're painting onto a virtual Impasto layer that contains all the depth information created as you paint. The Impasto layer is not part of the layer hierarchy and does not appear on the Layers palette.

The Canvas layer holds the depth information for the *entire* image, including any layers. When it is active, it also shows how the Impasto Lighting affects your strokes.



To activate or deactivate the Impasto layer:

- To activate the Impasto layer, click the Impasto icon on the document window.
- To deactivate the Impasto layer, click the icon again.



The Impasto icon on the document window.

To clear the Impasto layer:

- Choose **Canvas menu > Clear Impasto.**

Creating an Impasto Effect

You can apply a variety of Impasto brush strokes using an Impasto variant. These brushes simulate different types of Natural-Media effects with depth, such as thick oil paint.

You control the Impasto effect by changing the paint thickness, or depth. Refer to “Adjusting Impasto Depth” on page 134 for more information.

You can also set how light sources shine on the Impasto brush strokes, add or delete lights, and change light color and position. Refer to “Adjusting Surface Lighting” on page 135 for more information.

If you want to create your own custom variants, use the Brush Creator to adjust brush properties. Refer to “Creating Custom Impasto Brushes” on page 136 for more information.

To create an Impasto effect:

- 1 Click the Impasto icon on the top-right corner of the document window.
- 2 On the Brush selector bar, choose Impasto from the Brush selector.
- 3 Choose an Impasto variant from the Variant selector.
- 4 Choose **Canvas menu > Surface Lighting.**

- 5 In the Surface Lighting dialog box, set the depth attributes.
- 6 In the same dialog box, set light source attributes.
- 7 Paint on the canvas or layer.

Adjusting Impasto Depth

You can control the appearance of depth using the Amount, Picture, Shine, and Reflection settings. At any time, you can change these settings to get different texture effects.

Adjustments affect the entire Impasto layer. To change the depth of individual brush strokes, you can vary stylus settings or build up media. Refer to “Controlling the Depth Interaction of a Medium” on page 138 for more information.

The Amount slider affects the thickness of the entire Impasto layer. It does not affect individual brush strokes, nor does it affect its relationship with other Impasto strokes.



You can adjust the appearance of depth in the entire Impasto layer with the Amount slider.

- **Picture** controls how much color appears in the image. At its lowest value, all the color is washed out, leaving only the highlights.
- **Shine** controls how much highlight appears on the surface of strokes. Higher Shine values make the stroke look metallic.

- **Reflection** maps a clone source image or pattern onto the texture at a variable percentage. Refer to “Working with Reflection Maps” on page 282 for more information.

Adjusting Surface Lighting

Lighting can be a big part of the overall depth effect Impasto creates. Just as the right lighting can bring out the deep textured look of a stroke, the wrong lighting can wash out the effect altogether.

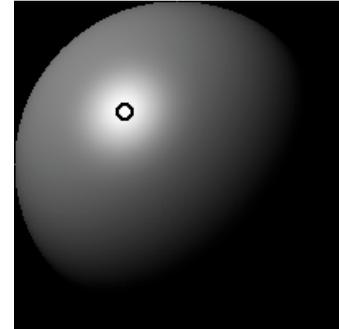
The Surface Lighting controls let you set up the position and attributes of light sources that shine on your Impasto brush strokes.

These controls are global, meaning they affect all the Impasto brush strokes on all layers.

Setting Light Position

The lighting sphere shows all the possible surface angles and how the lights illuminate them. The light

indicators on the sphere show the current positions of all the light sources.



The lighting sphere with a light indicator.

Adding and Deleting Lights

You can add as many light sources as your system’s memory allows. Remember, each light interacts with all the Impasto brush strokes, so be careful not to set up colored lights that clash with the colors in your composition or light sources that created unwanted shadows.

To add a light:

- Click on the lighting sphere.

A new light indicator (small circle) appears where you click.

To delete a light:

- Click on a light indicator and press Delete.

Viewing Lights

The Display slider beneath the sphere controls the brightness of the sphere, so that it's easier to see light positions. It does not affect the lights themselves.

The Show Light Icons check box lets you hide or show the light indicators on the sphere.

To change a light's angle:

- Drag a light indicator on the sphere.

Setting Light Properties

The three Light Controls sliders let you set the intensity and brightness of a light source.

- **Brightness** indicates the amount of contribution of the light to the overall lighting color.
- **Conc** (concentration) adjusts the spread of the light's shine over the surface.
- **Exposure** globally adjusts the overall lighting amount from darkest to brightest.

You can also change a light's color using the Light Color control. You can have multiple colored lights interact with the depth to produce different textural effects.

To change light color:

- 1 Click the Light Color icon.
- 2 On the color picker, choose a color.

Creating Custom Impasto Brushes

Using the Impasto brush settings in the Brush Creator, most brush variants can become Impasto brushes. The controls let you set drawing and depth methods, the amount of depth applied, and the brush interaction.

The Impasto settings act identically to other brush settings, in that they can be saved as part of a variant or applied to any active brush.

For more information on creating new brush variants, see "The Brush Creator" on page 141.

To create an Impasto variant:

- 1 Choose the Brush tool  from the toolbox.
- 2 On the Stroke Designer page of the Brush Creator, click Impasto.
- 3 Choose a drawing method from the Draw To pop-up menu.
- 4 Choose an application method from the Depth Method pop-up menu.
- 5 Adjust the Depth slider to set how much depth the brush applies.
- 6 Adjust the Smoothing slider to set the transitions in the texture. Higher Smoothing values produce less textured strokes.
- 7 Adjust the Plow slider to control how much a depth stroke displaces other strokes that it intersects.

Setting Drawing Method

All of the drawing methods affect the next strokes you make in the document.

Impasto has three drawing methods:

- **Draw to Color** applies color. You can set the color on the Colors palette.
- **Draw to Depth** applies depth to the image.
- **Draw to Depth and Color** applies both color and depth to the image.

Setting Depth Method

The Depth Method pop-up menu lets you choose a control medium for applying depth.

Corel Painter uses the luminance (brightness) information in the control medium to determine how much depth is applied within a stroke. Light areas of the medium receive more depth; dark areas receive less. Black areas appear flat.

For example, when you use Paper as the Depth Method, the bright and dark areas of the paper grain determine where grooves and bumps appear in the stroke.



The Impasto stroke produced when Paper is used as the Depth Method.

There are five depth methods you can choose from:

- **Uniform** applies depth evenly. Strokes have little texture.
- **Erase** levels the depth layer. If you created texture strokes you don't like, use this setting to remove them.

Erase applies only to depth, not to color. When you set the Drawing

Method to Depth and Color, the Erase method removes depth while applying color.

The amount of depth removed depends on the value of the Depth slider. If you want to remove the entire Impasto stroke, set Depth to 0.

- **Paper** controls depth using the current paper texture. You can choose different papers and change their scale using the Papers selector in the toolbox. Refer to “Inverting and Scaling Paper Textures” on page 61 for more information.
- **Original Luminance** uses a clone source's luminance to control depth. Refer to “Creating Texture Using Clone Source Luminance” on page 279 for more information.
- **Weaving Luminance** controls depth using the current Weave. You can choose different weaves using the Weaves selector in the toolbox.

Inverting a Depth Method

You can invert the Depth Method using the Invert option. When a method is inverted, the negative of the source is used in the stroke.

For example, using Invert with Weave luminance switches the luminance values of the current weave so that light areas of the weave become dark and vice versa. This results in an inverted texture within the Impasto brush strokes.

Controlling the Depth Interaction of a Medium

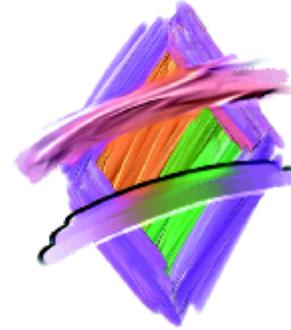
When you start painting using a Depth Method, you're painting with a new medium — one that can have texture and builds up depth as you layer brush strokes.

The Impasto sliders in the Brush Creator let you set how much depth is applied with a stroke, the amount of texture applied within a stroke, and how each stroke interacts with other Impasto brush strokes.

- **Depth** controls the depth of individual strokes. Higher values produce strokes that have deeper grooves.
- **Smoothing** controls the transition of the texture applied to a stroke.
- **Plow** controls how much a stroke interacts with other Impasto brush strokes.

When a stroke with a high Plow value encounters another Impasto stroke, it displaces the depth of the existing stroke. In essence your brush stroke “plows” through existing strokes.

Plow can produce incredibly realistic effects.



The effects of high and low Plow settings.

- The Negative Depth option changes the direction of depth. When Negative Depth is enabled, the brush digs valleys instead of raising ridges.



Normally, the Impasto media raises ridges and bumps. The Negative Depth option forces Impasto to excavate instead.

Varying Input to Control Depth

In addition to the Impasto controls, you can also use the Depth slider in the Brush Creator to add more complexity to your strokes.

The Depth slider can alter the flow of depth as you paint. Using one of the nine input controllers, you can control the flow of depth based on pressure, velocity, or bearing. Refer to “Setting Impasto Controls” on page 171 for complete descriptions of controllers.

To use the Depth brush feature:

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.
- 2 Choose Depth from the Draw To pop-up menu.
- 3 Choose a depth method from the Depth Method pop-up menu.
- 4 Adjust the Depth slider, and choose an expression from the Expression pop-up menu.

Note

• *For a realistic effect, try varying Depth inversely with Pressure. Set the Depth menu to Pressure and check the Invert option. This applies paint more thickly when you press lightly, but applies it thinly if you press hard, just as when you're using real paint.*

Blending Impasto with Other Layers

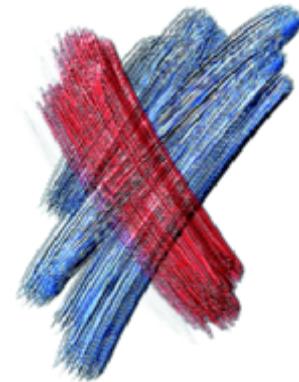
You can control how Corel Painter blends Impasto brush strokes with imagery on other layers by selecting a composite depth method on the Layers palette.

The Composite Depth menu provides the following methods for combining Impasto brush strokes:

- **Add** — When this method is active, Corel Painter combines depth information between layers—brush strokes on different layers build up where they overlap.

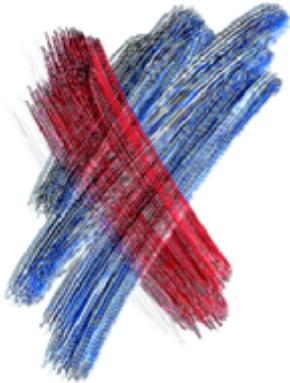
Painting with an Impasto variant on a layer with Add set does not change the composite depth setting.

Painting with an Impasto variant on a layer with Ignore set changes the method back to Add.



An example of the Add Composite Method.

- **Subtract** — When this method is active, depth information between layers is removed. Impasto brush strokes on top layers create grooves in the image data beneath them. Painting with an Impasto variant on a layer with Subtract set does not change the composite depth setting.



An example of the Subtract Composite Method.

- **Replace** — When this method is active, layer masks replace the depth information from lower layers with information from top layers. Wherever strokes overlap,

only the top strokes are visible; the lower strokes are completely covered.

Painting with an Impasto variant on a layer with Replace set does not change the composite depth setting.



An example of the Replace Composite Method.

- **Ignore** — When this method is active, Impasto brush strokes do not interact with image data on different layers.

With Ignore active, the display of depth for the layer is turned off, even when the View Depth icon on the document window is active.

This makes it possible to disable display of depth for individual layers.

Painting with an Impasto variant on a layer with Ignore set changes the method to Add.

This is the default composite method.

You can set a different composite method for every layer in a document. Refer to “Blending Layers Using Composite Methods” on page 246 for more information.

10 The Brush Creator

The Brush Creator helps to make it fun and easy to create brush variants in Corel Painter.

This chapter provides descriptions and procedures for building, customizing, and saving the many parameters of any brush type using the Brush Creator.

Customizing Brushes

The Corel Painter brushes are adjustable in a myriad of ways. In fact, the default variants in the libraries on the Brush selector bar are built with the same set of controls used to build every other variant. They've just been adjusted until the results emulate a real-life drawing tool.

Although these default brushes do excellent work, you'll probably want to adapt them to your particular needs, refining them to fit your own

style of working. You can change Size, Shape, Angle, Flow, and much, much more.

Changes you make to brush variants, including basic controls, like Size and Opacity, are saved until the Restore Default Variant command is selected. Corel Painter also allows you to save custom brushes as the default, as new variants, or as Looks.

Using the Brush Creator

The Brush Creator provides controls for customizing and creating brush variants. The Brush Creator is integrated tightly with Corel Painter, but contains its own tools, palettes, menus, and workflow. The user interface of the application changes depending on whether you are using the main application or the Brush Creator.



There are three elements to the Brush Creator: the Randomizer, the Transposer, and the Stroke Designer.

The Randomizer creates random brush settings for the selected brush category and variant.

The Transposer creates new brush settings based on the transition from one brush category and variant to another.

The Stroke Designer lets you control the size and shape of the media a brush applies, the way the dabs are repeated in a stroke, the media (usually color) that flows from a brush, and how a brush interacts with underlying pixels.

To open the Brush Creator:

- Do one of the following:
 - Choose **Window menu > Show Brush Creator**.
 - Press **Command + B** (Mac OS) or **Ctrl + B** (Windows).

To access the Randomizer, Transposer, or Stroke Designer pages:

- 1 Choose **Window menu > Show Brush Creator**.
- 2 Click one of the following tabs:
 - Randomizer
 - Transposer
 - Stroke Designer

Tip

- *Throughout the documentation, the steps for accessing these pages are replaced with a direction to go directly to the particular page; for example, “On the Stroke Designer page, click General.”*

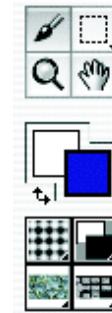
The Main Window

The main window of the Brush Creator contains three tabs: Randomizer, Transposer, and Stroke Designer. Each has its own user interface.

The other components of the main window are the toolbox, the preview grid and window, the Scratch Pad, and the palettes.

The Toolbox

The Brush Creator toolbox contains tools, a color picker, and four libraries for use in designing brush variants.



The Brush Creator toolbox.

Tools

The **Brush** tool applies brush strokes to the Scratch Pad, just as it applies brush strokes to the canvas in Corel Painter. The Brush tool is selected by default when you open the Brush Creator, and it's set to the brush you were last using in Corel Painter.

The **Rectangular** and **Oval Selection** tools, and the **Lasso** tool, let you make selections on the Scratch Pad, just as you would in Corel Painter.

The **Magnifier** tool lets you zoom in on areas of the Scratch Pad.

The **Grabber** tool lets you scroll around the Scratch Pad.

Color Picker

The toolbox contains a primary and a secondary color rectangle. Click either rectangle to open the Color Picker dialog box and choose a new color.

Libraries

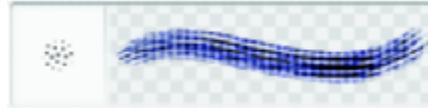
Four libraries are available in the toolbox: papers, gradients, patterns, and nozzles.

The Preview Grid and Window

The preview grid is located on the left side of the main window on the Randomizer and Transposer pages. It contains a Brush selector bar, and it displays several variations of brush strokes for the selected brush. You can use these brush strokes as variants to

be randomized or transposed. The preview window displays the variant you select.

By increasing the size of the main window, you also make more brush strokes available in the preview grid.



The preview grid.

To resize the preview grid

- Drag the resize handle at the bottom-right corner of the main window.

Using the Scratch Pad

When creating new brushes, you can test the brush strokes on the Scratch Pad. You can zoom in to and out of specific areas of the Scratch Pad, adjust the brush size, make selections, and clear the Scratch Pad.

To zoom in to the Scratch Pad

- 1 Do one of the following:

- Choose the Magnifier tool  in the toolbox.
- Hold down **Command + Spacebar** (Mac OS) or **Ctrl + Spacebar** (Windows).

The Magnifier cursor shows a plus sign (+), indicating you are increasing magnification (zooming in).

- 2 Click or drag in the Scratch Pad.

To zoom out of the Scratch Pad

- 1 Do one of the following:
 - Choose the Magnifier tool, and hold down **Option + Command** (Mac OS) or **Alt + Ctrl** (Windows).
 - Hold down **Option + Command + Spacebar** (Mac OS) or **Alt + Ctrl + Spacebar** (Windows).

The Magnifier cursor shows a minus sign (-), indicating you are decreasing magnification (zooming out).

- 2 Click in the Scratch Pad.

Tip

• You can also adjust the Zoom slider in the bottom-left corner of the main window to zoom in and out.

To adjust brush size in the Scratch Pad

- Adjust the Size slider above the Scratch Pad.

To make a selection in the Scratch Pad

- 1 In the toolbox, choose the Rectangular Selection, Oval Selection, or Lasso tool . The three selection tools share the same space in the toolbox. Holding down the tool button provides access to the hidden tool.
- 2 Drag in the document to make your selection. For more information about making selections, see “Using Selection Tools” on page 204.

To clear the Scratch Pad

- Click the Clear button.

Palettes

There are seven palettes in the Brush Creator: Colors, Tracker, Color Variability, Color Expression, Papers, Patterns, and Gradients. The Colors and Tracker palettes are open by default.

You can choose primary and secondary colors on the Colors palette, or you can choose to clone color. For more information, see “Working with Color” on page 75.

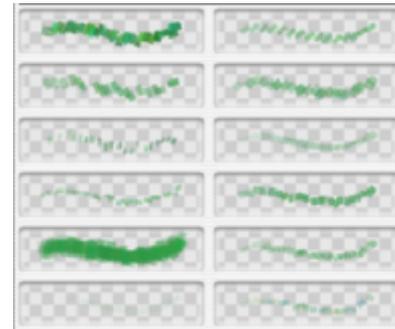
The Tracker palette keeps a visual record of all brush strokes made in the Scratch Pad. You can choose a brush variant from the Tracker palette to use in Corel Painter. For more information, see “The Tracker Palette” on page 21.

Colors and brush strokes selected in the Brush Creator will carry over to the main application.

Using the Randomizer

The Randomizer takes the current brush category and variant, creates random settings for them, and

displays variants created from these random settings. You can then choose a new randomized variant from the preview grid to use in the application, or you can use one of these new variants to create even more randomized variants.



Randomized brush variants.

To create a random brush variant

- 1 Do one of the following:
 - On the Brush selector bar, choose a brush category and variant.
 - Choose a brush stroke from the preview grid.

Random settings are created based on the default settings.

- To fine-tune the settings of the randomized variants displayed in the preview grid, adjust the Amount of Randomization slider. Move the slider to the right to increase the amount of randomization; move it to the left to decrease the amount.
- To create a new set of randomized settings, click the Randomize Current Selection button .

Tip

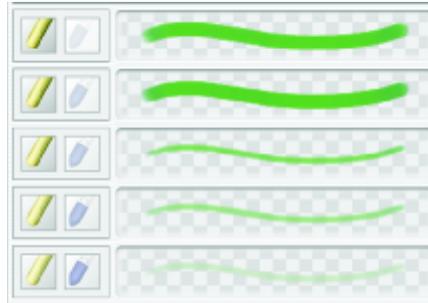
- You can choose a brush category and variant in the main application or in the Brush Creator.

Using the Transposer

The Transposer creates new brush variants based on a transition from one variant to another. For example, you can choose to combine variants from the Pencils and Felt Pens categories. The Transposer will use the settings from each variant to create new variants.

The Transposer uses two Brush selector bars, at the top and bottom of the page. The top Brush selector bar is

used to choose the From variant; the bottom one is used to choose the To variant. The Transposer uses these two variants to create a series of new brush strokes.



Transposed brush variants.

To create a transposed brush variant

- Do one of the following:
 - On the Brush selector bars at both the top and bottom of the Transposer page, choose a brush category and variant.
 - Choose a brush stroke from the preview grid.

This brush variant becomes the next variant to be transposed.

- Click the Transpose Current Selection button .

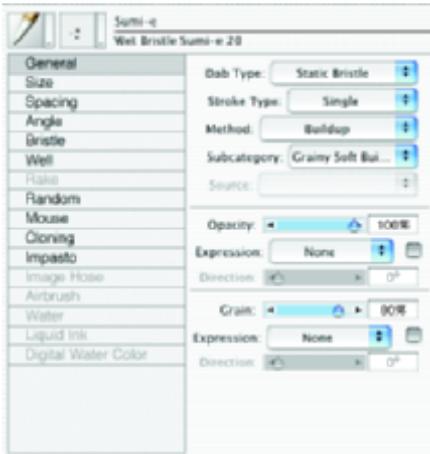
To choose a new brush variant from the Preview window

- Click a brush stroke in the Preview window.

This variant becomes the next variant to be transposed.

Using the Stroke Designer

The Stroke Designer lets you tweak the various settings for each brush variant to create new brushes. A series of controls, each containing its own settings, can be adjusted on the Stroke Designer page.



The Stroke Designer.

Setting General Controls

Dab Types

Dab types are media application methods. Corel Painter produces “computed” brush strokes using rendered dab types that are computed during the stroke.

Earlier versions of Corel Painter used “dab-based” media application, where brushes apply small dots of media to create brush strokes. With Spacing

between dabs set small, strokes appear smooth. Zoom in close enough, and you can probably tell that the brush stroke is made up of tiny dabs of color. Make a rapid brush stroke or set spacing between dabs large, and strokes can become trails of dots.

Rendered dab types create continuous, smooth-edged strokes. They’re fast and less artifact prone than dab-based media application. In fact, you can’t draw fast enough to leave dabs or dots of color showing in a stroke, because they’re just not there. Rendered dab types allow rich new features, that were not possible with dab-based media application.



The Scratchboard Pen illustrates the smooth stroke that can be accomplished with the Corel Painter rendered Dab Types.

Corel Painter brushes use one of the following dab types.

- Circular (dab-based)—Circular dabs are controlled by the sliders in the Size and Angle areas of the Stroke Designer.
- Single Pixel (dab-based)—A Single Pixel dab consists of one pixel only. You can’t change its size. You’ll use single pixel brushes most often when you zoom in for editing at the pixel level.
- Static Bristle (dab-based)—Bristle dabs are controlled by the sliders in the Size area of the Stroke Designer. When you select the Static Bristle dab type, the preview grid displays a bristly profile.
- Captured (dab-based)—Captured dabs are dab shapes you create and capture. Refer to “Capturing Brush Dabs” on page 182.



A captured dab is for a captured brush. It lets you paint with specific shapes and designs.

- Camel Hair (rendered)—You use Camel Hair dabs to create a bristle brush with a circular array of bristles. Individual brush hairs can have their own color and can pick up underlying colors independently of the Brush loading option. Increase color variability in Corel Painter to make each hair a separate color. For more information about color variability, see “Color Variability” on page 87.

The Feature slider in the Size area separates bristles. The higher the setting, the farther apart hairs appear. Use a low setting to make more solid strokes. For more information about the Size controls, see “Setting Size Controls” on page 153.



The effects of Feature on the stroke.

- Flat (rendered)—You use Flat dabs to create a flat brush, like those used to apply paint to houses or walls. Brushes that use Flat dabs respond to bearing, allowing for flat or narrow strokes, depending on how the stylus is held. Flat dabs are always perpendicular to the shaft of the stylus.

The Feature setting in the Size area separates bristles.

- Palette Knife (rendered)—You use these dabs to create brushes that are the opposite of Flat dab brushes. With resaturation set low, you can use these brushes to scrape, push, or pick up, and rapidly drag colors along. Palette Knife dabs are always parallel to the shaft of the stylus.

The Feature setting in the Size area separates bristles.

- Bristle Spray (rendered)—You use Bristle Spray dabs to create brushes that can use airbrush controls. These brushes recognize tilt, which separates bristles on the opposite side of the tilt. Holding down **Option** (Mac OS) or **Alt** (Windows) when painting reverses the spray direction.

Adjust the Feature slider in the Size area to separate bristles.

- Airbrush (rendered)—You use Airbrush dabs to create brushes that act like airbrushes. Bearing (direction) and angle (tilt) affect

the eccentricity of the resulting conic section. The Feature slider in the Size area controls the size of the individual droplets of media. Set Feature too high and you might get undesirable artifacts.

Holding down **Option** (Mac OS) or **Alt** (Windows) when painting reverses the spray direction.

- **Pixel Airbrush (rendered)**—You use these dabs to create brushes that work like airbrushes. Brushes that use Pixel Airbrush dabs cannot use the Feature setting to control the size of individual droplets of media. Holding down **Option** (Mac OS) or **Alt** (Windows) when painting reverses the spray direction.
- **Line Airbrush (rendered)**—You use these dabs to create brushes that work like airbrushes. Brushes that use Line Airbrush dabs spray lines instead of droplets of media. Holding down **Option** (Mac OS) or **Alt** (Windows) when painting reverses the spray direction.
- **Projected (rendered)**—You use Projected dabs to create brushes that act like airbrushes. Brushes created with Projected dabs work similarly to the airbrush from previous versions of the application, but react to bearing and angle data. They create conic sections with an overall softness. Holding down **Option** (Mac OS) or **Alt** (Windows) when painting reverses the spray direction.
- **Rendered (rendered)**—You use Rendered dabs to create brushes that conform the source to a stroke. Use the Source pop-up menu to control what is mapped into the computed brush strokes. For more information, see “Source” on page 152.
- **Liquid Ink**—You use Liquid Ink dabs to create liquid paint effects that simulate traditional ink-based media. You can give a Liquid Ink brush stroke the appearance of height by applying lighting effects. There are five types of Liquid Ink dab types: Liquid Ink Camel Hair,

Liquid Ink Flat, Liquid Ink Palette Knife, Liquid Ink Bristle Spray, and Liquid Ink Airbrush.

- **Water Color**—You use Water Color dabs to create brushes that work like water color brushes. The colors flow and mix and absorb into the paper. You can control the wetness and evaporation rate of the paper. There are five types of Water Color dab types: Water Color Camel Hair, Water Color Flat, Water Color Palette Knife, Water Color Bristle Spray, and Water Color Airbrush.

To choose a dab type:

- 1 On the Stroke Designer page of the Brush Creator, click General.
- 2 Choose a dab type from the Dab Type pop-up menu.

Stroke Types

Stroke type determines how media is applied during a brush stroke.

Corel Painter brushes use one of the following stroke types.

- **Single**—A Single stroke type draws one dab path that corresponds exactly to the brush stroke you make.

You can use Bristle, Captured, or one of the bristle rendered dab types (such as Camel Hair) with the Single stroke type to create the effect of multiple bristles.



The Single stroke type has one dab path.

- **Multi**—A Multi stroke type draws a set of randomly distributed dab paths, positioned around the brush stroke you make. These dabs leave dab paths that are not parallel and might overlap. Each time you apply a multi-stroke brush, the result might differ.

Increasing the Jitter value in the Random area spreads out the strokes in a multi-stroke brush.

Multi-stroke brushes must be precomputed, which can generate a delay in their appearance on the

screen. Because of this delay, multi-stroke brushes work best when you apply them in short, controlled strokes.



The Multi stroke type draws a set of randomly distributed dab paths.

- **Rake**—A Rake stroke type draws a set of evenly distributed dab paths. The several dab paths in a rake brush stroke are parallel. You can control all other aspects of the stroke by using settings in the Rake area of the Stroke Designer. Each bristle in a Rake brush can have a different color. Increasing Color Variability in Corel Painter causes bristles to be colored differently.



A rake stroke is composed of evenly distributed dab paths.

- **Hose**—The Hose stroke type applies only to the Image Hose. It's a single stroke composed of the current Image Hose Nozzle file. To learn more about the Image Hose and Nozzle files, refer to "Using the Image Hose" on page 332.



The Hose stroke type uses the current Nozzle file as media.

To choose a stroke type:

- 1 On the Stroke Designer page of the Brush Creator, click General.
- 2 Choose a stroke type from the Stroke Type pop-up menu.

Methods and Subcategories

The brush method defines the most basic level of brush behavior. A brush method is the foundation on which all

other brush variables build. You can think of the method and method subcategory as attributes of the stroke's appearance.

Because the method sets a brush variant's most basic behavior, you can alter a variant's behavior by changing its method. For example, suppose you want a Charcoal-looking stroke, but instead of hiding underlying strokes, you want brush strokes to build to black. You can get this effect by changing the method to Buildup. Perhaps you want a variant of the Pens brush category to smear underlying colors. You can change its method from Cover to Drip. Some brush effects are less easily affected by other methods, and results may differ.

Each method can have several variations, called method subcategories. These subcategories further refine the brush behavior. The following terms are used in describing most method subcategories:

- Soft methods produce strokes with hard, "pixellated" edges.
- Flat methods produce smooth, anti-aliased strokes.

- Hard methods produce brush strokes with semi anti-aliased edges.
- Grainy methods produce brush strokes that react to paper texture.
- In a few instances, you'll see the words "edge" and "variable" in a method subcategory. "Edge" means strokes are thick and sticky looking. "Variable" means a brush stroke starts off a bit more transparent.

Combining a method with a method subcategory results in a specific brush style you can assign to a given brush. For example, Grainy Hard Cover means that brush strokes interact with paper grain and have semi anti-aliased strokes that hide underlying pixels. Grainy Hard Cover is the default method for Chalk and Charcoal.



The brush stroke on top was created using Grainy Hard Buildup. The stroke on bottom was created using Soft Variable Buildup.

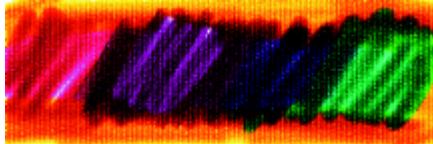
Corel Painter supplies the following methods:

- Buildup
- Cover
- Eraser
- Drip
- Mask (Cover)
- Cloning
- Wet
- Digital Wet
- Plug-in

Buildup Method

The Buildup methods produce brush strokes that build toward black as you overlay them. A real-world example of buildup is the felt pen: Scribble on the page with blue, then scribble on top of that with green, then red. The scribbled area keeps getting darker—approaching black.

Even if you were to apply a bright color like yellow, you couldn't lighten the scribble—it would stay dark. This is buildup. Crayons and Felt Pens are buildup brushes.



An example of the Buildup method.

Cover Method

The Cover methods produce brush strokes that cover underlying strokes, such as oil paint in a traditional studio. No matter what colors you paint, you can always apply a layer of paint that completely hides what's

underneath. Even with a black background, a thick layer of yellow will be pure yellow. Some Chalk and Pen variants are examples of brushes that use the Cover method.



An example of the Cover method.

Eraser Method

The Eraser methods either erase, lighten, darken, or smear the underlying colors.



An example of the Eraser method.

Drip Method

The Drip methods interact with the underlying colors to distort the image.



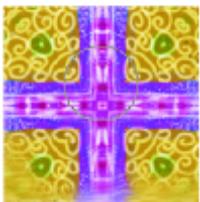
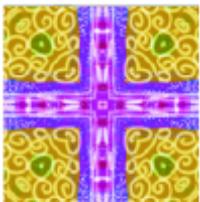
An example of the Drip method.

Mask Method

Due to Corel Painter masking capabilities, the Mask method is provided only for compatibility with earlier versions of the application. Mask methods are now mapped to the Cover method. Normally, you will not use the Mask method.

Cloning Method

The Cloning methods take imagery from a clone source and re-create them in another location, often rendering them in a Natural-Media style. For more about cloning imagery refer to “Cloning Imagery” on page 185.

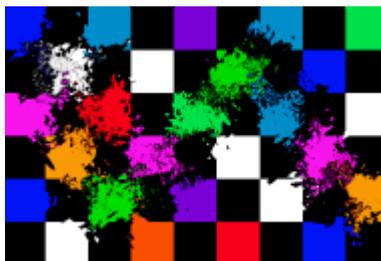


An example of the Cloning method.

Plug-in Method

Plug-in is a special category of method subcategories. It defines no specific brush behavior, but is an open door to a wide range of subcategories.

It's well worth your time to browse through the Plug-in method subcategories. There, you'll find methods such as Left Twirl. Left Twirl gives you a brush with the dab and stroke of an Impressionist performing left-handed twirls.



You can give any built-in brush the power of a plug-in by changing its method and subcategory.

Wet Method

The Wet method applies brush strokes to a Water Color layer. For more information, see “The Water Color Layer” on page 123.

Digital Wet

The Digital Wet method applies digital water color brush strokes to the canvas or a regular layer. For more information, see “Digital Water Color” on page 125.

To choose a method and subcategory:

- 1 On the Stroke Designer page of the Brush Creator, click General.

- 2 Choose a method from the Method pop-up menu.
- 3 Choose a subcategory from the Subcategory pop-up menu.

Source

Source selects the media that is applied by the brush variant. Source applies only to some dab types like Line Airbrush, Projected, and Rendered. Refer to “Painting with Color” on page 106 for more information about setting a media source.

Corel Painter brushes use one of the following source types:

- Color—applies primary or secondary color.
- Gradient—applies the current gradient across the length of the stroke.
- Gradient Repeat—applies the current gradient repeatedly along the stroke.
- Pattern—paints with a pattern containing no mask information.

- Pattern with Mask—paints with a pattern limited by the pattern’s mask.
- Pattern as Opacity—the Luminance of the pattern becomes the opacity of the stroke.

To choose a media source:

- 1 On the Stroke Designer page of the Brush Creator, click General.
- 2 Choose a source from the Source pop-up menu.

Opacity

The Opacity slider determines how Corel Painter should vary the density of the media being applied. It sets the maximum opacity of the selected brush.

The opacity of an Airbrush variant is often set to be determined by stylus pressure. More pressure yields more opaque strokes. Use the Expressions settings on the Stroke Designer page to tie Opacity to stylus or mouse data.

To set brush opacity:

- 1 On the Stroke Designer page of the Brush Creator, click General.
- 2 Move the Opacity slider left to reduce opacity. Move it right to increase opacity.

Grain

The Grain slider determines the maximum amount of paper texture Corel Painter should reveal in a brush stroke.

Some default variants have their grain component determined by pressure. Increasing pressure causes the pencil to “dig into” the paper. Use the Expressions settings on the Stroke Designer page to tie grain to stylus or mouse data.

You can also use the paper’s brightness and contrast settings to control brush-grain interaction. For more information, see “Using Paper Texture” on page 59.

To set grain:

- 1 On the Stroke Designer page of the Brush Creator, click General.

- 2 Move the Grain slider left to reduce the penetration into the grain. Move it right to increase the penetration.
More grain is visible with lower settings.

Setting Size Controls

The Size brush feature determines how Corel Painter varies the width of the brush stroke. The range from minimum to maximum is determined by Size and Min Size sliders in the Size area of the Stroke Designer page.

Preview

The Preview window in the Size area of the Stroke Designer page shows how your changes affect the brush dab. Clicking in the Preview window lets you toggle between “hard” and “soft” views of the dab.

The Preview supports only hard and soft views of dab based brushes.



Hard view



Soft view

Click in the Preview window to toggle between Hard view and Soft view.

In the hard view, concentric circles show the minimum and maximum Size of a brush. The inner (black) circle shows the minimum dab width. The outer (gray) circle shows the maximum dab width. Remember that some brushes vary the line width based on pressure or stroke speed. The difference between the diameter of the two circles shows the range in which the stroke width will vary.

In the soft view, shading shows the density distribution of the brush tip. The density distribution describes how much of the medium is conveyed by a given point on the brush dab. For example, an individual dab made by an airbrush produces a soft-edged circular mark with minimum density at the outer edge of the dab. Density increases inward to a maximum value at the exact center of the dab.

Soft view cannot be used for Image Hose or rendered dab types.

Brush Tips

The brush tip, or “profile,” shows a cross-section of density distribution across the diameter of the dab. You can think of a brush tip profile as a bell curve graph representing the density spread across the brush dab.

Different mediums have different density distributions. Changes in the density distribution produce different marking qualities in a brush stroke. For rendered airbrush dab types, the tip profile controls the concentration of the spray.

Corel Painter brushes use one of the following Brush Tip Profiles:

Pointed Profile



Pointed Profile provides maximum density at the center, with rapid fall-off to the edge.

Medium Profile



Medium Profile has a wide area of greater density at the center, with rapid fall-off to the edge.

Linear Profile



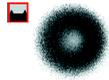
Linear Profile provides maximum density at the center with an even fall-off to the edge.

Dull Profile



Dull Profile provides maximum density at the center, with a high density weighting to the edge.

Water Color Profile



Water Color Profile provides maximum density at the outer edge in a ringlike fashion, with medium internal density.

This tip may be used with the rendered dab types to yield a hollow dab or a spray concentration.

1-Pixel Edge



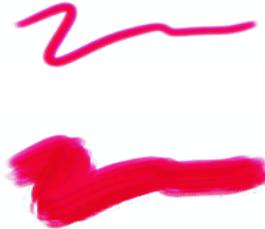
1-Pixel Edge provides maximum density throughout, with a rapid fall-off at the edge, producing a one-pixel, anti-aliased edge.

To choose a brush tip:

- 1 On the Stroke Designer page of the Brush Creator, click Size.
- 2 Click the Brush Tip Profile that you want to use.

Size

The Size slider controls the width of the brush and the brush stroke.



The Size slider controls the width of the brush.

As Size changes, you might need to adjust the Spacing controls for brushes that use non-rendered or dab-based dab types, because gaps might appear in the stroke.

To set brush size in the Stroke Designer:

- 1 On the Stroke Designer page of the Brush Creator, click Size.
- 2 Move the Size slider right to make the brush larger. Move it left to make the brush smaller.

Tips

- You don't need to open the Size area of the Stroke Designer page to adjust the size of a brush. You can type a value in the Size box on the property bar, or you can adjust the slider on the property bar. For more information on the property bar, see "Using the Property Bar" on page 16.
- You can also press the square brackets, [and], to decrease and increase the brush size according to the value specified in General Preferences. For more information, see "General Preferences" on page 49.

To use the brush sizing shortcut:

- 1 Hold down **Command + Option + Shift** (Mac OS) or **Ctrl + Alt + Shift** (Windows) and drag in the image window.
A circle that represents the brush diameter appears beneath the cursor.
- 2 When you've dragged the circle to the size you want, release the mouse button.



The brush sizing shortcut lets you use keyboard commands to adjust the brush size right in the document window.

Min Size

In your studio, you expect the pressure you exert on a brush or drawing tool to make a difference in the width of the resulting brush stroke.

The Min Size control allows you to create a brush stroke that is amazingly realistic. You can set up a brush that really responds to the elegance of subtle hand movements. As stylus pressure eases, brush strokes taper in response. As pressure increases, brush strokes widen just as they would with a real brush.

Min Size represents a percentage of the Size setting and is the smallest stroke size for the selected brush. Now that Size is always the largest stroke size and Min Size sets the smallest stroke size (in relationship to the Size setting), it's easy to control overall stroke size variation.

To set minimum stroke size:

- 1 On the Stroke Designer page of the Brush Creator, click Size.
- 2 Move the Min Size slider right to make the minimum brush size larger. Move it left to make the minimum brush size smaller.

Size Step

The Size Step slider controls the transition between narrow and wide sections of a stroke. Moving the slider to the right makes the transition appear more abrupt. Moving it to the left makes the transition smoother.

Size step is applicable only to dab-based brushes.



The Size Step slider controls the transition between the narrow and wide sections of a stroke. Top=1%, bottom=100%.

To set stroke transition:

- 1 On the Stroke Designer page of the Brush Creator, click Size.
- 2 Move the Size Step slider right to increase the transition between brush sizes. Move it left to make the transitions smaller.

Feature

The Feature slider determines the size of the dabs of paint applied by a rendered dab type brush.

Setting Spacing Controls

When a brush stroke uses a dab-based dab type, Corel Painter creates the stroke with a series of dabs. By

adjusting the spacing between those dabs, you can control the continuity of the brush stroke.

Spacing

The Spacing slider controls the distance between brush dabs in a stroke.

To set spacing between brush dabs:

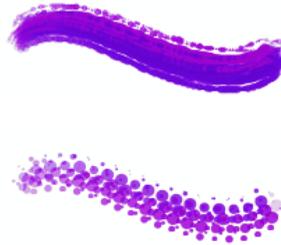
- 1 On the Stroke Designer page of the Brush Creator, click Spacing.
- 2 Move the Spacing slider right to increase the spacing between dabs, bringing spacing closer to the size of the dab itself.

When the Spacing slider is at 100%, the Size of the dab equals the spacing. For example, a dab that's 10 pixels across is repeated every 10 pixels.

- 3 Move the Spacing slider left to decrease the distance between dabs, until they begin to overlap. Overlapping increases the density of the stroke and makes it look more continuous.

Min Spacing

The Min Spacing slider specifies the minimum number of pixels between dabs. If you don't want a continuous stroke, you can adjust the Min Spacing to create a dotted or dashed line. Each dot or dash is one brush dab.



The Min Spacing slider controls the minimum number of pixels between dabs. Top=2.0, bottom=10.5.

To set minimum dab spacing:

- 1 On the Stroke Designer page of the Brush Creator, click Spacing.
- 2 Move the Min Spacing slider right to increase the minimum spacing between dabs. Move it left to decrease the minimum spacing between dabs.

Damping

Damping is used to smooth otherwise jagged brush strokes for brushes using rendered dab types. Higher values make the stroke smoother. (On a very technical note, Damping suspends a stroke in a mathematical spring area, using calculations to even out edges and reduce jaggedness.)

High values of Damping will actually round out corners of a stroke. A value of 50% works best. Higher values might be necessary for jittery input devices like a mouse.

To set smooth rendered dab strokes:

- 1 On the Stroke Designer page of the Brush Creator, click Spacing.
- 2 Move the Damping slider to the right to even out jagged strokes. Move it left to allow for more ragged transitions between points on the stroke.

Continuous Time Deposition

Continuous Time Deposition controls whether you must move a brush before media is applied. With Continuous Time Deposition enabled, media begins flowing at the first touch.

Brushes that use rendered dab types take full advantage of this setting, causing media to pool realistically when the stroke is slowed or paused. Brushes that use dab-based dab types require a full pause in the stroke before media begins to pool. You use Continuous Time Deposition mostly with airbrush tools.

With Continuous Time Deposition disabled, you must move a brush before media flows.

To set Continuous Time Deposition:

- 1 On the Stroke Designer page of the Brush Creator, click Spacing.
- 2 Enable the Continuous Time Deposition check box.

Cubic Interpolation

Cubic Interpolation smooths jagged brush strokes by adding points to dab paths, primarily for brushes that use dab-based dab types. Unlike Damping, which uses mathematical calculations to smooth jagged edges, Cubic Interpolation inserts additional points into dab paths, which are used to replot brush strokes.

Cubic Interpolation is best for dab-based dab types, while Damping is best for rendered dab types.

To set smooth strokes by adding path points:

- 1 On the Stroke Designer page of the Brush Creator, click Spacing.
- 2 Move the Points slider to the right to add points and even out jagged strokes. Move it left to decrease the number of additional points.

Setting Angle Controls

Squeeze

Squeeze controls the shape of the brush dab. Squeezing a brush changes it from round to elliptical. You use Squeeze controls with Circular and Captured dab types.



The Squeeze slider controls the shape of the brush dab. Top=100%, bottom=25%.



Examples of Squeeze used to create a Calligraphy effect with a Pen brush.

To set brush shape:

- 1 On the Stroke Designer page of the Brush Creator, click Angle.
- 2 Move the Squeeze slider to the left to make a dab more elliptical. Move it to the right to make a dab rounder.

Angle

The Angle slider controls the angle of an elliptical brush dab and the length of the ellipse. You use Angle controls with Circular and Captured dab types.



The Angle slider controls the angle of an elliptical brush dab—it is significant only for dabs with Squeeze below 100%. Top=90°, bottom=45°.

To set elliptical brush dab angle:

- 1 On the Stroke Designer page of the Brush Creator, click Spacing.
- 2 Move the Angle slider right to rotate the dab clockwise. Move the slider to the left to rotate the brush counterclockwise.

Angle Range

For dab-based brushes, the Ang Range slider lets you specify a range of dab angles that may appear in a brush stroke.

To take advantage of this feature, you must set up the brush to base the angle on some factor, like stroke direction or bearing. You'll do this with the Expression settings on the Stroke Designer page.



The Angle Range slider controls the range of dab angles that can appear in a brush stroke. Top=0°, bottom=180°.

To set brush dab angle range:

- 1 On the Stroke Designer page of the Brush Creator, click Angle.
- 2 Move the Ang Rng slider right to increase the range of angles that can appear in a dab. Move the slider to the left to reduce the range of angles that can appear in a stroke.

Setting this slider to 360° means you can get every angle between 0° and 360° in your stroke.

Angle Step

For dab-based brushes, the Ang Step slider controls the increment of change for brushes with an Ang Range greater than 0°. For example, setting the Ang Step to 5° means you get a brush dab every 5° within the current angle range setting.



The Angle Step slider controls the increment of change for brushes with an Angle Range greater than 0°. Top=0°, bottom=90°.

To set brush angle increment:

- 1 On the Stroke Designer page of the Brush Creator, click Angle.
- 2 Move the Ang Step slider right to get fewer angles. Move it left to create more angles.

Setting Bristle Controls

Bristles create the look of a real brush stroke, complete with the striations that hairs on a real brush make. Use the controls in the Bristle area of the Stroke Designer page to design the many individual bristles in a single brush dab.

To see the effect of the Bristle sliders, click Size on the Stroke Designer page and click in the preview window to show the “soft” view of the dab. The bristled dab changes as you move bristle control sliders. For more information about Size controls, see “Setting Size Controls” on page 153.

If you choose Rake as the stroke type, you can adjust Brush Scale and Contact Angle in the Rake area of the Stroke Designer page. For more information on the Rake controls, refer to “Setting Rake Controls” on page 165.

Thickness

The Thickness slider controls the diameter of separate bristles.



The Thickness slider controls the diameter of the individual bristles. Top=17%, bottom=87%.

To set bristle thickness:

- 1 On the Stroke Designer page of the Brush Creator, click Bristle.
- 2 Move the Thickness slider to the left to reduce the density of the medium left by the stroke. Move it right to increase brush density. When the slider is fully to the left, the brush will leave a faint stroke—even if Opacity is set to 100%.

Clumpiness

The Clumpiness slider applies a random variance to the thickness of each bristle. Clumpiness is proportional to Thickness. This produces an effect that looks like some of the bristles have clumped together.



The Clumpiness slider controls how bristles “clump together”. Top=0%, bottom=100%.

To set clumping of bristles:

- 1 On the Stroke Designer page of the Brush Creator, click Bristle.
- 2 Move the Clumpiness slider to the left to reduce the amount of clumping together of bristles.

Move it right to increase clumpiness.

Hair Scale

The Hair Scale slider controls the density of bristles in the brush dab and, therefore, the number of bristles in the dab.



The Hair Scale slider controls the density of bristles in the brush dab. Top=410%, bottom=990%.

To set bristle density:

- 1 On the Stroke Designer page of the Brush Creator, click Bristle.
- 2 Move the Hair Scale slider to the left to reduce the amount of bristle density, creating a fine-hair brush. Move it right to increase density.

Scale/Size

The Scale/Size slider controls the degree of Size variation applied to the bristles of a brush. At 0% there is no size change applied to the bristles. Setting this slider to a value greater than 0% creates a set of scaled iterations of the dab.

At 100% Size/Scale, when the brush size changes, the bristles scale in proportion to the size. At 8% Size/Scale, when the brush size changes, the bristles remain a constant absolute size.

The Scale/Size control is invalid if there is no size range (that is, Size Min set to 100%).



The Scale/Size slider controls the degree of Size variation applied to a bristle set. Top=0%, bottom=100%.

To scale bristles according to brush size:

- 1 On the Stroke Designer page of the Brush Creator, click Bristle.
- 2 Move the Scale/Size slider to the left to reduce the degree of size variation. Move it right to increase size variation.

Expression Settings

Corel Painter lets you control brush effects along the stroke based on a number of real-time input factors. For example, many brushes vary their

Opacity or Size in response to changes in stylus pressure. This is merely their default setting. You can use the Expression settings on the Stroke Designer page to vary these effects in response to other factors, like stroke direction or velocity.

Expression settings are linked to individual controls on the Stroke Designer page. These are: General, Size, Angle, Well, Random, Impasto, Airbrush, and Liquid Ink.

To choose an Expression setting:

- 1 On the Stroke Designer page of the Brush Creator, click a control that contains Expression settings.
 - 2 Choose one of the following options from the Expression pop-up menu:
 - None — applies no adjustment to the brush feature
 - Velocity — adjusts the brush feature based on the dragging speed. Dragging quickly will minimize the setting; dragging slower increases it.
- Direction — adjusts the selected brush feature based on the direction of the stroke
 - Pressure — adjusts the brush feature based on stylus pressure. Greater pressure increases the setting for that brush feature.
 - Wheel — adjusts the brush feature based on the wheel setting on an airbrush stylus, specifically the Intuos Airbrush stylus. The maximum value is set when the wheel is pushed all the way forward. The minimum is set when the wheel is pushed all the way back.
 - Tilt — adjusts the brush feature based on the angle of the stylus from the tablet. For example, when the stylus is perpendicular to the tablet, Tilt = 0.
 - Bearing — adjusts the brush feature based on the direction in which the stylus points
 - Source — adjusts the brush feature based on the luminance of the clone source. Higher luminance (closer to white)

increases the setting for that component—for example, a wider stroke.

- Random — adjusts the brush feature at random
 - Sequential — applies only to Rank 2 or 3 Image Hose brushes. When enabled, this feature picks out nozzles from the index, in order.
- 3 If you like, enable the Invert check box beside the Expression pop-up menu to reverse the effect of the Expression setting.

Note

- *Not all stylus models convey tilt or bearing information.*

Direction

The Direction slider below the Expression pop-up menu adjusts the angle value of the Direction controller. The angle value represents the direction to which the Controller responds. For instance, when the Controller is set to direction, this

setting controls at what angle a brush stroke narrows or widens, particularly useful for calligraphic effects.

To set controller direction:

- 1 On the Stroke Designer page of the Brush Creator, click a control that contains Expression settings.
- 2 Choose Direction from the Expression pop-up menu.
- 3 Drag the Direction slider until the desired angle is achieved for controller behavior.

Setting Well Controls

The Well controls determine how a brush conveys its medium (color) to the paper. The Resaturation, Bleed, and Dryout controls work together to determine how much color a brush has at the start and finish of a stroke.

Brush Loading

Brush Loading affects how dab-based brushes interact with underlying pixels. When Brush Loading is active, brushes can literally “pick up” existing colors, hair by hair. This capability

offers truer color interaction, astounding color-variations smearing, and better cloning results.

When Brush Loading is not active, brushes interact with previously applied colors by sampling underlying pixels, then loading the brush with one new color—the average of those that were sampled.

When you’re using Brush Loading, it’s best to use a very low spacing setting. For more information about spacing controls, see “Setting Spacing Controls” on page 156.

Resaturation

Resaturation controls the amount that color is replenished in a stroke. If the Resaturation slider is at zero, the brush does not get any color. When Resaturation is below 10% (and Bleed is less), a brush stroke fades in gently. When Resaturation is at zero and Bleed is set high, an airbrush can move underlying colors, as when using just the airbrush hose to blow paint around on the canvas.



The Resaturation slider controls the amount of color replenished in the stroke. Top=25%, bottom=100%.

To set resaturation:

- 1 On the Stroke Designer page of the Brush Creator, click Well.
- 2 Move the Resaturation slider left to reduce the amount of color replenished in a stroke. Move it right to increase the amount of color.

Bleed

The Bleed slider controls how much the brush colors smear underlying colors—including the paper color.

When Bleed is higher than resaturation, more color bleeds than covers, so the stroke will never reach full Opacity.



The Bleed slider controls the amount of underlying color mixed in with the selected color. Top=55%, bottom=1%.

To set color bleed:

- 1 On the Stroke Designer page of the Brush Creator, click Well.
- 2 Move the Bleed slider left to reduce the amount of interaction

with underlying pixels. Move it right to increase interaction.

Dryout

The Dryout control determines how quickly a brush runs out of medium. Dryout is measured in pixels. Moving the slider to the left makes a brush's reservoir empty more quickly. This can lead to brush strokes that fade out gently. If the Dryout control is set high, the brush never runs out of color.

Dryout works in conjunction with Bleed, so Bleed must be above zero to take advantage of Dryout. You can modulate the Dryout effect by changing the Bleed setting.



The Dryout slider controls how fast the brush runs out of medium. Top=724, bottom=22026.

To set brush dryout:

- 1 On the Stroke Designer page of the Brush Creator, click Well.
- 2 Move the Dryout slider left to shorten the distance the brush can move before it dries out. Move it right to lengthen the distance.

Setting Rake Controls

The Rake controls lets you control the sophisticated features of a Rake stroke, which maintains the angle of the brush head as the stroke changes direction. As the brush turns, bristles come in and out of contact.

Contact Angle

The Contact Angle slider adjusts how much of the brush touches the painting surface. In other words, the number of rake “tines” that touch the Canvas at once.



The Contact Angle controls determine how much of the brush contacts the painting

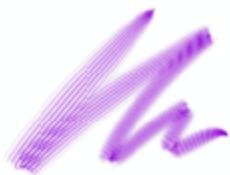
surface. Top=180°, middle=125°, bottom=0°.

To set brush contact angle:

- 1 On the Stroke Designer page of the Brush Creator, click Rake.
- 2 Move the Contact Angle slider to the left to create a low contact angle—few of the dabs are in contact with the paper. Move the slider all the way to the right to create a high contact angle—all of the dabs contact the paper.

Brush Scale

Brush Scale controls the spacing between individual bristles that compose the Rake. The Size of each dab is determined in the Size area of the Stroke Designer page. For more information, see “Setting Spacing Controls” on page 156.



Brush Scale controls the spacing between individual dabs in the rake. Higher Brush Scale settings spread the dabs. Top=2500%, bottom=0%.

To set brush scale:

- 1 On the Stroke Designer page of the Brush Creator, click Rake.
- 2 Move the Brush Scale slider right to bring the scale closer to equaling the dab width.

When the scale is 100%, the stroke width equals the dab width times the number of dabs.

- 3 Move the slider left to cause dabs to overlap.

When the scale is less than 100%, the dabs overlap. Overlapping dabs create a natural, subtle stroke when used with Turn Amount and Soften Bristle Edge.

Turn Amount

When you turn a real brush to paint a curve, bristles at the edges move in and out of contact with the painting surface, depending on the brush's location on the curve (inside or outside).

Turn Amount simulates this bristle displacement.



The Turn Amount slider controls the displacement of inside and outside bristles. Top=0%, bottom=150%.

To set bristle displacement:

- 1 On the Stroke Designer page of the Brush Creator, click Rake.
- 2 Move the Turn Amount slider right to increase how much the displacement changes are based on the direction of the brush.
- 3 Move it left to decrease how much the displacement changes are based on the direction of the brush.

Bristle

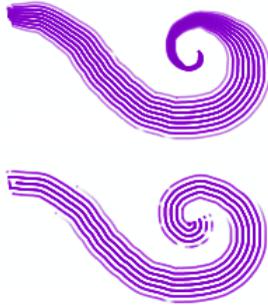
The Bristle controls set the number of bristles or dabs used for Multi and Rake stroke types.

To set bristle number:

- 1 On the Stroke Designer page of the Brush Creator, click Rake.
- 2 Move the Bristle slider right to increase how many bristles are in the brush. Move it left to decrease the number.

Spread Bristles

The Spread Bristles control dynamically adjusts brush scale based on pressure. The harder you press, the more the brush fans out.



Spread Bristles controls the spacing of bristles, based on stylus pressure. The harder you press, the more the bristles spread. If you want the Spread constant, disable this option. Top=enabled, bottom=disabled.

To set bristle spacing:

- 1 On the Stroke Designer page of the Brush Creator, click Rake.
- 2 Enable the Spread Bristles check box.

Soften Bristle Edge

Soften Bristle Edges makes a brush's outer dabs semi-transparent. This option is particularly nice when used with Turn Amount.



Soften Bristle Edge turns the outer dabs semi-transparent. Top=disabled, bottom=enabled.

To soften bristle edge:

- 1 On the Stroke Designer page of the Brush Creator, click Rake.
- 2 Move the Soften Bristle Edge slider right to increase outer dab transparency. Move it left to decrease transparency.

Setting Random Controls

Corel Painter uses randomness to introduce an “accidental” quality in color and stroke. Randomness contributes to the appealing, unique look of artwork created in Corel Painter. You can control brush randomness with settings in the Random area of the Stroke Designer page.

Jitter

The Jitter control introduces a randomized jitter to the brush stroke. Instead of appearing directly along the stroke, dabs appear randomly outside the brush stroke path.



The Jitter slider creates a randomized jitter in the brush stroke. Top=0, bottom=3.13.

To set Jitter:

- 1 On the Stroke Designer page of the Brush Creator, click Random.
- 2 Move the Jitter slider to the left to decrease deviation from the stroke path. Move it right to increase deviation from the stroke path.

A pair of green letters 'Aa' rendered with sharp, clean edges, representing a low jitter setting.A pair of green letters 'Aa' rendered with a soft, blurred appearance, representing a high jitter setting.

Clone Location Variability

Both Clone Location sliders work with brushes of the Cloning method. The Variability control lets you randomly offset the location where the clone brush samples the source.

When Variability is zero, the pixels of the source and destination images correspond precisely—using a cover brush at full Opacity (and no Grain) simply re-creates the source image.

The Variability slider controls the offset of the clone based on the location of the source image. Top=0, bottom=12.

Introducing a degree of randomness disturbs the pixel-to-pixel correspondence. The resultant variations in the image distance the clone from its photographic source, which can contribute to a Natural-Media appearance.

To set clone location variability:

- 1 On the Stroke Designer page of the Brush Creator, click Random.
- 2 Move the Clone Location Variability slider to the right to increase the range (distance) the sample can be offset. Move it left to limit offset, causing source and

destination images to correspond more precisely.

Note

- Clone location sliders do not have an effect when Clone Color is checked in the Colors palette. They have an effect only when a Clone method is in use.

How Often

The How Often slider controls the period between random offsets.

To set the period between random offsets:

- 1 On the Stroke Designer page of the Brush Creator, click Random.
- 2 Move the slider to the left to cause a greater number of samples to be offset.

This gives the clone image a rough, distorted look.

- 3 Move the How Often slider right to increase the period, causing samples to be offset less frequently. This keeps the clone image more coherent.

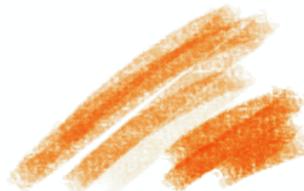


The How Often slider controls the period between random offsets. Top=0, bottom=15.

Random Brush Stroke Grain

Normally, when you make a brush stroke, the paper grain is fixed. Strokes repeated over an area will bring out the same grain.

The Random Brush Stroke Grain option randomly moves the paper grain for each dab of each stroke.



The Random Brush Stroke Grain option randomly moves the paper grain for each stroke. Top=disabled, bottom=enabled.

To choose the Random Brush Stroke Grain option:

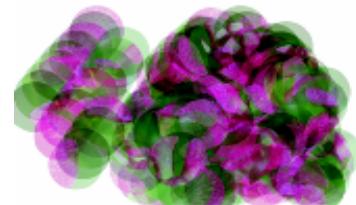
- 1 On the Stroke Designer page of the Brush Creator, click Random.
- 2 Enable the Random Brush Stroke Grain check box.

Random Clone Source

Random Clone Source randomly samples the source document, then places strokes on the clone

destination. There's no correspondence between the samples taken from the source and where they are placed on the clone. The result is a random pattern of the predominant colors and edges of the source. The brush and stroke determine the nature of the pattern.

You might use Random Clone Source with a faint, stipple brush to add noise to an image. In this case, the clone source image merely contains the "noise" colors you wish to add.



The Random Clone Source option randomly samples the source document. Top=disabled, Bottom=enabled.

To choose the Random Clone

Source option:

- 1 On the Stroke Designer page of the Brush Creator, click Random.
- 2 Enable the Random Clone Source check box.

Setting Mouse Controls

In theory, a mouse has no pressure information. A mouse button is either “on” (button down), or “off” (button up). The Corel Painter Mouse controls let you simulate stylus Pressure (how hard you would be pressing with a stylus), Tilt (how vertical the stylus is held), Bearing (the compass direction the stylus is pointing), and Wheel (how much ink is sprayed) settings.

You can record and save brush strokes created with a stylus, then have Corel Painter use the saved stroke’s Pressure, Tilt, Bearing, and Wheel settings when you make marks using a mouse. Refer to “Recording and Playing Back Strokes” on page 115 for more information about using saved brush strokes to further enhance mouse functionality.

To set pressure for the mouse:

- 1 On the Stroke Designer page of the Brush Creator, click Mouse.
- 2 Drag the Pressure slider.
A 100% setting uses maximum pressure.

To set tilt for the mouse:

- 1 On the Stroke Designer page of the Brush Creator, click Mouse.
- 2 Drag the Tilt slider.
A 90° setting indicates that if a stylus were in use, it would be perpendicular to the tablet.

To set bearing for the mouse:

- 1 On the Stroke Designer page of the Brush Creator, click Mouse.
- 2 Drag the Bearing slider.
A setting of zero indicates that if a stylus were in use, it would be pointing left.

To set ink flow for the mouse:

- 1 On the Stroke Designer page of the Brush Creator, click Mouse.
- 2 Drag the Wheel slider.

A setting of 100% indicates that maximum flow is in effect.

Setting Cloning Controls

The Cloning controls are specific to cloning method brushes and affect other brushes only when the Clone Color option is enabled.

Clone Color

The Clone Color control directs a brush to pick up color from a source image. Clone Color takes averaged samples of color from the clone source, resulting in an approximation of the original.

The Clone Color option is also available on the Colors palette. For more information, see “Cloning Color” on page 78.

To set Clone Color:

- 1 On the Stroke Designer page of the Brush Creator, click Cloning.
- 2 Click the Clone Color check box to enable the option. Click it again to disable the option.

Clone Type

The Clone Type control lets you choose between several cloning variations. These variations are arranged according to the number of reference points used. With two or more reference points, you can apply a transformation (rotate, skew, scale mirror, perspective) during cloning. For complete information on using the different clone types, refer to “Cloning Imagery” on page 185.

To set Clone Type:

- 1 On the Stroke Designer page of the Brush Creator, click Cloning.
- 2 Choose a type from the Clone Type pop-up menu.

Obey Source Selection

The Obey Source Selection option uses any selection in the clone source region to constrain painting in the destination. If a transform Clone Type is used, the selection is appropriately transformed. This option is available only with the Cloning method.

To constrain painting in the destination:

- 1 On the Stroke Designer page of the Brush Creator, click Cloning.
- 2 Click the Obey Source Selection check box to enable the option. Click it again to disable the option.

Copy Source Selection

When Copy Source Selection is enabled, the Cloner brush reproduces the source selection information in the destination selection. This option is available only with the Cloning method.

To reproduce the source selection information in the destination selection:

- 1 On the Stroke Designer page of the Brush Creator, click Cloning.
- 2 Click the Copy Source Selection check box to enable the option. Click it again to disable the option.

4-Point Tiling

With this option enabled, your clone source is tiled in a repeating pattern.

To tile clone source:

- 1 On the Stroke Designer page of the Brush Creator, click Cloning.
- 2 Click the 4-Point Tiling check box to enable the option. Click it again to disable the option.

Setting Impasto Controls

Impasto controls let you create brush variants that paint with the illusion of depth. For more information about Impasto techniques, see “Impasto” on page 133.

Drawing Method

There are three Impasto Drawing Methods: Color, which applies only color, Depth, which applies only depth, and Color and Depth, which applies both color and depth to the image.

To choose a drawing method

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.
- 2 Choose a Drawing Method from the Draw To pop-up menu.

Depth Method

The Depth Methods in Corel Painter use the luminance information in the control medium to determine how much depth is applied within a stroke. You can use the Invert and Negative Depth options to affect the way the stroke appears.

For more information on Depth methods, see “Setting Depth Method” on page 137.

To choose a Depth method

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.
- 2 Choose a Depth Method from the Depth Method pop-up menu.

To invert a Depth method

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.

- 2 Enable the Invert check box.

To choose the Negative Depth option:

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.
- 2 Enable the Negative Depth check box.

Depth

The Depth slider determines how much depth is applied to Impasto brush strokes. When you set Depth Expression to Pressure and the Invert option is enabled, less depth is applied as you press harder—just as it would using a real brush.

Refer to “Adjusting Impasto Depth” on page 134 for more information about painting with depth.

To set depth

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.
- 2 Drag the Depth slider to the right to increase Depth. Drag it to the left to decrease Depth.

Smoothing

Smoothing controls the transition of the texture applied to a stroke.

To set Smoothing

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.
- 2 Move the Smoothing slider to the right to increase the Smoothing effect. Move it to the left to decrease the effect.

Plow

Plow controls how much a stroke interacts with other Impasto brush strokes. In essence your brush stroke “plows” through existing strokes.

To set Plow

- 1 On the Stroke Designer page of the Brush Creator, click Impasto.
- 2 Move the Plow slider to the right to increase the Plow effect. Move it to the left to decrease the effect.

Setting Image Hose Controls

The Image Hose controls let you design 1, 2, and 3 Rank nozzles. Refer to “Creating Nozzles for the Image Hose” on page 338 for more information.

The settings for each Rank are the same as the Expression settings, with one addition: Sequential. For more information, see “Expression Settings” on page 162.

Rank 1

This control lets you assign an input to locate Rank 1 imagery within an Image Hose nozzle.

Rank 2

This control lets you assign an input to locate Rank 2 imagery.

Rank 3

This control lets you assign an input to locate Rank 3 imagery.

To choose an Expression setting for a Rank

- 1 On the Stroke Designer page of the Brush Creator, click Image Hose.
- 2 Choose an Expression setting from the pop-up menu.

Setting Airbrush Controls

Airbrush controls adjust Spread, or how much media spreads out as it's applied, and Flow, or how much media is actually applied.

Spread

Spread controls how paint spreads out as it is applied. In other words, it sets the size of the cone of spread from the tip of the airbrush or spray can. A good range for the Spread setting is 30-40%. Narrow Spread and Angle settings can cause problems. Narrow Spread and Tilt can cause paint to be deposited away from the cursor.

To set paint spread:

- 1 On the Stroke Designer page of the Brush Creator, click Airbrush.

- 2 Move the Spread slider left to reduce the amount of spread. Move it right to increase the amount of spread.

Min Spread

The Min Spread control determines the smallest amount that paint can spread out as it is applied. The Min Spread setting represents a percentage of the Spread setting.

To set minimum paint spread:

- 1 On the Stroke Designer page of the Brush Creator, click Airbrush.
- 2 Move the Min Spread slider left to reduce the smallest amount of spread allowed. Move it right to increase the smallest amount of spread allowed.

Flow

Flow controls how much media is applied by an airbrush stroke. The Flow control acts like the needle control on a real airbrush. Use the Expression settings on the Stroke Designer page to tie Flow to the wheel

on an airbrush stylus. Because the airbrush dab types deposit many small dabs to create their spray paint look, you might need to cut down on the flow to speed up the airbrush.

To set ink flow:

- 1 On the Stroke Designer page of the Brush Creator, click Airbrush.
- 2 Move the Flow slider left to reduce the smallest amount of media applied with a stroke. Move it right to increase the amount of media applied.

Min Flow

The Min Flow control determines the smallest amount of paint flow that can be applied during a stroke. The Min Flow setting represents a percentage of the Flow setting.

To set minimum ink flow:

- 1 On the Stroke Designer page of the Brush Creator, click Airbrush.
- 2 Move the Min Flow slider left to reduce the smallest amount of flow allowed. Move it right to increase

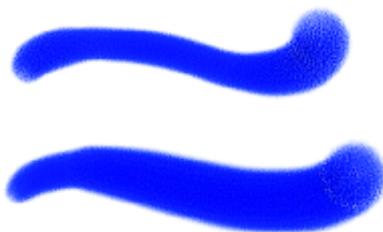
the smallest amount of flow allowed.

Setting Water Controls

Water Controls work with Water Color layers. A Water Color layer is automatically created when you apply a stroke with a Water Color brush. The layer is editable from the Layers palette.

Wetness

Wetness controls the dilution and the spread of the dye. As Wetness is increased, the resulting stroke will expand over a larger area, eliminating the appearance of brush hairs.



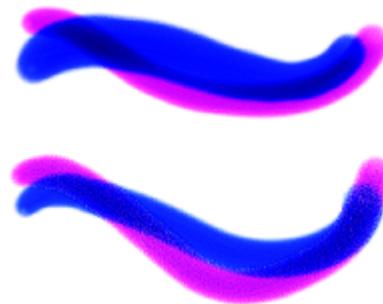
The Wetness slider controls the dilution and spread of the dye. Top=0, bottom=40.

To set wetness:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Wetness slider to the left to create a more uniform brush stroke. Move it right to have the water flow more in the direction of the wind.

Pickup

Pickup controls how much dry dye gets picked up during diffusion. Lower values mean that there is no mixing or leaching of dyes. Higher values produce more leaching.



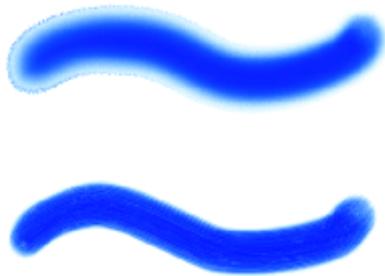
The Pickup slider controls how much dye gets picked up during diffusion. Top=0%, bottom=100%.

To set dye pickup:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Pickup slider right to increase the amount of leaching. Move it left to reduce the amount of leaching.

Dry Rate

Dry Rate controls the rate at which water dries during diffusion. Lower values cause greater spread, while higher values reduce the amount of spread.



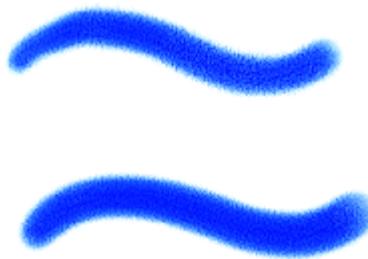
The Dry Rate slider controls the rate at which water dries during diffusion. Top=1%, bottom=50%.

To set the dry rate:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Dry Rate slider right to reduce the amount of spread. Move it left to increase the amount of spread.

Evaporation Threshold

Evaporation Threshold controls the minimum amount of water which can still diffuse. Lower values cause greater spread, while higher values reduce the amount of spread.



The EvapThreshold slider controls the minimum amount of water which can still diffuse. Top=1%, bottom=50%

To set the evaporation threshold:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Evap Threshold slider right to reduce the amount of spread. Move it left to increase the amount of spread.

Diffuse Amount

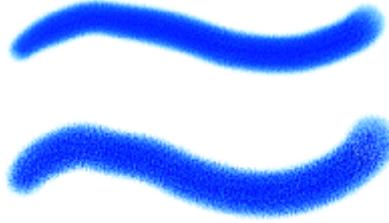
Diffuse Amount controls the amount of dye that gets diffused. High diffusion creates soft edges that feather into the grain, similar to painting on wet, absorbent paper. Low diffusion is like painting on dry paper.



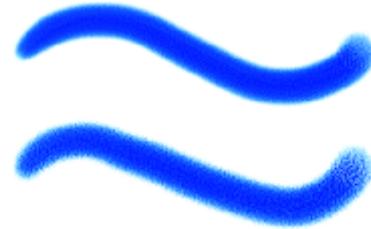
Use the Diffusion slider to control the spread of the stroke. Top=0, bottom=8.

To set the diffusion amount:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Diffuse Amt slider right to create soft edges that feather into the grain. Move it left to emulate painting on dry paper.



The Grain Soak-in slider controls the graininess of soak-in when drying. Top=0%, bottom=100%.



Enable the Accurate Diffusion check box to use a smaller diffusion window. Top=Accurate Diffusion enabled, bottom=Accurate Diffusion disabled.

Capillary Factor

Capillary Factor controls the grain's effect on diffusion. Lower values result in a smoother edge.

To set effect of grain on diffusion:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Cap Factor slider right to create rougher edges. Move it left to create smoother, more continuous results.

Grain Soak-In

Grain Soak-In controls the graininess of soak-in when drying. You can lower both Capillary Factor and Grain Soak-In values to reduce grain effects.

To set grain soak-in:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Grn Soak-In slider right to create rougher surfaces. Move it left to create smoother, more continuous results.

Accurate Diffusion

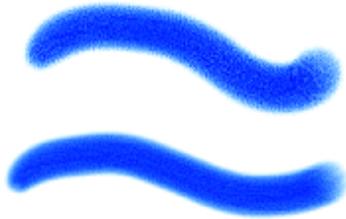
Enable the Accurate Diffusion check box to use a smaller diffusion window. Disabling Accurate Diffusion results in a larger, less accurate window being used.

To set accurate diffusion

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Click the Accurate Diffusion check box.

Wind Force

You can specify the amount of Wind Force exerted on the diffusing particles. Set the Wind Force slider to zero to turn off directional diffusion.



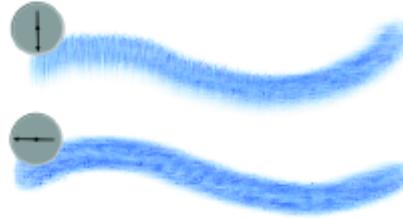
Wind Force controls the amount of force exerted on diffusing particles. Top=0%, bottom=25%.

To set wind force:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Move the Wind Force slider to the right to increase wind force. Move it to the left to decrease wind force.

Wind Direction

You can specify Wind Direction, which controls the direction in which the particles diffuse. This can be used to simulate tilting a wet Water Color to introduce dye migration gravity effects.



Wind Direction controls the direction in which the particles diffuse. Top=270°, bottom=180°.

To set wind direction:

- 1 On the Stroke Designer page of the Brush Creator, click Water.
- 2 Drag the Wind Direction control to the desired degree.

Setting Liquid Ink Controls

Liquid Ink controls work with Liquid Ink layers. Use the Liquid Ink controls to specify qualities such as type, smoothness, and volume of a brush stroke. You can adjust the Liquid Ink controls when you have selected a Liquid Ink brush from the Brush selector bar.

Ink Type

Liquid Ink is divided into two basic properties: Ink and Color. The Ink component provides the form of the brush stroke, while the Color component applies color to the Ink form. The Ink and Color components can be used together or controlled separately.

You can select from the following Ink types:

- Ink Plus Color—applies the currently selected color to the Ink form
- Ink Only—applies only the Ink component
- Color Only—applies only the Color component
- Soften Ink Plus Color—applies Ink Color to an Ink form, causing inks and colors to blend into one another
- Soften Ink Only—applies only the Ink component
- Soften Color Only—applies only the Color component

- Resist—repels Ink
- Erase—deletes Ink and Color
- Presoftened Ink Plus Color—applied in conjunction with surface depth effects

To choose an ink type:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.
- 2 Choose a Liquid Ink type from the Ink Type pop-up menu.

Smoothness

The Smoothness slider controls the “tack” of the brush strokes. Lower values result in coarser brush strokes. Higher values cause brush strokes to appear smoother.



The Smoothness slider controls the “tack” of brush strokes. Top=0%, bottom=100%.

To set smoothness:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.
- 2 Adjust the Smoothness slider.

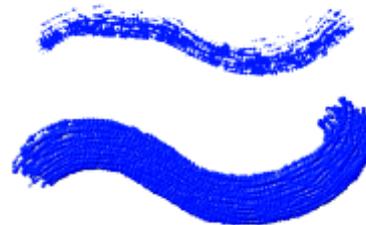
Lower values result in coarse brush strokes. Higher values cause brush strokes to blend into one another and appear smoother.

Volume

The Volume slider controls the height of the brush stroke, or how much medium is applied to the image. Higher values result in thicker strokes.

Used to control the amount of spray from Liquid Ink airbrushes when this brush feature is tied to Wheel, adjustments to the wheel on an airbrush stylus (especially the Intuos Airbrush Stylus) act like a needle control on a real airbrush.

You can use the Depth controls in the Impasto area of the Stroke Designer to give Liquid Ink brush strokes the appearance of height. Refer to “Setting Impasto Controls” on page 171 for more information about Depth controls.



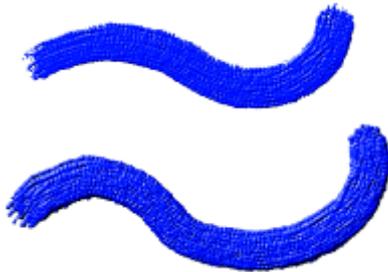
The Volume slider controls the height of the brush stroke. Top=100%, bottom=500%.

To set ink volume:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.
- 2 Adjust the Volume slider.
Higher values result in thicker strokes.

Minimum Volume

The Min Volume slider controls the maximum variation in volume. A value of 100%, for example, means no variation in volume during the brush stroke.



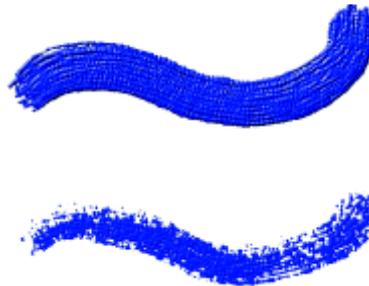
The Min Volume slider controls the maximum variation in volume. Top=100%, bottom=0%

To set maximum variation in volume:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.
- 2 Adjust the Min Volume slider.
If you want volume to relate to stylus pressure, choose Pressure from the Expression pop-up menu.

Random Volume

The Rand Vol slider controls the randomness in volume within the brush stroke. A value of zero results in a perfectly smooth brush stroke.



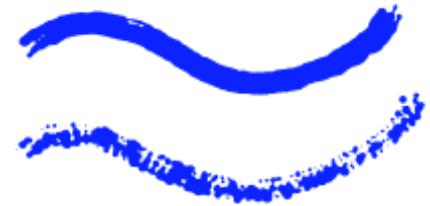
The Rand Vol slider controls the randomness in volume within the brush stroke. Top=0%, bottom=100%.

To set random volume:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.
- 2 Adjust the Rand Vol slider.
Lower values result in smoother brush strokes.

Random Size

The Rand Size slider controls the randomness in size within a brush stroke. A value of zero results in a perfectly smooth brush stroke.



The Rand Size slider controls the randomness in size within a brush stroke. Top=0%, bottom=100%.

To set random size:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.

- 2 Adjust the Rand Size slider.
Lower values result in smoother brush strokes.

Bristle Fraction

The Bristle Frac slider controls the thickness of the bristles. Higher values cause the bristles to stick together and result in a smoother brush stroke. Lower values cause the individual brush strokes to become visible.



The Bristle Fraction slider controls the thickness of the bristles. Top=3%, bottom=20%.

To set bristle fraction:

- 1 On the Stroke Designer page of the Brush Creators, click Liquid Ink.
- 2 Adjust the Bristle Frac slider.

Higher values result in smoother brush strokes.

Random Bristle Volume

The Rand Br Vol slider controls the variation in bristle heights. A value of zero signifies that all of the bristles are of equal height.



The Rand Br Vol slider controls the variation in bristle heights. Top=0%, bottom=75%.

To set random bristle volume:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.
- 2 Adjust the Rand Br Vol slider.

Random Bristle Size

The Rand Br Size slider controls the variation in bristle widths. A value of zero signifies that all of the bristles are of equal width.



The Rand Br Size slider controls the variation in bristle widths. Top=0%, bottom=100%.

To set random bristle size:

- 1 On the Stroke Designer page of the Brush Creator, click Liquid Ink.
- 2 Adjust the Rand Br Size slider.

Setting Digital Water Color Controls

Digital Water Color controls let you create effects similar to those of Water Color brushes without using a separate layer.

Diffusion

The Diffusion slider is used to create soft, feathery edges on the brush strokes.

For more information about Diffusion, see “Digital Water Color Diffusion” on page 126.

Wet Fringe

The Wet Fringe slider controls the amount of pooling of water and paint at the edges of Digital Water Color brush strokes.

For more information about Wet Fringe, see “Wet Fringe” on page 126.

Managing Brushes

Saving Brush Variants

After you’ve customized a variant to act exactly how you want it to act, you can use it immediately. In fact, adjusting brushes as you paint is something you’ll probably do often.

Changes you make to brush variants are saved until the Restore Default Variant command is selected.

If you want to keep a customized version of a brush variant, Corel Painter lets you do it as a new variant or as a Look.

Variant settings are included when you save a Look, but Looks also include paper texture, pattern, gradient and nozzle data. Refer to “Saving a Brush Look” on page 183 for more about saving the combined look of a variant.

It’s easier to find a variant when the variant list is short. You can manage the number of variants in a Brush category by creating new categories, then saving variants you create there.

To save current settings as a custom variant:

- 1 Do one of the following:
 - On the Tracker palette in the Brush Creator or Corel Painter, choose the variant you want to save, click the Tracker palette menu arrow, and choose Save Variant.

- In Corel Painter, click the selector menu arrow on the Brush selector bar and choose Save Variant.
- In the Brush Creator, choose **Variant menu > Save**.

- 2 In the Save Variant dialog box, type a name for the new variant.
- 3 Enable the Save Current Colors check box if you want the current primary and secondary colors saved with the variant.

If a variant uses the Clone Color option, it is not necessary to enable Save Current Colors.

Your new variant appears on the variant menu, in the current brush category. A new XML file is created in the Brush category folder.

To return the current variant to default settings:

- 1 Choose the variant from the Brush selector bar.
- 2 Click the selector menu arrow and choose Restore Default Variant. Choose Restore All Default Variants to reset all of the settings

for every brush variant you may have adjusted.

To delete a variant:

- 1 Choose the variant from the Brush selector bar.
- 2 Click the selector menu arrow and choose Delete Variant.
- 3 Click Yes to delete the variant.

The variant's related XML file is deleted from the Brush category folder.

Copying Variants between Brush Categories

If you create a variant, then decide you want it in a different brush category, you can copy it there. After copying, you can then delete the original.

To copy a variant to a different brush category:

- 1 Choose the variant you want to copy from the Brush selector bar.
- 2 Click the selector menu arrow and choose Copy Variant.

- 3 In the Copy Variant dialog box, choose the destination brush category from the pop-up menu.

The brush variant is copied to the selected category. (Remember to delete the variant in the category from which it was copied.)

Tip

- *You can also copy Brush variants at the root of the category folder by copying the XML files to the desired category. This is much quicker when copying multiple files.*

Capturing Brush Dabs

You can create your own brush dab shapes. Any shape is possible.



When you've created a shape you like, select and capture it.

To create a brush dab shape:

- 1 On a white background, draw a brush shape in black.

Use shades of gray to define what you wish to be partially transparent areas of the brush.

To follow stroke direction, a captured brush set must face toward the right side.

- 2 Choose the Rectangular Selection tool from the toolbox .
- 3 Hold down the Shift key and drag across your brush shape to create a square selection.

Corel Painter uses the selected area to map brush Size. When the brush is created, this area is sampled to compute each brush dab.

When the original area must be scaled to the Size of the brush dab, sampling can appear aliased. The greater the scaling, the more aliasing is apparent. To prevent too much aliasing, create a shape with soft (grayscale) edges and draw it close to the Size you'll use.

- 4 On the Brush selector bar, choose the brush category where you want

to save the variant for the captured dab shape.

- 5 Click the selector menu arrow and choose Capture Dab.
- 6 On the Stroke Designer page of the Brush Creator, click Size to see the captured brush dab.
- 7 If necessary, change the Size, Squeeze, and Angle settings.
- 8 Draw with the brush on the canvas.

If you like the results you've captured, you can save the brush as a new variant. Refer to "Saving Brush Variants" on page 181 for how to save brush customizations for later use.



You can paint with a captured brush, just as you would with other brushes.

Creating a New Brush Category

The brushes that appear as icons on the Brush selector bar are really categories for collections of similar variants. You can add your own brush categories to the Brush selector bar.

You might want to create a brush category if you've customized a medium and you want to keep its tools organized.

To create a new brush category:

- 1 Draw a small image to use as the icon for the new brush.
This will appear on the Brush selector bar, like the default brush category icons.
- 2 Choose the Rectangular Selection tool  from the toolbox.
- 3 Hold down the Shift key and drag across the image to create a square selection.
- 4 Do one of the following:
 - On the Brush selector bar, click the selector menu arrow, and choose Capture Dab Category.

- In the Brush Creator, choose **Brush menu > Capture Dab**.

- 5 In the Capture Brush dialog box, type a name.

Your new brush and its icon now appear on the Brush selector bar.

Saving a Brush Look

A Look is a variant that has a paper texture, pattern, gradient, or nozzle assigned to it. A variant alone does not know about underlying texture or other elements. The Look, on the other hand, associates additional data with a particular variant and saves it as a complete Look. Regardless of a document's current libraries, when you select a Look, you use the elements that are part of that look. If the specific libraries are not available, Corel Painter prompts you to locate them.

You can save a Look so you can use it later. A saved Look keeps all variant settings plus the paper, pattern, gradient, or nozzle settings.

To save a Brush Look:

- 1 In the toolbox, click the Look selector menu arrow, and choose New Look.
- 2 In the New Look dialog box, type a name for the look.

The icon for the Look you've created is saved into the Look selector in the toolbox. This is a handy visual reminder of what the Look does.



Saved Looks appear in the Look selector in the toolbox.

In the case of the Image Hose brush, the Look might have a particular nozzle file attached. For more information about working with the Image Hose and Nozzle files, refer to “Using the Image Hose” on page 332.

To use a saved Look:

- In the toolbox, choose a look from the Look selector.
Corel Painter loads the correct variant and materials for the saved Look.

Using Brush and Looks Libraries

Corel Painter comes with several brush libraries. You can also create new libraries for brushes and Looks and add your custom brushes to them. Create as many brush libraries as needed.

Library features are identical for all resource types (Papers, Brushes, Looks, Patterns, Gradients, Weaves, Scripts, Layers, and Selections portfolios). For more information on Library features, refer to “Libraries and Movers” on page 25.

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

Corel Painter loads brushes into memory when you launch it, so adding variants to the default brush library increases the program's need for RAM. Organize new brushes into secondary libraries for better efficiency. When you want a different brush set, just switch libraries.

11 Cloning and Tracing

Cloning is a feature that can help you create art, quickly and easily. Cloning is the process of taking imagery from one area or document (the source) and re-creating it in another area or document (the destination).

Cloning is a two-step process: First, you set a clone source, then you work in a destination area. The source and destination can be in separate documents or in different areas of the same document.

Cloning Imagery

Cloning-method brush variants are the most common way to develop imagery in a clone destination. These variants re-create the source imagery while they effectively “filter” it, reproducing it in an “artistic style,” such as pastel chalk or water color.



Cloning allows you to “filter” source imagery to create Natural-Media renderings.

Advanced, multi-point cloning lets you transform (rotate, scale, slant, apply perspective) imagery as you clone it. Corel Painter offers other interesting ways to take advantage of clone source/destination relationships, like the Corel Painter imaginary “light box” method, Tracing Paper.

Because cloning can be simple or complex, this chapter begins with basics, then progresses to advanced cloning techniques.



Cloning a Document

One way to use the Corel Painter cloning feature is to clone an entire file, creating a clone source/destination relationship between two documents.

The clone of the file is more than a copy. It maintains a pixel-for-pixel correspondence with its source document. For this reason, the source must remain open while you work in the clone.

Here are some ways you can take advantage of a clone source/destination relationship:

- Trace the source imagery using Tracing Paper (like using a “light box”). Refer to “Using Tracing Paper” on page 186 for more information.
- Paint source imagery into a destination area using Cloner brushes. Refer to “Painting in the Clone” on page 188 for more information about painting with Cloner brushes.

- Load a brush with color taken from a clone source. Refer to “Cloning Color” on page 78 for more information.
- Create a mosaic or tessellation using source imagery. Refer to “Mosaics” on page 347.
- Add three-dimensional effects after setting up a clone source/destination relationship.
- Control brush features for painting using variant settings from the source image.
- Develop a selection/channel. Refer to “Using Selections” on page 201 and “Using Alpha Channels” on page 217.

To clone a document:

- 1 Open an image file.
This will be the clone source. A good clone source document contains well defined imagery.
- 2 Choose **File menu > Clone**.
Corel Painter creates a duplicate of the original document. This is the clone. It appears in its own

document window, with the words “Clone of” preceding the original document’s name in the title bar.

Note

- *If a source image has layers, cloning creates a fully composited copy. You can take advantage of this to automatically drop all layers or flatten an image for faster printing.*

Using Tracing Paper

You can use cloning to help you trace the source image by using Tracing Paper, the on-screen “light box” in Corel Painter. When Tracing Paper is in use, you see a faded out version of the clone source, as if it were displayed on top of a light box, underneath real tracing paper.

As you trace, brush strokes appear at 50% opacity. When you finish tracing and turn Tracing Paper off, the faint source image disappears and your brush strokes appear at 100% opacity.

Note

- *To use Tracing Paper, the source and clone documents must be the same size.*

To trace an image:

- 1 Choose **File menu > Clone** to create a clone of the original document you wish to trace.
- 2 With the clone selected, choose **Select menu > Select All**.
- 3 Press **Delete** (Mac OS) or **Backspace** (Windows) to clear the entire canvas.
- 4 Do one of the following:
 - Click the Tracing Paper icon in the vertical scroll bar.
 - Choose **Canvas menu > Tracing Paper**.
 - Press **Command + T** (Mac OS) or **Ctrl + T** (Windows).
- 5 Trace over the image using any Corel Painter brush variant.

Brush strokes appear at 50% opacity when Tracing Paper is turned on.



Click the Tracing Paper icon to toggle tracing paper on and off.



Use the Tracing Paper feature to view the clone source for tracing.

To turn tracing paper off:

- Do one of the following:
 - Click the Tracing Paper icon again.

- Choose **Canvas menu > Tracing Paper**.
- Press **Command + T** (Mac OS) or **Ctrl + T** (Windows).

The faint source image disappears and brush strokes appear at 100% opacity.



When you turn Tracing Paper off, you can see what you've traced.

To resume tracing:

- To resume tracing, turn Tracing Paper back on.

The faint source image returns and you can continue tracing.

Changing Clone Source

For more flexibility in setting up cloning relationships, Corel Painter lets you set any open document as a clone source. You can do this to re-establish a source/destination relationship between two files. You might also do this to choose special source imagery for controlling an image effect.

To set an open document as the clone source:

- Choose **File menu > Clone Source** and select which of the open documents is the clone source.

Note

- *If you lose track of which document is the clone source, choose File menu > Clone Source. The file with a check beside its name is the clone source.*

To make an open file the clone source for the next file you open:

- 1 Hold down the **Command** (Mac OS) or **Ctrl** (Windows) key.
- 2 Choose **File menu > Clone**.
- 3 In the Open dialog box, choose a file to use as the clone source.

Painting in the Clone

Painting with a Cloner brush is similar to painting with any Corel Painter tool, except that Cloner variants take their color information from a clone source, instead of from the Colors palette.

Some Cloner brush variants reproduce source imagery directly. Other Cloner variants reproduce with low opacity and soft edges or use paper grain and specialized dabs for particular media effects.

When you paint with a Cloner brush, it picks up color from the clone source, while you control the size and direction of brush strokes. It's a great way to get Natural-Media renderings from photographic source material.



The Oil Brush Cloner is just one interesting Cloner brush variant.

You can create new Cloner brushes or refine existing Cloner variants using the Brush Creator. For more information about customizing brushes, refer to “Customizing Brushes” on page 141.

The Corel Painter brushes that have buildup methods, like pencils and felt pens, build toward black. If you clone with one of these brushes in a dark area of your image, you may not achieve the desired results. Use the Opacity slider or text box to control how rapidly these brushes build up to black. You can also choose chalk or one of the other tools that cover underlying colors.

To paint with Cloner brushes:

- 1 Create a clone of the document you wish to paint.
- 2 With the clone selected, choose **Select menu > Select All**.
- 3 Press **Delete** (Mac OS) or **Backspace** (Windows) to clear the entire canvas.
- 4 Choose a Cloner brush from the Brush selector bar.
On the property bar, adjust size, opacity, and grain penetration.
- 5 Paint in the image.

Note

- *If you don't set a clone source, Cloner brushes paint with imagery from the current Pattern.*
- *For increased color accuracy, you can enable the Brush Loading option. For more information, see "Brush Loading" on page 196.*

Tip

- *Some artists use Edit menu > Fade after clearing the Canvas to bring back some of the imagery.*

Using Auto Clone

Using a Cloner brush can take a long time if you're working on a large area. To save time, you can have Corel Painter make brush strokes for you, using the Auto Clone feature.

When you use Auto Clone with the Felt Pen Cloner and other tools that turn black as you repeat strokes, areas darken rapidly. You can slow down the color buildup and still use Auto Clone by lowering the Opacity value on the property bar. You can also change color values in the clone source.

Another way to automate cloning is to record and play back individual brush strokes. Refer to "Recording and Playing Back Strokes" on page 115.

Auto Clone works particularly well with the Driving Rain Cloner and the Seurat variant of the Artist brush.

To fill a cloned area automatically:

- 1 Select the brush variant you want to clone with.
If you want only a part of your image to be affected, make a selection. Without an active

selection, the effect is applied to the entire canvas.

- 2 Do one of the following:
 - Enable the Clone Color button  on the Colors palette.
 - Click the palette menu arrow on the Colors palette, and choose Use Clone Color.
- 3 Choose **Effects menu > Esoterica > Auto Clone**.
Corel Painter automatically applies dabs of paint to the selected area, using source imagery as the media.
- 4 Click anywhere inside the image to stop Auto Clone when the right amount of clone image is completed to suit your design.

Notes:

- *If you apply Auto Clone to a large area, the paint may fill areas sparsely. When you click to stop Auto Clone, it stops at that point. It won't continue to fill the selected area. To fill an area completely, you must let the Auto Clone finish.*

- For more information about making selections, refer to “Using Selections” on page 201.

Tip

- If you use a variant with Auto Clone that isn’t a Cloner variant, click Clone Color on the Colors palette to make it pick up color from the source document. For more color variety in the dabs Corel Painter applies, set the $\pm H$, $\pm S$, and $\pm V$ sliders on the Color Variability palette to 15% each.

Using Auto Van Gogh

You can have Corel Painter place directional brush strokes to produce a Van Gogh–like rendition of cloned imagery.

For more information about using Auto Van Gogh, see “Auto Van Gogh” on page 300.



Auto Van Gogh is an effect that places directional strokes based on clone source.

Point-to-Point Cloning

Point-to-point cloning lets you clone within a document or between different areas of separate documents. Point-to-point is also known as offset cloning.

To apply point-to-point cloning effects, you must set source and destination reference points. Source reference points specify the area in the source document that you want to clone. Destination reference points indicate the area where you want the cloned imagery to appear.

To indicate the area of the source document you’re cloning, you can turn the crosshair cursor on.

To clone point-to-point within a document:

- 1 Do one of the following:
 - Choose a Cloner brush from the Brush selector bar.
 - Enable the Clone Color option  on the Colors palette.
 - Click the palette menu arrow on the Colors palette, and choose Use Clone Color.
- 2 Choose **File menu > Clone Source**, and choose the image you want to reference.

If no image is set as a clone source, the brush will reference the current pattern.
- 3 Hold down **Option** (Mac OS) or **Alt** (Windows).

A crosshair cursor appears.
- 4 Click inside the source image to set the source reference point.

A green marker appears on the image to indicate the reference point for the source imagery.

- 5 Begin painting in the destination area.

Note

- You can set the destination area before painting by clicking while holding down **Option + Shift** (Mac OS) or **Alt + Shift** (Windows). A red marker indicates the destination area.



Cloning within a document with the destination marker showing.

To clone point-to-point between documents:

- 1 Do one of the following:

- Choose a Cloner brush from the Brush selector bar.
- Enable the Clone Color option on the Colors palette.
- Click the palette menu arrow on the Colors palette, and choose Use Clone Color.

- 2 Choose **File menu > Clone Source**, and choose the image you want to reference.

If no image is set as a clone source, the brush will reference the current pattern.

- 3 Hold down **Option** (Mac OS) or **Alt** (Windows), and click inside the source document to set the reference point for the source area.

A green marker appears on the image to indicate the reference point for the source imagery.

- 4 Select the destination document.
- 5 Hold down **Option + Shift** (Mac OS) or **Alt + Shift** (Windows), and click inside the source document to set the reference point for the destination area.

A red marker appears on the image to indicate the reference point for the destination imagery.

- 6 Start painting at the point you want to begin applying the source imagery.

To change to a crosshair cursor:

- 1 Choose **Edit menu > Preferences > General**.
- 2 In the Preferences dialog box, enable the Indicate Clone Source With Crosshairs While Cloning option.
The crosshairs indicate which area of the original image you're cloning as you paint.

Multi-Point Cloning

The Cloner brush category holds variants that use multi-point cloning to apply a transformation to the source imagery at the time you clone it. To take advantage of the cool cloning effects you can get with these variants, multi-point cloning requires you to set multiple source and destination reference points.

Selecting a Clone Type

Corel Painter lets you establish different kinds of relationships between the clone source and destination. These are characterized by how many reference points you use.

For each number of reference points used, different transformations are possible. All of these cloning types are valid for cloning method brushes and brushes that use the Clone Color option or a clone source, such as Fill.

You must set source and destination reference points before using a multi-point cloning brush.

The number of source and destination reference points required for each clone type is shown in parentheses.

Clone Types are:

- Normal (0) — The reference is between the top, left corners of the source and destination documents and patterns. This means that the pixels of the destination document correspond directly with the pixels in the source document. This type

of cloning is valid only between documents. No transformations occur. Zero-point cloning is the basic cloning between documents. Refer to “Cloning a Document” on page 186 for more information about basic cloning.

- Offset (1) — The brush offsets the imagery from the source. The source and destination areas can be separate places in the same or different documents. Offset cloning is basic point-to-point cloning and is useful for retouching photographs. Refer to “Point-to-Point Cloning” on page 190 for more information about point-to-point cloning.
- Rotate & Scale (2) — The brush rotates and scales source imagery.



Cloning with rotate and scale. Note that the source and destination reference points are numbered and connected by a line.

- Scale (2) — The brush scales the source imagery. The distance between the two destination points, in relation to the distance between the two source points, determines the scaling transformation.



Cloning with scale.

- Rotate (2) — The brush rotates the source imagery. The line between the two destination points, in

relation to the line between the two source points, determines the rotation transformation.



Cloning with rotate.

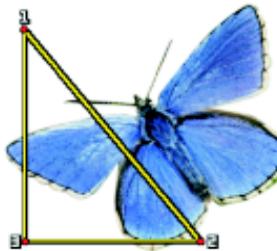
- Rotate & Mirror (2) — The brush rotates and mirrors (flips) the source imagery.



Cloning with rotate and mirror.

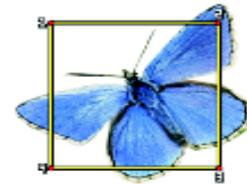
- Rotate, Scale, & Shear (3) — The brush rotates, scales, and shears (slants) the source imagery. The relative positions of the three source and destination reference

points determine the transformation effect.



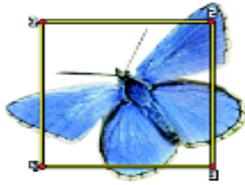
Cloning with rotate, scale, and shear.

- Bilinear (4) — The brush applies a bilinear warp to the source imagery. The relative positions of the four source and destination points describe the bilinear transformation.



Cloning with bilinear.

- Perspective (4) — The brush applies perspective to the source imagery. The relative positions of the four source and destination points describe the perspective transformation.



Cloning with perspective.

To set a clone type:

- 1 Do one of the following:
 - Choose a Cloner brush from the Brush selector bar.
 - Enable the Clone Color option  on the Colors palette.
 - Click the palette menu arrow on the Colors palette, and choose Use Clone Color.

- 2 On the Stroke Designer page of the Brush Creator, choose Cloning.
- 3 Choose a clone type from the Clone Type list.

Setting Reference Points

Before you can paint with a multi-point Cloner brush, you must set the correct number of source and destination reference points. Source points can be in one document and destination points in another, or both sets of points can be in the same document.

Once source and destination reference points are set, you can start painting with the multi-point Cloner brush.

There are times when you don't have to place source points. When cloning source files and patterns, Corel Painter places source points for you, located in each of the corners of the document. These corner source points are ideal for perspective cloning with 4-point tiling. If you don't want to use these default source points, just move them or set source points of your own.

For more information, see “Filling with Transformed Cloning” on page 199.

To set source reference points:

- 1 On the Brush selector bar, click the variant selector arrow and choose a multi-point Cloner brush variant. Multi-point Cloner brush variants are indicated by the number of source and destination reference points required for each clone type beside the variant name. For example, the xScale 2P variant requires two reference points.
- 2 Hold down **Option** (Mac OS) or **Alt** (Windows), and click in the source area for each reference point required.
- 3 Points appear in the source imagery as you click, along with identifying numbers.

Note

- *You can use other Cloner brush variants by selecting a new variant and setting a clone type. Refer to “Selecting a Clone Type” on page 192 for more information.*

Tip

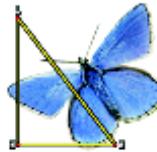
- You can reposition reference points by holding down *Option* (Mac OS) or *Alt* (Windows) and dragging the points to their new position.

To set destination reference points

- 1 Select the destination document.
- 2 On the Brush selector bar, click the variant selector arrow and choose a multi-point Cloner brush variant.
- 3 Hold down **Option + Shift** (Mac OS) or **Alt + Shift** (Windows), and click in the destination area for each reference point required.



Setting two destination reference points in preparation for Rotate & Scale cloning.



Sample source-destination reference points for Rotate, Scale, & Shear cloning.



Sample source-destination reference points for Perspective cloning.

To move source points to a pattern:

- On the Patterns palette, click the palette menu arrow, and choose Check Out Pattern.

This moves source points into a new “checked out pattern” window. For more information about checking out patterns, refer to “Editing a Pattern Tile” on page 65.

Tip

- You can reposition reference points by holding down *Option* (Mac OS) or *Alt* (Windows) and dragging the points to their new position.

Turning Other Brushes into Cloners

Corel Painter offers two ways to get other brushes to act like Cloners:

- using the Clone Color option
- switching to the Cloning method

Using Clone Color

You can turn almost any brush into a Cloner with the Clone Color option. Clone Color causes a brush to pick up color from the source image, while staying true to its own stroke nature. The Clone Color option is useful for creating mosaics and tessellations based on source imagery.

To use Clone Color

- 1 Choose **Window menu > Show Colors** to display the Colors palette.

If the Colors palette is not expanded, click the palette arrow.

- 2 Click the Clone Color button  .

Note

- *Be sure you reselect Clone Color if you change brushes while cloning imagery.*

Brush Loading

For greater color accuracy while cloning, use brush loading. This causes the brush to pick up individual colors in different regions of the brush dab.

Without Brush Loading, the Clone Color option uses a single, averaged color from the source for each brush dab. This results in an approximation of the original. You can use the Clone Color option without Brush Loading to create an artistic impression of the source.

To enable the Brush Loading option:

- 1 On the Stroke Designer page of the Brush Creator, choose Well.
- 2 Enable the Brush Loading option.

Cloning Method

You can turn almost any brush into a Cloner variant by setting its method to Cloning in the Brush Creator, and choosing the cloning method subcategory appropriate to the intended media style.

Because the cloning methods use a full set of pixels from the original document for each brush dab, you get a truer copy of the original than you might using the Clone Color option. Unlike using Clone Color, using the cloning methods preserves the

original image texture in the clone. Cloning methods are good to use when you want to precisely re-create portions of a source image.

Here's a brief description of the cloning method subcategories. For a more in-depth discussion of these methods, refer to "Methods and Subcategories" on page 149.

- **Hard Cover Cloning** — Results in partially anti-aliased brush strokes that hide underlying strokes.
- **Soft Cover Cloning** — Produces anti-aliased brush strokes that cover layered ones.
- **Grainy Hard Cover Cloning** — Works like Hard Cover Cloning, but brush strokes also interact with paper grain.
- **Grainy Soft Cover Cloning** — Works like Soft Cover Cloning, but brush strokes also interact with paper grain.
- **Drip Cloning** — Pushes color around as if it were wet, cloning the original with distortions based on your stroke.

Fine-tuning the Cloning Methods

You can customize and fine-tune cloning methods in the Brush Creator.

To adjust a cloning method:

- 1 On the Stroke Designer page of the Brush Creator, choose Random.
- 2 Modify the sliders and options to change the character of the variant:
 - Move the Jitter slider to the right to determine the amount of randomness in the brush stroke.
 - Choose an expression from the Expression pop-up menu to vary the brush stroke.
 - Move the Direction slider to adjust the angle value of the Direction control.
 - Move the Variability slider to the right to soften brush strokes. This works best with bristle brushes, creating an impressionistic effect.

- Move the Variability slider a bit to the right and the How Often slider to the left to give drawing tools a “sketchy” feel.
- Random Clone Source makes the cloning method randomly pick up pieces from the source document. What you get with your brush is random snippets of the source image.
- Random Brush Stroke Grain makes the cloning methods randomly pick up texture from the current paper grain.

Using a Selection while Cloning

The Cloning control in the Brush Creator has options for using the active selection from the source region.

Using a selection requires a Cloning Method. It does not work for brushes of other methods that use the Clone Color option on the Colors palette.

Cloning selection options are:

- Obey Source Selection — causes brush strokes to respect the active selection in the source region. When you paint in the destination, your strokes are constrained to a region that corresponds to the source selection. For cloning types that apply a transform, the selection is transformed.
- Copy Source Selection — copies the active selection in the source region. When you paint in the destination, your strokes clone the selection’s pixels as well as the RGB pixels. For cloning types that apply a transform, the copied selection has the transform. Copy Source Selection is often used together with Obey Source Selection.

With Obey Source Selection enabled, the brush paints in the area that corresponds to the source selection.

With Copy Source Selection enabled, the brush clones the selection along with the color.



Use Obey Source Selection to paint in the area that corresponds to the source selection.

Use Copy Source Selection to clone the selection and the color.

To clone using the source selection:

- 1 Set up a selection for the portion of the source image you want to clone.

The selection should closely outline the region you want to use. For information about setting up a selection, refer to “Using Selections” on page 201.

- 2 In the toolbox, choose the Brush tool  .
- 3 Choose a cloning brush from the Brush selector bar.
- 4 On the Stroke Designer page of the Brush Creator, choose Cloning.
- 5 Choose a Clone Type from the pop-up menu.
- 6 Enable the Obey Source Selection option, the Copy Source Selection option, or both.
- 7 Set source and destination reference points.

Destination reference points can be in the same or in a different file.

- 8 Click the Drawing Mode icon  in the bottom left corner of the canvas, and choose Draw Anywhere.

Setting the drawing mode to Draw Anywhere is important. If you try to clone while in another drawing mode, your strokes will not reach the canvas.

- 9 Paint in the destination.

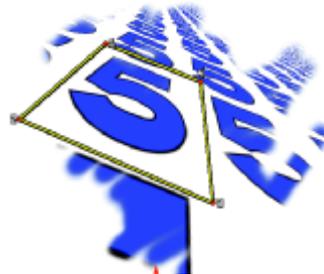


This image uses Rotate & Scale cloning with both Obey Source Selection and Copy Source Selection enabled.

Repeating Source Imagery

Tiling allows you to repeat source imagery across a larger area in the clone destination. The 4-point tiling option is available for Bilinear or Perspective cloning.

The quadrilateral set by the four clone source points defines an image tile. In the clone destination, the tile is warped according to the relative positions of the source and destination reference points and repeated as necessary to cover the area. This feature is particularly useful when filling with the clone source. For more information, see “To fill with transformed clone imagery:” on page 200.



With 4-Point Tiling, the source imagery is repeated.

Filling with Transformed Cloning

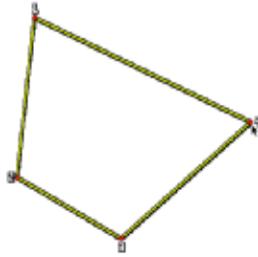
Instead of using a Brush tool to produce transformed imagery in the destination, you can use the Paint Bucket tool or the Fill command. Filling is preferred when you want to cover a large area evenly. Filling is particularly useful when using Perspective cloning with 4-point tiling and a seamless pattern as the source.

If you're using 4-point tiling with a pattern, you don't need to set source reference points. Corel Painter automatically puts reference points in the corners of the pattern, starting in the upper left (0, 0) and moving clockwise. This is ideal for most uses of Bilinear or Perspective cloning.

If you want to set the source references of a pattern to points other than the corners, you can set the source points in the “checked out pattern” window. For more information, refer to “Editing a Pattern Tile” on page 65.

To fill with transformed clone imagery:

- 1 In the toolbox, choose the Brush tool .
- 2 Choose a Cloner brush and variant from the Brush selector bar.
- 3 On the Stroke Designer page of the Brush Creator, choose Cloning.
- 4 Choose the transformation you want from the Clone Type pop-up menu.
- 5 Set up clone source and destination reference points.
If you want, create a selection to constrain the fill.
- 6 Do one of the following:
 - In the toolbox, choose the Paint Bucket tool , and click in the destination area.
 - Choose **Effects menu > Fill** to fill with the Clone Source, Gradient, Weave or Current Color.



The destination points determine where the transformation occurs.



By using transformed clone information, the brick pattern becomes a steep wall.

12 Using Selections

A selection marks off areas of the canvas for “special treatment.” It can either protect an area from change or designate the area that you want to change.

You can save selections as alpha channels. This lets you store selections and edit them with brushes and image effects. For more information about alpha channels, refer to “Understanding Alpha Channels” on page 217.

Having one selection, but multiple channels, is convenient and powerful. It’s easy to save selections, then reactivate them later. You can also create a selection from multiple channels by adding, subtracting, or intersecting them.

Working with Selections

Corel Painter provides a variety of tools and commands for creating selections in a document. Each time you create a new selection, Corel Painter deactivates the old one.

You can use selections in several ways:

- To constrain brush strokes. You can protect the area inside or outside the selection.
- To isolate an area of the canvas for applying an image effect. Corel Painter applies the effect only to the selection. You can also set different levels of protection within a selection to create partial intensity of the effect.
- To choose the area of the canvas you want to cut or copy.
- To choose the area of the canvas that you want to move or copy to a new layer.



- To apply a brush stroke along a selection border.

You can save and reload selections. Saving a selection creates a channel. Loading a selection reactivates it on the canvas, where it controls your painting and image effects.

Corel Painter lets you combine selections in powerful ways. Refer to “Combining Selections Using Boolean Operations” on page 210 for more information.

About Selection Types

There are two types of selections:

- Path-based selections are defined by a closed path. They provide two levels of selection—what’s inside the path is selected, and what’s outside is not. You can move path-based selections around, and scale and rotate them with the Selection Adjuster tool. Path-based selections offer some other advantages you’ll learn about later.
- Pixel-based selections are defined at the pixel level. These selections

can be moved, but they cannot be resized or rotated. They can be transformed into path-based selections.

Pixel-based selections provide 256 levels of protection to the canvas. Each pixel in the selection sets a level of protection for its corresponding color pixel in the RGB image. Opaque areas of the selection provide 100% protection and prevent brush strokes and effects from marking the canvas. Clear areas of the selection provide no protection and allow brush strokes and effects to mark the canvas. Where the selection is shaded, or semi-transparent, brush strokes and effects are partially applied. This lets you paint and apply effects with varying levels of intensity within a selection.

The method you use to create a selection determines its type. Selections created with the Rectangular Selection, Oval Selection, and Lasso tools, and selections converted from shapes, are path-based. Selections created with the

Magic Wand tool or the Auto Select or Color Select command are pixel-based.

When you save a selection, it becomes a channel, which is pixel-based. When you load a channel to a selection, the selection is always pixel-based. A pixel-based selection can be converted to a path-based selection. For more information, refer to “Transforming Selections” on page 212.

Selecting a Drawing Mode

The drawing mode determines whether the inside or outside of a selection is protected when you paint on an image.

To select a drawing mode:

- 1 Point to the Drawing Mode icon in the bottom-left corner of the document window, and hold down the mouse button.
- 2 Choose one of the following buttons:
 -  **Draw Anywhere** disables protection based on the selection—brush strokes are

allowed anywhere on the canvas. The selection is still active for applying effects and using the Cut or Copy command.

 **Draw Outside** protects the area inside the selection.

 **Draw Inside** protects the area outside the selection, similar to using a stencil. Only the selected region accepts brush strokes.

Turning Selections On and Off

To turn off a selection:

- Choose **Select menu > None**.

Tip

• *You can also turn off a selection, or “deselect” it, by clicking outside the selection with the Oval Selection, Rectangular Selection, or Lasso tool.*

To re-activate a selection:

- Choose **Select menu > Reselect**.

Note

• *This command is available only if you have turned off a selection.*

Hiding and Showing the Marquee

You can control display of the selection marquee.

To hide or show the selection marquee:

- Choose one of the following:
 - **Select menu > Hide Marquee**.
 - **Select menu > Show Marquee**.

Note

• *The drawing mode is in effect even if the marquee is hidden.*

Inverting the Selection

Inverting a selection switches the selection area. For example, if you have an image of a boat on the water and you’ve created a precise selection of the boat, you can select everything but the boat by inverting the selection.



In this image, the flower is selected.



After inverting the selection, everything but the flower is selected.

A pixel-based selection can have 256 values in it, like a grayscale image. Inverting a pixel-based selection is equivalent to the negative of a grayscale image. For example, a pixel that has 80% luminance will have 20% luminance when inverted.

To invert a selection:

- Choose Select menu > Invert.

Creating Selections

Using Selection Tools

The Rectangular Selection, Oval Selection, and Lasso tools create path-based selections. With these tools, you can create a new selection, add to the current selection, or subtract from the current selection.

You can also select the entire canvas.

To select an oval or rectangular area:

- 1 Choose the Rectangular Selection tool  or the Oval Selection tool  from the toolbox .
- 2 On the property bar, click the New Selection button.
- 3 Drag in the document window to select an area.

Tip

- *To constrain your selection to a square or a circle, hold down Control + Shift (Mac OS) or Ctrl + Shift (Windows) while making your selection.*

To select a freehand area:

- 1 Choose the Lasso tool from the toolbox .
- 2 On the property bar, click the New Selection button.
- 3 Draw a freehand border around the area you want to select in the document window.

Note

- *If you draw an open path, Corel Painter connects the endpoints with a straight line before creating the selection.*

To add to a selection:

- 1 Choose a selection tool from the toolbox.
- 2 Do one of the following:
 - Click the Add to Selection button on the property bar, and select the area you want to add.

- Hold down **Shift**, and select the area you want to add.

Tip

- *You can add selections using any combination of selection tools, including the Magic Wand tool. If you add pixel-based and path-based selections, the result is a pixel-based selection. For more information about creating pixel-based selections with the Magic Wand tool, refer to “Using the Magic Wand” on page 205.*



Adding to a path-based selection.

To subtract from a selection:

- 1 Choose a selection tool from the toolbox.
- 2 Do one of the following:
 - Click the Subtract from Selection button on the property bar, and select the area you want to subtract.
 - Hold down **Option** (Mac OS) or **Alt** (Windows), and select the area you want to subtract.

The selection is “cut out” from the current selection.

Tip

- *You can subtract selections using any combination of selection tools, including the Magic Wand tool. If you subtract different selection types, the result is a pixel-based selection. For more information about creating pixel-based selections with the Magic Wand tool, refer to “Using the Magic Wand” on page 205 for more information. For more information about selection types, refer to “About Selection Types” on page 202.*



Subtracting from a path-based selection.

To select the entire canvas:

- Choose **Select** menu > **All**.

Using the Magic Wand

The Magic Wand tool creates pixel-based selections. Groups of pixels are selected based on color. You can adjust settings to control the range of colors, and you can choose to include contiguous or non-contiguous pixels.

You can use the Magic Wand to create a new selection, add to the current selection, or subtract from the current selection. You can add and subtract selections using any combination of selection tools. For example, you can create a selection with the Magic Wand and add a rectangular area with the Rectangular Selection tool, or you can create a selection with the Lasso tool and add to it with the Magic Wand.

To select an area using the Magic Wand tool:

- 1 Choose the Magic Wand tool  from the toolbox.
- 2 On the property bar, adjust any of the following settings:
 - **Tolerance** controls the amount of variance allowed from the selected color. Higher values create a larger range of colors.
 - **Anti-Alias** creates intermediate selection values on the selection boundaries. This gives soft edges to the work you do with the selection.

- **Contiguous**, when enabled, selects contiguous pixels.
- 3 On the property bar, click one of the following buttons:
- New Selection
 - Add to Selection
 - Subtract from Selection
- 4 In the document window, do one of the following:
- Click to select the color in the middle of the range of colors used to make the selection.
 - Drag over an area to define the range of colors used to make the selection.

It can take a moment for Corel Painter to calculate and load the selection.

Notes:

- *The default tolerance for selections is 32. It can be adjusted from 1 to 255.*
- *If you add to the current selection, you add to the range of values that the Magic Wand selects rather than create an additional selection with a unique seed color.*

Tips

- *If you want to restrict your selection to a rectangular area, press Option + Shift (Mac OS) or Alt + Shift (Windows) and drag a bounding rectangle in your image.*
- *You can restore the default settings by clicking the Reset Tool button  on the property bar.*



Adding to a selection with the Magic Wand

Creating an Auto Selection

Auto Select creates a selection based on your choice of image characteristics. The Invert option allows you to invert the selection you create.

To generate an Auto Selection:

- 1 Choose **Select menu > Auto Select**.
- 2 In the Auto Select dialog box, choose an image characteristic from the Using pop-up menu.
 - **Paper** creates a selection using the current paper texture.
 - **3D Brush Strokes** creates a selection based on the difference between the current image and the clone source. If no clone source is selected, Corel Painter uses the current pattern. For information about clones, refer to “Cloning and Tracing” on page 185.
 - **Original Selection** imports the selection from the clone source document. You can use this feature to transfer a selection from another document. For best results, the dimensions of the source and working document should match. You must establish a clone source file, and create a selection in this file, for this option to be valid. For

information about clones, refer to “Cloning and Tracing” on page 185.

- **Image Luminance** creates a selection based on the current image’s light and dark areas.
- **Original Luminance** produces a selection in the current document based on the clone source’s light and dark areas. This option lets you import an image to the selection. If no clone source is selected, Corel Painter uses the current pattern.
- **Current Color** creates a selection of pixels of the current primary color. You might want to use the Dropper tool to pick a color from the image before using the Current Color option.

If you want to invert the selection, enable the Invert check box.

- 3 Click OK to generate the selection.

Selecting By Color

Corel Painter lets you create a non-contiguous selection based on a range of colors.

To generate a color-based selection:

- 1 Choose **Select menu > Color Select**.
- 2 With the Color Select dialog box open, click in the document window to pick a color.
- 3 Adjust the H Extents (hue), S Extents (saturation), and V Extents (value) sliders to control the range of colors.
These sliders control the selected range. You can drag the limits of the range in either direction.
- 4 Adjust the H Feather (hue), S Feather (saturation), and V Feather (value) sliders to control the feathering at the edges of the color space extents.

This helps soften the selection edge.

- 5 The Preview window shows the selected area as a red overlay on the

image. Drag in the Preview to see other parts of the document.

- 6 Click OK to generate the selection.

Creating Selections from Layers

You can create a selection from a layer. The new selection outlines the contents of the layer, without modifying the layer. For more information about layers, refer to “Layer Basics” on page 228.

To create a selection from a layer:

- 1 On the Layers palette, select a layer.
- 2 Choose **Select menu > Load Selection**.
- 3 In the Load Selection dialog box, choose the selected layer’s transparency from the Load From pop-up menu.

Converting Selections to and from Shapes

You can convert selections to shapes, and shapes to selections. When you convert a selection to a shape, you can use the Shape Edit tools to adjust the path and define exactly the selection area you want. Then you can convert the shape back to a selection.

You can convert both path-based and pixel-based selections to shapes. When the selection is pixel-based, Corel Painter may create multiple shapes. The selection marquee is used to define outline paths for the new shape or shapes.

Converting a shape creates a path-based selection. This is useful if the path you want for a selection already exists as a shape. This will be the case for text or if you've been using the shape tools to edit the selection path.

For more information about shapes, refer to “Creating Shapes” on page 366.

You can also convert a selection to a layer. For more information, refer to “To create a layer based on a selection:” on page 231.

To convert the current selection to a shape:

- Choose **Select menu > Convert to Shape**.

Corel Painter creates the shape, giving it the default shape attributes.

Tip

- *If a pixel-based selection has a lot of intermediate grayscale values, the result might not be what you want. Save the selection to a channel, and then use Brightness/Contrast to increase definition. Load the channel to the selection and then convert it to a shape.*

To convert a shape to a selection:

- 1 Select the shape you want to convert.
The shape must be closed.
- 2 Choose **Shapes menu > Convert to Selection**.

The outline of the shape creates the selection path. Everything within the outline is 100% selected.

Saving Selections

Saving a selection generates a channel. Channels save selections for future use and provide additional editing control.

When you save a selection, you can create a new channel or modify an existing channel. You can replace an existing channel, add the selection to an existing channel, subtract it from an existing channel, or intersect it with an existing channel. For more information, refer to “Combining Selections Using Boolean Operations” on page 210.

To save a selection to a new channel:

- 1 Create a selection.
- 2 Do one of the following:
 - Choose **Select menu > Save Selection**.

- On the Channels palette, click the Save Selection as Channel button .
- 3 In the Save Selection dialog box, choose New from the Save To pop-up menu.
If you want to specify a name, type a name in the Name box.

Note

• *If you do not specify a name, new channels are named incrementally: Alpha 1, Alpha 2, and so on.*

To modify an existing channel:

- 1 Create a selection.
- 2 Do one of the following:
 - Choose **Select menu > Save Selection**.
 - On the Channels palette, click the Save Selection as Channel button.
- 3 In the Save Selection dialog box, choose an existing channel from the Save To menu.
- 4 Select an operation:

- **Replace Mask** replaces the channel with the saved selection.
- **Add To Mask** combines the current selection with the chosen channel.
- **Subtract From Mask** subtracts the current selection from the chosen channel.
- **Intersect With Mask** determines the intersection of the selection and the chosen channel, and saves this to the channel.

Loading Selections

Loading a selection reactivates a selection that was saved as a channel. When you load a selection, you can replace the current selection, add it to the current selection, subtract it from the current selection, or intersect it with the current selection. For more information, refer to “Combining Selections Using Boolean Operations” on page 210.

To load a selection from a channel:

- 1 Do one of the following:
 - Choose **Select menu > Load Selection**.
 - Click the Load Channel as Selection button  on the Channels palette.
- 2 In the Load Selection dialog box, choose a channel from the Load From pop-up menu.
- 3 Choose a loading operation:
 - **Replace Selection** replaces the current selection with the chosen channel.
 - **Add To Selection** adds the channel to the current selection.
 - **Subtract From Selection** subtracts the channel from the current selection. In other words, the channel “cuts away” from the selection.
 - **Intersect With Selection** determines the intersection of the channel and the current selection. This intersection becomes the new selection.

Combining Selections Using Boolean Operations

When you save selections, you can use Boolean operations (add, subtract, and intersect) to combine the saved selection with an existing channel.

Adding a selection combines it with the existing channel. Subtracting a selection cuts it out of the existing channel. When you intersect a selection, you include only those parts that are common to the selection and the existing channel.

For information about specifying Boolean operations when saving selections, refer to “To modify an existing channel:” on page 209.

When you load saved selections, or channels, you can use Boolean operations to combine the loaded channel with the current selection.

Adding a channel combines it with the current selection. Subtracting a channel cuts it out of the current selection. When you intersect a channel, you include only those parts that are common to the current selection and the loaded channel.

For information about specifying Boolean operations when loading selections, refer to “To load a selection from a channel:” on page 209.

There are many practical uses for loading a selection using Boolean operations. For example, in the owl image below, the artist created and saved selections for each area she wanted to work with separately—the eyes, beak, and outline.

To show the selections clearly in the graphics below, the selections were saved to channels, reloaded, and displayed as red overlays. For information about displaying channels as colored overlays, refer to “To view a channel as a colored overlay:” on page 220.



The owl image.

The following steps are performed to create a precise “face” selection that does not include the beak and eyes:

- The eye and beak channels (saved selections) are loaded and added.
- The combined selection is saved to the “eyebeak” channel.



The eye and beak selections are added and saved to the “eyebeak” channel.

- The “outline” channel is loaded.



The “outline” channel is loaded as a selection and displayed as a red overlay.

- The “eyebeak” channel is loaded and subtracted from the “outline” channel.

- The resulting selection is saved to the “head” channel.



The “head” channel is created by loading the “outline” channel and subtracting the “eyebeak” channel.

- A rough “face” selection is drawn with the Lasso tool. The eyes, beak, and a portion of the background are included.



The original “face” selection.

- The “head” channel (the outline with eyes and beak subtracted) is loaded and intersected with the rough “face” selection. This removes the eyes, beak, and background portion.



The modified “face” selection after loading and intersecting the “head” channel.

- The resulting selection is saved to the “face” channel.

Now, with a precise selection of the face, it’s easy to control brush strokes and constrain effects.

You can also combine selections when you create them by adding to, or subtracting from, the current selection. You can combine selections made with different tools. For more information, refer to the procedures “To add to a selection:” on page 204 and “To subtract from a selection:” on page 205.

Transforming Selections

Path-based selections support many transformations that pixel-based selections do not. You can convert a pixel-based selection to a path-based selection to apply transformations to it. However, when you convert a pixel-based selection, the modified selection is reduced to having two levels of protection.

To convert a path-based selection to a pixel-based selection, you can save it to a channel and reload it to a selection. For more information, refer to “Saving Selections” on page 208 and “Loading Selections” on page 209.

To determine if a selection is pixel-based or path-based, use the Selection Adjuster tool. If the selection displays handles when the Selection Adjuster tool is active, the selection is path-based. If the selection does not have handles, it is pixel-based. For more information about selection types, refer to “About Selection Types” on page 202.

To convert a pixel-based selection to a path-based selection:

- 1 Create a pixel-based selection.
- 2 Choose **Select menu > Transform Selection**.

Corel Painter generates paths from the outlines of the pixel-based selection. You can now use the Selection Adjuster tool for transformations.

Editing Path-Based Selections

You can use the Selection Adjuster tool to make changes to your selection. The Select menu also has several options for editing selections.

Unless otherwise noted, the procedures in this section are possible only with path-based selections.

Using the Selection Adjuster Tool

The Selection Adjuster tool lets you move selections. You can also scale, rotate, and skew path-based selections.

To move a selection:

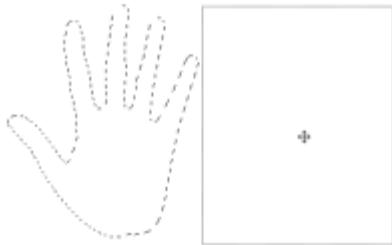
- 1 Choose the Selection Adjuster tool  from the toolbox.
- 2 Drag the selection.

Note

- You can move a pixel-based selection with the Selection Adjuster tool; however, if a portion moves off the canvas, it is subtracted from the selection.

Tip

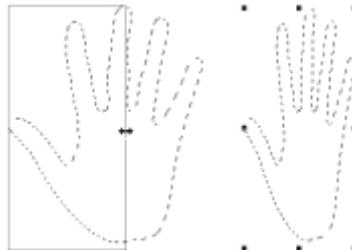
- You can also move a path-based selection by nudging it with the arrow keys. With the Selection Adjuster tool, click the selection, and then press an arrow key a few times.



Drag a selection with the Selection Adjuster tool to move it.

To scale a selection:

- 1 Choose the Selection Adjuster tool  from the toolbox.
- 2 Click the selection.
- 3 Do one of the following:
 - Drag a corner handle to scale in two dimensions. If you want to constrain the aspect ratio, hold down **Shift** while you drag.
 - Drag a side, top, or bottom handle to scale in one dimension.

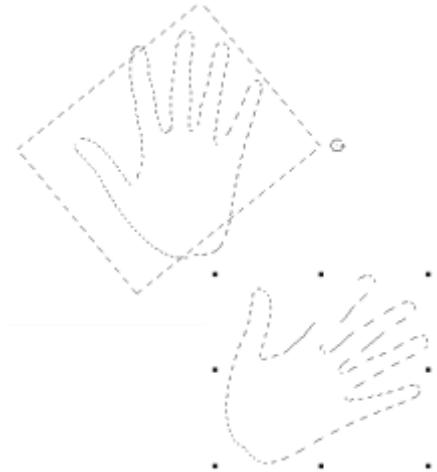


Drag a side handle to scale horizontally.

To rotate a selection:

- 1 Choose the Selection Adjuster tool  from the toolbox.
- 2 Click the selection.

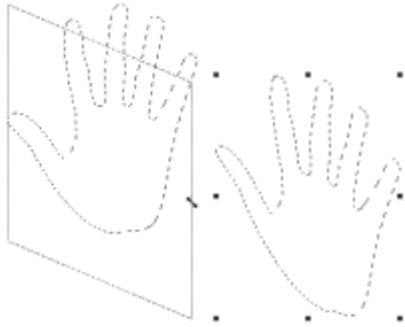
- 3 Hold down **Command** (Mac OS) or **Ctrl** (Windows), and drag a corner handle.



Rotating a selection.

To skew a selection:

- 1 Choose the Selection Adjuster tool  from the toolbox.
- 2 Click the selection.
- 3 Hold down **Command** (Mac OS) or **Ctrl** (Windows), and drag a side handle.



Skewing a selection.

Feathering Selections

You can feather both path-based and pixel-based selections to soften the transitions between selected and un-selected areas. If you feather a path-based selection, it is converted to a pixel-based selection to allow varying levels of protection at the edges.

To feather a selection:

- 1 Choose **Select menu > Feather**.
- 2 In the Feather Selection dialog box, enter the number of pixels you want to feather.
- 3 Click OK.

Tip

• *When the selection marquee is shown, feathering may be difficult to see. It is easier to see the effect of feathering if you save the selection to a channel and view the channel. For more information, refer to “To view a channel as a colored overlay:” on page 220.*

Widening and Contracting Selections

You can widen or contract a selection by a set number of pixels. When you widen a selection, it is expanded on all sides by the specified number of pixels. When you contract a selection, Corel Painter shrinks it on all sides by the specified number of pixels.

To widen a selection:

- 1 Choose **Select menu > Modify > Widen**.
- 2 In the Widen Selection dialog box, enter a number of pixels.

To contract a selection:

- 1 Choose **Select menu > Modify > Contract**.

- 2 In the Contract Selection dialog box, enter a number of pixels.

Smoothing Selections

You can smooth a selection by removing sharp edges, rounding corners, and straightening the outline path.

To smooth a selection:

- Choose **Select menu > Modify > Smooth**.

Repeat the command until the path is as smooth as you want it.



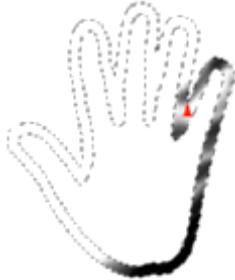
The selection — before and after smoothing.

Creating a Border Selection

You can create a selection from the border, or outline, of the current path-based selection. You can customize the border selection by specifying the width.

To create a border selection:

- 1 Choose **Select menu > Modify > Border**.
- 2 In the Border Selection dialog box, enter the number of pixels for the width of the border.



A border selection with airbrush strokes applied

Stroking Selections

You can apply a stroke to a path-based selection. Corel Painter uses the current brush variant, brush size, color, and paper texture to apply a stroke along the border of a selection. This is an excellent way to get brush strokes to follow specific contours.

You can set the drawing mode to control whether brush strokes are placed inside the selection border,

outside the selection border, or on both sides of the selection border. For more information, refer to “Selecting a Drawing Mode” on page 202.

To stroke a selection:

- 1 Create a path-based selection.
- 2 Choose the brush variant, color, and paper texture you want to use.
- 3 On the property bar, type a value in the Size box, or adjust the pop-up slider.
- 4 Click the Drawing Mode icon in the bottom-left corner of the document window, and choose a drawing mode.
- 5 Choose **Select menu > Stroke Selection**.

Repeat the command to build strokes. Change brushes if you like.

Tip

- *For a unique effect, you can nudge the selection by a few pixels and choose the command again. To nudge the selection, click it with the Selection Adjuster tool, and then press an arrow key a few times.*



Stroking a selection using the Draw Anywhere drawing mode applies strokes to both sides of the selection border.

Using the Selection Portfolio

Corel Painter provides a library of sample selections in the Selection Portfolio. You can use any of the selections in the portfolio. If you create a path-based selection that you want to use again, you can store it in the portfolio. You can add your selections to the sample library, or you can create your own library. For

information about creating and using your own libraries, refer to “Libraries and Movers” on page 25.

Note

The current selection is replaced.

To store a selection in the portfolio:

- 1 Create the path-based selection you want to store.
- 2 Choose **Window menu > Show Selection Portfolio**.
- 3 Choose the Selection Adjuster tool  from the toolbox.
- 4 Drag the selection to the Selection Portfolio palette.
- 5 In the Save Selection dialog box, type a name for the selection.

To use a selection from the portfolio:

- On the Selection Portfolio palette, do one of the following:
 - Drag a selection to the document window.
 - Double-click a selection.

This places the selection in its original position on the canvas, provided that the document dimensions are the same.

13 Using Alpha Channels

The primary function of an alpha channel is to store a selection you might want later. You can save multiple selections in a channel.

Understanding Alpha Channels

An alpha channel is a mask through which you can paint on, and apply effects to, an image. The alpha channel stores 8 bits of information per pixel, which means that each pixel can be assigned one of 256 (2^8) levels of gray—from 0 (black) to 255 (white). White areas of the channel are selected, and black areas of the channel are protected. Intermediate levels of gray are partially protected. For example, areas that are 50% gray will allow 50% of the brush stroke or effect to get through the channel to the image.

Alpha channels work like selections. Selections, however, are available only when working with the active image during the current session. You can save your selection, which creates an alpha channel. Channels remain inactive (for canvas control) until you load them to a selection. You can think of a channel as a “dormant selection.”

For more information about selections, refer to “Working with Selections” on page 201.

Corel Painter lets you create up to 32 alpha channels. The channels are listed on the Channels palette, where you can select and control them.

You can edit a channel in a number of ways and then load it as a selection.

Stored channels remain part of the file when you save in Corel Painter or Photoshop format. No matter how many times you work on a file, the channels are available whenever you need them.



Creating Channels

You can create a channel from a selection or create a new, blank channel.

You can also create a new channel by copying an existing channel. For more information, refer to “To copy a channel:” on page 222.

To save a selection to a channel:

- Choose **Select menu > Save Selection**.

For additional information, refer to “Saving Selections” on page 208.

To create a new, blank channel:

- On the Channels palette, do one of the following :
- Click the palette menu arrow and choose **New**.
- Click the **New Channel** button



Generating Channels Automatically

Corel Painter lets you generate a channel based on the light and dark areas of a number of sources, including paper, pattern, and clone source.

You can also create a channel based on a range of colors.

To generate a channel based on luminance:

- 1 On the Channels palette, do one of the following:
 - To generate a new channel, choose the **RGB** channel from the list.
 - To replace a channel, choose it from the list.
- 2 Click the palette menu arrow, and choose **New From**.
- 3 In the **New From** dialog box, choose one of the following options from the pop-up menu:
 - **Paper** creates a channel using the current paper texture.

- **3D Brush Strokes** creates a channel based on the difference between the current image and the clone source. If no clone source is selected, Corel Painter uses the current pattern. For information about clones, refer to “Cloning and Tracing” on page 185.
- **Original Selection** imports the selection from the clone source document. You can use this feature to transfer a selection from another document. For best results, the dimensions of the source and working document should match. You must establish a clone source file, and create a selection in this file, for this option to be available. For information about clones, refer to “Cloning and Tracing” on page 185.
- **Image Luminance** creates a channel based on the current image’s light and dark areas. For **Image Luminance** to be effective, the image must have high contrast. Images with low contrast will produce a semi-

solid channel, without clear delineation between the selected and protected areas.

- **Original Luminance** produces a channel based on the clone source's light and dark areas. This option lets you import an image to the channel. If no clone source is selected, Corel Painter uses the current pattern.
- **Current Color** creates a channel based on pixels of the current primary color. Areas of the current color are protected; the rest of the image is selected. You might want to use the Dropper tool to pick a color from the image before using the Current Color option.

If you want to invert the channel, enable the Invert check box.

Note

- *A channel can have 256 values in it, like a grayscale image. Inverting a channel is equivalent to creating the negative of a grayscale image. For*

example, a pixel with 80% luminance will have 20% luminance when inverted. A pixel with 30% luminance will have 70% luminance when inverted.



An image (above) and the channels created using image luminance (bottom-left) and inverted image luminance (bottom-right).

To generate a color-based channel:

- 1 On the Channels palette, do one of the following:
 - To generate a new channel, choose the RGB channel from the list.
 - To replace a channel, choose it from the list.
- 2 Click the palette menu arrow, and choose New from Color Range.
- 3 With the Color dialog box open, click in the document window to pick a color.

The color you select is the middle of the range of colors used to create the channel.

- 4 In the Color dialog box, adjust the H Extents (hue), S Extents (saturation), and V Extents (value) sliders.

These sliders control the selected range. You can drag the limits of the range in either direction.

- 5 Adjust the H Feather (hue), S Feather (saturation), and V Feather (value) sliders to control the feathering at the edges of the color space extents.

This helps soften the edges of the channel.

If you want to invert the channel, enable the Inverted check box.

Tip

- *The preview window in the Color dialog box shows the channel as a red overlay on the image. You can drag in the preview to see other parts of the image.*

Importing Channels from Other Programs

When RGB files that were created in Photoshop are opened in Corel Painter, anything in the alpha channels (#4 and above) will appear as a channel in Corel Painter.

Conversely, when you save your Corel Painter file in Photoshop format, all channels are placed into channels #4 and above.

Managing Channels

The Channels palette lists the RGB color image and each channel you've saved.

If a layer is selected, and the layer has a layer mask, the Channels palette also lists the layer mask. For information about layer masks, refer to “Working with Layer Masks” on page 253.

To display the Channels palette:

- Choose **Window menu > Show Channels**.

If the palette is not expanded, click the palette arrow.

Selecting and Viewing Channels

If you want to edit a particular channel, you must select it.

You can view or hide a channel. The eye icon next to the channel's thumbnail on the Channels palette lets you view or hide a channel. When the eye is open, the channel displays in the document window. When the eye is closed, the channel is hidden.

Corel Painter offers two ways to view a channel—as a colored overlay on the image or in grayscale. Colored overlays are red by default, but you

can change the color. For more information, refer to “To set channel attributes:” on page 221.

Selecting and viewing a channel are distinct operations—you can view a channel without selecting it, and you can select a channel without viewing it.

You can view the RGB image and more than one channel, but your editing applies only to the one item selected on the Channels palette—the RGB image or a channel.

To select a channel:

- On the Channels palette, choose a channel from the list.

Tip

- *When you want to work on the image again, choose RGB from the list.*

To view a channel as a colored overlay:

- On the Channels palette, click the eye icon next to the channel's thumbnail to open the eye.

In this mode, the RGB image is always displayed.



The “wings” channel and the RGB image are displayed.



The “wings” and “body” channels are displayed as red overlays on the RGB image. The eye icons for both channels, and for RGB, are open.

To view a channel as a grayscale image:

- 1 On the Channels palette, make sure the channel is hidden (eye closed) and not selected.
- 2 Click the channel name.

In this mode, the RGB image is hidden.



A channel protecting the wings and body is displayed in grayscale. The RGB image is hidden.

To hide a channel:

- Click the eye icon next to the channel item to close the eye.

Setting Channel Attributes

Each channel has a set of display attributes that can make it easier to use and help you distinguish it from the other channels.

These attributes do not affect the function of the channel; they affect only how the channel displays as you work on it.

Corel Painter names new channels incrementally: Alpha 1, Alpha 2, and so on. Renaming a channel makes it easier to work with, especially if you have several in the document. You can choose the channel you want immediately if you’ve given it a descriptive name.

To set channel attributes:

- 1 On the Channels palette, choose a channel from the list.
- 2 Do one of the following:
 - Click the palette menu arrow, and choose Channel Attributes.
 - Double-click the channel name in the list.

- 3 In the Channel Attributes dialog box, drag the Opacity slider to set the channel display strength.
- 4 Click the color chip, and choose a display color in the Color Picker dialog box.

If you want to see the color overlay in grayscale, choose black.

A channel is easiest to use as an overlay when its color is a strong contrast with the predominant hue of the RGB image. You might want to use a different color for each channel.
- 5 Enable one of the following options to specify where the color overlay displays:
 - Masked Areas
 - Selected Areas

If you want to rename the channel, type a name in the Name box.

Tip

• *If you want the channel displayed at its full intensity, set Opacity to 100%. Choose a lower value to display the channel more transparently so you can follow the underlying RGB imagery as you edit the channel.*

Working with Channels

You can create a new channel by copying an existing channel.

If you've finished working with a particular channel you can delete it. You can also clear a channel without deleting it, leaving you with a blank channel.

The channel is a grayscale image. By inverting it, you can make dark pixels light, and light pixels dark.

To copy a channel:

- 1 On the Channels palette, choose a channel from the list.
- 2 Click the palette menu arrow, and choose Duplicate.
- 3 In the Duplicate Channel dialog box, choose New from the Destination pop-up menu.

Tip

• *You can also copy to an existing channel, which replaces that channel. To do this, choose the channel to replace from the Destination pop-up menu.*

To delete a channel:

- 1 On the Channels palette, choose a channel from the list.
- 2 Do one of the following:
 - Click the palette menu arrow, and choose Delete.
 - Click the Delete button  at the bottom of the Channels palette.

To clear a channel:

- 1 On the Channels palette, choose a channel from the list.
- 2 Click the palette menu arrow, and choose Clear.

To invert a channel:

- 1 On the Channels palette, choose a channel from the list.
- 2 Click the palette menu arrow, and choose Invert.



A channel — before and after inversion.

Editing Channels

A channel allows certain types of editing not possible in a selection.

You can paint in a channel or apply effects to it. Feathering a channel softens the transitions between light and dark areas.

You can also fill a channel with a color, pattern, gradient, or weave. You can fill an entire channel or an area of a channel, or you can fill a channel

based on existing color. For more information, refer to “Filling Images Based on Color” on page 117.

When you edit a channel, you are making modifications to the channel, and not the image. You can use shades of gray only; no colors are available. This is because the alpha channel is a grayscale image, separate from the RGB image. The resulting channel can be used afterwards to make changes to your image.

If you want to modify a specific area of a channel, you can create a selection. The current selection is available to the RGB image and all channels. For more information, refer to “Creating Selections” on page 204.

Editing a channel does not affect how the channel displays. For information about setting the color and opacity of the displayed channel overlay, refer to “Setting Channel Attributes” on page 221.

To paint in a channel:

- 1 On the Channels palette, display and select the channel you want to work with.

If you want to paint only on a specific area of the channel, make a selection.

- 2 Choose the Brush tool from the toolbox.
- 3 On the Brush selector bar, choose a brush category and variant. The Pen and Airbrush categories make good choices.
- 4 On the Colors palette, choose a color.

Only grayscale values are available. Black adds to the channel. White erases from it.

When you paint in the channel, hue is irrelevant. The channel carries 8 bits of information and you need only set a level in that range. The value scale is between black and white.

- 5 On the property bar, type a value in the Opacity box, or adjust the pop-up slider.
- 6 Type a value in the Size box, or adjust the pop-up slider.
- 7 Paint in the document window.

To apply an effect to a channel:

- 1 On the Channels palette, display and select the channel you want to work with.

If you want to apply the effect to a specific area of the channel, make a selection.

- 2 Choose an effect from the **Effects** menu.

To learn more about image effects, explore “Using Image Effects” on page 257.

To feather a channel:

- 1 On the Channels palette, display and select the channel you want to work with.
- 2 Click the palette menu arrow, and choose Feather.
- 3 In the Feather dialog box, type a number of pixels.



A channel — before and after feathering.

To fill a channel:

- 1 On the Channels palette, display and select the channel you want to work with.

If you want to fill only a specific area of the channel, make a selection.

- 2 In the toolbox, choose a color, pattern, gradient, or weave from the corresponding selector.
- 3 Choose **Effects menu > Fill**.
- 4 In the Fill dialog box, enable one of the following to fill with:

- Current Color
- Pattern
- Gradient
- Weave

Current Color fills with the current shade of gray.

- 5 Adjust the Opacity slider.

Note

- For more information on the *Fill* command, refer to “Filling an Area with Media” on page 116.

To fill a channel based on color:

- 1 On the Channels palette, display and select the channel you want to work with.
- 2 Choose the Paint Bucket tool  from the toolbox.
- 3 On the property bar, click the Fill Image button .
- 4 Choose one of the following from the Fill pop-up menu:
 - **Current Color**—fills with the current color—a shade of gray.
 - **Grad**—fills with the selected gradient.
 - **Clone Source**—fills using the current clone source image. If you haven’t defined a clone source, Corel Painter fills with the current pattern.
 - **Weave**—fills with the selected weave.
- 5 Choose the specific material you want from the Fill selector.
- 6 To specify the range of gray to be filled, type a value in the Tolerance box, or adjust the pop-up slider.
- 7 To specify the fill opacity for pixels outside the Tolerance range, type a

value in the Feather box, or adjust the pop-up slider.

If you want to create intermediate fill values on the boundaries, enable the Anti-Alias check box. This gives soft edges to the fill. Anti-aliasing is desirable when Feather is zero or extremely low.

- 8 Click the area of the channel you want to fill.

If the result is not what you want, undo the fill, change the settings, and try again.

Notes:

- *The Paint Bucket applies a fill only to a visible channel. Make sure the channel's eye icon is open before using the Paint Bucket.*
- *For complete information on Paint Bucket controls, refer to "Filling Images Based on Color" on page 117.*

Tip

- *You can return to the default Paint Bucket settings by clicking the Reset Paint Bucket button  on the property bar.*

14 Using Layers and Layer Masks

When you open a new document and create an image, your work appears on a background layer known as the canvas. You can add additional layers to a document, which allows you to manipulate the visual elements in the image independently of the canvas.

Layers provide one of the great advantages of creating images in a digital workspace—the freedom to experiment with different compositions and effects without risking an unwanted, permanent edit. The Corel Painter RIF file format preserves layers when you save a document, so you can easily make changes at a later time. There's no need to re-create the entire composition—just modify one or more layers. The result is a dynamic and flexible design environment.



Think of layers as sheets of clear material, such as acetate. Painting on a layer obscures the image below it. Areas of a layer that don't contain imagery remain transparent.



Layer Basics

In Corel Painter, layers are objects that contain image data. Because each layer is a distinct object, you can move it around and edit it without interfering with the image data on the canvas or other layers. Likewise, you can work on the canvas without interfering with any of the other layers.

Layers can contain two types of images: pixel-based images and vector-based images. How you work with a layer depends on the type of data it contains—however, all layers in a document have the following characteristics in common:

- They are listed on the Layers palette. The Layers palette manages the hierarchy of layers and includes controls for selecting, hiding, locking, deleting, naming, and grouping layers.
- You can cut, copy, paste, move, and align them using the Layer Adjuster tool.

- They interact with underlying images based on a specified composite method.

Pixel-based Layers

You can create pixel-based images on a layer using any brush variant, with the following exceptions:

- Water Color brushes
- Liquid Ink brushes
- Brushes that use the Wet method

You can also create pixel-based images on a layer by pasting or placing an image.

Layers play a role in more specialized functions, such as building an image hose nozzle, embedding a URL in an image, or creating an animation.

Vector Shape Layers

Shapes are vector-based objects. When you create a shape with one of the shape tools (Pen, Quick Curve, Rectangular Shape, Oval Shape, or Text), Corel Painter automatically adds a new layer to the document.

Each new shape becomes a separate layer; you can group multiple shapes together or merge them into a single shape.

Shapes cannot contain pixel information. To perform pixel-based operations—such as painting in a shape with a brush or filling it with a gradation—you must convert the shape to a pixel-based layer.

This chapter covers only managing shapes on the Layers palette. “Using Shapes” on page 363 contains detailed information about creating and working with shapes.

Floating Object Layers

Floating object layers contain imagery that can be moved around the layer. For more information, refer to “Working with Floating Objects” on page 240.

Reference Layers

Reference layers are low resolution representations of other layers. Using reference layers lets you more easily

manipulate standard layers. For more information, refer to “Working with Reference Layers” on page 244.

Dynamic Layers

Dynamic layers are a class of layers that provide dynamic effects to the underlying image.

Some dynamic layers interact with the underlying imagery in a specific area to produce effects—such as the Glass Distortion and Equalize dynamic layers. Other dynamic layers interact with the underlying imagery as you apply brush strokes—such as the Liquid Metal dynamic layer.

Dynamic layers are different from other effects because they are distinct objects—you can access them on the Layers palette and update their controls to modify the effect at any time.

This chapter covers only managing dynamic layers on the Layers palette. “Using Dynamic Plug-ins” on page 311 contains detailed information about creating and working with dynamic layers.

Water Color Layers

The Water Color layer is a special layer reserved for Water Color brushes. It enables the paint applied with these brushes to mix and flow together. You can create multiple Water Color layers in a document. These layers are part of the layer hierarchy and appear on the Layers palette, where they are characterized by a blue ink droplet icon.

In earlier versions of the application, if you applied water color brush strokes, they were applied to the canvas layer and, as such, were uneditable. Now, when you apply a Water Color brush to the canvas or to an image layer, a new Water Color layer is automatically created. You can edit Water Color layers as you would any other layer, including erasing and blurring, without affecting other layers.

Refer to “The Water Color Layer” on page 123 for more information about working with Water Color layers.

Liquid Ink Layers

The Liquid Ink layer is a special layer reserved for Liquid Ink brushes. You can create multiple Liquid Ink layers in a document. These layers are part of the layer hierarchy and appear on the Layers palette, where they are characterized by a black ink droplet icon.

When you apply one of the Liquid Ink brushes to the canvas or to an image layer, a new Liquid Ink layer is automatically created. You can edit Liquid Ink layers without affecting other layers.

Refer to “The Liquid Ink Layer” on page 129 for more information about working with Liquid Ink layers.

Working with Layers

When you work with layers, you use the Layers palette and the Layer Adjuster tool.

The Layers Palette

The Layers palette lists all the layers in a document and provides options for managing them.

You can access many layer functions and commands using the buttons at the bottom of the palette, and the palette menu (accessed by clicking the palette menu arrow in the top-right corner of the palette).

The Layers palette displays icons next to each layer to indicate the layer's type and characteristics.

 Pixel-based layer

 Water Color layer

 Liquid Ink layer

 Shape layer

 Floating object

 Reference layer

 Dynamic layer

 Grouped layer

 Expanded group

 Visible layer

 Hidden layer

 Locked layer

On the Layers palette, you can set layer opacity and choose a composite method. For information about layer opacity, refer to “Setting Layer Opacity” on page 246. For information about composite methods, refer to “Blending Layers Using Composite Methods” on page 246.

Information about the dimensions and position of layer content is displayed on the Info palette. For more information, refer to “The Info Palette” on page 21.

To display the Layers palette:

- Choose **Window menu > Show Layers**.

If the palette is not expanded, click the palette arrow.

The Layer Adjuster Tool

With the Layer Adjuster tool, you can select and work with layers. When you choose the Layer Adjuster tool from the toolbox, the property bar contains options for selecting layers automatically and for changing a layer's position in the hierarchy.

For information about selecting layers automatically, refer to “Selecting Layers” on page 233. For information about changing the layer hierarchy, refer to “Changing Layer Hierarchy” on page 236.

Creating Layers

You can create new pixel-based layers, Water Color layers, or Liquid Ink layers directly from the Layers palette. You can duplicate layers and copy layers between documents.

You can also create a layer based on a selection. This copies or converts the contents of a selection to a new layer. For information about creating selections, refer to “Creating Selections” on page 204.

For information about creating dynamic layers, refer to “Creating Dynamic Layers” on page 312.

For information about creating vector shape layers, refer to “Creating Shapes” on page 366.

To create a new layer:

- Click one of the following buttons at the bottom of the Layers palette:
 -  New Layer
 -  New Water Color Layer
 -  New Liquid Ink Layer

Tip

• *You can also create a new layer by clicking the palette menu arrow and choosing **New Layer**, **New Water Color Layer**, or **New Liquid Ink Layer**.*

To duplicate a layer:

- 1 Choose the Layer Adjuster tool  from the toolbox.
- 2 On the Layers palette, select a layer.
- 3 In the document window, hold down **Option** (Mac OS) or **Alt** (Windows), and click the layer.

Corel Painter duplicates the layer in place. Select and move the new layer to reveal the original layer in the document window.

Note

• *For more information about selecting layers, refer to “Selecting Layers” on page 233.*

To copy a layer between documents:

- 1 With the Layer Adjuster tool, select a layer on the Layers palette.
- 2 Do one of the following:
 - In the document window, drag the layer to another document.
 - Choose **Edit menu > Copy**, display the other document, and then choose **Edit menu > Paste**.

Note

• *For more information about selecting layers, refer to “Selecting Layers” on page 233.*

Tip

• *You can also paste a copied layer from the Clipboard to a new document by choosing **Edit menu > Paste Into New Image**.*

To create a layer based on a selection:

- 1 Make a selection.
- 2 Do one of the following:
 - To convert the selection, choose **Select menu > Float** or click the selection with the Layer Adjuster tool.
 - To convert and move the selection, drag it with the Layer Adjuster tool.
 - To copy the selection, hold down **Option** (Mac OS) or **Alt** (Windows) and click the selection with the Layer Adjuster tool.
 - To copy and move the selection, hold down **Option** (Mac OS) or **Alt** (Windows) and drag the selection with the Layer Adjuster tool.

Tips

- You can also convert a selection to a layer by rotating, scaling, distorting, or flipping a selection. Refer to “Orientation Effects” on page 260 for more information.
- You can also create a new layer by copying or cutting, and pasting, a selection.

Naming Layers

Corel Painter assigns each layer (or group) a default name when you create it. This name references the object’s type and creation order.

For example, pixel-based layers are titled *Layer 1*, *Layer 2*, and so on. A shape’s title is based on the tool you use to create it—*Rect #* for the Rectangular Shape tool, *Oval #* for the Oval Shape tool, and *Shape #* for the Pen and Quick Curve tools.

As you add more layers and groups to a document, it can become difficult to remember what image data each layer contains. By assigning layers and groups descriptive names, you can easily keep track of the separate pieces of an image.

To name a layer or group:

- 1 On the Layers palette, select a layer or group.
- 2 Do one of the following:
 - Click the palette menu arrow and choose Layer Attributes.
 - For pixel-based layers and reference layers, double-click the item on the Layers palette, or select an item and press **Return** (Mac OS) or **Enter** (Windows).
- 3 In the Layer Attributes dialog box, type a new name in the Name box.

Note

- You cannot change the name of the canvas layer.

Saving Files Containing Layers

You can save your Corel Painter document in the RIFF format with “live” layers—the layers continue to function when you reopen the file. RIFF is the only format that preserves layers in their original state.

If you save a Corel Painter document in PSD (Photoshop) format, all layers convert to standard Photoshop transparent layers. Photoshop does not preserve groups; each layer in a group becomes its own Photoshop layer. For information about grouping layers in Corel Painter, refer to “Grouping Layers” on page 236.

If you save a Corel Painter document to PSD format, keep in mind how layer composite methods in Corel Painter convert to blend modes in Photoshop:

Corel Painter Composite Method	Photoshop Blend Mode
Gel	Darken
Colorize	Color
Reverse-Out	Normal
Shadow Map	Multiply
Magic Combine	Lighten
Pseudocolor	Normal
Normal	Normal
Dissolve	Dissolve
Multiply	Multiply
Screen	Screen
Overlay	Overlay
Soft Light	Soft Light

Corel Painter Composite Method	Photoshop Blend Mode
Hard Light	Hard Light
Darken	Darken
Lighten	Lighten
Difference	Difference
Hue	Hue
Saturation	Saturation
Color	Color
Luminosity	Luminosity

For more information about composite methods, refer to “Blending Layers Using Composite Methods” on page 246.

If you save a file to a file format other than RIFF or PSD, the layers drop (or merge) into a single background image.

Deleting Layers

To delete a layer:

- 1 On the Layers palette, select the layer.
- 2 Do one of the following:
 - Click the palette menu arrow, and choose Delete Layer.

- Click the Delete button  at the bottom of the Layers palette.

Notes

- *You can also delete shapes by pressing **Delete** (Mac OS) or **Backspace** (Windows).*
- *You cannot delete the canvas.*

Managing Layers

Selecting Layers

Selecting a layer lets you make changes to it. If no layers are selected, any changes you make apply to the canvas.

The Auto Select Layer option changes your ability to select and move layers with the Layer Adjuster tool.

By default, the Auto Select Layer option is disabled. This means that the layer selection is “locked in”—the Layer Adjuster tool affects only the selected layer or layers. In other words, you cannot select a layer by clicking it

in the document window; you must select a layer by clicking it on the Layers palette.

When the Auto Select Layer option is enabled, you can select layers automatically with the Layer Adjuster tool by clicking an area of layer content in the document window.

To select a layer:

- Do one of the following:
 - Click a layer on the Layers palette.
 - Choose the Layer Adjuster tool  from the toolbox. With the Auto Select Layer check box on the property bar enabled, click anywhere in a layer’s content.

Tips

- *You can also press the **F** key to activate the Layer Adjuster tool.*
- *If you are working with a shape, you can switch to the Shape Selection tool by double-clicking a shape with the Layer Adjuster tool.*

To select multiple layers:

- Do one of the following:

- On the Layers palette, **Shift**+click each layer you want to select.
- Choose the Layer Adjuster tool from the toolbox. With the Auto Select Layer check box on the property bar enabled, in the document window drag over the layers you want to select.

To select all layers in a document:

- On the Layers palette, click the palette menu arrow and choose Select All.

Corel Painter selects all layers except the canvas.

To deselect layers:

- Do one of the following:
 - On the Layers palette, click Canvas (the last item in the list).
 - On the Layers palette, click the palette menu arrow and choose Deselect.

Deselecting all layers automatically selects the Canvas layer.

Showing Layer Indicators

You can show the layer indicators to see display handles at the corners of a layer's content when it is selected.



Show the layer indicators to mark the corners of a selected layer.

To show layer indicators:

- On the Layers palette, click the palette menu arrow and choose Show Layer Indicators.

Tip

- *To hide the layer indicators, click the palette menu arrow and choose Hide Layer Indicators.*

Locking Layers

You can lock layers to avoid accidentally changing them. When a layer is locked, you cannot select it with the Layer Adjuster tool in the document window.

You can, however, move a locked layer or shape by nudging it. For more information, refer to “Moving Layers” on page 242.

To lock or unlock a layer:

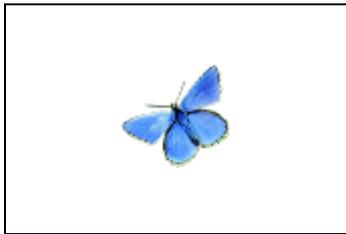
- 1 Select the layer on the Layers palette.
- 2 Do one of the following:
 - On the Layers palette, click the Lock Layer button .
 - Click the palette menu arrow and choose Lock.

The Locked Layer icon  appears next to a locked layer on the Layers palette.

Viewing Layers

You can control your view of an image in the document window by changing layer visibility settings. This is helpful

both in compositing an image and applying effects. You can hide one layer to gain better visibility of the layer below it. Or, you can set up different states of an image to create rollover effects for use on the Web. For more information about creating rollovers, refer to “Creating Rollovers” on page 401.



Use layer visibility settings to create different states of an image. In the top example, the layers containing the background are hidden; in the bottom example, the layers containing the background are showing.

Layer visibility settings stay active when printing or saving to some file formats. In other words, the content of hidden layers does not print and is not saved. However, RIF and PSD file formats preserve hidden layers as part of the document. Refer to “Saving Files Containing Layers” on page 232 for more information about how layers are saved in different file formats.

To show or hide a layer:

- Click the eye icon next to the layer name on the Layers palette.

When the eye is shut , the layer is hidden in the document window. When the eye is open , the layer is visible in the document window.

To show or hide the canvas:

- Click the eye icon next to Canvas on the Layers palette.

When the eye is shut, the canvas is represented by a checkerboard. When the eye is open, the canvas is visible in the document window.

Viewing Layer Position

The Info palette contains information about the size and position of the selected layer’s content on the canvas.

Think of the area of a layer that contains imagery as being marked by a bounding box. The Info palette displays the dimensions and position of the bounding box, not the entire area of the layer. This makes it easy to determine the exact size and location of a layer’s content in the document.

- **W** is the width of the layer’s content, measured in pixels.
- **H** is the height of the layer’s content, measured in pixels.
- **T** is the position of the top edge of the layer’s bounding box, measured in pixels from the top edge of the canvas.
- **L** is the position of the left edge of the layer’s bounding box, measured in pixels from the left edge of the canvas.
- **B** is the position of the bottom edge of the layer’s bounding box,

measured in pixels from the top edge of the canvas.

- **R** is the position of the right edge of the layer's bounding box, measured in pixels from the left edge of the canvas.

To display the Info palette:

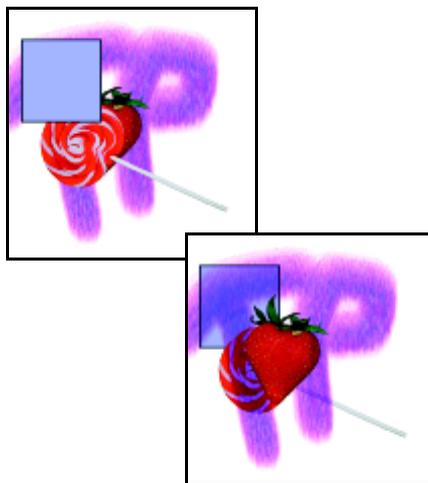
- Choose **Window menu > Show Info**.

If the palette is not expanded, click the palette arrow.

Changing Layer Hierarchy

The hierarchy of layers determines how the layers in a document interact. When you create a new pixel-based layer, it appears on top of the existing layers (when the canvas is selected) or on top of the selected layer. New Water Color, Liquid Ink, and dynamic layers are always created on top of existing layers. Depending on its transparency, masking, and compositing characteristics, the layer will obscure or otherwise affect the underlying layers.

A document's layer hierarchy is reflected on the Layers palette. The bottom layer is always the Canvas.



Change the hierarchy of layers to create different effects.

To change a layer's position in the hierarchy:

- 1 Choose the Layer Adjuster tool  from the toolbox.
- 2 On the Layers palette, select the layer you want to reposition in the hierarchy.
- 3 Do one of the following:

- Choose **Layers menu > Move to Bottom**.
- Choose **Layers menu > Move to Top**.
- Choose **Layers menu > Move Down One Layer**.
- Choose **Layers menu > Move Up One Layer**.

Tips

- You can also reposition a layer by dragging it to a new position on the Layers palette.
- You can also reposition a layer by clicking the *Move to Bottom*, *Move to Top*, *Move Down One Layer*, or *Move Up One Layer* button on the property bar.

Grouping Layers

Grouping layers enables you to control them as a unit. A group can contain any combination of layers: pixel-based layers, Water Color layers, Liquid Ink layers, shapes, and dynamic layers.

You can move, rename, hide, show, lock, and set options for a group just as you do for a single layer. However,

you cannot paint across layers in a group or change the composite method for a group.

To work with individual layers in a group, you must open the group. Close the group to regain control of the group as a unit.

Collapsing a group reduces its contents to a single layer.

To create a group:

- 1 On the Layers palette, select the layers you want to group.
Refer to “Selecting Layers” on page 233 for more information about selecting multiple layers.
- 2 Do one of the following:
 - Click the Layer Commands button , and choose Group.
 - Click the palette menu arrow, and choose Group.

The layers are collected under a group item on the Layers palette.

Note

If you select non-sequential layers (layers not next to each other in the list), Corel Painter creates the group at the position of the top-most layer.

To open and close a group:

- On the Layers palette, click the triangle icon to the left of the group.

When the arrow points down  and you can see the group items, the group is open. When the arrow points to the right  and the names of the group members are hidden, the group is closed.

To add a layer to a group:

- 1 On the Layers palette, open the destination group.
- 2 Drag a layer to the group.

Tip

You can create a nested group by dragging a closed group to the open destination group.

To remove a layer from a group:

- 1 Open the group.

- 2 Drag the layer out of the group.

To ungroup layers:

- 1 On the Layers palette, select the group.
If the group is open, click the triangle icon to close it.
- 2 Do one of the following:
 - Click the Layer Commands button , and choose Ungroup.
 - Click the palette menu arrow, and choose Ungroup.

To collapse a group:

- 1 On the Layers palette, select the group.
- 2 Do one of the following:
 - Click the Layer Commands button , and choose Collapse.
 - Click the palette menu arrow, and choose Collapse.

If the group contains shapes, Liquid Ink layers, or dynamic layers, the Commit dialog box is displayed. Click Commit All to convert the items to pixel-based

layers before collapsing the entire group.

Note

• *If you want to collapse a group containing a Water Color layer, you must first convert the Water Color layer to a default layer and change its composite method to Default. For more information about composite methods, refer to “Blending Layers Using Composite Methods” on page 246.*

Merging Layers with the Canvas

Dropping a layer (or group) merges its contents with the canvas. Once you drop a layer, you can no longer access the layer’s content separately from the canvas.

You can drop specific layers or you can drop all layers at once.

When you drop a layer, you can choose to create a selection based on the layer contents. If the layer has a layer mask, the mask is used to make the selection. Refer to “Working with Layer Masks” on page 253 for more information about layer masks. For

more information about selections, refer to “Working with Selections” on page 201.

To drop specific layers:

- 1 On the Layers palette, select the layers (or groups) you want to drop.
- 2 Do one of the following:
 - Click the Layer Commands button , and choose Drop.
 - Click the palette menu arrow, and choose Drop.

To drop all layers:

- On the Layers palette, click the palette menu arrow and choose Drop All.

To make a selection by dropping a layer:

- On the Layers palette, click the palette menu arrow and choose Drop and Select.

Editing Layers

You can edit a layer’s content by applying effects to it, transforming its dimensions, or painting on it. You can also move layer content to change the overall image layout.

About Brush Methods

The Natural-Media environment enables brush strokes on different layers to interact with each other. However, mixing brush strokes that use the Cover and Buildup methods on the same layer can produce unexpected results. This is caused by a conflict between the brush method and the layer’s composite method.

- Brushes that use the Buildup method—such as those in the Felt Pens or Pencils category—work best on layers that use the Gel composite method. In fact, when you paint on a blank layer using the Buildup method, Corel Painter automatically sets the layer’s composite method to Gel.

- Brushes that use the Cover method work best on layers using the Default composite method.

For more information about layer composite methods, refer to “Blending Layers Using Composite Methods” on page 246.

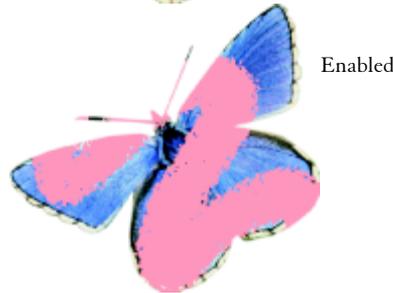
For more information about brush methods, refer to “Methods and Subcategories” on page 149.

Preserving Layer Transparency

Areas of a layer that don’t contain imagery are transparent. You can preserve the transparent areas of a layer with the Preserve Transparency check box on the Layers palette. This option affects what areas of a layer you can create imagery on. It also affects the results of erasing or deleting imagery on a layer.

By default, the Preserve Transparency check box is disabled, which lets you paint anywhere on the layer. When Preserve Transparency is enabled, the transparent areas are preserved, and

you are confined to painting on areas of the layer that already contain imagery.



The results of painting on a layer with the Preserve Transparency option disabled and enabled

A good way to think about the Preserve Transparency option is in terms of a layer mask. As described in

“Working with Layer Masks” on page 253, a layer mask defines the visible areas of a layer.

Preserve Transparency provides a powerful selective editing capability for altering the strokes you’ve already applied and creating interesting effects. For example, enable Preserve Transparency to fill a set of hand-drawn letters with a pattern, a color gradient, or other brush strokes.

Preserve Transparency also affects the results of cutting or erasing on a layer.

- When Preserve Transparency is disabled, erasing or deleting imagery restores transparency to the area—revealing the underlying image.
- When Preserve Transparency is enabled, erasing or deleting imagery reveals the document’s paper color. In effect, erasing or deleting with Preserve Transparency enabled is the same as painting or filling with the document’s paper color.



Erasing part of a layer with the Preserve Transparency option disabled restores transparency (top). When the option is enabled, erasing reveals the paper color (bottom).

To preserve layer transparency:

- On the Layers palette, enable the Preserve Transparency check box.

Tip

• *You can also load a layer's transparency to a selection. On the Layers palette, **Control**+click the layer (Mac OS) or right-click the layer (Windows), and choose Select Layer Transparency. For more information about selections, refer to "Working with Selections" on page 201.*

Painting on Layers

When a layer is selected, you can use the brushes to paint, draw, erase, or clone in a layer. When painting on layers, keep the following points in mind:

- Water Color brushes can be used only on Water Color layers; on a Water Color layer, you can paint only with Water Color brushes.
- Liquid Ink brushes can be used only on Liquid Ink layers; on a Liquid Ink layer, you can paint only with Liquid Ink brushes.
- You can't paint across grouped layers—you must collapse the group first.
- Before painting on a shape, you must commit it to a pixel-based layer. Corel Painter prompts you to commit a shape if you attempt to paint on it. Once committed, you cannot re-access the shape's vector controls.
- You can protect areas of a layer from painting by creating a selection. For more information,

refer to "Creating Selections" on page 204.

- You can control what parts of a layer are visible and hidden by creating a layer mask. For more information, refer to "Working with Layer Masks" on page 253.

To paint on a layer:

- 1 Select a layer.
- 2 On the Brush selector bar, choose a brush category and variant.
- 3 Paint on the layer in the document window.

The Preserve Transparency option affects what areas of a layer you can paint on. Refer to "Preserving Layer Transparency" on page 239 for more information.

Working with Floating Objects

You can make a selection on a layer using the Rectangular Selection, Oval Selection, Lasso, or Magic Wand tool. Selections on layers function in the same way as selections on the canvas—you can use them to

constrain brush strokes, to isolate an area of the layer for applying an effect, or to choose an area of the layer to cut or copy.

By default, when you move a selection, only the selection marquee moves, not the imagery. To move selected imagery on a layer, you must “float” the selection. In effect, this turns the selected area of the layer into a floating object. You can move floating objects around a layer to create new compositions.

Each layer in a document can have only one floating object at a time. You can drop a floating object to merge it with the layer. Many operations automatically drop (or merge) the floating object back to its parent layer.

When you save a document to RIFF format, Corel Painter preserves all floating objects. However, saving a document to a non-RIFF file format automatically drops floating objects onto their parent layers.

To create a floating object:

- 1 Make a selection on a layer using a selection tool.

- 2 Do one of the following:

- Click the selection with the Layer Adjuster tool .
- Choose **Select menu > Float**.

The floating object appears as an item below the parent layer on the Layers palette.

To reposition a floating object:

- 1 On the Layers palette, select the floating object.
- 2 Do one of the following:
 - In the document window, drag the floating object to the new location with the Layer Adjuster tool.
 - Press the arrow keys to move the floating object one pixel at a time.

To drop a floating object:

- 1 On the Layers palette, select the floating object.
- 2 Click the Layer Commands button , and choose Drop.

Adding Drop Shadows

Adding shadows to a layer’s content can enhance the appearance of an image. You can add a drop shadow to a single layer or to a group.

Drop shadows are also helpful for developing Image Hose nozzles. For more information, refer to “Preparing Images” on page 339.

When you add a drop shadow, Corel Painter creates a new layer for the shadow and groups it with the original. This enables you to select and modify the drop shadow layer independently from the original layer.

To add a drop shadow:

- 1 Select a layer (or group).
- 2 Choose **Effects menu > Objects > Create Drop Shadow**.
- 3 In the Drop Shadow dialog box, type values in the following boxes:
 - **X-Offset** and **Y-Offset**—the distance, in pixels, from the center of the layer image to the shadow.

- **Opacity**—the degree to which the shadow covers underlying imagery. Setting opacity to 100% obscures underlying imagery; lower values create a more transparent shadow.
- **Radius**—the amount of blur at the edge of the shadow. The radius is half the distance across the blurred region. If you set Radius to zero, you create a sharp-edged shadow.
- **Angle**—the direction of the blur.
- **Thinness**—the amount of blur applied perpendicular to the Angle. If a blur shows streaks, increase Thinness to soften it.

If you want to merge the drop shadow layer with the image layer, enable the Collapse to One Layer check box.

Creating Patterns on Layers

You can use the same pattern-making techniques on layers as you do on the canvas. However, a pattern’s wrap-around features do not apply to layers. This is because the canvas has edges,

but layers do not—they are unlimited in size. If you shift a pattern on a layer, the pattern does not wrap around.

Refer to “Using Patterns” on page 64 for more information.

Moving Layers

When a layer is selected, you can move its content anywhere in the document to create a new image layout.



Repositioning layer content helps you achieve the optimal image composition quickly and easily.

Think of a layer’s content as being contained by an invisible bounding box. This bounding box is a rectangle that marks the left, right, top, and bottom edges of the layer’s content. When you move or align a layer, you work with the dimensions and position of this bounding box, not the entire area of the layer. This allows you to easily position the contents of a layer in relation to the canvas.



This layer contains a brush stroke. The content area is defined by an invisible bounding box.

The layer indicators provide a visual representation of the bounding box. Refer to “Showing Layer Indicators” on page 234 for more information.

To move a layer:

- 1 On the Layers palette, select the layer (or group) you want to move.
- 2 Choose the Layer Adjuster tool from the toolbox.
- 3 In the document window, drag the selected layer.

To nudge a layer:

- 1 On the Layers palette, select the layer (or group) you want to move.
- 2 Press the arrow keys to move the selected layer one pixel at a time.

To move a layer to a specific location:

- 1 On the Layers palette, select a layer or group.
- 2 Do one of the following:
 - Click the palette menu arrow, and choose Layer Attributes.
 - For pixel-based layers and reference layers, double-click the item on the Layers palette, or select an item and press **Return** (Mac OS) or **Enter** (Windows).
- 3 In the Layer Attributes dialog box, type values in the following boxes:

- **Top**—distance in pixels from the top edge of the canvas to the top edge of the layer’s content. Increase to move the layer down, or decrease to move the layer up.
- **Left**—distance in pixels from the left edge of the canvas to the left edge of the layer’s content. Increase to move the layer to the right, or decrease to move the layer to the left.

Note

• *If you use negative values, or values larger than the canvas dimensions, the layer is placed partially or wholly outside the canvas.*

Aligning Layers

You can align layers horizontally or vertically.

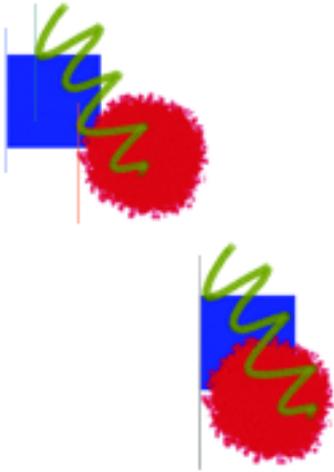
To align layers, the following steps are performed:

- Corel Painter calculates the “destination” point for the alignment procedure.

For example, if you align layers to the left, the destination is the left-most point of all selected layers. If you align horizontally to the center, the destination is the midpoint between the left-most edge and the right-most edge of the selected layers.

- Corel Painter aligns the corresponding edge of each selected layer’s bounding box to the destination point.

For example, if you align layers to the left, Corel Painter moves each layer so that the left edge of its bounding box lines up with the destination point. If you align horizontally to the center, Corel Painter moves each layer so that the horizontal midpoint of its bounding box lines up with the destination point.



The left edge of the square is the left-most point of all the layers (top). The layers are aligned horizontally to the left so that all the layers line up with the left-most point (bottom).

To align layers:

- 1 Select the layers (or groups) you want to align.
- 2 Choose **Effects menu > Objects > Align**.
- 3 In the Align Shapes dialog box, enable any of the following Horizontal options:
 - **Left** aligns the left edges of the layers' content.

- **Center** aligns the midpoints of the layers' content horizontally.
- **Right** aligns the right edges of the layers' content.
- **None** preserves the existing horizontal alignment.

4 Enable any of the following

Vertical options:

- **Top** aligns the top edges of the layers' content.
- **Middle** aligns the midpoints of the layers' content vertically.
- **Bottom** aligns the bottom edges of the layers' content.
- **None** preserves the existing vertical alignment.

Working with Reference Layers

Reference layers get their image content from an external source—either a pixel-based layer in the current document or a separate file. They provide a low resolution representation of the original image that you can quickly manipulate in ways that would otherwise take longer.

Working with a reference layer allows you to transform (resize, rotate, slant) a layer onscreen by dragging its handles. You can adjust various options. Transformations display in the document window immediately.

When you've finished applying transformations, commit the reference layer back to a standard layer. Corel Painter examines the source image to restore the original resolution.

You cannot edit the image data in a reference layer. If you try to paint on or apply effects to a reference layer, Corel Painter prompts you to commit it back to a pixel-based layer.

You can create a reference layer based on an existing layer or by placing an image. Refer to "Placing Files" on page 33 for more information about placing images.

To create a reference layer:

- 1 Select a layer.
- 2 Choose **Effects menu > Orientation > Free Transform**.
The layer's icon on the Layers palette changes and an eight-

handled box marks the boundary of the layer's contents in the document window.

To resize a reference layer:

- 1 Select a reference layer.
- 2 Do one of the following:
 - Drag a corner handle to resize the layer in two directions at once. If you want to maintain the layer proportions, hold down **Shift** as you drag. The pointer changes as you position it over a handle .
 - Drag a side handle to resize the layer in one direction only.

To rotate a reference layer:

- 1 Select a reference layer.
- 2 Hold down **Command** (Mac OS) or **Ctrl** (Windows), and drag a corner handle. The pointer changes as you position it over a corner handle .

To skew a reference layer:

- 1 Select a reference layer.

- 2 Hold down **Command** (Mac OS) or **Ctrl** (Windows), and drag a side handle. The pointer changes as you position it over a side handle .

To set reference layer options:

- 1 Select a reference layer.
- 2 Choose **Effects menu > Orientation > Set Transform**.
- 3 In the Set Transform dialog box, adjust any of the following settings:
 - **Retain Alpha**—works with placed images to retain the file's alpha channel. When the image is placed, the channel becomes the layer mask. Disable this option to discard the channel.
 - **Horizontal** and **Vertical**—the scaling relationship between the reference layer and the source layer. If the scaling is low, 33% for example, and you increase it, Corel Painter refers to the source layer to get more pixel data.

- **Constrain Aspect Ratio**—maintains the proportions of the image. Disable this option to distort the image proportions.
- **Rotation** and **Slant**—rotate or slant the layer based on an original position of 0°. Enter positive values to rotate/slant the layer counter-clockwise; enter negative values to rotate/slant the layer clockwise.
- **Fast**—sets a high sampling ratio to produce a low resolution reference layer. A low resolution reference layer contains less information, so it can be transformed quickly.
- **Clean**—sets the sampling ratio at 1 to 1 to produce a reference layer of the highest possible resolution—up to that of the source. This shows a better image as you work, but takes much longer to calculate transformations.

Notes

- *The Quality setting (Fast or Clean) applies only to the quality of the reference layer. When you convert a reference layer to a pixel-based layer, Corel Painter resamples the original image to produce the best possible resolution.*

- *Reference Image shows the pixel dimensions of the original image. This is static information—you can't change the Reference Image values.*

To commit a reference layer:

- 1 Select a reference layer.
- 2 Choose **Effects menu > Orientation > Commit Transform.**

The conversion process might take a few seconds, depending on the size and quality of the layer.

Changing Layer Characteristics

Setting Layer Opacity

You can adjust a layer's opacity to create different levels of transparency. The opacity slider covers a range of 0% (completely transparent) to 100% (completely opaque).

To change a layer's opacity:

- 1 Select the layer you want to change.
- 2 On the Layers palette, do one of the following:
 - Move the Opacity slider.
 - Type a percentage in the Opacity box and press **Return** (Mac OS) or **Enter** (Windows).



The top example shows the background layers at 100% opacity. The bottom example shows them at 50% opacity.

Blending Layers Using Composite Methods

A layer's composite method controls how it interacts with the underlying image. You can change composite methods to create special effects without changing the actual images that make up a document.

Corel Painter provides two types of composite settings:

- **Composite Method** sets the standard composite method.
- **Composite Depth** controls how a layer's image data interacts with depth information on the canvas and other layers.

For example, if the canvas contains Impasto brush strokes, the Composite Depth setting determines what happens when these brush strokes intersect with brush strokes on the layer.

Refer to “Blending Impasto with Other Layers” on page 139 for more information about Composite Depth options.

You can set a different composite method for every layer in a document. Keep in mind the role of the underlying image in creating an effect—you might achieve an unexpected result if the underlying image is solid black or white.

The best way to understand the different composite methods is by seeing them in action. Quickly cycle

through a layer's composite methods to create new and interesting versions of your image.

The available composite methods are:

Default



In the Default method, the layer covers (hides) the underlying image.

Gel



The Gel method tints the underlying image with the layer's color. For example, a yellow layer gives the underlying image a yellow cast.

Corel Painter automatically sets a layer's composite method to Gel if you paint on it with a brush that uses the Buildup method.

Colorize



The Colorize method replaces the hue and saturation of the canvas pixels with the hue and saturation of the layer pixels.

You can use this feature to convert a color image to grayscale, or a grayscale image to color. A black layer turns the underlying color image into a

grayscale image. A colored layer adds color to an underlying grayscale image.

Reverse-Out



In the Reverse-Out method, the layer inverts the colors beneath it. Reverse-Out is a great way to remove text. Place a layer over black text to turn it white.

A color's inverse, also known as its complementary color, is the color on the opposite side of the color wheel.

With Reverse-Out, the colors in the layer are ignored; the layer content becomes transparent and reveals the inverse of the colors beneath it.

Shadow Map



Shadow Map blocks light, letting you create shadows without changing the image.

Magic Combine



In the Magic Combine method, the layer is combined with the underlying image based on luminance. The parts of the layer that are lighter than the underlying image are visible. The

parts that are darker are replaced by the lighter area of the underlying image.

One way to use this method is to fill text. With a photograph as the top layer and black text as the underlying image, choosing Magic Combine fills the text with the image.

Pseudocolor



The Pseudocolor method translates the layer's luminance into hue. You can use this method to turn a grayscale layer into a spectrum of color.

Normal



The Normal method works like the Default method; the layer covers the underlying image. The Normal method is the default mode in Photoshop.

Dissolve



Dissolve combines the image color with the layer color based on opacity.

Multiply



Multiply combines colors to create a darker color.

Screen



Screen combines colors to create a lighter color.

Overlay



Overlay combines colors while preserving the highlights and shadows of the image color.

Soft Light



Soft Light darkens or lightens colors depending on the luminance of the layer color.

Hard Light



Hard Light multiplies or screens colors, depending on the luminance of the layer color.

Lighten



Lighten takes the lighter of the image or layer color and uses that color.

Hue



Hue creates a color by combining the luminance and saturation of the image color with the hue of the layer color.

Darken



Darken takes the darker of the image and the layer color and uses that color.

Difference



Difference subtracts one color from the other, depending on which color has a greater brightness value.

Saturation



Saturation creates a color by combining the luminance and hue of the image color with the saturation of the layer color.

Color



Color creates a new color by combining the luminance of the image color with the hue and saturation of the layer color.

Luminosity



Luminosity creates a new color from the hue and saturation of the image color and the luminance of the layer color. This is the opposite of Color.

GelCover

The GelCover method uses a combination of the Default method and the Gel method. The edges of the layer's content tint the underlying image with their color (the Gel method). The rest of the layer covers the underlying image (Default method).

To change a layer's composite method:

- 1 Select a layer.
- 2 On the Layers palette, choose a composite method from the Composite Method pop-up menu.

Other Layer Options

The Layer Attributes dialog box contains options for setting different layer attributes. You can change a layer's name, adjust its position, specify image map information, and record notes.

“Naming Layers” on page 232 gives instructions for how to change a layer's name.

“Moving Layers” on page 242 gives instructions for moving a layer to a specific location.

An image map is a Web feature that lets you assign a URL to a layer. When the file is saved to JPEG or GIF format, the user can link to the URL by clicking the image-mapped region of the file.

For more information about creating image maps, refer to “Client-Side Image Mapping” on page 404.

To record notes for a layer:

- 1 Select a layer (or group).
- 2 Do one of the following:
 - Click the palette menu arrow on the Layers palette, and choose Layer Attributes.
 - For pixel-based layers and reference layers, double-click the item on the Layers palette, or select an item and press **Return** (Mac OS) or **Enter** (Windows).
 - Choose **Layers menu > Layer Attributes**.
- 3 Type in the Note box.

Note

• *You cannot record notes for a layer if you enable the WWW Map Clickable Region check box for image mapping.*

Using the Image Portfolio

The Image Portfolio is a convenient place to store images you want to use again.

To display the Image Portfolio palette:

- Choose **Window menu > Show Image Portfolio**.

If the Image Portfolio palette is not expanded, click the palette arrow.

To add an item to the Image Portfolio:

- 1 Select a layer.
- 2 Do one of the following:
 - To cut the layer from the current document, drag it to the Image Portfolio palette using the Layer Adjuster tool .

- To copy the layer, hold down **Option** (Mac OS) or **Alt** (Windows), and drag it to the Image Portfolio palette using the Layer Adjuster tool.

- 3 In the Save Image dialog box, type a name in the Save As box.

Note

• *The Image Portfolio holds only pixel-based layers. If you want to add a shape, Water Color, Liquid Ink, or dynamic layer to the Image Portfolio, you must first convert it to a default layer.*

To use an image from the Image Portfolio:

- Drag an item from the Image Portfolio palette to the document window.



Corel Painter places the image portfolio item in a new layer.

Using Image Portfolio Libraries

You can create your own Image Portfolio libraries to organize layers by category. When you're creating a library, keep in mind that the smaller the library, the easier it will be to see its contents at a glance.

The Image Mover command on the Image Portfolio palette menu lets you move items between Image Portfolio libraries.

For more information about moving items between libraries, refer to “Libraries and Movers” on page 25.

Working with Layer Masks

You can create a layer mask to define what areas of a layer are visible in the document window.

Masking originated as a technique for creating color separations, where sheets of masking material were hand-cut to define the color regions in an image. In the Corel Painter digital workspace, the layer mask is a powerful tool for controlling image composition and effects.

Layer Masks vs. Channels

A layer mask is similar to an alpha channel. Both are grayscale images that you can create and edit. Although the Channels palette provides access to both channels and layer masks, their characteristics and functions are different:

- The canvas can have up to 32 alpha channels; each layer can have at most one layer mask.
- Channels don't influence the visibility of the canvas image; a

layer mask defines what areas of a layer's image are visible.

- An alpha channel, when loaded, protects designated areas of an image; a layer mask does not provide protection.
- A channel is enabled by loading it to a selection; a layer mask can be enabled and disabled at any time.

For more information about channels, refer to “Understanding Alpha Channels” on page 217.

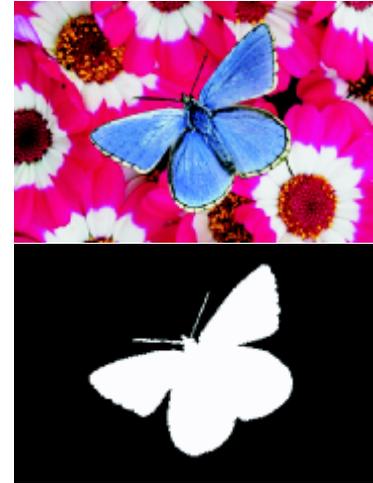
Creating Layer Masks

A layer mask is a grayscale image. Where the mask is white, the layer content is visible; where the mask is black, the layer is transparent, revealing the imagery below it. Intermediate levels of gray are partially transparent.

You can create a new, blank layer mask, or you can create a layer mask based on the layer's transparency. A layer mask based on transparency is white wherever the layer has content, and black in other areas. For more

information about layer transparency, refer to “Preserving Layer Transparency” on page 239.

You can also copy a channel to a layer mask.



A layer mask for the butterfly layer is created based on its transparency. Black areas are transparent; white areas reveal the image.

To create a new, blank layer mask:

- 1 Select a layer.
- 2 Do one of the following:

- On the Layers palette, click the Create Layer Mask button .
- Choose **Layers menu > Create Layer Mask**.

The layer mask icon  displays next to the layer name on the Layers palette.

To create a layer mask based on transparency:

- 1 Select a layer.
- 2 Choose **Layers menu > Create Layer Mask from Transparency**.

The layer mask icon  displays next to the layer name on the Layers palette.

Notes

- *You can create layer masks based on transparency for pixel-based layers only. Other layers must first be converted to default layers.*
- *Earlier versions of Corel Painter used layer visibility masks. If you have a file with a modified visibility mask that was created with an earlier version of Corel Painter, use this procedure to load the visibility mask to a layer mask.*

To copy a channel to a layer mask:

- 1 Align the layer with the portion of the channel you want.
- 2 Select the layer on the Layers palette.
- 3 Click the Create Layer Mask button.
A blank layer mask is created.
- 4 On the Channels palette, select the channel you want to copy.
- 5 Click the palette menu arrow, and choose Duplicate.

- 6 In the Duplicate Channel dialog box, choose the layer mask from the Destination pop-up menu.
Corel Painter copies to the layer mask the portion of the channel that coincides with the layer content.

Selecting and Viewing Layer Masks

Before you work with a layer mask, you must select it. You can also view a layer mask as a grayscale image. Selecting a layer mask and viewing it are distinct operations—you can select a layer mask without viewing it.

To select a layer mask:

- 1 On the Layers palette, choose a layer that has a layer mask.
The layer mask is displayed on the Channels palette.
- 2 Do one of the following:
 - On the Channels palette, click the layer mask.
 - On the Layers palette, click the layer mask icon  next to the layer name.

To view a layer mask:

- 1 Select a layer with a layer mask.
- 2 On the Channels palette, click the layer mask.
In this mode, the RGB image is hidden.

To hide a layer mask:

- Click the eye icon next to the layer mask item to close the eye.

Managing Layer Masks

You can copy a layer mask to an alpha channel.

If you've finished working with a layer mask, you can delete it. You can also clear a layer mask without deleting it, leaving you with a blank mask.

The layer mask is a grayscale image. By inverting it, you can make dark pixels light, and light pixels dark.

You can disable a layer mask, which lets you view the entire layer. The layer mask can be re-enabled at any time.

If you like the result of a layer mask, you can apply it. This permanently removes the hidden parts of the layer and deletes the layer mask.

Although a layer mask does not protect areas of a layer from being edited, you can load a layer mask to a selection. The selection provides protection to the hidden parts of the layer. For more information about selections, refer to "Working with Selections" on page 201.

The name of a layer mask on the Channels palette reflects the name of the layer (*Layer Name Layer Mask*).

Although you cannot change the name of a layer mask, it automatically updates if you change the layer name.

When you move a layer, Corel Painter also moves the layer mask to maintain the pixel correspondence.

To copy a layer mask to a channel:

- 1 Select a layer mask.
- 2 On the Channels palette, click the palette menu arrow, and choose Duplicate.
- 3 In the Duplicate Channel dialog box, choose New from the Destination pop-up menu.

Tip

- *You can also copy to an existing channel, which replaces that channel. To do this, choose the channel to be replaced from the Destination pop-up menu.*

To delete a layer mask:

- 1 Select a layer mask.
- 2 Do one of the following:
 - On the Channels palette, click the palette menu arrow, and choose Delete.

- Click the Delete button  at the bottom of the Channels palette.
- Choose **Layers menu > Delete Layer Mask**.

To clear a layer mask:

- 1 Select a layer mask.
- 2 On the Channels palette, click the palette menu arrow and choose Clear.

To invert a layer mask:

- 1 Select a layer mask.
- 2 On the Channels palette, click the palette menu arrow and choose Invert.

To disable a layer mask:

- 1 Select a layer mask.
- 2 Choose **Layers menu > Disable Layer Mask**.

A red 'X' is displayed over the layer mask icon.

To enable a layer mask:

- 1 Select a layer mask.

- 2 Choose **Layers menu > Enable Layer ask**.

To apply a layer mask:

- 1 Select a layer mask.
- 2 Choose **Layers menu > Apply Layer Mask**.

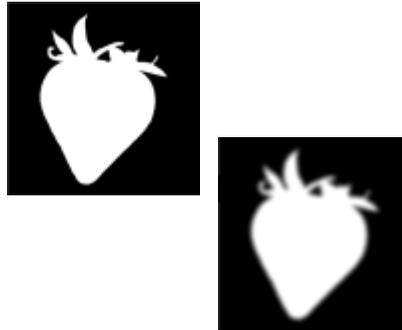
To load a layer mask to a selection:

- 1 On the Layers palette, select a layer that has a layer mask.
- 2 **Control**+click the layer mask icon (Mac OS) or right-click the layer mask icon (Windows), and choose **Load Layer Mask to Selection**.

Editing Layer Masks

When you select a layer mask, you can edit it as you do a channel. You can paint in a layer mask; apply effects to it; fill it with a color, pattern, gradient, or weave; and feather it. You do not have to view a layer mask to edit it; you can select the layer mask, make changes to it, and view the resulting image immediately.

For information about editing layer masks, refer to “Editing Channels” on page 223.



A layer mask before and after feathering

When you edit a layer mask, you are making modifications to the mask, and not to the layer’s image. You can use shades of gray only; no colors are available. This is because the layer mask is a grayscale image, separate from the RGB image.

The paint and effects you apply to a layer mask are reflected as follows:

- Applying black adds to the mask, which conceals more of the layer.
- Applying an intermediate gray value makes the mask semi-transparent.
- Applying white removes from the mask, which reveals more of the layer.

15 Using Image Effects



The Corel Painter image effects let you do everything from correcting colors to retouching images to creating a completely new image from a source.

The effects range from practical tools, like the orientation, tonal control and focus effects, to artistic expressions, like embossing, color overlay, Van Gogh, and posterize.

Traditional artistic methods inspire many of the Corel Painter effects.

In some cases, effects involve using other Corel Painter features such as clones, special brushes, or layers. You'll find most of the information you'll need to use an effect contained in this chapter. However, where you need more detailed information about a specific Corel Painter feature, a cross-reference is provided.

Basics of Applying Effects

You apply most of the Corel Painter effects in the same manner:

- Select where to apply the effect.
- Choose a specific effect.
- Set effect options and click OK to apply it to your image.

Each effect can have several options and parameters that might require you to use other features such as selections, layers, colors, paper textures, and gradients.

In addition to working with other palettes, you can get the most out of the effects if you understand more about application methods and the Fade feature.

Selecting Where to Apply Effects

You can apply special effects to a selection, a layer, or the entire image.

- If there is no selection, the effect is applied to the entire image.
- If you want to apply an effect to a region of the Canvas, select that area before choosing an effect command. You can use any of the selection tools, including the Rectangular Selection tool, the Oval Selection tool, the Lasso, and the Magic Wand. For more information about these tools, refer to “Creating Selections” on page 204.
- If you want to apply an effect to a layer, select that layer before choosing an effect. Corel Painter applies the effect to the entire layer. For more information about selecting a layer, refer to “Selecting Layers” on page 233.
- If you apply an effect to a shape, dynamic layer, or reference layer,

you must first commit the layer to an image layer.

Effects and Open Palettes

You can change settings such as colors, papers, patterns, and gradients while you experiment with an effect. To do this, you need to display all required palettes before choosing an effect. For example, the Color Overlay effect combines the selected paper texture and primary color to define the overlay. If the Papers and Color palettes are open when you choose the effect, you can change paper grains and colors to create different overlays before applying the effect to your image. Any changes in the paper or color appear in the preview window in the Color Overlay dialog box. You can move effects dialog boxes around on your screen, if necessary, for full access to other palettes.

Using Fade with Effects

The Fade command lets you undo a percentage of the last effect applied to the image. You can use this feature to control the intensity of an effect.



Use the Fade dialog to undo a percentage of your last effect.

To experiment with fade:

- 1 Open a new document.
- 2 Paint a colorful image or fill it with a pattern.
- 3 Choose an effect, adjust the settings, and click OK to apply the effect.
- 4 Choose **Edit menu > Fade**.

- 5 In the Fade dialog box, drag the slider.
The image in the preview window changes.
- 6 When you are satisfied with the settings, click OK to apply the effect.
If you change your mind, choose **Edit menu > Undo**.

Recently Used Effects Commands

At the top of the Effects menu, Corel Painter displays the last two effects you applied. This lets you quickly re-apply frequently used effects.

Tip

- *You can also use keyboard shortcuts to apply the last two effects. Re-apply the last effect by pressing **Command+I** (Mac OS) or **Ctrl+I** (Windows). Re-apply the second-last effect by pressing **Command+J** (Mac OS) or **Ctrl+J** (Windows).*

About the Using Menu

Many of the Corel Painter effects dialog boxes have a Using pop-up menu that lets you specify a source, or method. The source determines how an effect is applied to different areas of an image; a larger degree of change is applied to light areas of the source, and a smaller degree of change is applied to dark areas. For example, when you use the Paper method, the effect is applied based on the light and dark areas of the selected paper texture.

The choices in the Using pop-up menu vary between effects. They include:

- Uniform Color
- Paper
- Image Luminance
- Original Luminance (clone source)
- 3D Brush Strokes
- Alpha channel or Layer mask

This option is available only if your document has a channel or a layer with a layer mask.

The sections explaining the different effects describe these options.

In most cases, you can see the results of choosing different options in the Preview window of an effect's dialog. The best way to see how these options affect your images is to try them.

Third-party Plug-ins

You can obtain additional effects by using third-party plug-ins. Usually, these are purchased separately. You can access third-party plug-ins from within Corel Painter using the Effects menu.

For information on locating your plug-ins for Corel Painter, refer to "Using Plug-ins" on page 55. For information about installing third-party effects plug-ins, refer to "To install an effects, acquire, or export plug-in:" on page 56.

To use third-party plug-ins from within Corel Painter:

- 1 Select all or part of your image.

- 2 Choose **Effects menu > Other > Plug-in Filter** and choose the effect you want.

All third-party plug-ins are located in submenus.

Note

- *Plug-ins that pertain to grayscale or CMYK images are not supported.*

Acquire/Export Plug-ins

You can use the Acquire or Export commands in the File menu to transfer images to and from supported devices, such as scanners, film recorders, and color printers.

Orientation Effects

You can change the orientation of part or all of your image by rotating, scaling to a larger or smaller size, or flipping horizontally or vertically. Images can also be distorted.

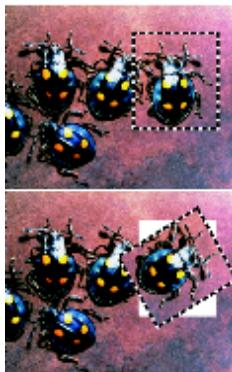
Corel Painter applies orientation effects to layers only. Therefore, when you rotate, scale, flip, or distort an image or selection, Corel Painter first converts it to a layer. The image or

selection remains a layer until you merge it with the canvas. For more information, refer to “Merging Layers with the Canvas” on page 238.

Rotating Images

The Rotate effect lets you rotate all or part of an image.

Sometimes the rotated layer does not fit within the canvas area. You can change the canvas size so you can see the entire rotated image. For more information, refer to “Resizing the Canvas” on page 39.



You can rotate part of an image.

To rotate an image:

- 1 Select a layer or area of the canvas.
If you want to rotate the entire image, select nothing.
- 2 Choose **Effects menu > Orientation > Rotate**.
- 3 Do one of the following:
 - In the document window, drag a corner handle of the selection. The Rotate Selection dialog box displays the rotated angle in degrees.
 - In the Rotate Selection dialog box, specify the rotation angle in degrees. A positive number rotates counterclockwise; a negative number rotates clockwise.
- 4 Click OK to apply the effect.

Scaling Images

The Scale command lets you change the dimensions of part or all of an image.

To scale an image:

- 1 Select a layer or area of the canvas.

If you want to scale the entire image, select nothing.

- 2 Choose **Effects menu > Orientation > Scale**.
- 3 Do one of the following:
 - In the document window, drag a handle of the selection. The Scale Selection dialog box displays the horizontal and vertical scale percentages.
 - In the Scale Selection dialog box, specify the horizontal and vertical scale percentages.
- 4 Enable any of the following options:
 - **Constrain Aspect Ratio**—maintains the selection's proportions. Disabling this option lets you change horizontal and vertical measurements independently.
 - **Preserve Center**—enable this option to keep the image or selection anchored in its location, based on the center of the image.
- 5 Click OK to apply the effect.

Flipping Images

You can flip all or part of an image horizontally (from left to right) or vertically (from top to bottom).

To flip an image horizontally:

- 1 Select a layer or area of the canvas.
If you want to flip the entire image, select nothing.
- 2 Choose **Effects menu > Orientation > Flip Horizontal**.



Original image



Image flipped horizontally

To flip an image vertically:

- 1 Select a layer or area of the canvas.
If you want to flip the entire image, select nothing.
- 2 Choose **Effects menu > Orientation > Flip Vertical**.



Image flipped vertically

Distorting Images

You can distort all or part of an image.



Original image and part of the image distorted.

To distort an image:

- 1 Select a layer or area of the canvas.
If you want to distort the entire image, select nothing.
- 2 Choose **Effects menu > Orientation > Distort**.
- 3 In the document window, drag any of the selection handles to reshape the selection.
- 4 If you want to see a more accurate, but slower, rendering of your changes, enable Better (Slower) in the Distort Selection dialog box.
Enabling this option is particularly useful in highly distorted images.
- 5 Click OK to apply the effect.

Free Transforming Images

The Free Transform, Set Transform, and Commit Transform commands work only with reference layers. Refer to “Working with Reference Layers” on page 244 for more on these commands.

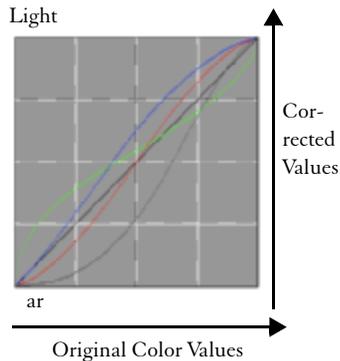
Correct Colors

Color correction lets you make adjustments in the relative amounts of the color components in an image. Color correction is often used to improve a color-casted or washed-out scan. You can also use it to create surreal color effects.

If a layer is selected, color correction is applied only to the layer. If no layer is selected, the entire image is color corrected.

Color correction is based on adjusting gamma response curves. You can adjust the gamma curves for red, green, blue, or all three color components. The gray Master curve controls all color components equally.

The curves describe how the input color values are adjusted to create the output (corrected) color values.



A gamma curve.

The horizontal axis describes the input values (original color values). The vertical axis describes the output values (corrected values).

Before you adjust a curve, it appears perfectly diagonal (45°), which indicates that all input and output values are equal.

Corel Painter maps light values at the top of the graph and darker values at the bottom.

When editing RGB curves, the current color is indicated by a colored point on the curve.



Use the Color Correction dialog to correct colors.

The Color Correction dialog provides access to four correction methods that control how you adjust a gamma curve:

- Contrast and Brightness
- Curve
- Freehand
- Advanced

You can use a single method or a combination of methods to adjust the image.

Correcting Colors Using Contrast and Brightness

This method lets you adjust the contrast or brightness of colors, while maintaining the tonal transitions in the original image.

You'll notice that as you adjust the Contrast or Brightness sliders, the end points of the curves remain fixed. That's because the effect maintains the levels from the original image. You'll always have 256 distinct levels, regardless of how much you adjust the sliders.

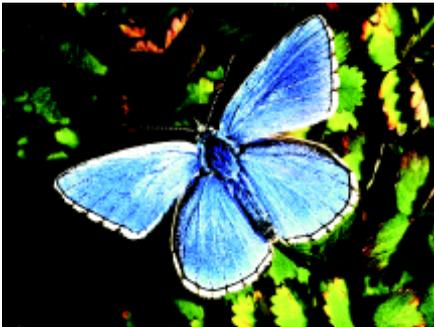
Contrast adjusts the difference between light and dark values. As you increase Contrast, the curve takes on an "S" shape, indicating that light colors are becoming lighter and dark colors darker.



Original image



Color correction using Brightness.



Color correction using Contrast.

Brightness moves all values on a curve to a brighter tone or darker tone.

To correct colors using contrast and brightness:

- 1 Choose **Effects menu > Tonal Control > Correct Colors**.
- 2 In the Color Correction dialog box, choose **Contrast and Brightness** from the pop-up menu.
- 3 For each color you want to adjust, click the color icon and adjust the **Contrast and Brightness** sliders.



Color icons in the Color Correction dialog box.

Tip

- *Click the gray Master icon to adjust all color curves at once.*

Correcting Colors Using Curve

The Curve method lets you drag the color curves to reshape them. This lets you to create very specific changes in color values.



Color correction using the Curve method.

You can control the overall effect of your changes using the Effect slider. The slider controls how much of the curve moves in response to your dragging. When the slider is all the way to the right, the entire curve moves. As the value is reduced, a smaller portion of the curve moves.

To correct colors by reshaping curves:

- 1 Choose **Effects menu > Tonal Control > Correct Colors**.
- 2 In the Color Correction dialog box, choose Curve from the pop-up menu.
- 3 For each color you want to adjust, do the following:
 - Click the color icon for the curve you want to reshape.
 - Adjust the position of the Effect slider to set the intensity of your changes.
 - Move the pointer over the curve and, when the pointer changes to a pointing hand, drag the curve.

Tip

- *If you want to reshape all color curves at once, click the gray Master icon.*

Equalizing Images using Curve

Equalizing an image involves increasing the contrast by resetting the darkest and lightest points and then evenly distributing the values across those two points.

To automatically set black and white points:

- Click the Auto Set button in the Color Correction dialog.

To manually set black or white points:

- 1 Choose the Dropper tool  from the toolbox.
- 2 In the document window, click the color you want to assign as the darkest or lightest point.
- 3 Choose **Effects menu > Tonal Control > Correct Colors**.
- 4 In the Color Correction dialog box, choose Curve from the pop-up menu.
- 5 Click one of the following:

- **Black Point**—Corel Painter assigns all colors equal to or darker than the current primary color to black.
- **White Point**—Corel Painter assigns all colors equal to or lighter than the current primary color to white.

Correcting Colors Using Freehand

Freehand lets you draw the curve as you want it. This method is particularly useful when you want posterized or solarized effects.



Color correction using the Freehand method.

To correct colors using the Freehand method:

- 1 Choose **Effects menu > Tonal Control > Correct Colors**.
- 2 In the Color Correction dialog box, choose Freehand from the pop-up menu.
- 3 For each color you want to adjust, do the following:
 - Click the color icon.
 - Move the pointer over the graph and, when the pointer changes to a pencil, drag to draw a new curve.

Tip

- *If you want to redraw all color curves at once, click the gray Master icon.*

Correcting Colors Using Advanced

The Advanced method allows you to set the red, green, and blue curves numerically at five points: Highlight, 1/4 Tone, Midtone, 3/4 Tone, and Shadow. These points coincide with the vertical grid lines.



Color correction using the Advanced method.

To correct colors using the Advanced method:

- 1 Choose **Effects menu > Tonal Control > Correct Colors**.
- 2 In the Color Correction dialog box, choose Advanced from the pop-up menu.
- 3 For each color you want to adjust, do one of the following:
 - Click the color icon and drag the corresponding curve.
 - Enter values in the boxes.



Color icons in the Color Correction dialog box.

Other Tonal Control Effects

The Tonal Control commands in the Effects menu let you adjust or alter colors in an image.

Adjust Colors

The Adjust Colors effect lets you control the hue, saturation, and value of an image in much the same way as you would adjust your television.



Use the Adjust Color dialog to change the hue, saturation, and value of an image.

To adjust colors:

- 1 Select a layer or area of the canvas.
If you want to adjust colors in the entire image, select nothing.
- 2 Choose **Effects menu > Tonal Control > Adjust Colors**.
- 3 In the Adjust Color dialog box, choose one of the following

methods from the Using pop-up menu:

- Uniform Color adjusts all pixels equally.
- Paper uses the selected paper grain to control the color adjustment.
- Image Luminance uses the luminance of the image as the model for color adjustment. Areas of greater luminance are adjusted more.
- Original Luminance uses the luminance of the clone source as the model for adjustment. If you have not set up a clone source, the current pattern is used.
- [Alpha channel] or [Layer mask] uses the selected alpha channel or layer mask as the model for controlling color adjustment. For example, a black-to-white gradation in the channel or mask will allow you to adjust the color progressively across the image. Where the channel or mask is black, colors are not changed. Where the channel or mask is white, the

adjustment applies fully. Transitional areas receive proportional color adjustments.

- 4 Adjust the sliders to control the overall hue, saturation, and value levels in the selection.
 - Hue Shift adjusts the colors of the pixels by changing their hue. Moving the slider to the right shifts the hue counter-clockwise on the color ring.
 - Saturation adjusts the amount of pure hue in the color. Moving the slider all the way to the left creates a grayscale image.
 - Value adjusts color brightness. Moving the slider to the left darkens colors.

You can see changes in the Preview window. You can drag in the Preview window to see different areas of the image.

If you want to return the image or selection to the way it was, click Reset. This resets all of the sliders.

- 5 When you are satisfied with the settings, click OK to apply the effect.

Note

- *With all methods other than Uniform Color, pixels assigned higher luminance receive a greater color adjustment.*

Adjust Selected Colors

Adjust Selected Colors is similar to the Adjust Colors effect, but it works only on a specified range of colors within an image. You choose a color in an image and adjust colors within a range of that color. You could, for example, turn yellow peppers to red peppers.

You can adjust colors that are exactly the same as the color you select, or you can choose colors within a range, based on proximity (on the color wheel or color space) to the selected color.



Selective color adjustments change only certain colors in the image.

The Extents sliders determine the extent of the HSV color space around the selected center color:

- H Extents controls the number of hues adjusted. Only hues within the specified percentage of hues on the color wheel are adjusted.
- S Extents controls the range of saturation adjusted. Only saturations within this range are adjusted.
- V Extents controls the range of values adjusted.

By combining these three settings, you can set up a very specific range of colors to adjust. For example, you can limit changes to a very specific shade of red.

Feather affects the softness at the edge of the selected colors. These sliders can help you create smoother transitions between the replaced color and the original.



A replaced color with and without feathering.

The choice of methods is the same as for Adjust Colors. For more information, refer to “To adjust colors:” on page 267.

To adjust a selected color:

- 1 Choose **Effects menu > Tonal Control > Adjust Selected Colors**.

The Adjust Selected Colors dialog appears.

- 2 Move your cursor over the original image in the image window (your cursor becomes a dropper), and click the color you want to adjust.

The Colors palette displays the selected color as the primary color.

- 3 Choose a method from the Using pop-up menu to determine what Corel Painter will use as the source for the color adjustment.

- 4 Adjust the Extents and Feather sliders to select a range of colors to adjust.

Move the Extents sliders to the right to increase the amount of color space affected by the effect.

- 5 Adjust the bottom three sliders to control the overall hue, saturation, and value levels.

You can see changes in the Preview window. You can drag in the Preview window to see different areas of the image.

If you want to reset the sliders to the default settings, click Reset.

- 6 When you are satisfied with the settings, click OK to apply the effect.

Brightness/Contrast

The Brightness/Contrast dialog adjusts the brightness and contrast of the overall image in RGB.



Before and after Brightness/Contrast.

You can also adjust brightness and contrast as a function of dye densities by adjusting the dye concentration. Refer to “Dye Concentration” on page 286 for more information.

To adjust RGB brightness and contrast:

- 1 Select a layer or area of the canvas.

If you want to apply the effect to the entire image, make sure there are no selections.

- 2 Choose **Effects menu > Tonal Control > Brightness/Contrast**.

The Brightness/Contrast dialog appears.

- 3 Drag the upper slider to adjust image contrast. Drag the lower slider to adjust image brightness.

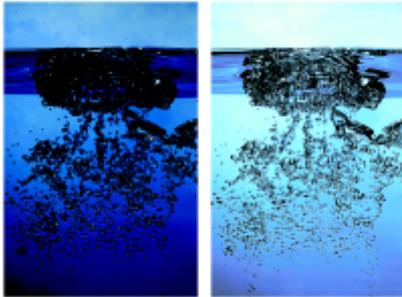
The image is adjusted when you release the mouse or stylus.

If you want to reset the sliders to the default settings, click Reset.

- 4 Click Apply.

Equalize

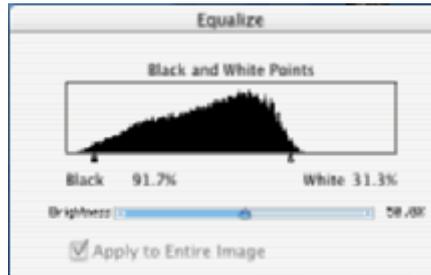
The Equalize effect improves contrast, adjusting black and white points and distributing the brightness levels throughout the entire range of available levels.



Before and after Equalize.

Corel Painter lets you equalize an image by creating a histogram showing the number of pixels for each brightness level value and then allowing you to adjust those values.

Equalize also allows gamma adjustment, which lightens or darkens an image without changing highlights or shadows.



The histogram is represented by the silhouette. Each peak shows the number of pixels for a brightness level. You can adjust white and black points by dragging the triangles.

To equalize colors:

- 1 Select a layer or area of the canvas. If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Tonal Control > Equalize**. Corel Painter automatically adjusts the image or selection so that the lightest color is white and the darkest color is black.
- 3 In the Equalize dialog box, adjust contrast by dragging the black and white markers under the histogram.

Any values in the image located to the right of the white marker become white; any values to the left of the black marker become black.

- 4 Adjust the gamma by doing one of the following:
 - Move the Brightness slider to the right to increase gamma, making the image darker.
 - Move the Brightness slider to the left to decrease gamma, making the image lighter.

Changing the gamma adjusts only the midtones of an image and leaves the black and white areas untouched.

- 5 Click OK to apply changes.

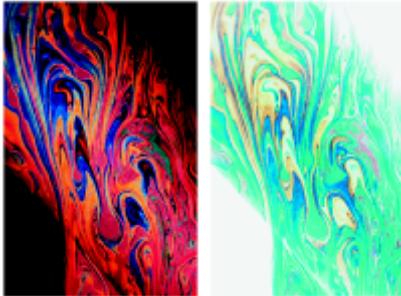
A preview of the changes is applied to the original image, but is not final until you click OK. If you want to revert to the original image, click Cancel.

Tip

- *If you made a selection and you want to equalize the entire image, enable **Apply to Entire Image** in the Equalize dialog box.*

Negative

The Negative effect inverts all the colors in your image or in the selected layer.



Positive and negative versions of an image.

To invert colors:

- 1 Select a layer or area of the canvas.
If you want to invert the entire image, select nothing.
- 2 Choose **Effects menu > Tonal Control > Negative**.

Posterize

Posterizing reduces the number of color levels an image contains.

To posterize an image:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Select **Effects menu > Tonal Control > Posterize**.
- 3 In the Posterize dialog box, specify a number of levels.
The fewer levels, the more dramatic the effect.
- 4 When you are satisfied with the settings, click OK to apply the effect.

Tips

- *To posterize an image combined with a paper grain, refer to “Apply Screen” on page 284.*
- *To posterize to two levels and also adjust the brightness, refer to “Equalize” on page 270.*

Video Legal Colors

The Video Legal Colors effect makes the colors in an image compatible with video. Colors that aren't possible in video are converted to video legal colors.

Only bright yellows and cyans are not video legal. Corel Painter supports both the National Television Standards Committee (NTSC) for the U.S. and Phase Alternation by Line (PAL) for European video systems.

To apply video legal colors:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, select nothing.
- 2 Choose **Effects menu > Tonal Control > Video Legal Colors**.
- 3 In the Video Legal Colors dialog box, choose NTSC or PAL from the System pop-up menu.

Posterize Using Color Set

Corel Painter can posterize your image based on a color set. This allows you to create an image with

only a specified set of colors in it. This is useful for multimedia work, as well as applications like silkscreening.

This effect can also be used to reduce colors in an image so that it appears correctly on the Web. For more information, refer to “Working with Posterize Using Color Set” on page 409.

To posterize an image using a color set:

- 1 Select a layer or area of the canvas. If you want to apply the effect to the entire image, select nothing.
- 2 Open or create a color set. For instructions on creating a color set, refer to “Using Color Sets” on page 83.
- 3 Choose **Effects menu > Tonal Control > Posterize Using Color Set**.

The image is reduced to the colors in the current color set.

Apply Lighting

The Apply Lighting effect lets you shine one or more light sources on an image.

Apply Lighting is like hanging your artwork in a gallery and adjusting colored spotlights to illuminate it.



Before and after Apply Lighting.

You can choose different lighting effects from the Corel Painter library, or you can create your own effects by defining brightness, distance, color, and other characteristics.

Once you’ve produced a lighting effect you like, you can save it in a library for use with other images.

Your computer must have a math coprocessor to use the Apply Lighting effect.

Applying Preset Lighting Effects

The Lighting library contains several preset lighting environments. You can use these directly or as a starting point for customized lighting.

To apply preset lighting effects:

- 1 Select a layer or area of the canvas. If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Surface Control > Apply Lighting**.
- 3 In the Apply Lighting dialog box, click a preset thumbnail. The lighting effect is displayed in the preview window.
- 4 When you are satisfied with the settings, click OK to apply the effect.

Creating Custom Lighting

You can use the controls in the Apply Lighting dialog to add, delete, and position light sources. You can also set light properties to create unique lighting effects.

The Preview window shows the current position of each light source and the angle of its projection.

The four steps to create custom lighting are:

- Adding or deleting light sources
- Positioning lights
- Setting light properties
- Saving light settings

Adding and Deleting Light Sources

The lighting effect is created by applying light from different sources to the image. You can add or delete as many light sources as you wish. Your only limit is your system's memory.

When you add a light source, a new indicator appears in the preview window. The small part of the light

indicator is the origin (the point from which the light is shining). The large part of the indicator is the point the light shines toward.



Light source indicator

To add a light source:

- Click anywhere in the preview window.

To delete a light source:

- 1 Click an indicator.
- 2 Press Delete.

Positioning Lights

The type of lighting effect you create is determined by the position of light on the image. You can use the light indicators to move and direct light sources.

To move a light source:

- Drag the large end of the indicator to the point where you want the light to originate.

To change the direction of a light:

- Drag the small end of the light indicator until the light is pointing in the desired direction.

Setting Light Properties

You can set light properties such as brightness, distance, elevation, and color.

Light properties have a cumulative effect. For example, if you turn up a light's brightness, you might need to adjust exposure.

To change a light's properties:

- 1 Click an indicator to select it.
- 2 Adjust any of the following sliders:
 - Brightness is like a dimmer knob. Moving it to the left turns down the light source; moving it to the right increases brightness.
 - Distance controls how far the light is from the image. If you move the light source closer, you might have to change the image's exposure (see below).
 - Elevation sets the light's angle in relation to the Canvas. At 90° the light is shining straight down, and at 1° it's nearly horizontal.
 - Spread sets the angle of the light cone.
 - Exposure is the image's brightness, as in photography. Moving the slider to the left decreases exposure and darkens the image; moving it to the right increases exposure and lightens the image.

- Ambient is the surrounding light in an image. If you have no individual lights in your image, the ambient lighting will govern the overall lightness of the image. Moving the Ambient slider to the left darkens the overall lighting; moving it to the right increases the light.

To change light color:

- 1 Click an indicator.
- 2 Click the Light Color icon, and choose a color from the color picker.
- 3 Click the Ambient Light Color icon, and choose a color for the surrounding light from the color picker.

Saving Lighting Effects

After you've adjusted lighting and created an effect you like, you can save the settings in the library. This lets you quickly use the same settings on another image.

To save specific lighting effects:

- 1 After setting up a lighting effect, click Save.
- 2 In the Save Lighting dialog box, type a name for your new lighting effect.
The effect is saved to the default Corel Painter settings library, and a thumbnail is displayed in the Apply Lighting dialog box.

Creating Lighting Effects Libraries

You can create your own lighting libraries to store your custom lighting effects. You can use the Lighting Mover to move saved lighting effects into your new library.

This way, you can set up effects for different purposes and access them quickly.

To create a custom lighting library:

- 1 In the Apply Lighting dialog box, click Library.
- 2 Click New.

- 3 In the Create File dialog box, specify a name for your library and click Save.

A blank library is created and becomes the current library.

- 4 In the Apply Lighting dialog box, click Lighting Mover.

Your new library appears on the left side of the Lighting Mover dialog box.

- 5 Click Open, locate the Corel Painter Settings library, and click Open.

Any new lighting effects you saved are displayed at the end of the library.

- 6 Click the effect you want to move into your new library. The effects name appears in the center of the dialog.

- 7 Drag the effect to the new library on the left.

The effect is copied to the new library. If you want to delete it from the Corel Painter Settings library, click Delete.

Apply Surface Texture

The Apply Surface Texture effect lets you add a three-dimensional surface texture to your image. You can use this feature to apply a paper texture across the image, to give depth to the brush strokes of an oil painting, or to make mosaic tiles three-dimensional.

Surface texture is created either by applying a paper texture or by using information from a clone source to determine depth and height. There are five methods for creating texture:

- Using a paper texture
- Using the difference from a clone source
- Using image luminance
- Using the luminance from a clone source
- Using a channel or layer mask

The Apply Surface Texture effect also lets you apply a reflection map to your surfaces that can make the textured parts of the image look metallic or glass-like. Refer to “Working with Reflection Maps” on page 282 for more information.

Your computer must have a math coprocessor to use the Apply Surface Texture effect.



Examples of effects created with Apply Surface Texture.

Setting Appearance of Depth Properties

The surface texture you apply is made up of a material. That material can be subtle and blend with the original image, or it can be highly reflective or shiny, distorting the original image.

The Appearance of Depth sliders on the Apply Surface Texture dialog let you control material properties.

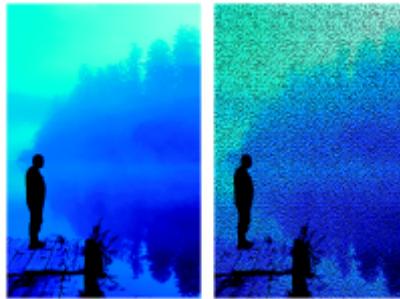
- The Amount slider controls how much surface texture is applied to the image. Moving the slider all the way to the right applies the maximum amount.
- Picture controls how much of the color from the original image is applied to the texture. At 100%, the full color of the picture shines through. Move the slider to the left to display more black, leaving only the shine.
- The Shine slider controls how much highlight appears on the surface of the texture. Higher Shine values make the texture look metallic.

- Reflection maps a clone source image or pattern onto the texture at a variable percentage.

Creating Texture Using Paper

When you create a texture using Paper, the current paper texture is applied to your image. If the Papers palette is open, you can choose different papers and change their scale to try different textures.

The preview window is updated automatically to reflect paper changes.



Texture created using Paper grain.

To create surface texture using paper:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Surface Control > Apply Surface Texture**.
- 3 In the Apply Surface Texture dialog box, choose Paper from the Using pop-up menu.

If you want to apply an inverted paper texture, enable the Inverted check box.

- 4 Adjust the Softness slider to control the amount of distortion created by the texture.

Increasing softness creates more intermediate steps, which produces a smoother distortion.

- 5 Adjust the Appearance of Depth sliders.

Refer to “Setting Appearance of Depth Properties” on page 276 for more information.

- 6 Adjust the Light Controls sliders.

For more information, refer to “Applying Lighting to a Texture” on page 283.

- 7 Click OK to apply the effect.

Creating Texture Using 3D Brush Strokes

When you create a texture using 3D Brush Strokes, the difference in luminance between the clone source and the current document is used to determine the look of the texture.

If you change the colors in the clone or posterize the clone, the texture is based on color differences. If you paint on the clone, however, you can make the brush strokes appear three-dimensional, giving them the illusion of oil paints.

For information about cloning, refer to “Cloning Imagery” on page 185.



An example of the texture created when Posterize is applied to the clone source.



An example of the texture created when brush strokes are applied to a cloned image.

To create surface texture using 3D brush strokes:

- 1 Open the original image.
- 2 Choose **File menu > Clone**.

If you want to alter the clone before using 3D Brush Strokes, apply an effect or paint on it.

- 3 Select a layer or area of the canvas. If you want to apply the effect to the entire image, make sure there are no selections.
- 4 Choose **Effects menu > Surface Control > Apply Surface Texture**.
- 5 In the Apply Surface Texture dialog box, choose 3D Brush Strokes from the Using pop-up menu.

If you want to apply an inverted texture, enable the Inverted check box.

- 6 Adjust the Softness slider to control the amount of distortion created by the texture.

Increasing softness creates more intermediate steps, which produces a smoother distortion.

- 7 Adjust the Appearance of Depth sliders.

Refer to “Setting Appearance of Depth Properties” on page 276 for more information.

- 8 Adjust the Light Controls sliders.

For more information, refer to “Applying Lighting to a Texture” on page 283.

- 9 Click OK to apply the texture.

Creating Three-Dimensional Oils

Because the 3D Brush Strokes method uses the difference between the clone source and its clone to define a 3D texture, you can create the illusion of dimensional oils by painting on the clone.

The look of the strokes on the clone determines how realistic the final 3D strokes appear. So, you may want to set up a more complex brush before painting. For example, you can apply a paper texture to the stroke.



An example of 3D brush strokes with paper texture.

Many of the brush variants reveal the paper texture automatically in their strokes.

You can apply a paper texture when you first create an image, then paint or draw over it to make a textured canvas for your strokes. However, the texture is erasable, so you might not end up with the same texture across the document surface. Generally, you’ll add the paper texture as the last step in producing artwork.

You can also use advanced brush settings to make realistic strokes. For example, you can use the Brush Loading option to move underlying colors as you make brush strokes. You

can also apply other settings like Bleed and Max/Min Brush size to create complex strokes. Refer to “Customizing Brushes” on page 141 for more on these features.

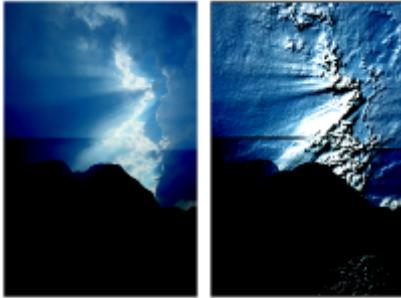


An example of 3D brush strokes with Brush Loading and Bleed settings applied.

Creating Texture Using Image Luminance

When you create a texture using the Image Luminance method, the current image’s luminance, or lightness, determines where surface texture is added. Light parts of the image create dents; darker parts create raised areas.

The overall effect gives an embossed look to the edges of the imagery.



Texture based on Image Luminance.

To create surface texture using image luminance:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Surface Control > Apply Surface Texture**.
- 3 In the Apply Surface Texture dialog box, choose Image Luminance from the Using pop-up menu.

If you want to apply an inverted texture, enable the Inverted check box.

- 4 Adjust the Softness slider to control the amount of distortion created by the texture.
Increasing softness creates more intermediate steps, which produces a smoother distortion.
- 5 Adjust the Appearance of Depth sliders.
Refer to “Setting Appearance of Depth Properties” on page 276 for more information.
- 6 Adjust the Light Controls sliders.
For more information, refer to “Applying Lighting to a Texture” on page 283.
- 7 Click OK to apply the texture.

Creating Texture Using Clone Source Luminance

When you create a texture using clone source luminance, the dents and bumps in the texture are determined by the light and dark areas in the clone source, and applied to its clone.

The unique thing about this method is that you can create interesting embossed looks by changing the clone source. Any image effects or brush strokes you apply to the source result in different textures.

For example, you can create raised areas in the clone by darkening the area in the source image.



Texture based on clone source luminance.

To create surface texture based on clone source luminance:

- 1 Open an image.
- 2 Choose **File menu > Clone**.
- 3 Alter the clone by applying an effect, painting, or choosing a pattern or gradient.

- 4 Select a layer or area of the canvas.

If you want to apply the effect to the entire image, make sure there are no selections.

- 5 Choose **Effects menu > Surface Control > Apply Surface Texture**.

- 6 In the Apply Surface Texture dialog box, choose Original Luminance from the Using pop-up menu.

If you want to apply an inverted texture, enable the Inverted check box.

- 7 Adjust the Softness slider to control the amount of distortion created by the texture.

Increasing softness creates more intermediate steps, which produces a smoother distortion.

- 8 Adjust the Appearance of Depth sliders.

Refer to “Setting Appearance of Depth Properties” on page 276 for more information.

- 9 Adjust the Light Controls sliders.

For more information, refer to “Applying Lighting to a Texture” on page 283.

- 10 Click OK to apply the texture.

Creating Embossing Effects

One of the most effective ways of using the Original Luminance method is to create an embossed image. Unlike standard emboss effects, Apply Surface Texture lets you control not only the height of the texture, but also the lighting and material properties of the embossing.



The embossed effect

To create an embossed effect:

- 1 Open an image.
- 2 Choose **File menu > Clone**.

- 3 Choose a color other than black from the Colors or Color Sets palette.

If you want the embossed image to be white, leave the screen blank, select all, then delete.

- 4 Choose **Effects menu > Fill**.

- 5 Enable the Current Color option.

- 6 Click OK to fill the clone file with color.

- 7 Choose **Effects menu > Surface Control > Apply Surface Texture**.

- 8 In the Apply Surface Texture dialog box, choose Original Luminance from the Using pop-up menu.

The preview window shows how the embossed image will look.

- 9 Adjust any of the Appearance of Depth or Light Controls sliders.

- 10 Click a Light Direction button to change the location of highlights and shadows.

If you want to change the light color, click the Light Color icon and choose a color from the color picker.

11 When you are satisfied with the settings, click OK to apply the effect.

Creating Texture Using Channels and Layer Masks

Corel Painter lets you produce surface texture based on an alpha channel or a layer mask.

You can use this method only if your image has a saved alpha channel or a layer with a layer mask.

When you choose a channel, the texture is applied around the edges of the channel so that the area it covers appears raised.

When you choose a layer mask, the layer mask is used to determine the boundaries of the texture. In this case, texture is applied to the edges of the layer mask. Refer to “Working with Layer Masks” on page 253 for more on layer masks.



Texture based on a saved alpha channel.



Texture based on a layer mask.

To create surface texture based on a channel or layer mask:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.

If you want to use a layer mask, you must select the layer.

- 2 Choose **Effects menu > Surface Control > Apply Surface Texture**.
- 3 In the Apply Surface Texture dialog box, choose the channel or layer mask from the Using pop-up menu.

If you want to apply an inverted texture, enable the Inverted check box.

- 4 Adjust the Softness slider to control the amount of distortion created by the texture.

Increasing softness creates more intermediate steps, which produces a smoother distortion.

- 5 Adjust the Appearance of Depth sliders.

Refer to “Setting Appearance of Depth Properties” on page 276 for more information.

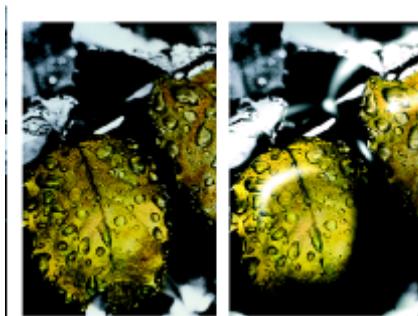
- 6 Adjust the Light Controls sliders.

For more information, refer to “Applying Lighting to a Texture” on page 283.

- 7 Click OK to apply the texture.

Working with Reflection Maps

A Reflection map is an image mapped onto a texture to produce the illusion that it’s reflecting light from the surrounding environment. You can use the reflection map pattern to quickly apply a realistic reflection. In most cases, a reflection map makes your texture look like chrome or polished metal.



A typical reflection map.

You can use either a pattern or a clone source image as a reflection map. By adjusting the Reflection slider, you control how much of the image appears in the texture.

If your image has a clone source, the source image is mapped onto the texture. Otherwise Corel Painter uses the current pattern as the reflection map.

You can use the Image Warp effect to approximate the reflection from a curved surface. For more information, refer to “Image Warp” on page 287.

To create a reflection map from a clone source:

- 1 Create a new image to use as the reflection.

If you want to approximate the reflection from a curved surface, apply the Image Warp effect.

- 2 Choose **File menu > Clone Source > [filename]**.
- 3 In the original image, select the area you want to be reflective.
- 4 Choose **Layers menu > New Layer** to create a new layer from the selection.
- 5 On the Layers palette, select the layer, and click the Create Layer Mask button .

Using a layer mask simplifies the process because the layer mask matches the shape of the reflection area exactly. Refer to “Working with Layer Masks” on page 253 for more information about layer masks.



A layer, ready to become reflective.

- 6 Select the layer.
When a layer is selected, effects apply only to the layer.
- 7 Choose **Effects menu > Surface Control > Apply Surface Texture**.
- 8 In the Apply Surface Texture dialog box, choose the layer mask from the Using pop-up menu.
- 9 Adjust the Reflection slider to control the amount of reflection you want.
- 10 Adjust the Softness slider to control the mapping from the edges of the layer's image.
Increasing Softness gives a rounder, more three-dimensional look to the surface.

- 11 When you are satisfied with the settings, click OK to apply the effect.



The resulting chrome-plated butterfly.

Applying Lighting to a Texture

A large part of the final look of your textures is determined by the lighting you apply. Bad lighting can obscure details in a pattern or surface. Good lighting can add interesting highlights and enhance reflections.

You can add, delete, and position light sources, and you can set light properties.

To add a light:

- In the Apply Surface Texture dialog box, click the light sphere.
A new light indicator (a small circle) is added to the light sphere.

Tip

- *The Show Light Icons check box lets you hide or show the light indicators.*

To delete a light:

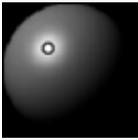
- Click a light indicator and press **Delete**.

Setting Light Position

You can position lights by enabling one of the Light Direction options, or you can create a custom lighting setup by working in the sphere.

The Light Direction options represent eight different preset lighting angles.

The lighting sphere shows all the possible surface angles and how the lights illuminate them. The light indicators on the sphere show the current positions of all the light sources.



The lighting sphere with a light indicator.

The Display slider beneath the sphere controls the brightness of the sphere so that it's easier to see light positions. It does not affect the lights themselves.

To change a light's position:

- On the lighting sphere, drag a light indicator.

Tip

• *You can also change a light's position by selecting a light indicator on the sphere and enabling one of the Light Direction options.*

Setting Light Properties

The three Light Controls sliders let you set the properties of a light source. You can also change a light's color.

- Brightness indicates the intensity of the light.

- Conc (concentration) adjusts the spread of the light's shine over the surface.
- Exposure globally adjusts the overall lighting amount from darkest to brightest.

To change light color:

- 1 Click the Light Color icon.
- 2 In the color picker, choose a color.

Other Surface Control Effects

The Surface Control effects let you manipulate paper, color, and light to produce a variety of interesting visual effects. Many of these effects also let you add texture to an image, producing the illusion of paint on a canvas or paper.

Apply Screen

Apply Screen is another way to add texture to an image. It combines luminance, the selected paper texture, and the three colors you pick, to add a three-color screen to an image.



Apply Screen using Image Luminance.

To apply a screen:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Surface Control > Apply Screen**.
- 3 In the Apply Screen dialog box, choose three colors by clicking each color icon and choosing a color from the color picker.
- 4 Move the Threshold 1 slider to determine how much of the second and third colors will be in the image.

Moving the slider to the left increases the amount of the third

color. Moving it to the right increases the amount of the second color.

- 5 Move the Threshold 2 slider to determine how much of the first color will be in the image.

Moving the slider to the left decreases the amount of the first color. Moving it to the right increases the amount of the first color.

- 6 Choose one of the following methods from the Using pop-up menu:

- **Paper** produces a screen using the paper grain. If the Papers palette is open, you can choose different textures while the Apply Screen dialog is open.
- **Image Luminance** creates texture based on the image's brightness. It is similar to a three-level posterization.
- **Original Luminance** adds texture based on the clone source document's brightness.
- **[Alpha channel]** or **[Layer mask]** adds texture based on the luminance of a channel or

layer mask. The pop-up menu lists each alpha channel in the document. If a layer with a layer mask is selected, the layer mask is also listed.

- 7 When you are satisfied with the settings, click OK to apply the effect.

Color Overlay

Use the Color Overlay effect to simultaneously add color and texture to an image.



The Color Overlay effect.

The color is taken from the current color on the Colors palette. Both color and texture are applied using one of five methods:

- **Uniform Color** adds a flat tint to the image.
- **Paper** overlays a color using the paper texture as a mapping model. More color is applied to light areas in the paper grain; less color is applied to dark areas.
- **Image Luminance** uses the image's brightness as the model for the color overlay. More of the effect is applied to light areas in the original image; less is applied to darker areas.
- **Original Luminance** uses the luminance of the clone source as the model for the color overlay. Light areas in the clone source produce more color in the image.
- **[Alpha channel]** or **[Layer mask]** uses the values in the channel or layer mask as the model for the color overlay. More color is applied to the light areas of the channel or mask, and less to dark areas.

You can use this method only if you have a saved alpha channel or a layer mask in your image.

To create a color overlay:

- 1 Show the Colors and Papers palettes.
- 2 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 3 Choose a color from the Colors palette.
If you want to base the color on a paper grain, choose a paper texture on the Papers palette.
- 4 Choose **Effects menu > Surface Control > Color Overlay**.
- 5 In the Color Overlay dialog box, choose a method from the Using pop-up menu.
- 6 Move the Opacity slider until the preview reflects the desired opacity.
- 7 Enable any of the following options:
 - **Dye Concentration** allows the paper to absorb the color.
 - **Hiding Power** allows the color to cover what's beneath it.
- 8 When you're satisfied with the settings, click OK to apply the effect.

Dye Concentration

The Dye Concentration effect adjusts color intensity and adds surface texture by adjusting pigments. You can use this effect to lighten an underexposed photo or to darken an overexposed one.

To adjust the dye concentration:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Surface Control > Dye Concentration**.
The Adjust Dye Concentration dialog box is displayed. While the dialog box is open, the controls on the Papers palette can be adjusted.
- 3 Choose a method from the Using pop-up menu:
 - **Uniform Color** adjusts color based solely on Maximum slider values. The Minimum slider has no effect. Setting the Maximum slider above 100% increases color density. A value below 100% decreases it.

- **Paper** adjusts color using the paper texture as a mapping model.
- **Image Luminance** uses the image's brightness as the model for the color adjustment.
- **Original Luminance** uses the luminance of the clone source as the model for the adjustment.
- **[Alpha channel]** or **[Layer mask]** uses the values in the alpha channel or layer mask as the model for the dye concentration adjustment. You can use this method only if you have a saved channel or a layer mask in your image.

- 4 Adjust the Minimum and Maximum sliders as needed.

If you think of texture as peaks and valleys, the Maximum slider controls the amount of dye on the peaks and the Minimum slider controls the amount of dye in the valleys. You can set Maximum as high as 800%.

The lower you set Minimum, which can be as low as 0%, the higher the contrast between peaks

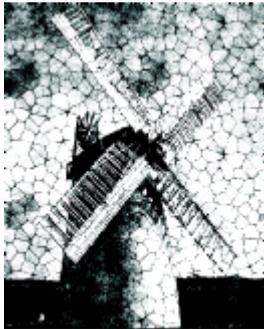
and valleys. The higher the Minimum slider, the flatter the paper appears.

- 5 When you are satisfied with the settings, click OK to apply the effect.

Express Texture

The Express Texture effect generates a high contrast version of an image in grayscale. With this feature, you can create a visual effect similar to a custom halftone screen, like a mezzotint or line screen.

Express Texture is similar to Apply Screen with anti-aliasing built in.



The Express Texture effect.

To apply express texture:

- 1 Select a layer or area of the canvas. If you want to apply the effect to the entire image, make sure there are no selections.

- 2 Choose **Effects menu > Surface Control > Express Texture**.

- 3 In the Express Texture dialog box, choose a method from the Using pop-up menu.

You can base the effect on the current paper texture, a channel or layer mask, image luminance, or original luminance (clone source).

- 4 Use the following guidelines to adjust the sliders:
 - Gray Threshold determines where the threshold is, between pure black and pure white.
 - Grain determines how deeply the texture penetrates the surface.
 - Contrast determines how many levels of black and white there are. For example, low contrast generates pure gray, medium contrast produces levels of

grayscale, building up to a high contrast black and white screen.

- 5 Click OK to apply the effect.

Tips

- *If you want to restore some of the original color to the image after applying this effect, choose Edit menu > Fade. Fade restores some or all of the original colors.*
- *If you want to add a new set of colors, you can apply an express gradient to the image. On the Gradients palette, choose a gradient, click the palette menu arrow, and choose Express In Image.*

Image Warp

The Image Warp effect lets you distort the surface of an image as if it were a sheet of pliable film. You can make images look as though they're reflected in a fun house mirror.



Use the Image Warp effect to warp your image.

Your computer must have a math coprocessor to use the Image Warp effect.

To warp an image:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Surface Control > Image Warp**.
- 3 In the Image Warp dialog box, choose one of the following warp methods:
 - Linear pulls the selected area as if you were pulling from the top of a cone.
 - Cubic pulls a flat surface outwards.

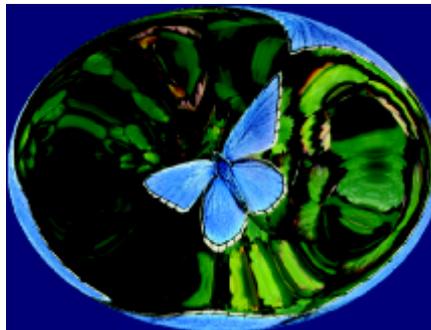
- Sphere pulls a surface as if it were a lens.
- 4 Adjust the Size slider.
This slider controls the size of the area affected by dragging the cursor. The higher the number, the smaller the affected area.
 - 5 In the preview window, drag to distort the image.
A circle displays as you drag, indicating the area affected.
 - 6 When you are satisfied with the settings, click OK to apply the effect.

Quick Warp

The Quick Warp command lets you create some basic distortions, like stretch or bulge. These distortions are useful for preparing images for reflection maps when applying surface texture. For more information about surface texture and reflection maps, refer to “Working with Reflection Maps” on page 282.

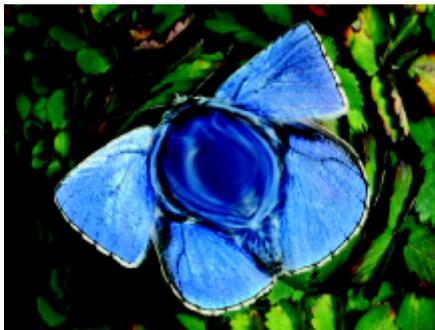
There are five types of distortions you can create using Quick Warp:

- Sphere warps the image spherically, like a reflection on a polished silver ball. Use the Power and Angle Factor sliders to intensify and twist the effect.



An example of a Sphere distortion.

- Bump warps the center of the image toward you, making it appear convex. Use the Angle Factor slider to twist the effect.



An example of a Bump distortion.

- Valley warps the center of the image away from you, making it appear concave. Use the Angle Factor slider to twist the effect.
- Swirl distorts the image in a spiral. The Angle Factor slider controls how many times the image spirals.
- Ripple distorts the image in concentric rings, like the rings created when you drop a stone into a pool of water. Use the Power and Angle Factor sliders to intensify and twist the effect.

To apply Quick Warp effects:

- 1 Choose **Effects menu > Surface Control > Quick Warp**.

- 2 In the Quick Warp dialog box, enable a warp method.
- 3 Adjust the Power and Angle Factor sliders to control the warp effects.
- 4 When you are satisfied with the settings, click OK to apply the effect.

Note

- *Quick Warp applies to the entire canvas—not to selections or layers.*

Woodcut

The Woodcut effect is useful for creating woodcut or linoleum block prints of photographs. You can save preset Woodcut effects to apply to other photographs or paintings.



The Woodcut effect.

To apply woodcut effects

- 1 Choose **Effects menu > Surface Control > Woodcut**.
- 2 In the Woodcut dialog box, enable any of the following check boxes:
 - Output Black—output the black part of the effect. Disable this option if you want to output in color only.

- Output Color—output the color part of the effect. Disable this option if you want to output in black and white only.
- 3 Use the following guidelines to adjust the sliders:
- Black Edge determines the detail of the black edge. Larger values produce thick, black edges around objects. Smaller values produce more intricate edges.
 - Erosion Time determines the number of erosion iterations performed on the black edge. The higher the erosion, the simpler the edge.
 - Erosion Edge controls the amount of smoothing on the black edge. Larger values produce a rounded appearance to the black edge.
 - Heaviness determines the amount of black in the final image.
- 4 Enable one of the following options:

- Auto Color—automatically compute the color set from the original image’s colors.
 - Use Color Set—use a predefined color set.
- 5 Adjust the N Colors (number of colors) and Color Edge sliders.
- 6 When you are satisfied with the settings, click OK to apply the effect.

Note

- *You can adjust the number of colors only if you have enabled the Auto Color option.*

Tips

- *You can change the colors in a color set by clicking a color and then clicking a new color on the Color Sets palette.*
- *You can save a woodcut effect as a preset by clicking Save in the Woodcut dialog box and specifying a preset name in the Save Preset dialog box.*

Distress

The Distress effect can be used on images and text. You can base the effect upon the currently selected paper or pattern.



The Distress effect.

To apply distress effects:

- 1 Choose **Effects menu > Surface Control > Distress**.
- 2 In the Distress dialog box, adjust any of the following sliders:

- Edge Size determines the size of the edge enhancement.
- Edge Amount determines the amount of edge enhancement.
- Smoothing determines the roundness of the edge between black and white.
- Variance determines the amount of grain added to the edge.
- Threshold determines how much black is in the image.

3 Choose a method from the Using pop-up menu.

You can base the effect on the current paper grain or the original luminance (clone source).

4 When you are satisfied with the settings, click OK to apply the effect.

Serigraphy

The Serigraphy effect is useful for using photographs to generate images that appear to be silk-screened or woodblock cuts. Each color reduction

is saved as a separate layer, enabling you to edit the layer individually after the effect has been applied.



The Serigraphy effect.

To apply serigraphy effects:

- 1 Choose **Effects menu > Surface Control > Serigraphy**.
- 2 In the Spot color dialog box, adjust any of the following sliders:
 - Smoothing determines the smoothness of the black edge.

- Threshold determines the total amount of color difference from the center color.
 - Dist Weighting determines the amount of color distance from the center color.
 - Hue Weighting determines how much hue contributes to the effect.
 - Sat Weighting determines how much saturation contributes to the effect.
 - Lum Weighting determines how much luminance contributes to the effect.
- 3 Click Match Color, and choose a color from the Color Picker.
This is the center color—the color upon which the effect will be based.
 - 4 Click Fill Color, and choose a color from the Color Picker.
This color is used on the new layer.
 - 5 Click Create Serigraphy Layer.
 - 6 When you are satisfied with the results, click Done.

Tip

- *You can also specify Match and Fill Colors by clicking a color in the image.*

Sketch

You can use the Sketch effect to convert an image to a black and white pencil sketch.



The Sketch effect

To apply the sketch effect:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Surface Control > Sketch**.

- 3 In the Sketch dialog box, adjust any of the following sliders:
 - **Sensitivity**—determines sensitivity to detail. Low values detect only the main edges. High values detect the main edges as well as thin lines, such as the lines around a person's eyes.
 - **Smoothing**—determines how much noise is filtered out. Higher values result in wider, lighter, and more blurry lines.
 - **Grain**—determines how much of the paper grain is revealed in the sketch marks. Drag this slider to the right to show more of the paper grain.
 - **Threshold**—the Threshold High and Threshold Low settings are used to remove noise after edge detection. Threshold High is used to flag light pixels which may be just noise in the image. Threshold Low is used to test surrounding pixels.

If you want to save your settings as a preset, click Save and specify a preset name in the Save Preset dialog box.

Focus Effects

The Focus commands in the Effects menu let you create sharpening, softening, motion blurring, and glass distortion effects.

Camera Motion Blur

This effect creates a blur similar to what you'd get in a photograph by jostling the camera during a long exposure. It's particularly effective with an image showing lights on a dark background.



Using the Camera Motion Blur to create a blur.

To apply camera motion blur:

- 1 Select a layer or area of the canvas.

If you want to apply the effect to the entire image, make sure there are no selections.

- 2 Choose **Effects menu > Focus > Camera Motion Blur**.
- 3 In the image window, drag to create the blur motion.

The direction and intensity of the blur is determined by your pointer movement. For example, fast movement produces a different blur than slow. A longer drag path increases the amount of blur. Straight, curved, and zigzag movements also produce different effects.

- 4 In the Camera Motion Blur dialog box, adjust the Bias slider to move the origin of motion along the drag path.
- 5 When you are satisfied with the settings, click OK to apply the effect.

Depth of Field

This effect creates a blur based on “distance from the plane of camera focus.” Because you're working in a

2D image, you can use the control medium to describe the distance of different pixels.



The “M” is a floating shape. The blur on the shadow was created using Depth of Field.

The Depth of Field effect is a variable “circle of confusion” blur. You can specify the radius of the confusion circles for different regions of the image.

To apply depth of field:

- 1 Select a layer or area of the canvas. If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Focus > Depth of Field**.
- 3 In the Depth of Field dialog box, choose a source from the Using pop-up menu.

Darker regions of the source receive greater blur.

- 4 Adjust the sliders to set the minimum and maximum radius of the blur regions. The maximum size must be greater than the minimum size.

Note

- *This effect can take quite a while to process—especially with larger Min Size and Max Size settings.*

Glass Distortion

The Glass Distortion effect creates the kind of distortions you would see if you were looking at your image through a sheet of glass. You can make your image appear as if it is behind the pebble glass of a shower door, or you can distort your image beyond recognition.

Glass distortion works by relocating the pixels of the image based on a displacement map. The map is created by combining displacement information from a source with a preset map type.



The Glass Distortion effect.

There are five sources of displacement information:

- **Paper** uses the information in a paper texture to displace pixels. More displacement is applied to light areas of the texture and less to dark areas. Paper texture is good for creating the pebbled glass effect. Unless you want frosted glass, you'll probably want to increase the scale of the paper.
 - **3D Brush Strokes** uses the difference in luminance between the clone source and the current document.
 - **Image Luminance** uses the light and dark areas in the current document to determine the intensity of distortions.
 - **Original Luminance** uses the clone source's luminance. Use a tessellation as the clone source to produce a bumpy glass effect.
 - **[Alpha channel]** or **[Layer mask]** uses the luminance of a channel or layer mask. More distortion appears in the light areas of the channel. You must have a saved alpha channel or layer mask to use this source.

This is a good choice for a controlled distortion map. For example, gradations in the channel lead to a progressive distortion effect. Shapes in the channel produce distortions with distinct outlines.
- There are three types of maps:
- **Refraction** displaces pixels in the same way that an optical lens bends light. This is the best map type for distortions you'd expect from looking through glass.
 - **Vector Displacement** moves pixels in a specific direction.
 - **Angle Displacement** moves pixels in different directions.

To apply a glass distortion effect:

- 1 Select a layer or area of the canvas. If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Focus > Glass Distortion**.
- 3 In the Glass Distortion dialog box, choose a source from the Using pop-up menu.

The amount of displacement depends on the value assigned to the image pixels from the Using source.

If you want to work with an inversion of the selected source, enable the Inverted check box.
- 4 Adjust the Softness slider to control the transitions between displaced colors.

Increasing Softness creates more intermediate steps, which produces a smoother distortion. If

you experience aliasing in a glass distortion, try increasing Softness.

- 5 Choose a map type from the Map pop-up menu.
- 6 Choose Fast or Good from the Quality pop-up menu.
- 7 Adjust the following sliders:
 - **Amount** controls the degree of displacement. Increasing the Amount distorts your image more.
 - **Variance** creates multiple variations in the neighborhood of the displacement. The result of increasing variance depends on the type of image and other settings.
 - **Direction** controls the direction of displacement. Three o'clock corresponds to 0°. The Refraction map type is not dependent on direction.

As you make changes, the preview window shows their effect.

- 8 Click OK to apply the effect.

Motion Blur

This effect makes an image appear as if it has been blurred by movement.



Motion blur applied to a photograph.

To apply a motion blur effect:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Focus > Motion Blur**.

In the Motion Blur dialog box, adjust the following sliders:

- **Radius** sets the amount (distance) of blur. Moving the slider to the right makes the image look as though it's moving faster.
 - **Angle** sets the direction in which the image appears to travel. Zero degrees blurs in the direction of 3 o'clock.
 - **Thinness** blurs the image in a direction perpendicular to the angle you choose with the Angle slider.
- 3 Click OK to apply the effect.

Sharpen

This effect heightens contrast by intensifying highlights and shadows. Sharper images are created using either Gaussian or circular aperture. Gaussian aperture sharpens the red, green, and blue components of color; circular aperture sharpens an image based on luminance.



Using the Sharpen dialog to sharpen the focus.

To sharpen focus:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Focus > Sharpen**.
- 3 In the Sharpen dialog box, enable one of the following aperture options:
 - Gaussian
 - Circular
- 4 Use the following guidelines to adjust the sliders:
 - **Amount** determines how much of the edge of an element is affected.

- **Highlight** determines the intensity of the bright areas. Move the slider to the right to brighten the highlights.
- **Shadow** determines the depth of the shadows. The higher the percentage, the darker the shadows.

If you have chosen the Gaussian aperture and you want to sharpen only selected colors, enable any of the Red, Green, or Blue check boxes.

- 5 Click OK to apply the effect.

Soften

This effect increases the transition from one part of your image to another, enhancing the anti-aliasing of strokes. Images are softened using either Gaussian or circular aperture. Gaussian aperture is useful for creating smooth, optical blurs or defocusing; circular aperture is useful for creating shadow maps cast by a circular light source like the sun.

The Super Soften effect is a stronger version of Soften.

To soften focus:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Focus > Soften**.
- 3 In the Soften dialog box, choose one of the following apertures:
 - Gaussian
 - Circular
- 4 Adjust the Amount slider.
The farther the slider is to the right, the more steps there are between image elements, which creates more blurring.
- 5 When you are satisfied with the settings, click OK to apply the effect.

Zoom Blur

This effect creates a blur by zooming in on (or out from) an area. Imagery around the zoom point stays clear. Imagery distant from the zoom point is blurred more. This is a great way to call attention to a particular area of the image.



Using the Zoom Blur dialog to blur the focus.

To apply zoom blur:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Focus > Zoom Blur**.
- 3 In the document window, click the image to specify the zoom point.
- 4 In the Zoom Blur dialog box, adjust the Amount slider to determine the amount of blur.
If you want to create the blur by zooming in, enable the **Zoom In** check box. If you want to create the blur by zooming out, disable the **Zoom In** check box.

- 5 When you are satisfied with the settings, click OK to apply the effect.

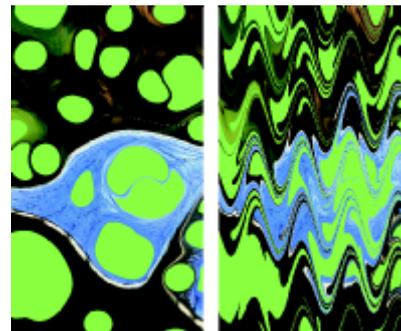
Esoterica Effects

The Esoterica Effects menu holds some interesting and specialized effects.

Marbling

Marbling creates intricate distortions of an image, following a technique that dates back to the 12th century.

The marbling effect is created by dragging a fork, or rake, across an image, creating an effect similar to a fork dragging through a mix of chocolate syrup and melted ice cream.



The Marbling effect.

Each time you drag a rake across an image, you create a *step*. You can create marbling recipes that include several steps—each one using a different rake, direction, and waviness. You can save marbling recipes and reuse them.

Marbling works best with patterns or textures. The Blobs effect is an excellent way of creating the raw materials for marbling; filling with a pattern is another. Refer to “Blobs” on page 301 for more on the Blobs effect.

To create a marbling recipe:

- 1 Select a layer or area of the canvas.

If you want to apply the effect to the entire image, make sure there are no selections.

Selections can help you control the marbling when you have a particular effect in mind. For example, the rake path normally begins from the edge of the image. If you want the rake path to begin in the center of a blob, select an area that begins at the blob's center.

- 2 Choose **Effects menu > Esoterica > Apply Marbling**.
- 3 In the Apply Marbling dialog box, choose a direction for the rake stroke:
 - Right-to-Left
 - Left-to-Right
 - Top-to-Bottom
 - Bottom-to-Top
- 4 Create a rake stroke by adjusting any of the following sliders and clicking Add Step:
 - Spacing adjusts the distance between rake teeth. The slider controls the number of teeth in

the rake. When the slider is all the way to the right, the rake has one tooth.

- Offset moves the rake perpendicular to the path direction. Use Offset to adjust the position of the rake lines.
- Waviness changes the amplitude (height) of the waves. When Waviness is set to zero, the path is straight.
- Wavelength determines the distance between wave peaks.
- Phase slides the wave in the rake direction. This lets you set where in the curve—peak, downslope, valley, or upslope—the rake begins in the image.
- Pull controls how much the rake distorts the image. Lower values produce thin, short distortions. Higher values create stronger distortions.
- Quality lets you control the smoothness in the marbled image. Low Quality settings produce an aliased effect. The marbling looks rough with scattered pixels. Increasing

Quality adds anti-aliasing, making color distortions appear smoother and more fluid.

As you adjust the sliders, the dotted lines in the preview show the rake path.

- 5 Repeat steps 3-4 for each rake step you want to create.

The Apply Marbling dialog box displays the current step number and the total number of steps in the recipe. You can move between steps by clicking the forward and backward arrow buttons.
- 6 When you are satisfied with the settings, click OK to apply the effect.

Notes:

- *Steps are applied in order, so subsequent steps work from the result of the previous one.*
- *A large part of the final look of the marble depends on whether you start horizontally or vertically, with a fine comb or coarse rake.*
- *Each step you add increases the time it takes to apply the recipe.*

To replace a step:

- In the Apply Marbling dialog box, click Replace.
The current step is replaced using the current settings.

To clear a recipe:

- In the Apply Marbling dialog box, click Reset.
The current recipe is deleted.

To save a recipe:

- 1 In the Apply Marbling dialog box, click Save.
- 2 In the Save Marbling dialog box, specify a name.

To load a recipe:

- 1 In the Apply Marbling dialog box, click Load.
- 2 In the Marbling Recipes dialog box, choose a recipe.

Auto Clone

The Auto Clone effect automatically applies brush dabs to your image. The types of dabs depend on the currently selected brush. The color is picked up from the clone source.

The best way to produce a Natural-Media version of an image is to first clone it and then choose a brush that produces artistic dabs. The Driving Rain variant of the Cloner brush works well for generating a hand-drawn look. The Seurat variant of the Artists brush also works well.



In this example, the Seurat variant was used with the Auto Clone effect.

The Auto Clone effect has no dialog. It uses the current brush settings and the clone color.

For information on cloning, refer to “Cloning Imagery” on page 185.

If you apply Auto Clone to a large area, the paint may fill smaller rectangular tiles one at a time. If you click to stop the Auto Clone, it won’t automatically finish the final tile of the overall selected area. To fill in non-rectangular areas, you can use Auto Clone with a selection. For more information, refer to “Creating Selections” on page 204.

When you use Auto Clone with the Felt Pen Cloner and other tools that turn black as you repeat strokes, areas darken rapidly. You can slow down the color buildup and still use Auto Clone by dimming your original image.

Another way to automate cloning is by recording and playing back individual brush strokes. This feature is especially useful for filling in backgrounds. For more information, refer to “Recording and Playing Back Strokes” on page 115.

To fill an area with cloned brush strokes

- 1 Open an image file to use as a clone source.
- 2 Do one of the following:
 - To use Auto Clone in a new, blank document, choose **File menu > Clone**. In the clone, choose **Select menu > All**, and press **Delete**.
 - To enhance an existing image with Auto Clone, open the image and choose **File menu > Clone Source > [clone source]**. Any open image can be selected as the clone source. Differences in file size might affect results. If no source is selected, the current pattern is used.
- 3 Select the brush and variant you want to use to add strokes.

If you chose a variant from a brush category other than Cloners, click the Colors palette menu arrow and enable Use Clone Color.
- 4 Make a selection if you want to apply the effect to a portion of your image.

If nothing is selected, the entire image is affected.

- 5 Choose **Effects menu > Esoterica > Auto Clone**.

Dabs of paint are automatically applied to the selected area.

- 6 Click anywhere in the image to turn off the effect.

Tip

- *You can increase color variation in the paint dabs by setting the H, S, and V values to 15% on the Color Variability palette.*

Auto Van Gogh

The Auto Van Gogh effect works with the Auto Van Gogh variant of the Artists brush. This algorithmic approach to placing directional brush strokes results in a Van Gogh-like rendition of an image.



Using Auto Van Gogh.

The effect requires two passes. The first pass determines the angles of the brush dabs. The second pass applies the dabs. The image is then rendered in a set of directional brush strokes.

To apply Auto Van Gogh to an image:

- 1 Select the image you want to use.
- 2 Choose **File menu > Clone** to create a clone.
- 3 On the Brush selector bar, choose Artists from the Brush selector.
- 4 Choose Auto Van Gogh from the Variant selector.
- 5 On the Color Variability palette, adjust any controls.

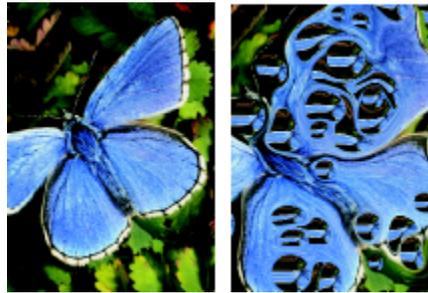
- 6 Choose **Effects menu > Esoterica > Auto Van Gogh.**

Blobs

Blobs creates a pattern similar to oil floating on water. The effect takes a source and puts it in a swirling pattern by placing blobs on the image. The underlying image is distorted as if it were liquid.

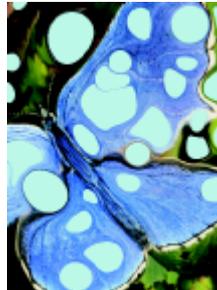
You can use one of three sources to fill in the blobs:

- **Paste Buffer** uses the current contents of the Clipboard to fill in the blobs. You can produce blobs that look like bubbles by creating a circular selection that's shaded like a sphere, and copying it to the Clipboard.



A Blob effect created using Clipboard contents.

- **Current Color** uses the color selected on the Colors palette to fill the blobs.



A Blob effect created using Current Color.

- **Pattern** uses the current pattern on the Patterns palette to fill in blobs.

Blobs create a nice basis for the Marbling effect because they create interesting color patterns. You may

want to apply this effect to your original image before applying Marbling. For more information about marbling, refer to “Marbling” on page 297.

Your computer must have a math coprocessor to use the Blobs effect.

To apply a blob effect:

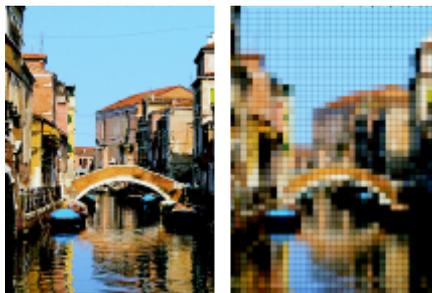
- 1 Do one of the following:
 - To use the Clipboard contents to fill the blobs, make a selection and press **Command+C** (Mac OS) or **Ctrl+C** (Windows) to copy the selection to the Clipboard.
 - To use the current color to fill the blobs, choose a color on the Colors palette.
 - To use a pattern to fill the blobs, choose a pattern on the Patterns palette.
- 2 Open or select the image where you want to create the blobs.
- 3 Choose **Effects menu > Esoterica > Blobs.**

- 4 In the Create Marbling Stone Pattern dialog box, specify the number of blobs.
- 5 Specify the minimum and maximum size of the blobs.
- 6 Enter a Subsample value.
This option creates the anti-aliasing steps.
- 7 Choose a source from the Fill Blobs With pop-up menu.
- 8 The Seed is a number used in randomizing the blobs.
Each time you apply the effect, a different seed number is generated. You may enter a specific number if you like.
- 9 Click OK to apply the effect.

Custom Tile

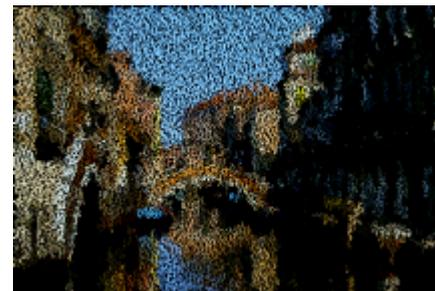
This effect turns your image into tiles. Corel Painter generates tiles based on a preset pattern, like bricks or hexagons, or from a paper pattern, clone source, or channel. If you use a preset pattern, the tiles are uniform in size and cover the entire image evenly.

The color of each tile is determined by applying the average color of the image pixels it covers.



Tiles generated using a preset pattern.

When you generate tiles from either a paper pattern, clone source, or channel, tiles are based on light and dark concentrations in the selected source. In this case, the shape of the tiles is varied and may not cover your image evenly.



Tiles generated using a paper pattern.

The Custom Tile effect functions differently than the Mosaic and Tessellation features. For more information on Mosaics and Tessellations, refer to “Getting Started with Mosaics” on page 349.

To apply custom tiles:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Esoterica > Custom Tile**.
- 3 In the Custom Tile dialog box, choose a tile pattern or source from the Using pop-up menu.

4 Adjust any of the following pattern properties:

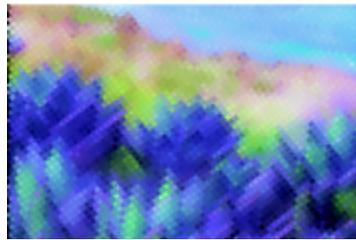
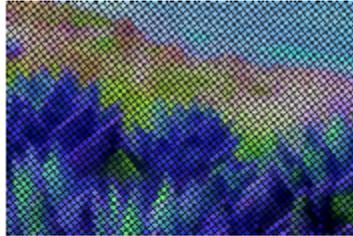
- For Brick, use the Brick Width and Brick Height sliders to adjust the size of the bricks.
- For the other built-in tile shapes, use the Angle and Scale sliders to adjust the tile orientation and size.
- For Original Luminance, Paper, and channel or layer mask, use the Threshold slider to draw the line between “light” and “dark.” Everything above the Threshold value becomes tiles, and everything below becomes grout.

5 Adjust the Thickness slider to control the width of the cracks between tiles (grout lines).

6 Adjust the Blur Radius slider to set the sampling radius for blurring the crack or grout color. Increasing the Blur Radius adds more neighboring colors to the crack pixels in each pass.

7 Blur Passes sets the number of times the crack pixels are blurred. More passes mix more tile color into the cracks. Blurring occurs

only when Blur Passes is greater than zero.



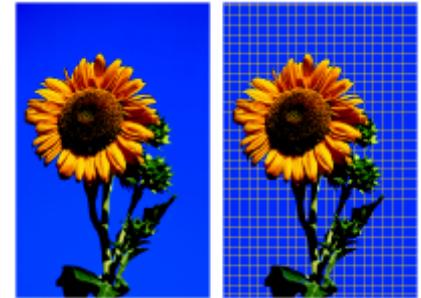
Blurring changes the grout appearance.

If you want grout to show between the tiles, enable the Use Grout check box.

8 Click the Grout color chip, and choose a grout color from the Color Picker.

Grid Paper

The Grid Paper effect adds a grid of horizontal lines, vertical lines, rectangles, or dots to an image.



Grid paper becomes part of the image.

Unlike the Grid Overlay, which is a transparent layer that floats above your image as a reference, Grid Paper becomes part of your image.

To apply grid paper:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Esoterica > Grid Paper**.

- 3 In the Grid Options dialog box, choose a grid type from the pop-up menu.

You can choose Rectangular Grid, Vertical Lines, Horizontal Lines, or Dot Grid.

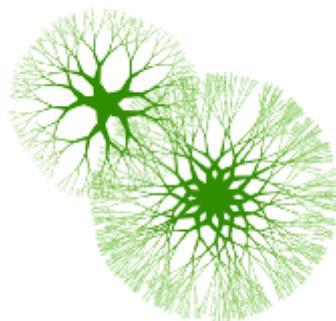
- 4 Set the dimensions of the grid using the following options:
 - Horizontal Spacing determines the amount of space between horizontal lines.
 - Vertical Spacing determines the amount of space between vertical lines.
 - Line Thickness sets the width of grid lines.
- 5 Select Grid and Background colors.
 - Grid Color changes the color of grid lines. Click the Grid Color icon, and choose a color from the Color Picker.
 - Background changes the grid's background color. Click the Background icon, and choose a color from the Color Picker.

The Transparent Background option, used for the Grid Overlay, is not available for Grid Paper.

- 6 Click OK to apply the effect.

Growth

The Growth effect generates branch-like designs from a central point and adds them to your image. The designs resemble architectural renderings of trees.



Examples of Growth patterns.

Growth patterns are created using the current primary color. You have access to the Colors palette while the Growth dialog box is open, so you can change the primary color at any time.

To create growth patterns:

- 1 Choose a color on the Colors palette.
- 2 Choose **Effects menu > Esoterica > Growth**.
- 3 In the Growth dialog box, enable any of the following check boxes:
 - **Hard Edges**—enable to create growth patterns with hard edges; disable to create growth patterns with soft, feathery edges
 - **Fractal**—enable to create open-ended (fractal) patterns; disable to create non-fractal patterns that are closed on the outside by a ring
- 4 Use the following guidelines to adjust the sliders.
 - Flatness reshapes the growth pattern like a lens effect. Move the slider to the left for a concave lens effect. Move the slider to the right for a “fish-eye” lens effect.
 - Thinout affects how the size of the growth pattern is distributed from the center to the outside edges. At over 100%, the

outside edges become thicker. At under 100%, the edges become finer and more delicate.

- Random affects how symmetrical the growth patterns appear. Lower values generate straight-line, geometrical designs. Higher values generate distorted, crooked designs.
- Thickness uniformly adjusts the weight of the lines within the design. Move the slider to the left for thinner lines and to the right for thicker lines. The growth pattern never gets thinner than one pixel.
- Branch determines how many branches come from the center to the outside edge. It has a range of 1 through 20. The default is 3.
- Max Level determines the number of levels or sub-levels that appear in the tree. Specifically, Max Level determines how the branches split to the outside edge.
- Fork adjusts the overall intricacy of the outermost branches.

- Fork Ratio is like Fork, but it affects only the tips of the outermost branches.

5 Without closing the Growth dialog box, drag to create a growth pattern in the document window.

As you drag, you see the outline of the growth pattern. When you release, the pattern is created.

6 Do one of the following:

- To apply the current growth pattern, click OK.
- To discard all patterns, click Cancel.

When you click Cancel, all the growth patterns you have created since you opened the dialog are deleted. It's a good idea to click OK to save each pattern you create.

Note

- *The sliders in the Growth dialog box affect both fractal and non-fractal growth patterns in a similar way, with the exception of Fork and Fork Ratio, which affect only fractal growth patterns.*

Highpass

Highpass suppresses low frequency areas containing gradual or smooth transitions of brightness levels. This leaves high frequency areas, or just the edges of an image, containing stark shifts between brightness levels.

The Highpass effect uses either Gaussian or circular aperture. Gaussian aperture affects the red, green, and blue components of color; circular aperture uses image luminance.

You can make the highpass more pronounced by using the Equalize effect.



Highpass introduces stark shifts between brightness levels.

To apply a highpass effect:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Esoterica > Highpass**.
- 3 In the Highpass dialog box, choose one of the following aperture options:
 - Gaussian

- Circular

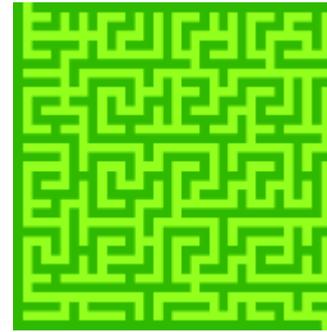
- 4 Move the Amount slider to determine how much to suppress the low frequency areas.

This value defines a radius, in pixels, around each pixel in the selected image area. Moving the slider to the left suppresses larger amounts of low frequency information. Moving the slider to the right suppresses smaller amounts.

- 5 Click OK to apply the effect.

Maze

The Maze effect generates an image of a maze. Typically, you'll create a maze in a new, blank image. Each maze has one "solution"—an open path from the entrance to the exit.



Mazes produce interesting designs.

You can capture a portion of the maze as a pattern or paper texture, or use the maze as a source for other effects.

Mazes must be rectangular. They do not respect the contours of a non-rectangular selection.

To apply a maze effect:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Esoterica > Maze**.
- 3 In the Maze dialog box, set any of the following options:

- Patterned—constrains barriers to the horizontal.
- Display Solution—displays the path from the entrance to the exit.
- Seed—used to generate a random maze pattern.
- Thickness—sets the width of barriers and paths.

- 4 Click the Maze Color icon and choose a maze color from the Color Picker.
- 5 Click the Background icon and choose a background color from the Color Picker
- 6 Click OK to apply the effect.

Place Elements

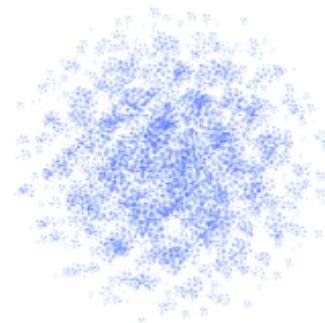
Place Elements is an effect designed to automate the application of brush dabs. It's particularly useful with the Image Hose brush. For more information on the Image Hose, refer to “Using the Image Hose” on page 332.



An example of Place Elements used with the Image Hose.

Place Elements creates a virtual sphere within the confines of a selection rectangle. When the selection is square, the sphere is perfectly round; when the selection is rectangular, the sphere is elongated or flattened.

A number of points are created at random locations on the sphere. The points then seek to distance themselves from each other, and a brush dab is placed at each point. Each dab's appearance is adjusted based on its location on the sphere.



An example of Place Elements used with a brush.

To place elements:

- 1 Choose the Rectangular Selection tool from the toolbox .
- 2 Drag to create a selection. This selection determines the location and size for the effect.
- 3 Do one of the following:
 - If you want to use the Image Hose, choose a nozzle from the Nozzle selector on the toolbox.
 - If you want to apply paint dabs, select a brush and choose a primary color.
- 4 On the Colors palette, set the secondary color to black.

The effect automatically controls mixing of the secondary color with Nozzle elements to produce depth shading. Shadows tend toward black, so this is a good color to use.

- 5 Choose **Effects menu > Esoterica > Place Elements**.
- 6 In the Place Elements dialog box, specify a number of iterations. In each iteration, the points seek to distance themselves from each other on the surface of the virtual sphere. The points start at random locations, so if you set zero as the number of iterations, their placement is completely random. Higher numbers of iterations increase the regularity of the spacing.
- 7 Adjust the Points slider to set the number of points to create on the virtual sphere. Each point created correlates to an image element placed.
- 8 Select the Number of Levels. With one level, each point receives only one element. With two levels, each point receives an element, then is used as

the center for another virtual sphere on which point iteration and element placement repeats.

The third level extends sphere creation and element placement once more.

The number of elements increases rapidly with more than one level. For example, if you choose 12 points and three levels you'll create $12 + (12 \times 12) + (12 \times 12 \times 12) = 1884$ elements. Of course, many of these will probably be covered by later placements.

- 9 Adjust the Radius Fraction slider. Radius Fraction determines the size of the virtual spheres created at the second and third levels. The first level radius is multiplied by the fraction amount to determine the radius of the second level spheres. The fraction is used again between the second and third levels. Higher values (above 1.0) increase overlapping of the spheres. Lower values (below 1.0) preclude overlapping (when sufficient iterations are used to distribute the points.)

- 10 Adjust the Oversizing slider.

Oversizing controls the diameter of the level one virtual sphere in relation to the selection marquee.

At 2.5, the sphere fits within the selection. Higher numbers shrink the sphere. Lower numbers stretch it beyond the selection.

- 11 Adjust the Ambient Amount slider.

Ambient Amount controls the use of the secondary color in elements that appear on the virtual sphere away from the light source. This is how the clump of placed elements exhibits coherent three-dimensional shading when black is used as the secondary color. The default is 0.7, which produces good shading results. Increasing the value brings in more of the secondary color. Decreasing it reduces secondary color mixing.

- 12 Enable Display Iterations to display a small marker for each point after each iteration.

When this option is enabled, you can see the points move as they seek to avoid each other. This can be a help in deciding the number of iterations to use.

13 Adjust the Delay Time slider to set a pause between each iteration display.

With a slight pause, you can see the track of the moving points more clearly.

Tip

- *If you have chosen two or three levels, you can prevent overlapping elements by enabling the Cull Interiors check box. This removes points that occur inside of other spheres, before elements are placed. This option increases processing time for the effect.*

Pop Art Fill

This effect lets you cover an image with pseudo half-tone dots. You can also use the Pop Art Fill effect with other Corel Painter features and effects to create a pop art image.



The Pop Art Fill effect.

To apply pop art fill:

- 1 Select a layer or area of the canvas.
If you want to apply the effect to the entire image, make sure there are no selections.
- 2 Choose **Effects menu > Esoterica > Pop Art Fill**.
- 3 In the Pop Art Fill dialog box, choose a source from the Using pop-up menu.

If you want to work with an inverted version of the source, enable the Inverted check box.

- 4 Adjust the Scale slider to set the dot size.
- 5 Adjust the Contrast slider to mix in the luminance of the control medium.

This is particularly useful when using Image Luminance.

- 6 Click the Dab Color icon and choose a dot color from the Color Picker.
- 7 Click the Background icon and choose a background color from the Color Picker.

To create a pop art image:

- 1 Open an image, and choose **File menu > Clone**.
- 2 Choose **Effects menu > Tonal Control > Adjust Colors**.
- 3 In the Adjust Color dialog box, drag the Saturation slider all the way to the left.
This reduces the image to grayscale.

- 4 Choose **Effects menu > Esoterica > Pop Art Fill**.
- 5 In the Pop Art Fill dialog box, set the dab color to black and the background color to white.
- 6 Adjust the Scale slider, and click **OK**.

The Pop Art Fill effect is applied to the clone.

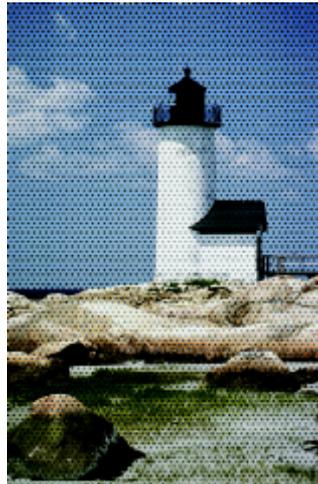
- 7 Choose **Select menu > All**.
- 8 Choose **Select menu > Float**.
- 9 Choose **Edit menu > Copy**.
- 10 Close the clone file.
- 11 In the original image file, choose **Edit menu > Paste**.

The copied layer is pasted into the original image file.

- 12 On the Layers palette, choose **Darken from the Composite Method pop-up menu**.
This makes the background image visible through all white areas of the Pop Art layer.

Tip

- *If you want to change the colors in the image, deselect the layer on the Layers palette, and apply an effect.*



A Pop Art image with the Express Gradient and Posterize effects applied.

Objects Effects

There are two Objects effects—Drop Shadow and Align. These effects work only on layers and are explained in “Adding Drop Shadows” on page 241 and “Aligning Layers” on page 243.

16 Using Dynamic Plug-ins



Dynamic plug-ins are a category of floating layers that let you apply effects to an image. They are called “dynamic” because you can modify the effect any number of times without damaging the source image.

Each dynamic plug-in provides new capabilities for manipulating images. The function and behavior of dynamic plug-ins falls into three major categories. Dynamic plug-ins can:

- Create a new layer
- Alter an existing layer
- Adjust the underlying imagery (what it's floating over)



The Liquid Metal dynamic plug-in lets you paint with either metal or liquid.

When you save the file in RIF format, the dynamic layer retains its dynamic nature. Any time you open the file, you can adjust the effect.

Dynamic Plug-in Basics

The Dynamic Plug-ins button on the Layers palette provides access to the currently installed dynamic plug-ins, which you can use to create dynamic layers.

To access the dynamic plug-ins:

- 1 Choose **Window menu > Show Layers** to display the Layers palette.
- 2 On the Layers palette, click the Dynamic Plug-ins button .

A list of dynamic plug-ins is displayed.

Creating Dynamic Layers

The steps for creating dynamic layers vary slightly for the different types of dynamic plug-ins.

Details about creating and working with a specific dynamic layer appear later in this chapter.

Like all floating objects, dynamic layers appear in the Layer list on the Layers palette, where they are identified by the plug icon.

To create a dynamic layer of a specific size, make a selection in the document window. The new layer will conform to the dimensions and location of the selection.

If no selection is active, Corel Painter makes the new dynamic layer the same size as the Canvas. For more information about selections, refer to “Creating Selections” on page 204.

To create a dynamic layer:

- 1 Select a layer or area in which to apply the effect, if required by the type of dynamic plug-in.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose a dynamic plug-in.
- 3 In the dialog box, choose options to set the effect you want.

The dynamic layer is added to the Layer list on the Layers palette.

Note

- *Once you choose a dynamic plug-in, you can't cancel the operation. If you decide you don't want the dynamic layer, click OK to close the dialog box, and remove the dynamic layer by choosing Edit menu > Undo. You can also remove the dynamic layer on the Layers palette by clicking the palette menu arrow and choosing Delete Layer.*

Changing Dynamic Layer Settings

Once you've created a dynamic layer, you can open its options dialog and change its settings.

To change a dynamic layer's settings:

- 1 Select the dynamic layer in the document window or on the Layers palette.
- 2 On the Layers palette, do one of the following:
 - Click the palette menu arrow, and choose Options.
 - Double-click the dynamic layer.
- 3 In the Options dialog box, change any settings.

Managing Dynamic Layers

You can select, move, group, hide, show, and lock dynamic layers, as well as change their display order, opacity, and composite method, as you do other layers. For information on these features, refer to “Using Layers and Layer Masks” on page 227.

Committing Dynamic Layers

At some point, you may want to finalize the effect and make the result a standard layer. This will enable you to work with the image in ways not possible when the effect is held in a dynamic layer.

Committing a dynamic layer captures its current appearance to a pixel-based layer. Once a dynamic layer is committed, you can no longer adjust the effect. The following operations automatically generate a prompt to commit a dynamic layer:

- painting on a dynamic layer
- applying an additional effect or dynamic plug-in
- dropping a dynamic layer
- collapsing a group that contains a dynamic layer
- saving to a non-RIFF format

Reverting Dynamic Layers

The Revert command allows you to restore source images to their original condition. This feature is available only for dynamic plug-ins that modify a layer—Burn, Tear, and Bevel World.

To revert a dynamic layer:

- 1 Select the modified layer in the document window or on the Layers palette.
- 2 On the Layers palette, click the palette menu arrow and choose Revert to Original.

Corel Painter extracts the original layer content and discards the dynamic layer.

Brightness/Contrast

The Brightness/Contrast dynamic plug-in creates a layer that applies brightness and contrast adjustments to the imagery beneath it.



The Brightness/Contrast dynamic layer affects all imagery beneath the layer.

To create a Brightness/Contrast dynamic layer:

- 1 Make a selection in the document window if you want the new dynamic layer to be a specific size.
- 2 On the Layers palette, click the Dynamic Plug-ins button  and choose Brightness and Contrast.
- 3 In the Brightness/Contrast dialog box, drag the sliders to adjust the image contrast and brightness. If you don't like the results and you want to start again, click Reset to restore the default settings.
- 4 Click OK to apply the settings.

Note

- You can also use the plug-in's *Opacity slider on the Layers palette to adjust the Brightness/Contrast effect.*

Burn

The Burn dynamic plug-in applies a burn effect to the edges of the selected layer or area. You can adjust the amount and character of the burn with sliders.



Different burn settings produce diverse results.

To burn a layer or selection:

- 1 Select the layer or area of the Canvas you want to burn.
If you select an area, Corel Painter automatically creates a new layer when you apply the burn.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Burn.
- 3 In the Burn Options dialog box, drag the sliders and set the controls to adjust the burn effect.
 - **Burn Margin** describes the width of the burn effect in relation to the layer's size.
 - **Flame Breadth** describes the width of the scorched region. The burn color appears in the scorch.
 - **Flame Strength** describes how much of the layer is consumed by the burn. Increasing Flame Strength shrinks the layer.
 - **Wind Direction** changes the burn amount for different sides of the layer.
 - **Wind Strength** determines how much change the Wind Direction control imparts.
- 4 Click OK to apply the settings.
 - **Jaggedness** describes the amount of irregularity in burnt edges.
 - **Use Paper Texture** lets you use the current paper to vary dye concentration in the scorch region.
 - **Burn Interior Edges** lets you burn interior edges as well. Disable this option to protect the interior edges.
 - **Burn Color** displays the color used in the scorch area. You can change the color if you like. Click the color chip and use the color picker to select a color.
 - **Reset** restores the default settings.
 - **Save As Default** sets a new default based on the current settings.
 - **Preview** enables and disables Corel Painter from displaying your changes to the image.
 - **Off** disables Corel Painter from applying the settings to the image. You can return later and turn the burn back on.

Tip

- *You can use the Revert command to restore a source image to its original condition. Refer to “Reverting Dynamic Layers” on page 313 for more information.*

Tear

The Tear dynamic plug-in applies a torn paper effect to the edge of a selected layer or area.



You can tear a little or a lot.

To tear a layer or selection:

- 1 Select the layer or area of the Canvas you want to tear.
If you select an area, Corel Painter automatically creates a new layer when you apply the tear.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Tear.
- 3 In the Tear Options dialog box, drag the sliders and set the controls to adjust the tear effect.
 - **Margin** describes the width of the tear effect from the edge of the layer.
 - **Strength** describes how much of the layer is torn away.
 - **Jaggedness** describes the amount of irregularity in torn edges.
 - **Tear Color** shows the color used at the edge of the tear. You can change the color if you like. Click the color chip and use the color picker to select a color.
 - **Tear Interior Edges** lets you tear interior edges as well. Disable this option to protect interior edges.

- **Reset** restores the default settings.
 - **Save As Default** sets a new default based on the current settings.
 - **Preview** enables (checked) and disables (unchecked) Corel Painter from displaying your changes to the image.
 - **Off** disables (checked) Corel Painter from applying the settings to the image. You can return later and turn the tear back on.
- 4 Click OK to apply the settings.

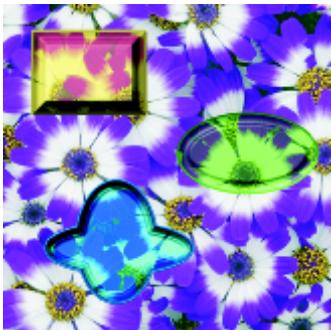
Tips

- *Use a rough paper texture to create a better tear.*
- *You can use the Revert command to restore a source image to its original condition. Refer to “Reverting Dynamic Layers” on page 313 for more information.*

Bevel World

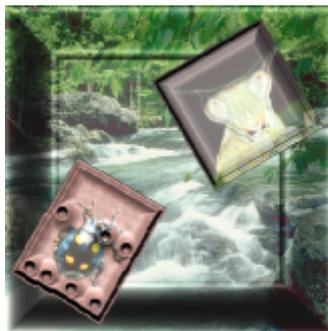
The Bevel World dynamic plug-in applies 3D bevel effects, or angled edges, to selected layers or areas.

To create a 3D button with text on it, use Bevel World to create the background button first. Then create your text floating over the button. Group the text and button together, then Collapse the layer group.



An infinite variety of bevel profiles is possible.

Both bevel shape and lighting can be controlled to create unique effects.



The Bevel World dialog has controls for 3D bevel shape and lighting.

Bevel Controls

- **Preview** shows a real-time preview based on the options you set.
- **Bevel Width** describes the width of the bevel in relation to the layer diameter.
- **Outside Portion** controls the portion of the bevel that appears outside of the layer.
- **Outside Color** determines the color of the outside portion of the bevel. This applies only when Outside Portion is above zero. You can click the Outside Color chip and use the color picker to set the color.
- **Rim Slope** describes the angle of the rim (innermost portion) of the bevel.
- **Cliff Portion** describes the horizontal distance between the base and the rim.
- **Cliff Height** describes the vertical distance between the base level and rim level.
- **Cliff Slope** describes the angle of the cliff (middle portion) of the bevel.
- **Base Slope** describes the angle of the base (outermost portion) of the bevel.
- **Smoothing** controls the roundness of the transitions between base, cliff, and rim as well as the sharpness of the resulting ridges.
- **Bevel Interior edges** enables (checked) beveling on the interior edges of the bevel area.
- **Off** (when checked) disables Corel Painter from applying the settings

to the image. You can return later and turn the bevel back on.

Light Controls

Lighting changes can make a huge difference in the 3D appearance of the bevel.

You can change the light's angle by dragging in the preview sphere. You can also change the light's position and angle by dragging the Light Direction and Light Height sliders. With Light Height at maximum, the light shines straight down on the layer and the Light Direction setting has no effect. When Light Height is less than maximum, the Light Direction slider rotates the light around the center.

To choose a color for the light, click the Light Color chip and use the color picker to set a color.

- **Brightness** controls the light's intensity.
- **Scatter** adjusts the spread of the light's shine over the surface.
- **Shine** describes the prevalence of highlights.

- **Reflection** controls how much of the source image is visible in the bevel. If you are working with a clone, the clone source is mapped onto the surface at a variable percentage. A discussion of reflection maps can be found in "Working with Reflection Maps" on page 282.

To bevel a layer or selection:

- 1 Select the layer or area of the Canvas you want to bevel.
If you select an area, Corel Painter automatically creates a new layer when you apply the bevel.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Bevel World.
If the Commit dialog box displays, click Commit to commit the dynamic layer to an image layer.
- 3 In the Bevel World dialog box, specify the settings you want.

Tip

- *You can use the Revert command to restore a source image to its original condition. Refer to "Reverting Dynamic Layers" on page 313 for more information.*

Equalize

The Equalize dynamic plug-in creates a layer that improves contrast in underlying imagery. It does this by adjusting black and white points and distributing the brightness levels throughout the entire range of available levels.



The Equalize dynamic layer is applied to a rectangular selection.

The Equalize dynamic plug-in creates a histogram showing the number of pixels for each brightness level value. Equalize allows gamma adjustment, which lightens or darkens an image without changing highlights or shadows.

To create an Equalize dynamic layer:

- 1 Make a selection in the document window if you want the new dynamic layer to be a specific size.
- 2 On the Layers palette, click the Dynamic Plug-ins button  and choose Equalize.
- 3 In the Equalize dialog box, adjust the contrast by dragging the small black and white markers under the histogram.
Any values in the image located to the right of the white marker become white; any values to the left of the black marker become black.
- 4 Drag the Brightness slider to adjust only the midtones of an image and leave the white and black areas untouched.

- 5 Click OK to apply the settings.

Note

- *You can also use the Opacity slider on the Layers palette to adjust the Equalize effect.*

Glass Distortion

The Glass Distortion dynamic plug-in creates a layer that applies Glass Distortion to the imagery beneath it. You can move the layer in the document to view the distortion over different imagery.

For best results, you should have interesting imagery beneath the Glass Distortion dynamic layer.



The Glass Distortion dynamic layer in action.

To create a Glass Distortion dynamic layer:

- 1 Make a selection in the document window if you want the new dynamic layer to be a specific size.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Glass Distortion.
- 3 In the Glass Distortion Options dialog box, choose a displacement source from the Using pop-up menu.
 - **Paper** uses the selected paper texture. Paper texture is good for creating the pebbled glass effect. Unless you want frosted glass, you'll probably want to increase the scale of the paper.
 - **Current Selection** uses the current selection.
 - **Image Luminance** uses the current document's luminance.
 - **Original Luminance** uses the clone source's luminance.Image pixels are displaced based on the light and dark areas of the source.
- 4 Drag the sliders and set controls to adjust the distortion effect.

- **Inverted**, when enabled, lets you work with an inversion of the selected source.
- **Softness** controls the transitions between displaced colors. Increasing softness creates more intermediate steps, which produces a smoother distortion. If you experience aliasing in a glass distortion, try increasing Softness.
- **Amount** controls the degree of displacement. A higher amount leads to more distortion.
- **Variance** creates multiple variations in the neighborhood of the displacement. The result of increasing variance depends on the type of image and other settings.

Tips

- You can also use the Opacity slider on the Layers palette to adjust the Glass Distortion effect.
- You can move the Glass Distortion layer in the document window to distort other areas of the image.



The Glass Distortion dynamic layer using Paper



The Glass Distortion dynamic layer using Image Luminance

Kaleidoscope

The Kaleidoscope dynamic plug-in creates a layer that produces kaleidoscope effects from the imagery it floats over.

The traditional kaleidoscope is a hollow tube with a set of mirrors and colored chips at one end. You peer into the other end and enjoy the highly symmetrical patterns the mirrors create from the colored chips.

For best results, you should have interesting imagery beneath the Kaleidoscope dynamic layer. You can move the layer in the document to see the effect on different imagery.

To create a Kaleidoscope dynamic layer:

- 1 On the Layers palette, click the Dynamic Plug-ins button and choose Kaleidoscope.
- 2 In the Kaleidoscope dialog box, specify the size of the dynamic layer.
Kaleidoscopes must be square.
- 3 Click OK to create a Kaleidoscope layer.

Tip

• You can move the Kaleidoscope layer to different regions of the document to distort other imagery. Try using the arrow keys to see the Kaleidoscope animate.



Drag the Kaleidoscope layer to different areas for new effects.

To create a pattern from a Kaleidoscope:

- 1 Move the Kaleidoscope dynamic layer until it displays imagery you like.
- 2 On the Layers palette, select the Kaleidoscope layer.
- 3 Click the palette menu arrow, and choose Drop to commit the layer.
- 4 Choose **Edit menu > Copy**.

- 5 Choose **Edit menu > Paste into New Image**.
- 6 Select the kaleidoscope portion of the image, and capture the pattern. For more information on capturing patterns, refer to “Creating and Capturing Patterns” on page 67.

Liquid Lens

Liquid Lens creates a dynamic layer where you can distort and smear the underlying imagery. You can create “fun house” mirror effects, melting images, and more.

For best results, you should have interesting imagery beneath the Liquid Lens dynamic layer.

Applying Distortion

You’ll use the Liquid Lens by choosing a tool, setting sliders to control the effect, then dragging in the document window to create distortion. You can change slider settings or tools, then drag again for different results. The Eraser tool lets you remove distortion.

Liquid Lens Tools

You can apply distortion with the Circle, Brush, Right Twirl, Left Twirl, Bulge, or Pinch tools. These tools function similarly, but apply different distortion effects.

The Circle



The Circle tool creates circles of distortion. Drag in the direction you want the distortion to move. Size and Spacing have no effect on the Circle tool.

The Brush



The Brush distorts in the direction you drag.

Left Twirl



Left Twirl distorts in counter-clockwise spirals.

Pinch



Pinch distorts inward, drawing imagery closer.

Right Twirl



Right Twirl distorts in clockwise spirals.

Bulge



Bulge distorts outward, pushing imagery out.

Liquid Lens Controls

You can adjust the following settings to customize the distortion effect.

- **Amount**—controls the degree of distortion applied. With the slider close to zero, you create minimal distortion. Negative values create distortion counter to the stroke direction. This breaks up the image more.
- **Smooth**—changes the blending between the distortion stroke and the unaffected imagery. Higher values make a smooth, continuous

distortion. Lower values create individual dabs of distortion.



Low Smooth settings make abrupt distortions. Higher Smooth settings let distortions transition smoothly into other areas.

- **Size**—changes the diameter of the distortion tool and the size of rain, which scatters distortion droplets in the layer.



Samples of how the Size slider affects distortion.

- **Spacing**—changes the distance between distortion dabs.



Low spacing makes a smooth, continuous stroke. High spacing lets the dabs appear individually.

- **Reset**—restores the default settings.
- **Rain**—scatters distortion droplets in the layer. Raindrops distort downward, melting the image.

To create a Liquid Lens dynamic layer:

- 1 Deselect all layers.

- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Liquid Lens.
- 3 In the Liquid Lens dialog box, choose a Liquid Lens tool.
- 4 Use the sliders and controls to adjust the distortion effect.
Refer to “Liquid Lens Controls” on page 321 for more information.
- 5 Drag in the document window to create distortion.
If you don’t like the distortions and you want to start again, click the Clear button.
- 6 Click OK to end the Liquid Lens session.

Tip

- *You can move the Liquid Lens layer to different regions of the document to distort other imagery.*

To use Rain:

- 1 Deselect all layers.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Liquid Lens.

- 3 In the Liquid Lens dialog box, set the sliders to describe the distortion you want.
- 4 Click Rain.
Corel Painter scatters distortion droplets on the layer.
- 5 Click anywhere to stop the rain.
If **Smooth** and **Size** are very high, the rain might continue for a moment after you click.



Rain melts the image.

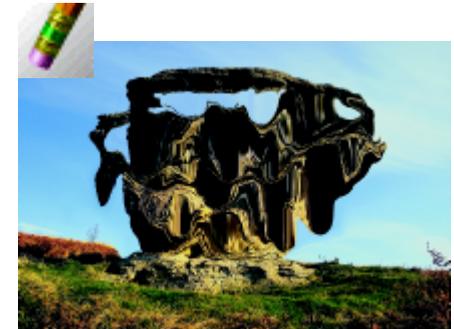
Erasing Distortion

Undo features are not available when working with the Liquid Lens. Use the Liquid Lens Eraser tool to clear distortion from an area.

To erase distortion:

- 1 In the Liquid Lens dialog box, choose the Eraser tool.
- 2 Set the sliders for Size, Spacing, and Smooth to describe the type of erasing you want.
Higher Smooth settings create softer transitions from the erasure to the remaining distortion.
- 3 Drag in the document window.
The original underlying imagery returns.

Eraser



Remove distortion with the Eraser tool.

Liquid Metal

The Liquid Metal dynamic plug-in lets you paint on a layer with liquid and metal. You can apply droplets of water that distort the underlying image through refraction. You can also create globs of shiny metal that flow together and move like mercury. A slider (Refraction) sets the difference between water and metal, so you can achieve intermediate effects.

Negative metal can be used to create holes in metal.

This text uses the term “metal” to refer to the media applied—even if the settings turn the effect more toward water.



The Liquid Metal dynamic plug-in creates either liquid metal or translucent, refractive liquid.

Liquid Metal Tools

You can apply metal with the Brush tool, the Circle tool, or the Rain feature. You can adjust the size of your brush or rain droplets.

The Brush is the default applicator. You can use the Brush tool to paint with metal. You can use the Circle tool to create circles of metal. The Rain feature lets you scatter metallic droplets on the layer.

Brush



You can create strokes of metal with the Brush tool.

Circle



You can create circles of metal with the Circle tool.



Metal raindrops fall randomly with the Rain feature.

Liquid Metal Controls

You can adjust the following settings to customize the appearance of the liquid metal.

- **Amount**—controls the emphasis of the metal effect (from the Refraction slider) for all droplets in the layer. The extreme left and extreme right are the inverse of each other. To create water effects, set the Amount to -0.5 . This will make the droplets magnify the imagery underneath them.



Reflection and Refraction invert when you move the Amount slider to either extreme.

- **Smooth**—changes the perimeter range. The perimeter range determines the droplet's tendency to “join” its neighbors. The Smooth setting applies to all selected droplets and new droplets you create.



Low Smooth settings keep droplets distinct (left). Higher Smooth settings make the droplets flow together (right).

- **Size**—changes the diameter of the selected droplets. The Size setting applies to all selected droplets and new droplets you create with the Brush tool or Rain. It does not affect the Circle tool.
- **Volume**—adjusts visibility along the perimeter. The Volume setting applies to all selected droplets and new droplets you create.



Increasing Volume beyond 100% extends visibility beyond the droplet circle into the perimeter range. Decreasing Volume below 100% shrinks the visible portion of the droplet, “drying it up.”

- **Spacing**—adjusts the spacing between droplets in strokes you create with the Brush tool.

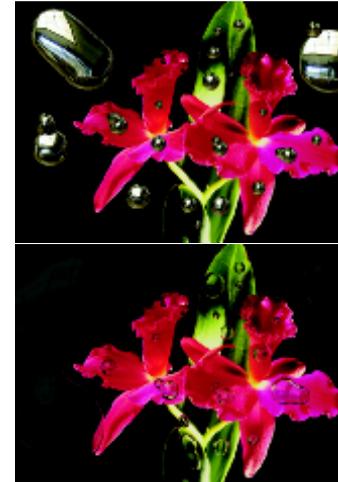


A stroke with low spacing—the droplets flow together. A stroke with high spacing—each droplet is distinct.

- **Map**—specifies the type of metal or reflection map. The type applies to the entire layer. You can apply metal and change the type later. For information about using reflection maps and patterns, refer to “Using Reflection Maps” on page 327.
- **Refraction**—controls droplet appearance. The slider represents a scale between reflection and

refraction. The Refraction setting applies to all droplets in the layer.

If you want to paint with translucent liquid, increase the Refraction slider. As Refraction nears 100%, the metal becomes transparent. The droplets look like a simple liquid—oil or water.



Low refraction means high reflection (top). High refraction creates translucent, refractive liquid (bottom).

- **Surface Tension**—makes the droplets appear more round and three-dimensional.

- **Reset**—restores the default settings.

To create a Liquid Metal dynamic layer:

- 1 Deselect all layers.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Liquid Metal.
- 3 In the Liquid Metal dialog box, choose the Circle or Brush tool. Refer to “Liquid Metal Tools” on page 324 for more information.
- 4 Choose one of the following metal types from the Map pop-up menu:
 - Standard Metal
 - Chrome 1
 - Chrome 2
 - Interior
 - Clone Source
- 5 Use the sliders and controls to adjust the appearance of the metal. Refer to “Liquid Metal Controls” on page 325 for more information.
- 6 Drag in the document window to apply the metal.

If you want to clear the effect and start again, click Clear.

- 7 Click OK to end the Liquid Metal session.

To use Rain:

- 1 Deselect all layers.
- 2 On the Layers palette, click the Dynamic Plug-ins button and choose Liquid Metal.
- 3 In the Liquid Metal dialog box, set the sliders and controls to adjust the metal.
- 4 Click Rain.
Corel Painter scatters metal droplets on the layer.
- 5 Click anywhere to stop the rain.

To create negative metal:

- Press **Option** (Mac OS) or **Alt** (Windows), and drag with the Circle or Brush tool.
You will create holes in your metal. As you drag through positive pools, the negative metal will divide and separate the existing metal.

To adjust the size of the brush or drops of rain:

- 1 In the Liquid Metal dialog box, choose the Liquid Metal Selector tool , and click outside the droplets to deselect all.
- 2 Change the Size slider to the desired value.
- 3 Click the Brush tool and paint, or click Rain.

Tip

- *You can also adjust the size of existing metal by selecting the droplets and moving the Size slider. For information about selecting droplets, refer to “To select metal droplets:” on page 328.*

Using Reflection Maps

Metal is highly reflective. You can customize the look by using a clone source or a pattern as a reflection map. For more information about cloning, refer to “Cloning a Document” on page 186. For more information about creating and choosing patterns, refer to “Using Patterns” on page 64.

To use a reflection map:

- 1 Specify a clone source or choose a pattern.
- 2 Deselect all layers.
- 3 On the Layers palette, click the Dynamic Plug-ins button and choose Liquid Metal.
- 4 In the Liquid Metal dialog box, choose Clone Source from the Map pop-up menu.
- 5 Adjust any settings.
- 6 With the Circle or Brush tool, drag in the document window to apply the metal.
If you want to clear the effect and start again, click Clear.
- 7 Click OK to end the Liquid Metal session.

Note

- *If no clone source has been specified, Corel Painter uses the current pattern as the reflection map.*



The same piece of metal changes appearance when a pattern is used as the reflection map.

Working with Metal

A stroke of metal is made up of a series of discrete droplets. You can select one or several droplets and move them or change their properties. Refer to “Liquid Metal Controls” on page 325 for information about which slider settings apply to selected droplets.

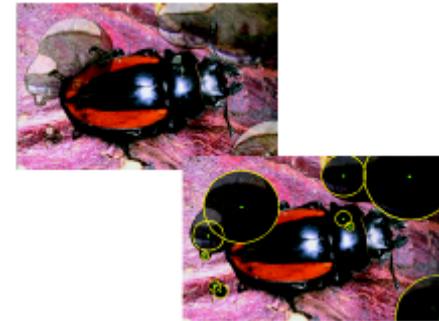
The “handles” show the droplet’s circle and center point. Showing the handles on the droplets isn’t necessary for selecting them, but it can make your work easier.

The droplets applied in the last stroke are automatically selected. Each new stroke deselects the droplets of the previous one.

The Undo feature is not available when working with metal; however, you can remove selected metal, the last metal applied, or all metal on the layer.

To show the handles:

- In the Liquid Metal dialog box, enable Display Handles.



When you enable “Display Handles,” you can see the droplet circles and center points.

To select metal droplets:

- 1 Choose the Metal Selector tool.

2 Do one of the following:

- Drag across the droplets you want to select.
- If Display Handles is enabled, click the center point handle of a droplet.
- If handles are not displayed, click a droplet anywhere.

Hold down Shift, and click additional droplets to add to (or subtract from) the selection.

When a droplet is selected, the center point handle is displayed as a solid.



Drag over the droplets you want to select.

To move metal:

- Drag the center of one of the droplets to move the selected group.

Notice how the droplets seek to join other droplets they encounter. You can control this tendency with the Smooth slider.



You can drag the center of one of the droplets to move the selected group.

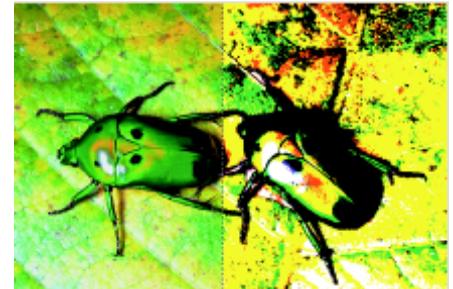
To remove metal:

- Do one of the following:

- Press **Delete** (Mac OS) or **Backspace** (Windows) to remove the last metal applied.
- Using the Metal Selector tool, select the metal and press **Delete** (Mac OS) or **Backspace** (Windows).
- In the Liquid Metal dialog box, click Clear to remove all metal on the layer.

Posterize

The Posterize dynamic plug-in creates a layer that reduces the number of color levels in the imagery it floats over.



A Posterize dynamic layer modifies the right half of this image.

To create a Posterize dynamic layer:

- 1 Make a selection in the document window if you want the new dynamic layer to be a specific size.
- 2 On the Layers palette, click the Dynamic Plug-ins button  and choose Posterize.
- 3 In the Posterize dialog box, specify the number of color levels you want.
The value applies to each color channel—red, green, and blue.
- 4 Click OK to apply the effect.

17 The Image Hose



The Image Hose is a milestone in the evolution of art tools. Instead of painting with color, the Image Hose paints with images—and not just one or two images at a stroke, but a *variety of changing images*.

The images flowing from the hose change as you make a brush stroke. The Image Hose gives you complete control of the image output. For example, by increasing stylus pressure, you can paint larger or more colorful images. Or, by changing the direction of the stroke, you can change the angle of the images. This is just a sample of the possible controls. By creating your own sets of images, anything is possible.



The Image Hose feature allows you to paint with images.

The Image Hose deposits 24-bit images with an 8-bit mask. The mask enables you to layer the images gently, without aliased edges or artifacts.

You can load the Image Hose with leaves, bark, grass, stones, people—images of any description. When you paint with these image elements, you can build them into coherent shapes—a tree, a hill, a cobblestone street, a crowd of people.

How it Works

The Image Hose is a brush. To use it, you must first load it with images. The images are kept in special nozzle files.

On a garden hose, you attach a nozzle to control the flow of water; in Corel Painter, you attach a nozzle to the Image Hose to control its medium—images.

A nozzle file can contain any number of images. Usually, the images are similar and form a logical series—that is, the images progress along some order. For example, the images might increase in size, or advance in angle.

It is not necessary for images to progress in a logical series, but the Image Hose is more effective when they do.

“Indexing” refers to the method used to select particular images from the many images in a nozzle file. Which input to use for indexing is controlled in the Brush Creator by modifying the Image Hose settings on the Stroke Designer tab. You can hose images

sequentially, at random, based on pressure, stroke direction, and several other factors.

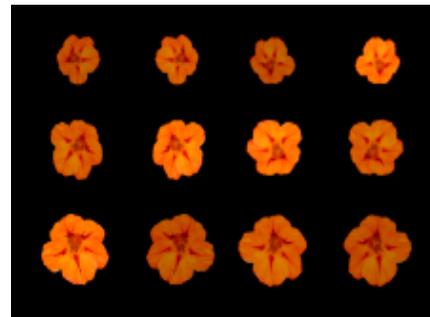
The images are indexed so that Corel Painter can locate and paint specific images on request. As you paint with the Image Hose, you can request specific images from the nozzle index by varying your input value.

Increasing an input value takes images from later in the series. For example, you can set up the nozzle so that by pressing harder with a pressure-sensitive stylus, you paint with larger images.

You control the images themselves in the nozzle file. If you want more variety in the images, create more images in the nozzle file. “Creating Nozzles for the Image Hose” on page 338 covers designing and creating nozzle files.

As your Image Hose requirements become more exacting, you can create complex nozzles that involve two progressions—for example, images get larger and change angle. In this case, you’ll use one input factor to

determine image size, and use a second factor to determine image angle. This creates a 2-Rank Nozzle.

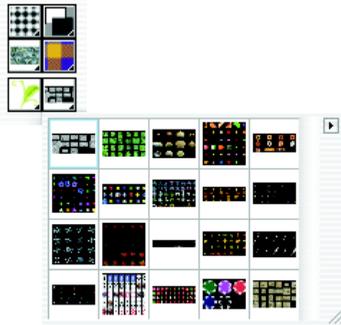


A 2-Rank Nozzle progresses in two dimensions. In this example, the first rank changes angle, the second rank changes size.

Using the Image Hose

The Image Hose is easy to use and offers a number of options for the behavior of “nozzle spray.”

As with other Corel Painter brushes, the Image Hose has several variants. These built-in variants combine nozzle control factors with brush settings to create different hose effects.



The Nozzle selector in the toolbox.

The following descriptions will give you an idea of the effect of each variant.

Random, Sequential, Directional, Pressure, and (Source) Luminance refer to the indexing rule by which images are selected from the nozzle file. The letters R, P, and D in a variant's name refer to random, pressure, and direction. For more information, refer to "Scale" on page 335.

Spray and Linear refer to the placement of images in relation to the stroke. Spray variants scatter images. Linear variants place images directly

on the stroke path. For more information, refer to "Controlling the Image Hose Brush" on page 334.

You can use these variants as a starting point and then adjust the brush and nozzle controls to hose the images just as you want them.

To select a nozzle and use the Image Hose:

- 1 Choose the Brush tool  from the toolbox.
- 2 On the Brush selector bar, choose the Image Hose from the Brush selector.
- 3 Click the Variant selector and choose a variant.
Each variant delivers the images differently.
- 4 In the toolbox, click the Nozzle Selector and choose a nozzle.
- 5 Make a brush stroke on the canvas.

Adjusting Opacity and Color

You can use the property bar to adjust the opacity of nozzle images or to mix them with a secondary color.

The Opacity slider allows you to make nozzle images semi-transparent. If you move the slider all the way to the left, the images become invisible.



You can change the opacity of Image Hose strokes. Top=100% opacity, bottom=20% opacity.

The Grain slider allows you to mix the secondary color with the nozzle images. If the slider is set to 100%, the nozzle images remain pure. As you move the slider to the left, more of the secondary color appears in the images.

If the slider is set to 90%, Corel Painter mixes 10% of the secondary color to 90% of the image. This is a handy way to adjust the shading of image elements.

For information on selecting a secondary color, refer to “Understanding Primary and Secondary Colors” on page 77.



You can turn down the Grain to mix in the secondary color. Top=100% grain, bottom=39% grain.

Controlling the Image Hose

The Image Hose has three components of control: The Image Hose brush, the nozzle controls, and the nozzle file.

- You’ll adjust the brush to determine the placement of images in the stroke.
- You’ll use the Nozzle controls on the property bar to change the scale and to set the rules for indexing.
- You’ll create your own nozzle files to determine the image content and ranking.

Controlling the Image Hose Brush

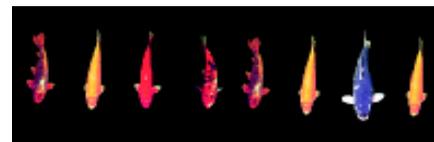
Nozzle controls for the Image Hose primarily affect where the images appear in the stroke, such as whether the images are scattered or closely spaced.

To modify the Image Hose settings

- 1 Choose **Window menu > Brush Creator**, and click the Stroke Designer tab.
- 2 Choose any of the controls in the left pane, and adjust the settings in the right pane.

Spacing Images

You control the space between images with the Spacing settings in the Brush Creator. Moving the Spacing slider to the right increases the spacing between image elements.



The Spacing slider controls the spacing of the images. Top=85%, bottom=20%.

Because spacing is based on the diameter of the brush, the Size settings also affect image spacing. Increasing the brush size adds space between hosed images. Size settings affect the size of the image elements themselves.

The Min Size slider also affects the size of images applied by the Image Hose. When set to stylus pressure or direction, the Min Size setting determines how much size variability is present when you apply images.

For more information on the Spacing settings, refer to “Setting Spacing Controls” on page 156. Refer to “Size” on page 155, and “Min Size” on page 156 for more about the Size and Min Size controls.

Randomizing Placement

You randomize the proximity of images to the stroke path with the Jitter slider on the property bar. When the slider is all the way to the left, images are hosed directly in the stroke. Moving the slider to the right increases the scattering of the images.

You can also adjust the Jitter slider with the Random settings on the Stroke Designer tab. For more information, refer to “Setting Random Controls” on page 167.

Expression Settings

The Expression settings on the Stroke Designer tab offer dynamic control over the brush settings described above. This can lead to interesting effects. For example, angle settings apply when you’re using the Image Hose to paint on imagery.

For more information on the Expression settings, refer to “Expression Settings” on page 162.

Scale

You can control the size of the nozzle images with the settings in the Stroke Designer.

The Set Nozzle Scale command in the Nozzles selector menu lets you control the size of image elements

delivered by the Image Hose. At 100%, the images are the same size as they are in the nozzle file.

To adjust the scale

- 1 In the toolbox, click the Nozzle selector.
- 2 Click the selector menu arrow, and choose Set Nozzle Scale.
- 3 Type a value in the New Scale box.

Tip

- *You can also change the size of images delivered by the Image Hose, using the Size slider on the property bar—just as you would with other brushes.*

Indexing

As you paint with the Image Hose, Corel Painter selects images from the nozzle file based on one or more rules. This selection process is known as indexing. This indexing determines which images from the many in the nozzle file are delivered from the Image Hose. The Image Hose settings in the Stroke Designer let you change the rules for indexing the images.

Image nozzle files can be created with one, two, or three image progressions known as “ranks.” Corel Painter offers these three rankings, so each nozzle file can be identified as a 1-Rank, 2-Rank, or 3-Rank nozzle.

The following indexing factors are available in Corel Painter:

- None
- Velocity
- Direction
- Pressure
- Tilt
- Bearing
- Source
- Random
- Sequential

For more information about the rank system, refer to “Designing Nozzles: 1, 2, or 3 Ranks” on page 338.

To change the indexing rule:

- 1 On the Stroke Designer page of the Brush Creator, choose Image Hose.

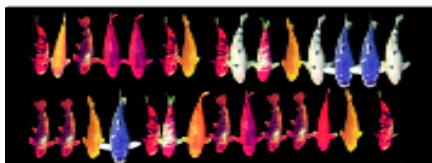
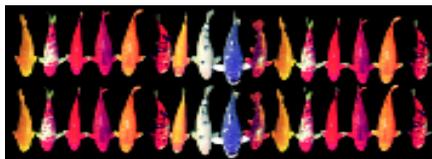
- 2 For each rank in the nozzle, choose a rank type from the pop-up menu.
- 3 If necessary, adjust the Direction settings.

Note

- *The Rank 2 and Rank 3 types have no effect on a 1-Rank nozzle. The rank types are described below.*

Rank Types

Sequential indexes images in the order they appear in the rank—moving left to right, and top down, just as you read English.



Above: sequential indexing. Below: random indexing.

Random selects images from the rank at random.

Randomness can add irregularity of color and texture to the areas you paint with the Image Hose. This contributes to the aesthetics of the painting because minor irregularities occur in natural structures.

Source delivers images based on the luminance of pixels in the clone source (or current pattern if you have not set a clone source). The pixels of the working document have a direct correspondence with the pixels of the clone source image. As the luminance increases, Source delivers images from later in the rank.

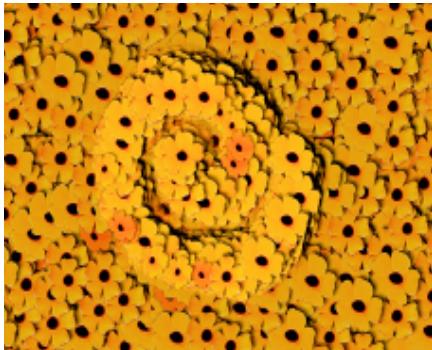
For best results, the clone source should have the same dimensions as the document in which you’re working. For more information on setting up and using a clone source, refer to “Changing Clone Source” on page 188.

Depending on the nozzle you’re using, Source can be quite useful. For example, if the source image is black on the left and progresses through gradations to white on the right, the

Image Hose delivers images from the start of the rank at the left of the document, in the dark area. As the brush moves to the right into the lighter area, the Image Hose delivers images from later in the rank.

To take advantage of this feature, you may want to create a special source image for the single purpose of controlling the Image Hose.

The clone source image or pattern for controlling the Image Hose may be grayscale. Remember, Corel Painter uses only the luminance values.



Indexing based on Source.

Bearing indexes images based on the position of the stylus. Not all stylus models convey this information. This control does not work with a mouse.

Tilt indexes images based on the tilt of the stylus. Not all stylus models convey this information. This control does not work with a mouse.

Pressure indexes images based on stylus pressure. Greater pressure selects images from later in the rank. Pressure works only with pressure-sensitive tablets.

Pressure is a great control for requesting images from a nozzle. For example, if you set up your nozzle file to progress from small to larger images, heavier strokes deliver larger images.

Direction indexes images from the rank based on the direction of the stroke. The first item in the rank matches to a left-right stroke (toward 3 o'clock). As the stroke direction progresses counter-clockwise, the Image Hose delivers subsequent images from the rank.

The number of elements in the rank determines the directional change required to index a different element. For example, a nozzle file that contains 72 images at progressive angles delivers a different item at every 5° of stroke direction ($360^\circ / 72 = 5^\circ$).



This Arrow nozzle is an example of indexing based on Direction.

Velocity indexes images from the rank based on the speed of the stroke. A faster stroke delivers elements from later in the rank. Velocity is often used with a mouse to mimic pressure.

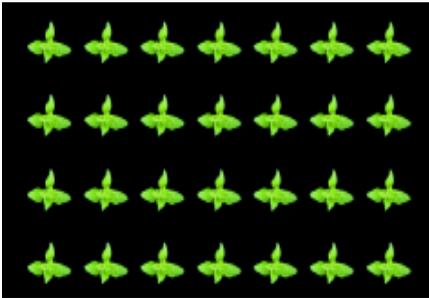
Velocity can be difficult to control. For this reason, you might want to use it in a rank with few elements.

None returns one element only—the last in the rank.

Nozzle Options

The Nozzle Selector has one option for the Image Hose—Use Brush Grid.

When Use Brush Grid is enabled, the Image Hose places images in a regular grid pattern. The grid size follows the grid in the nozzle file.



Enable Use Brush Grid to place images on a perfect grid.

Creating Nozzles for the Image Hose

The Nozzle Ranking System

A 1-Rank indexing system is simply a numbered sequence. You can locate any element in the sequence by giving its number. For example, “Item 3.”

In Corel Painter, you locate and deliver images by varying input—for example, by pressing harder with the stylus or changing the direction of the stroke. For information on the input factors you can use to control indexing, refer to “Scale” on page 335.

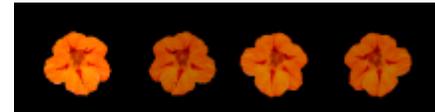
A 2-Rank indexing system uses two perpendicular indexes. The first rank extends horizontally and the second extends vertically. Again, you’ll vary input to locate an item for either rank. You can think of indexing in the two ranks as “selecting a column” and “selecting a row.” The Image Hose delivers the image from the nozzle where the selected column and row intersect. For this to work properly, you must use different input factors for selecting in each rank.

A 3-Rank indexing system extends the 2-Rank model. The third rank is created by repeating the 2-Rank “set.” Within the selected set, the 1-Rank and 2-Rank indexing (described above) is used. In order for this to work properly, you must use different input factors for selecting in each rank.

A 3-Rank indexing system can be used with calendar dates. Any day, in the past or future, can be located, given the month, day, and year. For example, “February 25, 1962 (2/25/1962).”

Designing Nozzles: 1, 2, or 3 Ranks

A nozzle file contains a series of images arranged in a regular grid. Usually, the images are progressive in terms of size, shape, angle, or color. Progression is not necessary, but it increases the sophistication of the Image Hose. For example, a nozzle file with images progressing in size can be set up so that greater stylus pressure paints incrementally larger images.

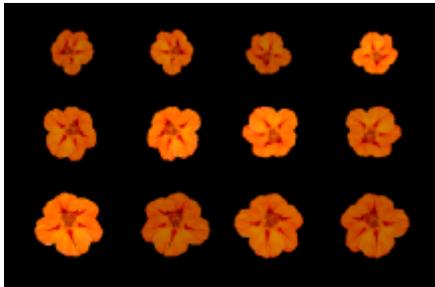


A 1-Rank Nozzle progresses in one dimension. In this example, changing angle is the first rank.

What if you want a two-dimensional progression, such as having image elements increasing in size and

changing angle? To do this, you'll need to set up your images as a 2-Rank nozzle file. Painting with a 2-Rank nozzle, you can control where your image comes from in terms of *both* progressions. In this case, you use a different input factor to control the location of the image elements in each rank.

In the following image, Rank 1 is a progression in angle, and Rank 2 is a progression in size. It would make sense to use direction to control Rank 1 and pressure to control Rank 2.

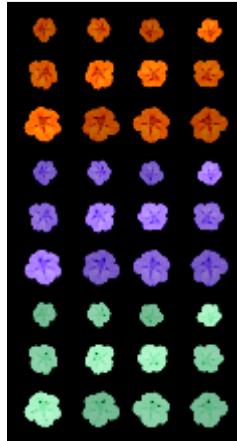


A 2-Rank Nozzle progresses in two dimensions. In this example, changing angle is the first rank and changing size is the second rank.

You can extend the nozzle to a third progression, creating a 3-Rank nozzle. Again, you use a separate input factor to control the location in each rank.

In the following image, Rank 3 is a progression in color. You might control this final rank with randomness, velocity, or source—depending on your plans for the image.

If you use one input factor to control two ranks, some image elements become unavailable.



Color is the third rank in this 3-Rank Nozzle.

For information on setting the input factor for each rank, refer to “Scale” on page 335.

Consider the way you will control each rank before building a nozzle. The way you lay out the images can limit the ways you can control the indexing.

Before you begin building a nozzle, you must decide what rank level you need. And, you must determine how many elements you want in each progression.

Preparing Images

Regardless of the rank level of the nozzle you are making or the method you use to build it, the following tips will help you develop the individual images.

Each element in an Image Hose nozzle must be selected. The selection allows you to paint with images of irregular shape. Only what is inside the selection will flow from the Image Hose.

You might want to work by creating a silhouette of the image shape as a selection, then fill in the color information later. With soft edges to the selection, you can create images that are anti-aliased automatically. This improves the continuity across an area of hosed images.

You can create Image Hose nozzles from layers. As you create image elements, turn them into layers. If the layer looks good when dropped on different backgrounds, the image will look good as a nozzle element. Building a nozzle from layers offers advantages in convenience, as well.

Another technique is to float the image on a black background and add a drop shadow. This will enhance the appearance of three dimensions, as image elements build up in layers. When all elements have the shadow in the same position, it appears the light source is the same across the painted area.

For more information on working with layers, refer to “Working with Layers” on page 229.

Creating a 1-Rank Nozzle from a Group of Layers

To create a 1-Rank nozzle from layers:

- 1 Create image elements as layers for the nozzle.
The alignment of layers in the document doesn't affect the nozzle building process.
- 2 Choose **Window menu > Show Layers** to show the Layers palette. If the Layers palette is not expanded, click the palette arrow. The top layer on the list will be the first element in the nozzle sequence. Moving down the list advances through the element progression.
- 3 Rearrange the layer hierarchy to create the progression you want in the nozzle.
- 4 If any item on the Layers palette is a group, click the Layer Commands button  and choose Collapse to convert it to a standard layer.

- 5 Hold down the Shift key and select each item in the list.
- 6 Click the Layer Commands button and choose Group.
All the items are now part of the same group.
- 7 In the toolbox, click the Nozzle selector.
- 8 Click the selector menu arrow and choose Make Nozzle From Group. Corel Painter creates a new, untitled image. This is your nozzle file.
- 9 Choose **File menu > Save**.
- 10 Give the file a descriptive name and save it in RIFF format.



Creating a nozzle from layers.

Loading Nozzle Files

If you've created a separate nozzle file that isn't part of a library, you can load it into the Image Hose library for future use.

To load a nozzle file:

- 1 In the toolbox, click the Nozzle selector.
- 2 Click the selector menu arrow, and choose Load Nozzle.
- 3 Choose a nozzle from the Select Image dialog box, and click Open.

Note: The first time you load a nozzle, Corel Painter may ask for some information on the image's construction. "Creating Nozzles for the Image Hose" on page 338 covers this.

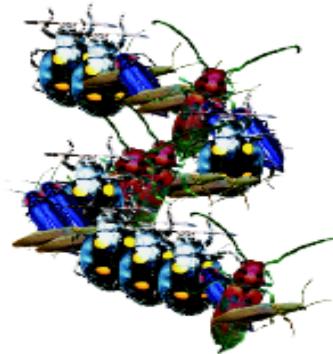
To add a nozzle to the current library:

- 1 In the toolbox, click the Nozzle selector.
- 2 Click the selector menu arrow, and choose Add Nozzle to Library.
- 3 In the Save dialog box, name the nozzle.

You can now choose an indexing rule and paint with your 1-Rank nozzle.

Tip

- If you want to create your own nozzle libraries, refer to "Nozzle Libraries" on page 345.



Painting with a nozzle created from layers.

A 1-Rank Nozzle doesn't mean the images must be in one line. Corel Painter will wrap images onto several lines to create a document of reasonable shape. Corel Painter follows a mathematical rule in reconstructing the rank of images. This rule is contained in the Nozzle

Definition. You'll learn more about this in "Building the Nozzle" on page 342.



Nozzles are most useful when they deliver similar images with some irregularity, for example, butterflies on flowers.

Creating a 2-Rank Nozzle on a Grid

Nozzles of two and three ranks cannot be created from a layer group. You must build these nozzles manually.

The indexing system requires the nozzle images to fit in a regular grid. You can create a nozzle file by setting up a grid and placing an image element at the center of each cell.

Determining the Grid Cell Size

The cell size is based on the smallest rectangle that will hold the largest image element (including its selection).

To make sure your images fit in the grid, copy your largest image element to a layer. Refer to “Creating Layers” on page 230 for more information.

To determine the grid cell size:

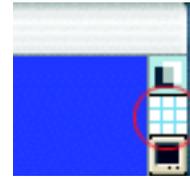
- 1 In the toolbox, click the Layer Adjuster tool , and choose a layer.
Corel Painter displays the pixel width and height of the layer’s content. You might want to use slightly larger values as the grid size.
- 2 Determine the number of elements you want in each rank.

- 3 Multiply the number of items in Rank-1 by the cell width.
This value is the cell width.
- 4 Multiply the number of items in Rank-2 by the cell height.
This value is the cell height.

To create the grid

- 1 Choose **File menu > New**, and enter the appropriate width and height dimensions in the Width and Height boxes.
- 2 Choose **Canvas menu > Grid > Grid Options**.
- 3 In the Grid Options dialog box, set the Horizontal and Vertical Spacing to the values of the cell width and height, and click OK.
- 4 Show the grid by clicking the Toggle Grid button above the vertical scroll bar on the image window.

The grid should describe the number of elements you want in each rank—Rank 1 horizontally, and Rank 2 vertically.



Click the Grid button to display a grid in the image window.

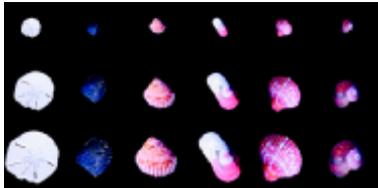
Building the Nozzle

Once you have set up the nozzle images in the grid, you can build your nozzle.

To build a nozzle:

- 1 Place one image element in the center of each grid cell.
The easiest way to do this is with layers. Follow an appropriate progression based on your intentions for controlling this nozzle. Each image element must be included in the selection. If you bring image elements into the grid as layers, they will bring their layer mask with them.
- 2 Choose **Window menu > Show Layers**.

- 3 On the Layers palette, select all the layers.
- 4 Click the Layer Commands button , and choose Drop.
- 5 Choose **File menu > Save As**, and save the file in RIFF format.



The finished 2-Rank Nozzle—Shell Scales.

Loading a Nozzle

After you build a nozzle, you can load it into the Image Hose.

The first time you load the nozzle file, the Nozzle Definition dialog box appears, where you must enter information about the math use to create the file—the size of each cell and how many image elements there are. Corel Painter needs this information to index images correctly.

To load a nozzle:

- 1 In the toolbox, click the Nozzle selector.
- 2 Click the selector menu arrow, and choose Load Nozzle.
- 3 In the Select Image dialog box, choose the nozzle and click Open.
- 4 In the Item Width and Height boxes in the Nozzle Definition dialog box, enter the values you set in the nozzle file.
These values describe the cell grid size.
- 5 In the Rank columns, enter the number of image elements in each progression.

If the values you enter do not describe the file, Corel Painter won't accept them. In other words, the “number of items” multiplied by the “item size” *must* equal the dimensions of the nozzle file.

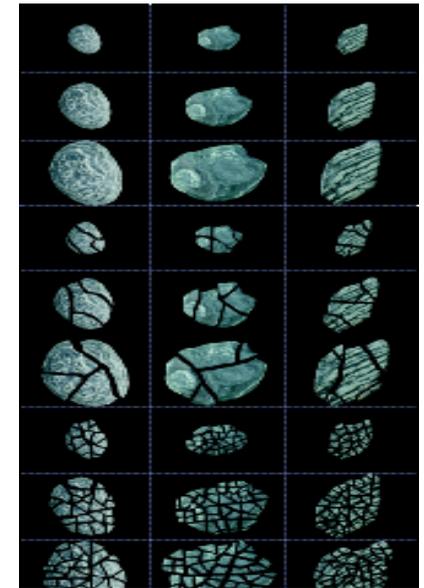
Remember, you still need to modify the settings on the Stroke Designer tab in the Brush Creator to describe the control factors for each rank.

Note

- For more information on setting up the nozzle progression, refer to “Controlling the Image Hose” on page 334.

Creating a 3-Rank Nozzle

You can create a 3-Rank Nozzle using the grid method.

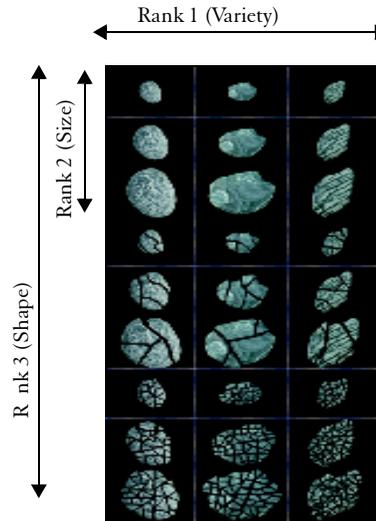


The Broken Shells—a 3-Rank Nozzle.

To create a 3-Rank nozzle:

- 1 Build or open a 2-Rank file.
- 2 Determine the number of elements you want in the third rank.
- 3 Choose **Window menu > Show Info** to show the Info palette, and check the height of the current nozzle file.
- 4 Multiply the number of items in the third rank by the height of the file.
The result you get will be the height of your 3-Rank Nozzle file.
- 5 Choose **Select menu > Reselect**, and choose **Select menu > Float**.
- 6 Choose **Edit menu > Copy**.
Now you must extend this file vertically to accommodate the items in the third rank.
- 7 Choose **Canvas menu > Canvas Size**.
- 8 Add the correct number of pixels to set the canvas to the height of your 3-Rank nozzle.
Now you can develop imagery for each item (set) in the third rank.

- 9 Choose **Edit menu > Paste**, and position the pasted layer in the area you added.
The images should be centered in the grid cells.



This nozzle file has three items in Rank 1, three items in Rank 2 and three items in Rank 3.

- 10 If necessary, modify the images in this layer.

- 11 Choose the Layer Adjuster tool  from the toolbox, and select the layer.
- 12 Click the Layer Commands button , and choose Drop.
- 13 Choose **File menu > Save**, and save the file in RIFF format.



Painting with the 3-Rank Nozzle "Broken Shells."

Notes:

- If this is a new file and you did not define it as a 1- or 2-Rank nozzle earlier, refer to "Creating a 2-Rank Nozzle on a rid" on page 341.
- If you previously defined this file as a nozzle, you must edit the definition to describe the three ranks you created.

Nozzle Libraries

Nozzle libraries let you save and retrieve sets of nozzle files.

For information on loading alternate libraries, creating new libraries, and moving items between libraries, refer to “Libraries and Movers” on page 25.

To add a nozzle to the library:

- 1 In the toolbox, click the Nozzle selector.
- 2 Click the selector menu arrow, and choose Load Nozzle.
- 3 Locate your nozzle file in the dialog box, and click Open.
- 4 If necessary, enter the values to define the number of elements, their size, and rank.
- 5 In the toolbox, click the Nozzle selector.
- 6 Click the selector menu arrow, and choose Add Nozzle to Library.

To retrieve a nozzle:

- 1 In the toolbox, click the Nozzle selector.

- 2 Click the selector menu arrow, and choose Check Out Nozzle.
Corel Painter opens the nozzle file in an image window.
- 3 If necessary, edit the file.
- 4 To put it back in the library, click the Nozzle selector menu arrow in the toolbox and choose Add Nozzle to Library.

Creating a Nozzle from a Movie

Frame after frame of a Corel Painter movie can flow from the Image Hose.

The frame size describes the “Item Size.” If you’re creating a movie just to turn it into a Nozzle, set the frame size just large enough to hold your largest image element.

You can use the selection in each frame to control the shape of the images.

To make a nozzle file from a movie:

- 1 Open the movie you wish to turn into a nozzle file.

- 2 In the toolbox, click the Nozzle selector.
- 3 Click the selector menu arrow, and choose Make Nozzle from Movie.
An untitled image file appears containing each movie frame.
- 4 If you didn’t create selections in a frame of the Frame Stack, you can create the selections now.
Remember, each image element must be included in the selection.
- 5 Save it as a RIFF file.
You can now open and use the RIFF file like any 1-Rank nozzle file.

Creating a 2-Rank Nozzle from a Movie

The Make Nozzle from Movie command automatically creates a 1-Rank nozzle. If you want, you can use this technique to create a 2-Rank nozzle.

To make a 2-Rank nozzle from a movie:

- 1 Arrange the image elements in sets according to the second rank.

For example, if the second rank is a progression in color, the movie should be arranged “red set, purple set, blue set” and so on. Each “set” is the first rank progression.

- 2 In the toolbox, click the Nozzle selector.
- 3 Click the selector menu arrow, and choose Make Nozzle from Movie.
- 4 Choose **File menu > Get Info**.
The File Information dialog box holds the information Corel Painter uses to index in this file.
- 5 Edit the statement to describe the nozzle index you created.

For example, “12 items” describes a 1-Rank nozzle with 12 image elements. Changing this to “4 by 3 items” describes a 2-Rank nozzle with four items in rank 1 and three items in rank 2.

Note

- *Do not allow empty frames at the end of the movie. The total number of frames must equal the number of elements in Rank 1 multiplied by the number of elements in Rank 2.*

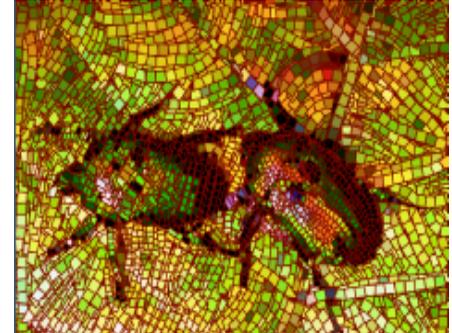
18 Mosaics



Making mosaics is a classical art technique that creates pictures from colored tiles and grout. In Corel Painter, the Make Mosaic feature and its companion, Make Tessellation, let you create tile mosaics and stained-glass window formations.

The Make Mosaics feature lets you paint with a mosaic medium. In essence, you're painting with tiles. The medium you paint with can be simple colored tiles or colors cloned from an original image. This way, you can paint an original image on a blank canvas or re-create an image from a cloned photo.

Each tile is an independent object and carves its shape so that it fits perfectly with surrounding tiles. You can erase and/or reshape tiles to create the perfect mosaic design.

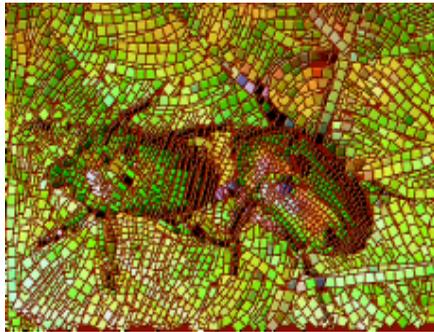


A mosaic image.

The Make Tessellation feature takes an original image and creates tile inlay patterns from non-rectangular tiles. This feature divides your image into polygonal shapes and then converts the shapes into tiles.



A mosaic based on Tessellation.



A mosaic it as acetate.

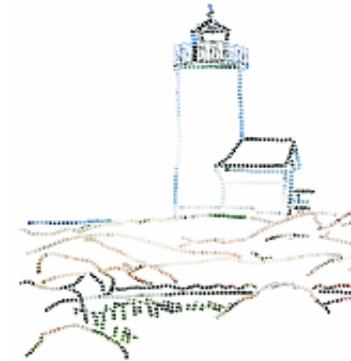
After creating a mosaic, using either of the two methods, you can give it a three-dimensional appearance. You can also apply brush strokes to the mosaic. A brush such as Distortion will smear the tile colors. For

instructions on adding dimension to the tiles, refer to “Render Tiles into Mask” on page 356.

Suggestions for Creating Mosaics

If you are either cloning from an existing image or creating a mosaic design from scratch, you’ll want to follow a few suggestions:

- Use your first few courses of mosaic tiles to delineate the most important contours of your subject—just as if you were drawing with a pencil. Describe the most important lines of your scene first. Additional courses of tiles should follow the initial contours.

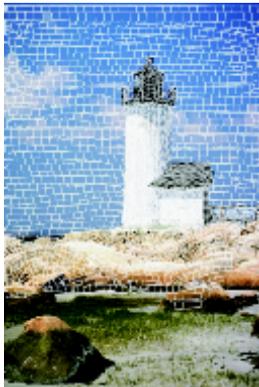


Tiles applied to the outline of an image.

- Use larger tiles in areas of flat color and smaller tiles in regions where you must add more detail. In flat color areas, it’s effective to introduce some color variability. Tiles used in traditional mosaics rarely have uniform color.
- If you’re working in a clone, turn on the Tracing Paper feature by enabling the Use Tracing Paper check box in the Make Mosaics dialog box. This helps you follow the source imagery.



Clone without source imagery showing.



Clone with source imagery showing.

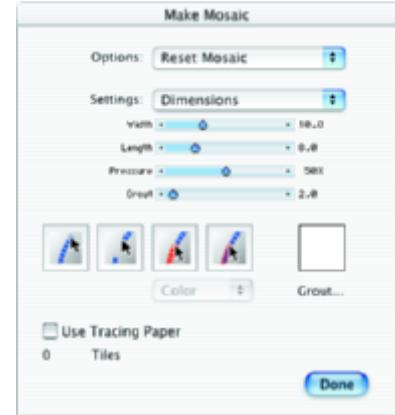
Getting Started with Mosaics

The Mosaic feature differs from the other Natural-Media tools in Corel Painter. When you're working with the mosaics medium, you're actually working in a different mode. This means that you must have the Make Mosaic dialog box open and you can't access any other tools or features—except for the Colors palette.

To create a mosaic:

- 1 Open a new document or clone an existing document.
- 2 Choose **Canvas menu > Make Mosaic**.

The Make Mosaic dialog box provides all the controls for working in this medium. When painting with mosaic tiles, you'll work with one of four tools: Apply Tiles, Remove Tiles, Change Tile Color, or Select Tiles.



Use the Make Mosaic dialog box to change your artwork into tiles.

Saving to a RIFF File

If you save a mosaic in the RIFF format, you can open the file later, choose the Make Mosaic command, and continue working.

RIFF is the only file format that will save the resolution-independent mosaic tile objects. Saving in any other format prohibits you from resuming the mosaic process. All file formats will save the rendered image of the mosaic tiles on the canvas.

Creating the Mosaic Effect

When in Mosaics mode, you can add, remove, and reshape mosaic tiles. You can choose a color to paint with or use the Clone Color. You can also set grout thickness.

The following key commands help in working with the entire mosaic:

Key	Command	Description
a	select all	Selects every tile.
d	deselect all	Deselect all tiles.

Applying and Removing Tiles

To apply tiles:

- 1 Choose **Canvas menu > Make Mosaic**.
- 2 In the Make Mosaic dialog box, click the Apply Tiles button .
- 3 Drag in the document window. New tiles flow from your stroke.

Tip

- *You can also have Corel Painter do the tile work automatically with the Stroke Selections and Fill Selection commands.*

To remove tiles:

- 1 Choose **Canvas menu > Make Mosaic**.
- 2 In the Make Mosaic dialog box, click the Remove Tiles button .
- 3 Select the tiles you want to remove.

Tile Color

The selected primary color on the Colors palette determines the color.

You might want to add some color variability to build visual interest.

When working in a clone document, you can color the tiles based on the clone source.

To use multi-colored tiles:

- 1 Choose **Window menu > Show Color Variability** to display the Color Variability palette.

If the Color Variability is not expanded, click the palette arrow.

- 2 Choose a color variability method from the pop-up menu.
- 3 Move the sliders or type values in the boxes to adjust the color variability settings.

To base colors on a clone source:

- After cloning an image, enable the Clone Color option  on the Colors palette.

Normally, each tile is given a single color. If you want more options for coloring tiles, render the tiles to a channel. You can then convert the channel to a selection to paint directly on the tiles, apply effects, or fill them with a pattern, weave, gradient, or image. Refer to “Render Tiles into Mask” on page 356 for more information.

Changing Tile Color

There are several ways to change tile color. You can adjust the value, change the hue, or randomize variability. You can adjust the color for individual tiles or across areas of the mosaic.

To change tile color individually:

- 1 Choose **Canvas menu > Make Mosaic**.
- 2 In the Make Mosaic dialog box, click the Change Tile Color button  .
The adjustment mode menu beneath the tool icon becomes active.
- 3 Choose a color adjustment mode from the menu.
 - **Color** changes the tile to the current primary color.
 - **Darken** applies a small amount of black.
 - **Lighten** applies a small amount of white.
 - **Tint** applies a small amount (10%) of the current primary color.
 - **Vary** adds color variability, based on the variability settings on the Colors palette. On the Colors and Color Variability palettes, choose the color and variability settings you want to use.
- 4 Select the tiles you want to change.

To change tile color in selected tiles:

- 1 Choose **Canvas menu > Make Mosaic**.
- 2 In the Make Mosaic dialog box, click the Select Tiles button  .
- 3 Click or drag across the tiles you want to select. Borders appear on selected tiles.
You can select contiguous tiles of the same color (no variability allowed) by holding down the **Command** (Mac OS), **Control** (Mac OS), or **Ctrl** (Windows) key and selecting a group of tiles.
Clicking on a tile already selected deselects it.
- 4 Choose a color from the Colors palette.
Press one of the following keys to apply the described color change to the selected tiles:

Key	Command	Description
c	color	Changes the tile to the current primary color.

Key	Command	Description
t	tint	Applies a small amount (10%) of the current primary color. Repeat to accentuate.
v	vary	Adds color variability, based on the variability settings in the Color controls. Repeat until you are satisfied with the results.

Grout Color

Any area not covered by tiles is considered grout. The grout color is assigned to the mosaic background when you begin working.

To change the grout color:

- 1 Choose **Canvas menu > Make Mosaic**.
- 2 In the Make Mosaic dialog box, click the Grout color chip.
Use the Color Picker to select a grout color. You can change the grout color at any time. However, changing the grout color automatically re-renders the mosaic.

Tile Settings

Tile shapes have two categories of control: Dimensions and Randomness. Use the Settings menu to choose which category you want to change.

Dimensions

The Dimensions sliders let you control the basic size of the tiles and grout spacing.



Use the Dimensions sliders to control size and spacing of the tiles. Top=3.9, bottom=27.9.

Width Dimensions

Width sets the width of the tiles in pixels.



The Dimensions: Width slider controls the width of the tiles. Top=3.5, bottom=30.4.

Length Dimensions

Length sets the length of the tiles in pixels.



The Dimensions: Length slider controls the length of the tiles. Top=4.1, bottom=24.2.

Pressure

Tile width depends on stylus pressure. The Pressure slider allows you to control the width variance under differently weighted strokes.

With the Pressure slider set at zero, a light stroke produces narrow tiles and a heavier stroke creates wider tiles.

Increasing the Pressure slider increases the effect of pressure on the width of the tiles. By increasing the Pressure setting, you can prevent the creation of narrow tiles in response to a light stroke. Setting Pressure to 100% creates uniformly wide tiles, regardless of the pressure.



The Dimensions: Pressure slider controls how pressure affects tile width. Top 0%, bottom = 100%.

Grout Dimensions

Grout sets the spacing between tiles in pixels.



The Dimensions: Grout slider controls the spacing between tiles. Top = 0%, bottom = 15%.

Randomness

The Randomness sliders allow you to control the uniformity of the tile shapes. Increasing randomness makes the shapes more erratic—each different from the last.

For example, if the Length dimension is 10 pixels, a Length randomness of 25% creates tiles that are randomly given a length from the range of 7.5 to 12.5 pixels.

Width Randomness

Increasing Width randomness allows the width to vary by the set percentage.



The Randomness: Width slider controls the randomized tile width. Width = 92%.

Length Randomness

Increasing Length randomness allows the length to vary by the set percentage.



The Randomness: Length slider controls the randomized tile length. Length = 98%.

Cut Randomness

With Cut randomness set to 0, the edges of the tile are created perpendicularly to the stroke. Increasing Cut randomness allows the angle of the tile ends to vary.



The Randomness: Cut slider controls angle of the end tiles. Cut=90°.

Grout Randomness

Increasing Grout randomness allows the spacing between tiles to vary by the set percentage.



The Randomness: Grout slider controls the randomness of the spacing between tiles. Grout=100%.

Working with Mosaics

Each mosaic tile you create is stored as a resolution-independent object within the Corel Painter image database. This means that if you resize an image composed of mosaic tiles, your image can be displayed at the same quality as if it was originally created at higher resolution.

The image that you see displayed is the set of all mosaic tiles rendered as an image onto the canvas. Mosaics can be re-rendered at any time. Once you exit the Make Mosaic dialog box, you can treat this rendered image just like any photograph or painting. You can paint it, apply effects to it, select portions of it, or increase the canvas size. However, once you choose Re-render Mosaic, Corel Painter erases any imagery that is not a tile or grout.

Mosaics and Layers

The first thing the Mosaic feature does is cover the entire canvas with grout. This obliterates images that are on the canvas, but leaves objects that hover above the canvas, such as layers and

shapes. These objects are not deleted, but they do cover up the mosaic you're working on.

Note

- *The Mosaic feature works with the entire canvas. You cannot apply mosaic tiles inside a layer.*

Compositing with Mosaics

If you want to composite a mosaic with some other image, you have several options:

- using multiple documents
- using layers
- layering mosaics

Using Multiple Documents

You can create the mosaic in its own document. When you're satisfied with the result, float and copy the mosaic to the document where you want to composite it.

Using Layers

You can float the non-mosaic portion of the image. Create the mosaic on the canvas. When you're satisfied with the mosaic, you can drop the layers.

Layering Mosaics

If a mosaic already exists in the document when you open the Make Mosaic dialog box, Corel Painter assumes you want to keep existing tiles and does not apply new grout. To avoid this, you can use a layer to create a mosaic on top of an image.

To layer mosaics:

- 1 Create a mosaic, then click Done to exit the Make Mosaic dialog box.
- 2 Fill, paint, and drop layers to create your background.
- 3 When you return to Make Mosaic, your background image remains and you can place tiles over the top of it.

Removing tiles placed on an image reveals the grout, not the image.

Fitting Tiles Together

When working with real ceramic tiles, it is physically impossible to merge tiles. You can put them close to each other, but you can't make them occupy the same space. Likewise, the mosaic tiles in Corel Painter respect each other's space. Tiles don't overlap or merge. Corel Painter adjusts the shape of the tiles to fit them together while maintaining the grout lines. So, when you want to re-lay the tiles in an area, you must remove the existing tiles.

For more information on removing tiles, refer to "Reset Mosaic" on page 355.

Mosaic Commands

Once you have created a mosaic, you can use several powerful mosaic features to improve your image.

Reset Mosaic

This command removes all tiles from the document. Corel Painter clears the canvas, leaving only the grout color.

If you want to remove tiles selectively, use the Remove Tile tool discussed in "Applying and Removing Tiles" on page 350.

Re-Render Mosaic

This command re-creates the mosaic from the grout color and the tile object information. Re-rendering first fills the image with the grout color and then re-renders the mosaic tiles at the resolution of the document. You can use this command to change the resolution of the tiles, after you change the resolution of your document.

To re-render tiles:

- 1 Open an image that is the size you want.
- 2 Create a mosaic, and click Done to exit the Make Mosaic dialog box.
- 3 Choose **Canvas menu > Resize**.

In the dialog box, disable the Constrain File Size option and set the resolution to a higher value.

When Corel Painter finishes resizing, you'll notice the tiles have

blurred. You can correct this problem by re-rendering the mosaic.

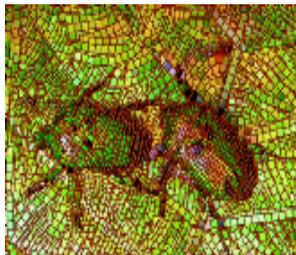
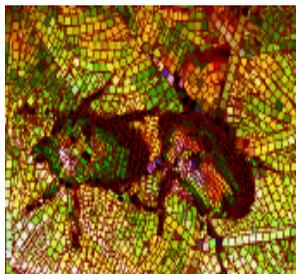
- 4 Choose **Canvas menu > Make Mosaic**.
- 5 In the Make Mosaic dialog box, choose Re-Render Mosaic from the Settings pop-up menu.

Corel Painter replaces the resized, blurry tiles with tiles rendered at the higher resolution.

Render Tiles into Mask

This command places the tile shapes in a new channel named Mosaic Mask (on the Channels palette).

This feature has several uses. The most common is adding depth to the tiles.



Use Surface Texture to create a look of 3D tiles.

With the tiles in a channel, you can load the mosaic pattern as a selection or you can invert the channel to use the grout as a selection. This can be particularly interesting when working with a tessellated mosaic.

To give the mosaic tiles a three-dimensional look:

- 1 After creating the mosaic, choose Render Tiles into Mask from the Options pop-up menu.

- 2 Click Done to exit the Make Mosaic dialog box.
- 3 Choose **Effects menu > Surface Control > Apply Surface Texture**.
- 4 In the Apply Surface Texture dialog box, choose Mosaic Mask from the Using pop-up menu.
- 5 Change the Amount and Softness sliders to achieve the level of relief you want.

In most cases, you'll want the Picture slider at 100%. For more information on surface texture options, refer to "Apply Surface Texture" on page 275.

Because Corel Painter uses the tile shapes (from the channel), the resulting surface texture gives the tiles an excellent 3D appearance.

Starting with a Triangle

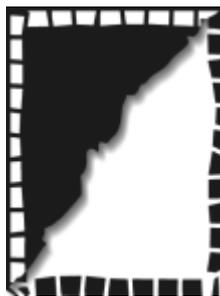
When the Start with Triangle command is enabled, Corel Painter creates a triangle as the first tile in each stroke. This is particularly useful when filling a "V" shaped space with tiles.



Start with Triangle makes a perfect wedge in the “v.”

Respecting the Edge of an Image

When the Respect Edge of Image command is enabled, Corel Painter maintains a grout line at the perimeter of the image. Tiles you create at the edge of the image do not violate the grout line.



Respect Edge of Image ensures the tiles you create at the edge will not violate the

grout line. In this example, the white tiles respect the edge, while the black tiles do not.

Stroke Selections and Fill Selection

The Stroke Selections and Fill Selection commands are provided for applying mosaic tiles to selections.

The Mosaic selections features work only with path-based selections. You might need to use the Transform Selection command to convert a channel-based selection to a path-based selection. For more information, refer to “About Selection Types” on page 202.

Stroking and filling a selection makes sense only when you change a parameter between operations; for example, if you change the tile color or dimensions. If you are planning to use the stroke and fill features, remember to apply the stroke before you apply the fill.

To create a mosaic in a selection:

- 1 Set up the area you want to tile as an active selection.

- 2 Choose **Canvas menu > Make Mosaic**.
- 3 In the Make Mosaic dialog box, choose Dimensions or Randomness from the Settings pop-up menu.
- 4 Choose the color for the tile and the grout.
- 5 Use the Options pop-up menu to select the command you want:
 - Stroke Selections creates one row of tiles along each selection path.
 - Fill Selection applies multiple rows of tiles, working in from the path until the selected area is filled with tiles.
- 6 Click Done to exit the Make Mosaic dialog box.

Notes:

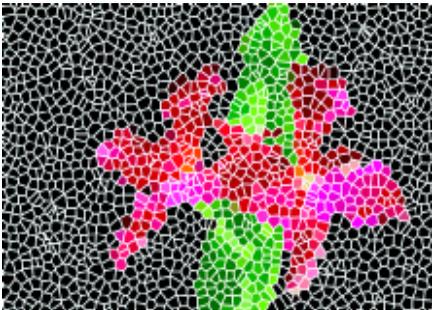
- *In some cases, Corel Painter might not put a tile in every space. You can fill openings by choosing the Apply Tiles tool and putting them in yourself.*
- *If you don't like the way Corel Painter filled an area, you can use the Remove Tiles tool to clear it. Then you can re-apply tiles by hand.*

Working with Tessellation Mosaics

A tessellation is a type of mosaic that uses non-rectangular tiles.

Tessellation tiles are subject to the same rules as the rectangular mosaic tiles.

The Make Tessellation feature works by dividing the canvas into polygonal shapes, which become the mosaic tiles. The polygons themselves are sets of points, connected by line segments. You can control the number of points and their distribution. You can also specify how the points are connected.



A tessellation mosaic uses non-rectangular tiles.

After choosing the Make Tessellation feature, the polygons appear as mosaic tiles, are given the primary color, and are surrounded by the grout lines described in the Make Mosaic dialog box.

You can use the tools in the Make Mosaic dialog box to remove tiles and change their color. However, you can't re-apply tiles.

To create a tessellation:

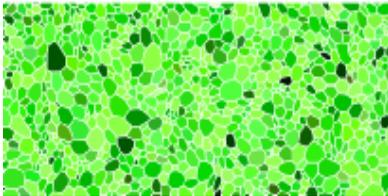
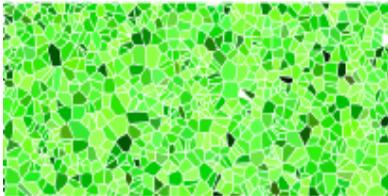
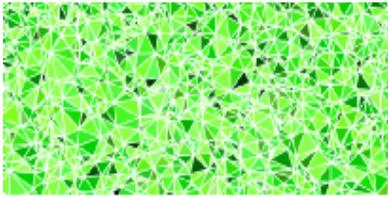
- 1 Open a new document.
- 2 Choose **Canvas menu > Make Mosaic**.
- 3 In the Make Mosaic dialog box, choose Dimensions from the Settings menu.
- 4 Adjust the Grout slider to describe the thickness you want for the grout lines, and select a grout color.
- 5 Click Done to exit the Make Mosaic dialog box.
- 6 Choose **Canvas menu > Make Tessellation**.
- 7 Do one of the following:

- Click or drag in the document to create points. Repeat to add more points. Corel Painter connects the points to form the polygons.
- In the Make Tessellation dialog box, choose one of the commands from the Options pop-up menu. You can add 500 points randomly, evenly spaced, or based on a clone source document.

- 8 Choose a tessellation tile shape from the Display pop-up menu. Corel Painter forms polygons by connecting the points according to the Display type.

You can choose from one of three display options:

- Triangles
 - Cracks
 - Pieces
- 9 If you want to clear all points, choose Reset from the Options pop-up menu.



You can base your Tessellation on Triangles, Cracks or Pieces.

Corel Painter converts the polygons to mosaic tiles, then renders the mosaic image to the canvas.

Notes:

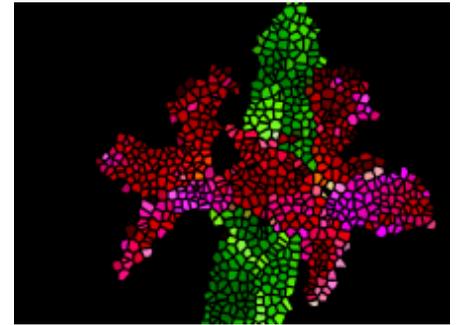
- *Adding points based on a clone source is a powerful option. The 500 points are distributed according to the luminance of the clone source. Lighter regions receive a greater density of points and, so, smaller polygons.*

- *The number of points appears in the corner of the Make Tessellation dialog box.*

Tips

- *Repeat a command from the Add Points menu to create more points. You can alternate between dragging and using an add-points command. The points accumulate.*

- *You might want to convert a regular image to a tessellation. If so, set up the image as the clone source. Enable the Clone Color option on the Colors palette. Then make the tessellation.*

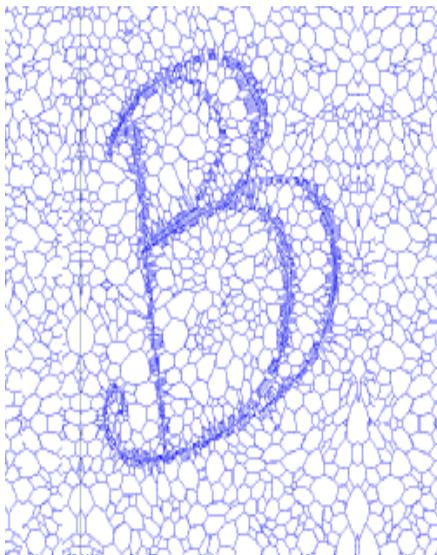


A finished tessellation resembles stained glass.

To add points using strokes:

- 1 Open a new document.
- 2 Choose **Canvas menu > Make Mosaic**.
- 3 In the Make Mosaic dialog box, choose Dimensions from the Settings pop-up menu.
- 4 Adjust the Grout slider to describe the thickness you want for the grout lines, and select a grout color.
- 5 Click Done to exit the Make Mosaic dialog box.
- 6 Choose **Canvas menu > Make Tessellation**.

- 7 In the Make Tessellation dialog box, choose Add 500 Evenly Spaced Points from the Options pop-up menu.
- 8 Create a shape by making strokes in the document.
The points along the stroke will have increased density.



Adding points in the shape of a letter by stroking. The letters appear as a swath of smaller polygons.

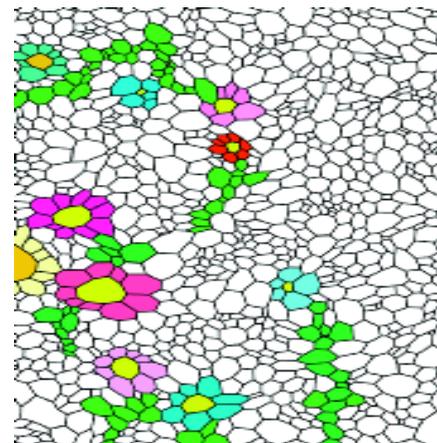
Notes:

- *You can continue stroking to add higher concentrations of polygons in very specific areas. This way, you can create specific patterns or shapes.*
- *It is possible to create a huge number of points. More points mean more polygons, which increase the time it takes to convert to a mosaic. Keep this in mind to avoid overwhelming your system.*

Coloring Tessellations

After the tessellation appears as a mosaic, you can open the Make Mosaic dialog box and modify the tile colors using the Change Tile Color tool.

When you create a tessellation with the current color and the grout color set to black, and choose Make Mosaic, the image appears totally black. Don't worry—it's not empty. With the Change Tile Color tool, you can set the primary color to a bright color, and stroke in the document. Colored, tessellated tiles appear beneath your stroke. You can also base the color on the color in a clone source if you enable Clone Color on the Colors palette.



Once you have a tessellation, you can use Make Mosaic from the Canvas menu to paint on the tiles.

Advanced Settings for Tessellations

The following commands for tessellations are available from the Options pop-up menu in the Make Mosaic dialog box:

- **Reset Mosaic** — removes all tiles from the document, leaving only the grout color

- Re-Render Mosaic — re-creates the mosaic from the grout color and the tile object information
- Render Tiles into Mask — places the tile shapes in a new channel

The other mosaic commands relate to creating tiles, so they don't apply to tessellations.

19 Using Shapes

Shapes are vector-based objects that you can draw, modify, and fill. Shapes can be open or closed. They can be simple lines, curves, or text outlines.

You can create and edit shapes with the precision of a drawing program and integrate them with the Natural-Media environment in Corel Painter.

In this chapter you'll learn how to create shapes and set their stroke and fill attributes. You'll learn how to modify shapes, edit their outlines, and convert them to pixel-based layers.

About Shapes

In Corel Painter, you work mainly with bitmaps, or raster images. Bitmaps are composed of tiny squares called pixels; each pixel is mapped to a location in an image and has a numerical color value. The location and color value data are stored as bits—hence the name bitmaps.

Vector graphics are made up of lines, curves, objects, and fills that are all calculated mathematically. Shapes are vector objects, and you can work with them in Corel Painter in much the same way you work with vector objects in drawing programs like CorelDRAW® and Adobe® Illustrator®.

Corel Painter draws shapes in an anti-aliased fashion. This anti-aliasing gives objects a smooth edge, as opposed to the jagged edges apparent in some drawing programs. Some clipart objects actually look like



An image created with shapes.

photographic elements when imported in Corel Painter and displayed with anti-aliasing.

Anti-aliased shapes are typically slower to draw to the screen in Corel Painter than aliased objects are in drawing programs. So, you may want to do most of your object creation in your drawing program. You can then import the vector artwork into Corel Painter, tweak it with the drawing tools, and add some Natural-Media effects.

Shapes in Corel Painter can be interleaved with pixel-based layers, so you can layer both styles of artwork in a single composition. You can convert vector objects and groups into pixel-based layers and use any of the effects or painting tools on these floating objects to create Natural-Media artwork.

You can also use shapes to generate selections. You can convert shapes to selections and vice versa. The tools for adjusting shapes allow precise control over the outline path, so you may want to use shapes to create some of your selection paths. For more

information about selections, refer to “Working with Selections” on page 201.

Shapes as Layers

In Corel Painter, shapes are implemented as layers. When you create a shape, a new layer is added to your document.

The shapes you create are listed on the Layers palette. Many of the options and controls for working with pixel-based layers apply equally to shapes. For example, you can apply effects to shapes or give them a composite method to control how the shape interacts with the underlying image.

Shapes follow the same layering rules as pixel-based layers, and you can manipulate them in many of the same ways.

Shapes differ from pixel-based layers by the type of data they contain. Shapes are vector objects; pixel-based layers are constructed of pixels.

If you want to work with pixel information in a shape, you can convert the shape to a pixel-based

layer. In many cases, Corel Painter will do this for you automatically. For example, if you paint on a shape, Corel Painter asks if you want to commit the shape to an image layer.

You can also deliberately convert a shape or group of shapes to a pixel-based layer.

For more information about layers, refer to “Layer Basics” on page 228.

For information about changing layer hierarchy and working with groups, refer to “Managing Layers” on page 233.

For information about moving and aligning layers, refer to “Moving Layers” on page 242.

For information about layer composite methods, refer to “Blending Layers Using Composite Methods” on page 246.

To convert a shape to a pixel-based layer:

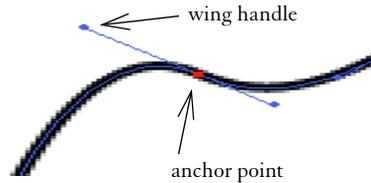
- 1 Choose the Shape Selection tool from the toolbox .
- 2 Click the shape to select it.

- 3 Do one of the following:
 - Choose **Shapes menu > Convert to Layer**.
 - Click the Convert to Layer button  on the property bar.

Working with Bézier Lines

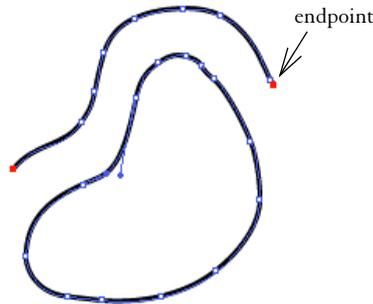
The paths used to create shapes are known as Bézier lines. Bézier lines can be straight or curved, and they consist of anchor points connected by line segments.

When the path is a curve, “wings,” represented by a straight line, extend from the anchor points. The wings are tangent to the curve. The wings control “handles” on them. By dragging the wing handle, you can change the curvature of the line segment.



Paths can be modified using anchor points and wing handles.

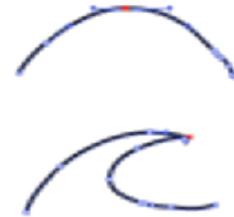
Shapes can be open (with endpoints) or closed (without endpoints).



Open paths contain endpoints; closed paths do not.

Anchor points can be either *smooth* or *corner* points. A smooth point allows you to manipulate the segments on both sides of an anchor point by dragging a handle. A corner point

restricts the manipulation of the segments to the one side of the anchor point that has a handle.



An anchor point can be a smooth point (top) or a corner point (bottom).

Saving Files Containing Shapes

When you save files in the RIFF format, Corel Painter maintains shapes as vector objects on separate layers. In other formats, shapes merge with the Canvas. In the Photoshop format, shapes convert to bitmapped images and are assigned to appropriate layers.

Printing Images Containing Shapes

For information on printing files containing shapes, refer to “Printing” on page 443.

Creating Shapes

You can create shapes in the following ways:

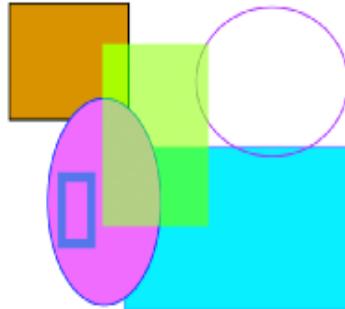
- By using one of the five shape tools: the Pen, Quick Curve, Rectangular Shape, Oval Shape, or Text tool.
- By converting a selection path to a shape.
- By acquiring an Adobe Illustrator file using **File menu > Acquire**.
- By pasting an Adobe Illustrator object from the Clipboard.

As you create shapes, Corel Painter gives them default attributes for stroke and fill. For instructions on setting the default shape attributes, refer to “Shape Preferences” on page 52.

The Shape manipulation tools are in the toolbox. You can toggle between the Shape Selection tool, and any of the shape design and editing tools, by holding down **Command** (Mac OS) or **Ctrl** (Windows). This makes it convenient to quickly make a selection before you add to or edit it.

Shape Object Tools

You can use the rectangular or oval Shape tools to create shapes.



Use the Shape tools to create oval and rectangular shapes.

To create a rectangle or an oval:

- 1 Choose the Rectangular Shape tool or the Oval Shape tool from the toolbox .
- 2 On the property bar, set any of the following attributes:
 - **Stroke**—enable this check box to create a shape with a stroke, or outline.
 - **Stroke Color**—if the Stroke check box is enabled, choose a color for the stroke.
 - **Fill**—enable this check box to create a shape with a fill.
 - **Fill Color**—if the Fill check box is enabled, choose a color for the fill.
- 3 Drag in the document window.

Tips

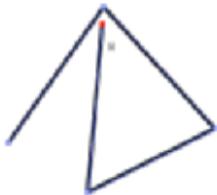
- *If you want to create a perfect square or circle, hold down Shift while you drag.*
- *The property bar and the Info palette display information about the shape. To display the Info palette, choose Window menu > Show Info.*

Pen Tool

The Pen tool lets you create shapes using Bézier lines. Use the Pen tool when you want to draw straight lines or smooth, flowing curves. You can create shapes containing any combination of straight and curved lines.

You can easily adjust shapes after you create them. For more information, refer to “Editing Shapes” on page 371.

You can also convert between smooth and corner points. For more information, refer to “Converting between Smooth and Corner Points” on page 374.



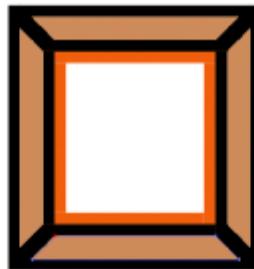
Click to create anchor points connected by straight line segments.



Drag to curve the segments between points.

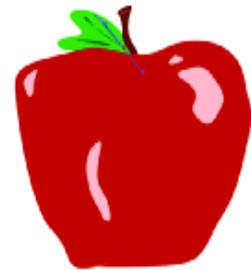
To draw a Pen tool shape:

- 1 Choose the Pen tool from the toolbox .
- 2 In the document window, click where you want to begin.
- 3 Do one of the following:
 - To make a straight line segment, click where you want to end the segment. Corel Painter draws a straight line between the two anchor points.



Shapes created with straight line segments.

- To make a curved line segment, drag to create a new anchor point and wing. The angle and length of the wing determine the curvature of the path. The farther you drag, the longer the wing and the deeper the curve.



Shapes created with curved line segments.

- 4 Repeat step 3 as often as necessary, combining straight and curved segments until you have the shape you want.
- 5 Finish the shape by doing one of the following:
 - Close the shape by clicking or dragging the first anchor point.
 - Close the shape by clicking the Close Shape button  on the property bar.

- Hold down **Command** (Mac OS) or **Ctrl** (Windows) to temporarily access the Shape Selection tool, and click outside the shape to deselect it.

Tips

- *You can constrain the placement of the points by snapping to the grid. For information about displaying and snapping to the grid, refer to “Using the Grid” on page 42.*
- *Each click or drag adds to the path. If you unintentionally add to the path, press **Delete** (Mac OS) or **Backspace** (Windows) to remove the last anchor point.*

To add to an open shape path:

- 1 Click an endpoint with the Pen tool.
- 2 Click or drag where you want to add an anchor point.

Note

- *You can add to a path from an endpoint only. You cannot add to a closed path, or to the middle of an open path.*

Tip

- *You can also select an endpoint by holding down **Command** (Mac OS) or **Ctrl** (Windows) and clicking the endpoint or dragging a marquee over it.*

Quick Curve Tool

The Quick Curve tool allows you to create Bézier curves by drawing freehand lines, as if you were drawing with a pen or pencil.

To draw a freehand shape:

- 1 Choose the Quick Curve tool from the toolbox .
- 2 Click where you want to start the shape or line, and drag.

As you drag, a dotted line appears. When you release the mouse or stylus, the Quick Curve shape appears.

If you want to close the shape, finish at the same point where you began.

Tip

- *You can add to either endpoint of a Quick Curve shape by selecting the endpoint and dragging out from it. To select an endpoint, hold down **Command** (Mac OS) or **Ctrl** (Windows), and click the endpoint or drag over it.*



Draw freehand shapes with the Quick Curve tool.

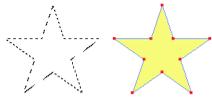
Shapes and Selections

Converting a selection to a shape enables you to edit the contour using the Bézier editing tools. When you are satisfied with the contour, you can convert the shape outline back to a selection.

If you are simply scaling, rotating, or skewing a selection path, use the Selection Adjuster tool. If you must edit the profile of the curve, convert the selection to a shape.

Working from a selection path also lets you create shapes based on regions of the image. For example, if you used the Magic Wand to select a region of common color, you could convert the Magic Wand selection path to a shape.

For more information about selections, refer to “Creating Selections” on page 204.



You can convert a selection to a shape.

To convert a selection to a shape:

- 1 Do one of the following:
 - Create a selection in the image.
 - From the Selection Portfolio palette, drag a selection to the document window.
- 2 Choose **Select menu > Convert to Shape**.

Corel Painter converts the selection to a shape, giving it the default shape attributes. The new shape appears on the Layers palette.

Note

- *For best results, the selection should be path-based. If the selection is pixel-based, choose **Select menu > Transform Selection** to convert it to a path-based selection.*

To convert a shape to a selection:

- 1 Select the shape you want to convert with the Layer Adjuster tool  or the Shape Selection tool .
- 2 Choose **Shapes menu > Convert to Selection**.

Tip

- *If you select the shape with the Layer Adjuster tool or the Shape Selection tool, you can also click the **Convert to Selection** button on the property bar.*

Acquiring Shapes from Adobe Illustrator

You may want to work with shapes you’ve created in Adobe Illustrator. Corel Painter lets you import the shape contents of files in Illustrator EPS format.

Some Adobe Illustrator file options are not supported by Corel Painter. Patterns, placed images, gradients, masks, and text cannot be interpreted by Corel Painter. If the file contains text, convert the text to outlines.

Corel Painter also supports PostScript on the clipboard when pasting into a Corel Painter document. This convention allows applications to exchange high-quality vector PostScript information. With PostScript on the clipboard, you can copy from Illustrator and paste into Corel Painter when both applications are running. Corel Painter will import PostScript content from a clipboard, but will only export pixel-based layers and selections.

To acquire shapes from Adobe Illustrator:

- 1 In Corel Painter, choose **File menu > Acquire > Adobe Illustrator File**.
- 2 In the Adobe Illustrator File dialog box, select the Adobe Illustrator file and click Open.

To convert text in Adobe Illustrator:

- 1 In Adobe Illustrator, select the text using a selection tool.
- 2 Choose **Type menu > Create Outlines**.

Setting Shape Attributes

You can specify several characteristics for a shape.

When you apply a stroke to a shape, you can choose the color, opacity, and width of the path outlining the shape. You can also control the way line ends are drawn and joined.

You can also apply a fill to a shape by coloring the area enclosed by the stroke. When you fill a shape, you can choose the color and opacity of the fill.

Stroke and fill attributes apply to both open and closed shapes. Before filling an open shape, Corel Painter closes the shape by connecting the endpoints with a straight line.

You can also change the default shape attributes. For more information, refer to “Shape Preferences” on page 52.

To set shape attributes:

- 1 Select one or more shapes whose attributes you want to change.
You can select a shape by clicking it with the Shape Selection tool, or clicking its name on the Layers palette.
- 2 Do one of the following:
 - Choose **Shapes menu > Set Shape Attributes**.
 - Press **Return** (Mac OS) or **Enter** (Windows).
 - Double-click a shape’s name on the Layers palette.

- 3 In the Set Shape Attributes dialog box, specify any of the following stroke attributes:

- **Stroke**—enable the Stroke check box to apply a stroke to the selected shape. To remove the stroke, disable the check box.
- **Color**—double-click the color chip, and choose a color from the Color Picker.
- **Opacity**—controls the opacity of the stroke. Adjust to the right to make the stroke more solid. Adjust to the left to make the stroke more transparent.
- **Width**—controls the thickness of the stroke.
- **Line cap**—controls the endpoints of open shapes. Choose Projecting, Round, or Butt.
- **Line join**—determines how corners are created when two segments meet. Choose Miter, Round, or Bevel.
- **Miter Limit**—if you have chosen a line join style, you can specify a miter limit. When lines are joined at a sharp

angle, a sharp corner is created. You can set the miter limit to smooth out the sharpness.

- 4 Specify any of the following Fill attributes:
 - **Fill**—to fill a shape, enable the Fill check box. To empty the shape (clear the fill), disable the Fill check box.
 - **Color**—double-click the color chip and choose a color from the Color Picker.
 - **Opacity**—controls the opacity of the fill. Adjust to the right to make the fill more solid. Adjust to the left to make the fill more transparent.
- 5 Choose one of the following fill methods:
 -  **Fill overlaps**—Overlapping areas are filled.
 -  **Don't fill overlaps**—Overlapping areas are not filled and multiple overlaps alternate between filled and not filled.
- 6 Set the general shape attributes.
 - **Flatness** controls how many straight lines the program uses to approximate a curve when

printing. PostScript output devices create curved lines by linking a series of short, straight lines that progress in angle. The smaller the flatness setting, the greater the number of straight lines and the more accurate the curve.

If you want to apply the settings to new shapes you create, click Set New Shape Attributes.

Notes:

- *Usually, it is not necessary to change the flatness setting. You may want to change it to adjust for a particular high resolution printer or to avoid a PostScript limitcheck error. Check with your output service to find out if they have a recommended flatness setting.*
- *A change in flatness will appear only in your output, not on your screen.*

Tips

- *You can also specify the Stroke, Stroke Color, Fill, and Fill Color attributes on the property bar when you select a shape with the Layer Adjuster or Shape Selection tool.*

- *You can also use the Effects menu > Fill command or the Paint Bucket tool to fill a shape. Since these methods apply pixel data to the region, Corel Painter first converts the shape to a pixel-based layer. For more information, refer to “Filling Techniques” on page 116.*

Editing Shapes

Corel Painter provides five tools for editing shapes. As you work, you'll switch tools based on the type of changes you're going to make.

 **Shape Selection** drags anchor points and control handles.

From any other editing tool, you can toggle to the Shape Selection tool by pressing **Command** (Mac OS) or **Ctrl** (Windows).

 **Scissors** cuts the segment at the point you click.

 **Add Point** adds an anchor point where you click on the curve.

 **Remove Point** deletes the anchor point you click.

 **Convert Point** changes anchor points from corner points into smooth points and vice versa.

Selecting a Shape

If you don't see the shape's outline path, you'll want to select the shape—to display the path and anchor points—before proceeding. It is easier to work when you can see the path and points.

For information about selecting shapes as layers, refer to “Selecting Layers” on page 233.

To select a shape:

- With the Shape Selection tool , click a shape.

Tip

• *If you are using the Layer Adjuster tool, you can double-click a shape to switch to the Shape Selection tool and select the shape. The Auto Select Layer option on the property bar affects how the Layer Adjuster tool works.*

Moving Anchor Points

You can move anchor points by dragging them. You can move one or several points.

To move anchor points:

- 1 Choose the Shape Selection tool from the toolbox .
- 2 Click an anchor point to select it, or marquee select a point by dragging over it.

If you want to select several points, marquee select them by dragging over all the points. All anchor points within the marquee are selected—including those from other shapes.

If you want to add to the selection, hold down **Shift** and select more points.

- 3 Drag the point to a new location.

If you have selected several points, dragging one moves all of them.



Drag an anchor point to move it.

Adding Anchor Points

You can add anchor points to create new vertices or curves.

To add an anchor point:

- 1 With the Shape Selection tool , select a shape.
- 2 Choose the Add Point tool from the toolbox .
- 3 Click where you want to add the point.



Use the Add Point tool to add anchor points to the path.

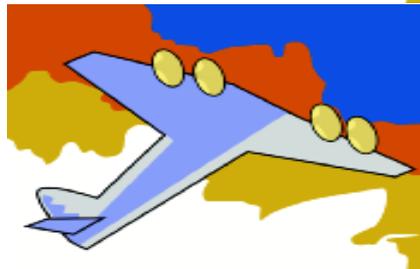
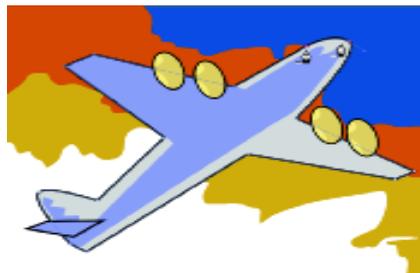
Deleting Anchor Points

You can delete anchor points to change the shape of the path or to smooth a contour that has unnecessary points. This might occur when you draw with the Quick Curve tool or create a shape from a selection.

To delete an anchor point:

- 1 With the Shape Selection tool , select a shape.
- 2 Choose the Remove Point tool from the toolbox .
- 3 Click the anchor point you want to delete.

The anchor point is deleted, but the path remains connected.



Use the Remove Point tool to delete anchor points.

Adjusting Curvature

The angle and length of the wing determine the curvature of the segments on either side of the anchor point. The longer the wing, the deeper the curve. The result of moving a wing depends on whether the anchor point is defined as a smooth point or a corner point. For information about

smooth and corner points, refer to “Converting between Smooth and Corner Points” on page 374.

To adjust a curve:

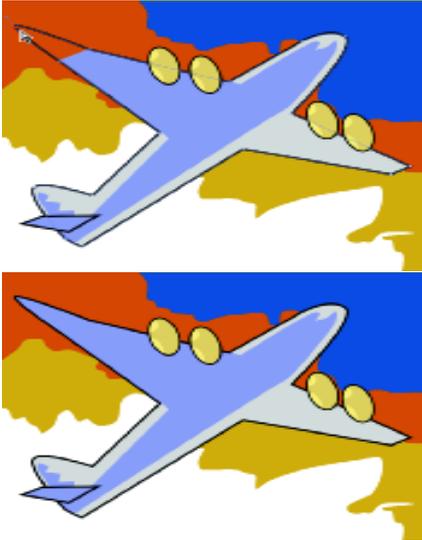
- 1 Choose the Shape Selection tool from the toolbox .
- 2 Click a shape to select it.

If an anchor point’s wings are not displayed, drag over the anchor point to display them.

- 3 Drag a wing handle to set the curve you want.

Tip

- You can also adjust a curve by dragging a line segment with the Shape Selection tool.

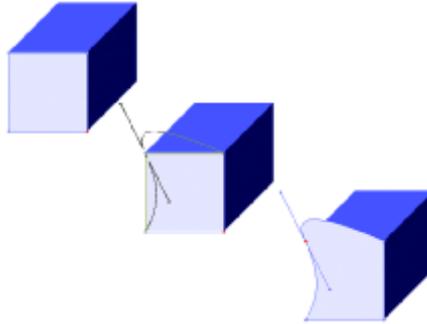


Use the Shape Selection tool to drag a wing handle.

Converting between Smooth and Corner Points

Two connecting curves (or straight lines) share one anchor point, which can be a smooth or corner point. The wings on smooth and corner points behave differently.

When you drag the handle on one wing of a smooth point, the curves on both sides of the point change. With a smooth point, you adjust the angle of the wings concurrently.



A corner point is converted to a smooth point.

When you drag the handle on one wing of a corner point, only the curve on that side of the point changes. With a corner point, you can adjust the angle of the wings independently.

You can use the Convert Point tool to convert between smooth and corner points.

To convert a smooth or corner point:

- 1 With the Shape Selection tool , select an anchor point.
If the anchor point's wings are not displayed, drag over the anchor point to display them.
- 2 Choose the Convert Point tool from the toolbox .
- 3 Click one of the anchor point's wing handles.

Note

- After converting a point you must use the Shape Selection tool for further adjustments. If you try to adjust an anchor point with the Convert Point tool the anchor point will be converted again.

Cutting a Segment

You may want to open a shape so that you can add new curves or connect another open shape. You can do this with the Scissors tool.

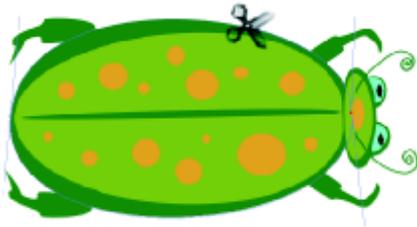
To cut a shape:

- 1 Choose the Scissors tool from the toolbox .

- 2 Click where you want to split the shape (you cannot click an endpoint).

The Hot Spot of the Scissors tool is where the blades cross. Position the cross on the line.

The scissors snap closed momentarily, and two new anchor points are created.

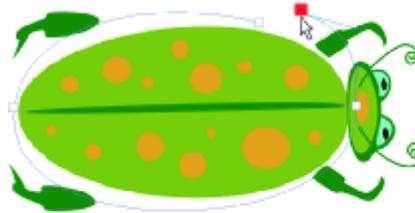


The Scissors tool opens and closes to cut the path.

- 3 Choose the Shape Selection tool from the toolbox and drag the new anchor points or segments.

The new anchor points are on top of each other, and both are selected. If you try to drag one of them with the Shape Selection tool, both move. To separate the points, first deselect them, then drag the top point away.

If you want to remove a section of the path, click another place on the path. Then use the Shape Selection tool to drag the segment away.



Once a path is cut, it can be moved.

Joining Endpoints

The Join Endpoints command allows you to connect any two endpoints—of the same shape or of different shapes. This lets you close an open shape or attach one shape to another.

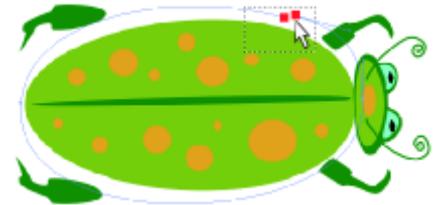
To join endpoints:

- 1 Choose the Shape Selection tool from the toolbox .
- 2 Select the two anchor points you want to join.

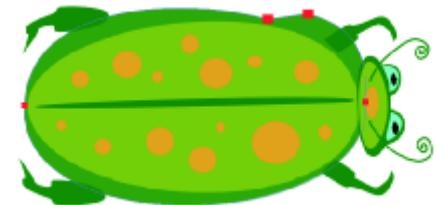
You can do this by dragging a selection marquee around both points or by clicking the first point, then Shift-clicking the second point.

- 3 Choose **Shapes menu > Join Endpoints**.

A straight line is created between the two points.



Use the Shape Selection tool to select two endpoints.



Use the Join Endpoints command to connect two endpoints.

Averaging Anchor Points

Averaging moves two or more anchor points with respect to each other in horizontal, vertical, or both dimensions.

One of the basic uses for averaging is when you are going to join the endpoint of one curve to the endpoint of another. Averaging the endpoints in both directions brings them precisely on top of each other. Now, when you join the endpoints, Corel Painter merges them to a *sin le point*, through which the path continues. Without averaging first (if the points are just “near each other”), Corel Painter joins them with a *segment*.

To average anchor points:

- 1 Choose the Shape Selection tool from the toolbox .
- 2 Select the anchor points you want to average.
It is often easiest to drag a marquee around the points you want.
- 3 Choose **Shapes menu > Average Points**.

- 4 In the Average Points dialog box, choose Both, Horizontal, or Vertical.

Working with Shapes

Resizing Shapes

You can resize a shape or group of shapes by directly manipulating the objects with the Layer Adjuster tool or by using the Scale command.

To resize a shape:

- 1 Choose the Layer Adjuster tool  from the toolbox.
- 2 Select the shape or group you want to resize.

You can hold down the **Shift** key to select additional items.

A selection rectangle appears around the shapes. The rectangle has a handle on each corner and side.

- 3 Drag one of the handles to resize the selected shape.

To resize in one dimension, drag one of the side handles. To resize

in both dimensions, drag one of the corner handles.

Tips

- You can maintain the proportions by holding down **Shift** as you drag.
- You can also choose **Effects menu > Orientation > Scale** to increase or decrease size by a fixed percentage. For more information, refer to “Scaling Images” on page 260.



Resizing a shape

Rotating Shapes

You can rotate a shape or group of shapes by directly manipulating the objects with the Layer Adjuster tool or by using the Rotate command. For

more information on the Rotate command, refer to “Rotating Images” on page 260.

To rotate a shape:

- 1 Choose the Layer Adjuster tool  from the toolbox.
- 2 Select the shape or group you want to rotate.

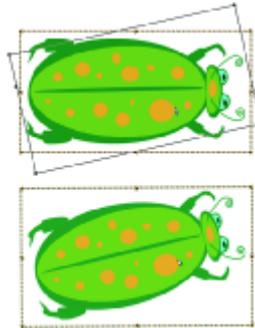
You can hold down Shift to select additional items.

A selection rectangle appears around the shapes. The rectangle has a handle on each corner and side.

- 3 Choose **Effects menu > Orientation > Rotate**.
- 4 In the Rotate Selection dialog box, specify a number of degrees.
This command works for both shapes and pixel-based layers.

Tip

- You can also rotate a shape by holding down **Command** (Mac OS) or **Ctrl** (Windows) and dragging a corner handle.

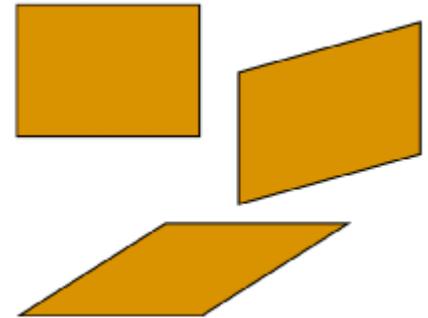


Rotating a group of shapes

Skewing and Distorting Shapes

To skew a shape:

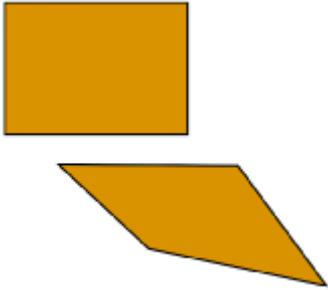
- 1 Choose the Layer Adjuster tool  from the toolbox.
- 2 Select the shape or group you want to rotate.
- 3 Hold down **Command** (Mac OS) or **Ctrl** (Windows), and drag a middle handle.



A rectangle (top-left) is skewed by dragging a side middle handle (top-right) and by dragging the top middle handle (bottom).

To distort a shape:

- 1 Select a shape.
- 2 Choose **Effects menu > Orientation > Distort**.
- 3 With the Distort Selection dialog box open, drag the selection handles in the document window.



Distorting a shape

Flipping Shapes

You can flip a shape horizontally or vertically.

To flip a shape:

- 1 Select a shape.
- 2 Choose the Layer Adjuster tool  from the toolbox.
- 3 Do one of the following:
 - To flip horizontally, drag a top or bottom handle past the opposite handle.
 - To flip vertically, drag a side handle past the opposite handle.

Tip

- You can also flip a shape by selecting it and choosing *Effects menu > Orientation > Flip Horizontal* or *Effects menu > Orientation > Flip Vertical*.

Duplicating Shapes

Duplicating creates an identical copy of the selected shape. Corel Painter also lets you duplicate shapes using compound transformations. Transformed duplicates are created according to the options you set.

To duplicate a shape:

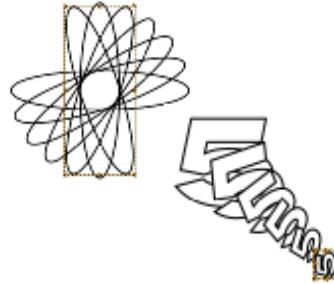
- 1 Choose the Layer Adjuster tool  from the toolbox.
- 2 Hold down **Option** (Mac OS) or **Alt** (Windows), and click or drag the shape.

To change duplication settings:

- 1 Choose **Shapes menu > Set Duplicate Transform**.
- 2 In the Set Duplicate Transform dialog box, specify any of the following settings:

- **Translation** controls where, in relation to the original, Corel Painter creates duplicate shapes. The offset values are in pixels. When H. Offset and V. Offset are both zero, the duplicate is created precisely on top of the original. If both values are 100, the duplicate appears 100 pixels lower and 100 pixels to the right. Negative values offset the duplicate up and to the left, respectively.
- **Scaling** controls the size of duplicates in relation to the original. The scale values are percentages.
- **Constrain Aspect Ratio** maintains the aspect ratio of the shape. If you want to create distorted duplicates, disable this option and specify different percentages for horizontal and vertical scaling.
- **Rotation** lets you specify a number of degrees to rotate duplicates. Positive values rotate counterclockwise, and negative values rotate clockwise.

- **Slant** controls the degree of slant applied to duplicates. Positive values slant duplicates to the right. Negative values slant them to the left. Slant accepts values between -90° and 90° . However, as values approach the extremes, the duplicate shape becomes nothing but a streak.



The oval shape was duplicated using rotation only (top). The “number 5” shape was duplicated using translation, scaling, and rotation (bottom).

To create a transformed duplicate:

- 1 Select the shape you want to transform.
- 2 Choose **Shapes menu > Duplicate**.

Corel Painter creates a duplicate shape according to the specifications you’ve set.

This duplicate is now the selected shape. You can choose the Duplicate command again or press **Command+]** (Mac OS) or **Ctrl+]** (Windows) to repeat the transformation on the new shape.

Grouping Shapes

Shapes can be grouped, allowing you to manipulate multiple shapes as a single unit. Since shapes are created on layers, you group shapes in the same way you group layers.

You cannot scale, rotate, flip or distort groups that contain a mixture of pixel-based layers and shapes. You must manipulate these two types of entities independently before you group them.

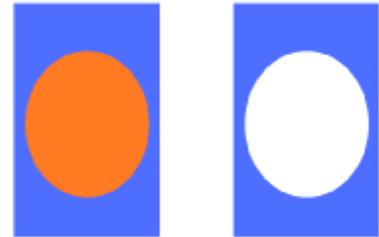
For more information about grouping, refer to “Grouping Layers” on page 236.

Creating Compound Shapes

In a compound shape, two shapes are combined into a single shape. The resulting shape takes on the attributes of the shape on the topmost layer. If the shape is filled, any overlapping areas are not filled.

Compound shapes can be used to cut a void in one shape using another shape.

You can release a compound shape, which reverts it to the original shapes.



The rectangle and the oval are combined to create a compound shape.

To create a compound shape:

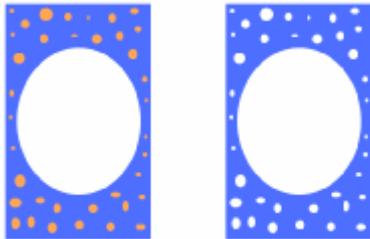
- 1 With the Shape Selection tool , select two shapes.

Hold down Shift and select both shapes, or drag over the shapes to marquee select them.

- 2 Choose **Shapes menu > Make Compound**.

Tip

• You can create nested compound shapes by creating a compound shape from a shape and a compound shape.



The resulting compound shape can itself be used again to create another compound shape.

To release a compound shape:

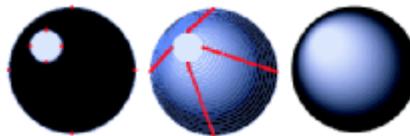
- 1 Select a compound shape.
- 2 Choose **Shapes menu > Release Compound**.

Blending Shapes

Blending creates intermediate shapes between two or more selected shapes. This is useful for morphing one shape into another. It is also used to simulate shading on irregular shapes. Blending applies to both the stroke and fill attributes, as well as to the shape size.

You can blend a shape group to another group, but you can't blend between a single shape and a group.

Blending between groups offers interesting effects, especially if the groups are blends themselves.



The small circle is blended with the large circle to create a shading effect.

To blend shapes:

- 1 Position the shapes you want to blend.
- 2 Arrange the shape layers.
Blends will progress from lower layers to higher layers.

- 3 Choose the Shape Selection tool from the toolbox .

- 4 Select the shapes you want to blend.

Use the **Shift** key to select two or more.

- 5 Choose **Shapes menu > Blend**.

- 6 In the Blend dialog box, specify a number of steps.

Number of Steps controls the number of intermediate shapes that are created.

- 7 Choose one of the following ramp types:

- Blend shapes are evenly spaced.
- Spacing starts wide and decreases approaching the end of the blend.
- Spacing starts small and increases approaching the end of the blend.
- Spacing is wide in the middle and decreases toward both ends.

- 8 Choose one of the following Ramp Color Space options:

- **RGB**—the color progresses directly over the course of the blend.
- **Hue CW**—the color progresses clockwise in the color wheel to reach the destination color.
- **Hue CCW**—the color progresses counterclockwise in the color wheel to reach the destination color.

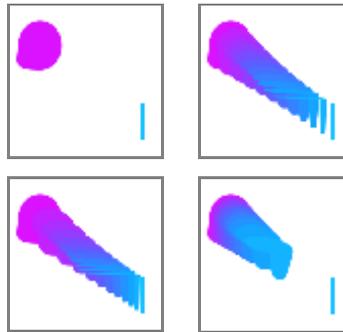
9 Specify a Perspective Factor.

Perspective Factor controls the spacing of intermediate shapes. Acceptable values are between 0.01 and 100. With a Perspective Factor of 1.0, the shapes are spaced evenly. With a Perspective Factor less than 1, shapes are closer at the beginning of the blend and farther apart at the end of the blend. With a Perspective Factor greater than 1, shapes are farther apart at the beginning of the blend and closer at the end of the blend.

10 Enable any of the following options:

- **Arc Length Matching**—enable this option if you are blending shapes containing a different number of anchor points.

- **Align Shape Start Points**—enable this option to base the orientation of intermediate shapes on the orientation of the start and end shapes. When disabled, Corel Painter bases the orientation of intermediate shapes on the starting point (first anchor point) of the start and end shapes. This can create a “tumbling” appearance in the intermediate shapes.



Two shapes (top left) are blended using a perspective factor of 1.0 (top right), 4.0 (bottom left), and 0.1 (bottom right).

Saving Shapes

Corel Painter doesn't have a shapes library. However, because of the close relationship between shape outlines and selection paths, you can save shape outlines in the Selection Portfolio. Refer to “Using the Selection Portfolio” on page 215 for complete information.

Exporting Shapes to Adobe Illustrator

Corel Painter lets you export shape data to the Adobe Illustrator format.

Exporting to Illustrator format will save only the Shapes, not the Canvas or any other layers in the document. Transparency and compositing methods are lost when exporting to Illustrator format.

To export shapes:

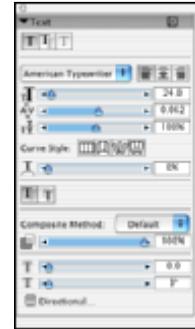
- 1 Choose **File menu > Export > Adobe Illustrator File**.
- 2 In the Export as Illustrator File dialog box, specify a location and filename, and click Save.

20 Working with Text

Corel Painter lets you position and manipulate editable text on your image.

The Text Layer

A text layer holds a single text block. When you create a new text layer with the text tool, that layer becomes visible on the Layers palette, and is represented by a T icon. With the text on a separate layer, you can work with your image without changing any text attributes. You can select the text layer and edit it at any time. Your text remains fully editable until you drop it onto the canvas.



The Text palette.

To create text:

- 1 Choose **Window > Show Text** to display the Text palette.
If the Text palette is not expanded, click the palette arrow.
- 2 Choose the Text tool **T** from the toolbox.
- 3 Click anywhere in the document window, and type.



Dropping Text

While you are working with text, it resides on a layer and is not yet a part of the image. When a text layer is dropped, it integrates with the canvas and can no longer be edited.

To drop a text layer onto the canvas:

- 1 On the Layers palette, select a text layer.
If you want to select more than one text layer, highlight several layers and group them.
- 2 Click the Layer Commands button  at the bottom of the Layers palette, and choose Drop.

Applying Effects to Text

Before you drop a layer, you can apply any of the effects available on the Text palette. The Text palette contains all the tools and controls you'll need to set text appearance and flow. You can change the text font, size, and position. You can also adjust the spacing between letters or lines. You

can stretch, rotate, and skew text. You can apply a shadow to your text, and adjust shadow attributes.

Font

You can select a font on the Text palette.

To select a font:

- 1 Choose **Window menu > Show Text**.
- 2 On the Text palette, choose a font from the Font pop-up menu.

Tip

- *To display a list of all available fonts, choose Other Fonts from the Font pop-up menu.*

Note

- *You can also adjust many text elements on the property bar when the Text tool is selected.*

Point Size

The Point Size slider on the Text palette lets you adjust the size of text proportionally.

To change point size:

- On the Text palette, adjust the Point Size slider.

Color

You can fill your text with color from the Colors palette.

To fill text with color:

- 1 Choose the Text tool  from the toolbox.
- 2 Click anywhere in the document window, and type.
- 3 Choose **Window menu > Show Colors** to display the Colors palette.
- 4 Choose a color on the Colors palette.

Tip

- *You can also choose a color before you type any text.*

Note

- *If the Text layer is not selected, the color will not be applied to the text. For more information about the Text layer, see “The Text Layer” on page 383.*

Alignment

A text block can be left, right, or center justified. The text baseline origin is used as the reference point for the text alignment. You can specify justification on the Text palette.

To align text:

- 1 Choose **Window menu > Show Text** to display the Text palette.
- 2 On the Text palette, enable one of the following buttons:
 - Align Left 
 - Align Center 
 - Align Right 

Kerning Text

Kerning refers to adjusting the amount of space between letters. Corel Painter does this automatically with most fonts. However, you can fine-tune the spacing with the Tracking slider.

To kern text:

- 1 Choose **Window menu > Show Text**.

- 2 On the Text palette, adjust the Tracking slider.
Drag left to decrease letter spacing or right to increase it.

Adjusting Leading

Leading refers to the amount of space between lines of text. You may want to change the Leading from the default. The default spacing between lines is set at 100%.

To adjust leading manually:

- 1 Choose **Window menu > Show Text**.
- 2 On the Text palette, drag the Leading slider to the right to increase space between lines or to the left to decrease it.

Stretching, Rotating, and Skewing Text

Stretching text affects both the horizontal and vertical size. As you stretch vertically, the text appears thinner and taller. As you stretch horizontally, the text appears flatter and shorter.

Rotating text pivots the text from the end point of the text block. Depending on the alignment of the text, it pivots from the bottom-left corner, bottom-right corner, or center. You can also skew the text by slanting the text to the right or left.

To stretch text:

- 1 Select text using the Layer Adjuster tool .
- 2 Drag the corner handles in the direction you want to stretch the text.

To rotate text:

- 1 Select text using the Layer Adjuster tool.
- 2 Hold down **Command** (Mac OS) or **Ctrl** (Windows), and drag one of the corner handles.

lorem



Rotated text.

To skew text:

- 1 Select text using the Layer Adjuster tool.
- 2 Hold down **Command** (Mac OS) or **Ctrl** (Windows), and drag one of the center handles on either side of the text.

Tip

- *If the bounding box is not showing, click the Layers palette menu arrow and choose Show Layer Marquee.*

Adding Shadows

You can apply a shadow to text and adjust the shadow position. You can select an external shadow, which places the shadow behind the text, or an internal shadow, which places the shadow inside the text.

To add a shadow:

- 1 Choose **Window menu > Show Text**.
- 2 On the Text palette, enable one of the following buttons:
 - External Shadow  — creates a shadow that makes your letters look as though they're casting a shadow onto a sheet of paper held beneath them.
 - Internal Shadow  — creates a shadow that makes your letters look like cutouts, above a sheet of paper the color of the text.
 - No Shadow  — removes a shadow.

To move the shadow:

- Select the Layer Adjuster tool  and drag the shadow to where you want it.

Setting Opacity

Opacity controls the transparency of text or shadows. Your text's shadow should be semi-transparent. You can also use opacity to fade the color of text.

To adjust opacity:

- 1 Choose **Window menu > Show Text**.
- 2 On the Text palette, move the Opacity slider to the left to increase transparency or to the right to increase opacity.

Adding a Blur

You can add either a focus or directional blur to text and shadows. Focus blurs make text fuzzy. You can use the Focus blur to soften the edges

of text characters. Directional blurs lets you specify the direction in which the blur occurs.

To add a blur:

- 1 Choose **Window menu > Show Text**.
- 2 Choose **Window menu > Show Layers**.
- 3 On the Layers palette, select the Text layer or the Shadow layer.
- 4 On the Text palette, adjust the Blur slider.

If you want to apply directional blur, enable the Directional Blur option, and adjust the Direction slider.

The first half of the slider adds a left-to-right blur on the text; the second half adds an up-and-down blur.

Composite Method

You can change the composite method for body text or shadow of a selected text layer by making a choice from the pop-up menu on the Text palette. You can specify whether you're modifying

the composite method for the text body or the drop shadow. Refer to “Blending Layers Using Composite Methods” on page 246 for more information about changing the composite method.

Curving Text

You can define a curve style and path (baseline) along which your text will flow. The baseline that a curve style creates is a Bézier curve, meaning that the shape can be controlled using control handles and anchor points.

Refer to “Working with Bézier Lines” on page 365 for more information on working with anchor points and control handles.

There are four curve styles to choose from:

- The Curve Flat style flows along a straight line.



Curve Flat style applied to text.

- The Curve Ribbon style flows the text along a curve and keeps the letters in an upright position. When you apply the Curve Ribbon style, you can use Shift and the Rotate tool to control how the text moves around the baseline.



Curve Ribbon style applied to text.

- The Curve Perpendicular style places the text along the curve, where each letter is perpendicular to the curve.



Curve Perpendicular style applied to text.

- The Curve Stretch style actually changes the shape of the letters to fill in the space that would be left when the curve bends.

For example, if text is set on a circular path, Corel Painter makes the tops of the letters heavier and thicker to fill in space.



Distorted text on a circular path using the Curve Stretch style.

To set a curve style:

- 1 Choose **Window menu > Show Text**.
- 2 On the Text palette, click a Curve Style icon:
 - Curve Flat
 - Curve Ribbon

- Curve Perpendicular
- Curve Stretch

- 3 Select the Layer Adjuster tool and drag the handles of the bounding box to adjust the text.

To change the path:

- 1 Choose **Window menu > Show Text**.
- 2 Choose the Shape Selection tool from the toolbox.
- 3 Click an end point on the path.
- 4 Drag the handles to change the shape of the path.

Using Center on Baseline

You can control how the text is centered on the line. You can move the center point by dragging on the slider or by changing the alignment. Dragging the Centering slider also changes where the text starts and stops on a line. The Centering slider has no effect on the Curve Flat style.

To change centering:

- 1 Choose **Window menu > Show Text**.
- 2 On the Text palette, choose a Curve Style icon.
- 3 Drag the Centering slider to the right or left.

The text moves along the curve.

Exporting Text

You can export text layers into shapes or default layers so that you can apply effects, gradations, blends or surface textures to text.

Converting Text Layers to Standard Masked Layers

After text layers have been converted to standard layers, you can fill text with a gradation, use the paint bucket, or paint the inside of the letters. You can also apply Surface Control Textures to give the text a three-dimensional appearance. Refer to “Using Image Effects” on page 257 for information about applying effects.

After you convert a text layer to a standard layer, you can still adjust the compositing method and opacity of the new layers.

To convert a text layer to a standard layer:

- 1 On the Layers palette, choose a text layer.
- 2 Click the palette menu arrow, and choose Convert to Default Layer.

Note

- *If the text has an outside or an inside shadow, then two layers — one for the text and one for the shadow — are created within a group.*

Converting a Text Layer to Shapes

After a text layer has been converted to shapes, you can kern letters individually and edit the outlines of the characters themselves. You can also edit the shape attributes of the new text; for example, to give it an outline. Refer to “Using Shapes” on page 363 for more information about shapes.

To convert a text layer to shapes:

- 1 On the Layers palette, choose a text layer.
- 2 Click the palette menu arrow, and choose Convert Text to Shapes.
The text layer is replaced by a group of shape layers.

Note

- *Text shadows and blurring effects are not converted when using this command.*

21 The Web

The World Wide Web has quickly become the most prevalent environment for communications today. The Web features of Corel Painter let you take natural media to the next level—the Internet.

Features for the Web

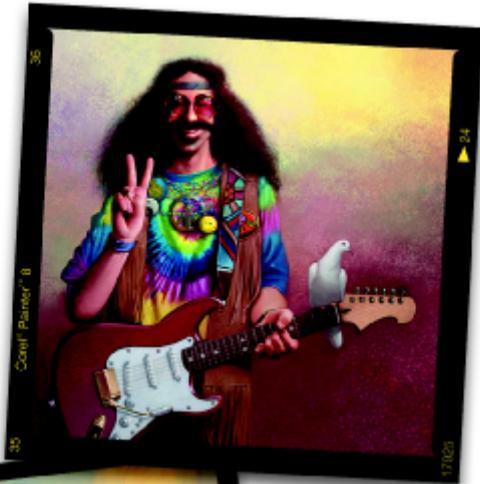
Felt pens, charcoal, colored pencils, water colors, oils, paint brushes, plug-in effects, and text merge with image-slicing, client-side image maps, and rollovers to create breathtaking Natural-Media effects for any Web site.

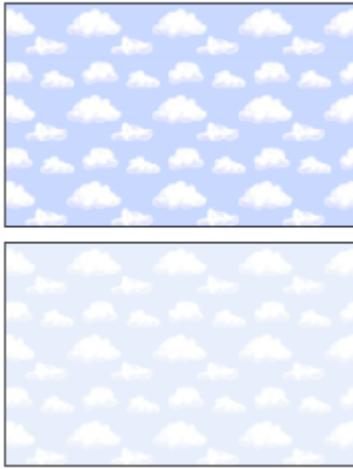
This chapter offers tips and techniques for using Corel Painter features to create imagery for the Web. It introduces you to the Image Slicer, rollovers, and image maps—all features specifically designed to help you create Web content.

Creating Web Page Backgrounds

Designing Backgrounds

One secret to designing good backgrounds for your Web pages is to make them subtle and unobtrusive. This is particularly important if the background is used behind text. You can lighten patterns using the **Edit menu > Fade** command, to make them more suitable for displaying behind text.





Choose **Edit menu** > **Fade** to lighten the pattern.

Controlling Background Color

Using HTML, you can achieve a solid background color for a page, table, or Cascading Style Sheet (CSS) element. Although Corel Painter can't assist you with actually setting the background color in your HTML code, you can use Corel Painter to determine the hexadecimal format of a color, which is used in HTML.

To display the RGB values of the current color on the Colors palette, click the palette menu arrow and choose **Display As RGB**. To display these values in hexadecimal format, click the palette menu arrow and choose **Display As Hex**. Concatenate the three values (R, G, and B) to determine the hexadecimal number required for your HTML code. For example, 'FF0000' is the hexadecimal value for red.

Using a background color closely matched to your background image takes no additional download time and creates a pleasing transition. For example, suppose your page loads a dark green seamless background tile. The tile takes a little time to download. While it's loading, the browser displays the page, using the page background color (which, if not explicitly defined, is usually gray or white). This can cause a jarring visual transition. Depending upon the text color used, it can even make a page impossible to read until the background image has finished loading.

Using Tiled Backgrounds

When a background image is smaller than the boundaries of the display area for a page, table, or Cascading Style Sheet layer, Web browsers automatically repeat the image, effectively creating a tiled pattern. Corel Painter makes it easy to create tiling background images for use in Web pages.

The CSS features in modern browsers let you apply background tiles to more elements than ever before. In the past, you could apply them only to a page itself, or possibly to a table. Now, with CSS, layers or block-level elements—anything you can display on its own line in traditional HTML layout—can have a background image.

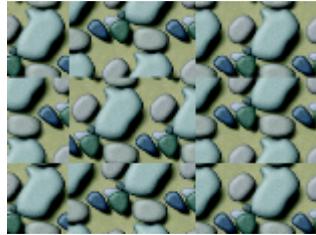
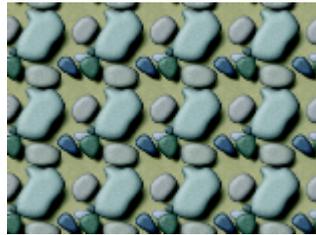
Since authors are no longer limited to using tiled backgrounds for just pages, possibilities open up for the creative use of tiles behind such elements as borders, call-out boxes, or sidebars.

You can use any image or selection to define a pattern. For information about creating, editing, saving, and filling with patterns, refer to "Using Patterns" on page 64.

An image designed for use as part of a pattern is normally created so that it tiles seamlessly. That is, the eye should not be able to distinguish the edges between tile repetitions.

Corel Painter has features that can help you create seamless tiles, which you can then use as interesting Web backgrounds. For more information, refer to “Creating Seamless Tiles” on page 66.

The Glass Distortion effect, the Super Soften effect (with the “wrap around” box checked), and most of the Tonal Control effects preserve the seamless quality of the pattern. Some effects, such as Apply Surface Texture, can result in a noticeable seam, so experiment.



Example of using seamless and non-seamless tiles in a pattern.

A way to partially avoid seams that occur with effects such as Apply Surface Texture is to apply the effect several times at lower strengths (by reducing the Amount slider). Shift the pattern a little (using Shift-Spacebar) between each application. This tends to “distribute” the seams and make them less noticeable.

Tile dimensions should be as small as practical, but should probably never go below 20 x 20 pixels. If a tile is too small, it actually takes the browser longer to render it over a large area.

When you’ve finished creating your tile, save the image in RIFF format, in case you must work with it later in Corel Painter. Then, save it in either JPEG or GIF format for later use on the Web.

Web backgrounds should, ideally, be saved as GIFs, with as few colors as possible, to reduce file size. You can also use JPEGs, but JPEGs often have larger file sizes. As a rule of thumb, any background tile over 20 KB is probably too large. For more information about saving an image in GIF or JPEG format, refer to “Saving Files” on page 44.

Creating Tiles with the Make Fractal Pattern

Another easy way to design seamless tiles is to take advantage of the neat effects you can create with the Make Fractal Pattern command. Make Fractal Pattern is a pattern generator

that creates organic patterns, which can make interesting background tiles. The patterns it generates can be filled with color and even enhanced with a paper texture.

For more information about the Make Fractal Pattern command, refer to “Creating Fractal Patterns” on page 69.

Color Overlay, the Water Color brushes, and Cloning are other options you can apply to a pattern. Beautiful, complex effects can also be achieved by applying Glass Distortion to a pattern created with Make Fractal Pattern.

Creating Web Buttons

Using Shapes and Selections

You can create Web buttons using shapes or by choosing a selection from the Selection Portfolio. For information about creating shapes, refer to “Creating Shapes” on page 366. For information about using selections, refer to “To use a selection from the portfolio:” on page 216.

3D Techniques

You may want to use one or more of the texturing options in Corel Painter to create 3D effects. The following sections describe several powerful ways to quickly add texture to the buttons you create.

Once you’ve added a desired 3D effect, try altering the light source to create a second image that represents the button in a different state, or try using the Hue Shift slider in the **Effects menu > Tonal Color > Adjust Colors** dialog.

Adding Shadows

Shadows lend a definite 3D flare to a Web page. You can quickly add drop shadows to text, buttons, shapes, and layers. When you apply a drop shadow to a shape, the shape loses its vector quality and becomes a pixel-based layer. For more information about creating drop shadows, refer to “Adding Drop Shadows” on page 241.

Applying Surface Texture

Leading the array of Corel Painter Web-friendly tools, Apply Surface Texture could easily become a Web designer’s best friend. You can use the Apply Surface Texture feature to apply 3D effects to Web buttons, bars, or other elements.

You can use the Reflection option to create an effect you would expect to see in objects made of glass or polished metal, like a chrome bumper on a classic car. You can use the Mask setting to round the edges of layers. The Image Luminance option gives your buttons an “embossed” look.

Using Apply Surface Texture in these ways can make your Web buttons take on an interesting 3D appearance. For more information about applying surface texture, refer to “Apply Surface Texture” on page 275.

Using the Impasto Technique

The Impasto feature lets you create the illusion of depth by applying thick paint to the canvas. You can use the Impasto technique to add a 3D

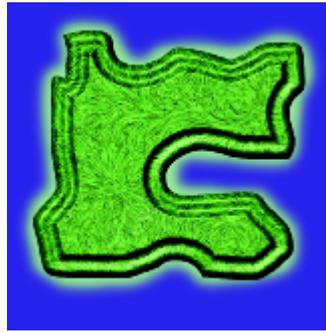
appearance to all or discrete areas of your image. For more information, refer to “Impasto” on page 133.

Indicating Button States

You can create a rollover effect by displaying a second image when a Web button is clicked. This creates two states for the button (“normal” and “clicked”). For more information about creating rollover effects, refer to “Creating Rollovers” on page 401.

Using Bevel World

No discussion of creating Web buttons would be complete without mentioning Bevel World. Bevel World is a dynamic plug-in that can add 3D angled edges to your shapes and selections.



You can bevel any element in your painting, then turn it into a 3D button.

Bevel World has controls that affect the 3D bevel shape being applied, as well as controls to adjust lighting. Try experimenting with lighting controls. By changing the lighting on a bevelled surface, you can easily create different states for your Web buttons.



Altering lighting in the Bevel World dialog is an easy way to create images that indicate button states.

For more information about Bevel World, refer to “Bevel World” on page 315.

You can decide later to change settings, as long as you have not committed the layer. Double-click the Plug-in Layer in the Layer List. Corel Painter opens the dialog so you can change the settings. To understand more about committing a layer, refer to “Committing Dynamic Layers” on page 313.

Using the Image Slicer

Using a large graphic for navigation is common on the Web. With Corel Painter, you can segment a graphic into slices. Each slice is exported as a separate image, then reassembled using an HTML table.

Most useful for implementing rollovers, the Image Slicer plug-in can also, in some cases, let you replace high-bandwidth image areas with lower-bandwidth HTML elements.

Segmenting a large graphic into smaller, optimized image files can reduce load time while letting you control the resulting image quality.

The Image Slicer supports these export options:

- GIF
- JPEG
- TIFF (for lossless export to other graphics applications)
- No Export

For example, one part of your image might contain a photo; a second, a graphic image; and a third, some text.

With the Image Slicer, you can:

- export a photo area (where color is most important) to the JPEG file format
- export a flat-color slice (which will look fine in 256 colors or less), to the GIF file format
- export nothing at all for a slice that contains text only (opting instead to code the text in HTML)



You can optimize each slice in your image, depending on content.

Deciding When to Slice Images

The Image Slicer plug-in is most useful when your image contains rollovers. For more information, refer to “Creating Rollovers from Image Slices” on page 402. Image mapping, in contrast, is most useful when you want to define multiple clickable links within a single image. For more information about image mapping support, refer to “Image Maps” on page 404.

Use image slicing if:

- your image includes areas that feature rollovers.
- one or more areas of your image (for example, flat color areas) can be significantly more compressed than other areas. Use the Image Slicer and set export options accordingly.
- you can replace some areas of your image with pure HTML elements, like text, form elements, or table cell backgrounds.
- the image must reappear on many pages, with small changes on each page (as with a navigation bar). The browser caches most of the common slices, which can help performance.
- you want to create different links for different areas of your image.

Understanding the Image Slicer

You don't have to know HTML or JavaScript™ to create a sliced image because the Corel Painter Image Slicer plug-in generates it for you.

However, it's helpful to have some understanding of how tables operate within HTML, as the slices will become part of a table.

A table displays information in rows and columns, with borders that can be shown or hidden. Tables allow you to format or lay out elements on a page to create alignment and space.

If one or more of the slices is designed to be a rollover, the Image Slicer plug-in generates the JavaScript needed for the rollover effect. Refer to “Understanding Rollovers” on page 401.

After you've used the Image Slicer plug-in, you can use the HTML file it creates as a starting point, or you can copy the HTML code for the table and any JavaScript for rollover effects into your own HTML file.

The Image Slicing Layer

The Corel Painter Image Slicer plug-in creates an Image Slicing layer that stores information about how your

image is sliced (segmented) and about how each slice of your image should be exported.

Every time you apply the Image Slicer, a new Image Slicing layer is created. Each Image Slicing layer generates code for an HTML table. Be careful not to open multiple instances of the Image Slicer plug-in when you're slicing an image. Create one Image Slicing layer, then just double-click it on the Layers palette to continue working.

There may actually be times when you want to have more than one Image Slicing layer. For example, if you want to slice an image in different ways for use on different Web pages, you could create an Image Slicing layer for each page. For most slicing purposes, however, you should create only one Image Slicing layer.

The Image Slicer works on the imagery below it in the layer stack. Because of this, the Image Slicing layer must be topmost in the layer stack.

If you add layers to your image after adding the Image Slicing layer, be sure to move the Image Slicing layer to the top of the layer stack before exporting the slices again. For more information about re-ordering layers, refer to “Changing Layer Hierarchy” on page 236.

If all or most of your image slices are of the same file format (GIF, JPEG, TIFF, or No Export), have the same number of image states, or reference the same URL, you can save time by setting those options before creating any slices.

Working with Image Slices

You create image slices by adding horizontal or vertical slice lines to your image. You can also create both a horizontal and a vertical line at once. You can move or delete single lines. When a slice is created, it is given an incremental name (Image1, Image2, and so on). This name is also the filename for the slice.

After you create slices, you can rename them, export them, and set options such as links so the user can click the

slice to jump to a specified location. For specific information about GIF options, see “Saving GIF Files” on page 46. For specific information about JPEG options, see “Saving JPEG Files” on page 45.

You can also set options for using slices as rollovers. For more information, refer to “Creating Rollovers” on page 401.

After setting options for all the slices in your image, you can export them.

To slice an image:

- 1 Open the image you want to slice. Starting with a resolution of 72 dpi is recommended.
- 2 On the Layers palette, make sure that no layers are selected.
- 3 On the Layers palette, click the Dynamic Plug-ins button , and choose Image Slicer.
- 4 In the Image Slicer dialog box, click one of the following tools:
 -  Horizontal tool—defines horizontal slices
 -  Vertical tool—defines vertical slices

-  Combined tool—defines slices using both vertical and horizontal slice lines
- 5 In the image window, click where you want to add a slice line. A plus sign next to the cursor indicates you are adding a new slice to the image.

As you move the cursor around in the image window, the X and Y coordinates are displayed in the Image Slicer dialog box. A small preview window displays a zoomed-in version of your image to help create slices based on color.

Once a slice is defined, its top, left, bottom, and right coordinates, as well as the slice size (in pixels), are displayed.

Note

- *If a layer is selected before you slice, an Image Slicing layer is created on top of it, using the same dimensions. Although this behavior can be useful at times, such as when you want to export a single graphic element, it's important to make sure no layer is selected if you want to slice the entire image.*

To move a slice line:

- 1 In the Image Slicer dialog box, click the Horizontal tool or the Vertical tool.
- 2 In the image window, move the pointer over the line you want to move.
- 3 When the pointer changes to include positioning arrows, drag the slice line to a new position.

To delete a slice line:

- 1 In the Image Slicer dialog box, click the Horizontal tool or the Vertical tool.
- 2 In the image window, hold down **Command** (Mac OS) or **Ctrl** (Windows), and move the pointer over the line you want to delete.
- 3 When the pointer changes to include a minus sign, **Command**+click the line (Mac OS) or **Ctrl**+click the line (Windows).

To rename a slice:

- 1 In the Image Slicer dialog box, choose a slice from the Slice pop-up menu.

2 In the File Name box, type the new name.

The new name displays in the Slice pop-up menu the next time you select a slice.

Note

• *By default, slices are automatically named according to their position order (Image1, Image2, and so on, moving from left to right, top to bottom). These names correspond to cells in the HTML table that reconstructs your image. When you rename a slice, Corel Painter disables the Auto option for that slice. If you re-enable the Auto option, you revert to the automatic, position-related slice name, and any name that you may have previously entered is overwritten.*

To set slice options:

- 1 In the Image Slicer dialog box, choose a slice from the Slice pop-up menu.
- 2 From the File Type pop-up menu, choose a file format.

If you do not want an image file exported, such as when a portion of the image can be replaced by an

HTML element, choose No Export.

- 3 Click Options, and specify the options you want for the chosen file format.
- 4 Specify any of the following optional settings:
 - Link URL—specify a URL to link to when the slice is clicked. You can enter either an absolute or a relative URL.
 - Image ALT Text—specify the text to be displayed when the pointer is moved over an image in the browser. This is equivalent to the “ALT” attribute of the HTML tag. If the slice will be used in a rollover, this text is displayed in the browser’s status bar during the rollover.
 - Rollover State—if you want to use the selected slice as a rollover, specify the rollover states to be supported.

To export slices:

- 1 In the Image Slicer dialog box, click Export Settings for Current

Image State, and specify any of the following options:

- Location where HTML table will be created—click Select, and specify a filename and location for the HTML file.
- Generate HTML Code in ALL CAPS—enable or disable this option.
- Location where images will be exported—click Select, and specify a filename and location for the exported images.
- Include JavaScript—if slices in the image are to be used for rollovers, enable this option and indicate which state the current image represents.
- Use Single Color Table for All GIF Slices—constrain all GIF slices in the image to the same color table. Enabling this option can help avoid palette clashes between slices exported to GIF.

- 2 Click Export.

Note

- RIFF format contains data about your image that is lost when you convert it to GIF or JPEG. If you may need to edit the file later, save a RIFF copy before you generate a GIF or JPEG version.

Grouping Slices

You can fine-tune your sliced image by combining slices that go together or that do not contain slice objects.

For example:

- You might want a slice that extends across several “columns” in the slice map. To accomplish this, you can group smaller slices into a large slice.
- There could be a large area of your image that shows only a single background color. Grouping the slices in these areas makes it easy to export a single GIF image with a small number of colors. Be sure to set the GIF color settings accordingly.



A sliced image, before slices are grouped.



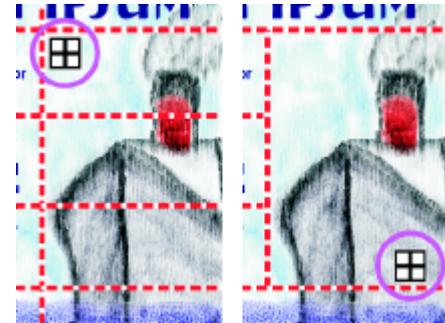
After grouping slices.

Grouped areas must remain rectangular. If you create a nested group, previously grouped slices may be ungrouped in order to create a rectangular shape.

Automatically assigned slice names change based on the top-left slice in the group.

To group slices:

- 1 In the Image Slicer dialog box, click the Select tool .
- 2 In the image window, click the top-left slice to be included in the group, and drag down or to the right, or both, until the target slices are selected. When you release the mouse button, the slices are grouped.



Click the top-left slice and drag until a new, larger slice is created.

To ungroup slices:

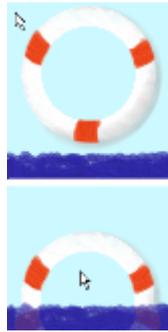
- Click the Select tool and **Shift**+click a grouped slice.
All slices are ungrouped. If you ungroup a nested group, all levels are ungrouped and the original slices are displayed.

Creating Rollovers

Understanding Rollovers

Rollovers are interactive objects that can change in appearance when you click or point to them. They are often used as navigation tools on the Web. For example, you can make a button change color when it is clicked or display text when you point to it.

The rollover effect is accomplished in the Web browser using JavaScript image swapping. The idea is simple: each rollover area uses two or more separate images of the same dimensions. In response to a user action (like moving the pointer over the image), one image is quickly replaced by another.



A rollover in the Mouse out state (top) and the Mouse over state (bottom).

In effect, this creates a simple animation, and each of the separate images can be thought of as frames in that animation. For our purposes, we refer to each frame as a “state.” Corel Painter supports three possible states for each rollover:

- **Mouse out** — This is the default image. Corel Painter displays it when the page first loads, and also when the pointer moves off the rollover. If the Web browser doesn't support JavaScript image swapping, this image is the only one that will be displayed.

- **Mouse over** — This image displays when the pointer moves over the rollover.
- **Mouse click** — This image displays when the user clicks the rollover. When the user releases the mouse button, the Mouse out image is displayed again.

Not all browser versions support these states. The Mouse over and Mouse out states display in browsers that support JavaScript 1.1 (Netscape Navigator 3.0 and higher and Microsoft Internet Explorer 4.0 and higher).

The Mouse click state displays in browsers that support JavaScript 1.2 (Netscape Navigator 4.0 and higher and Microsoft Internet Explorer 4.0 and higher). Browsers that do not support these versions of JavaScript (like Netscape Navigator 2.0 and Microsoft Internet Explorer 3.0), or that don't implement JavaScript at all, do not display rollover effects.

Creating Rollovers from Image Slices

Using the Image Slicer, you can divide your image into rectangular areas called slices. Each slice can have one of the following rollover state combinations:

- **No rollover** — The slice has no rollover states.
- **Mouse over-out** — The slice has two states: Mouse over and Mouse out.
- **Mouse over-out-click** — The slice has three states: Mouse over, Mouse out, and Mouse click.

A single image can contain different slices with different rollover combinations. This means that one slice can be set to Mouse over - out, another slice can be set to Mouse over - out - click, another slice can be set to No rollover, and so on.

For more information about the Image Slicer, refer to “Using the Image Slicer” on page 395. For more information about setting the number

of rollover states, refer to the procedure “To set slice options:” on page 399.

Before using the Image Slicer, you must carefully analyze your image.

- Which image areas should have rollover effects?
- Which rollover state combinations (see above) will be used for each area?
- How will you create the rollover states for each of these areas?

The third item in this list deserves special note. Since each rollover area must have two or three separate states, you must decide how you will represent each of these states.

The most common method of representing states is to use multiple layers (one for each state), then hide and show them, as necessary. Another option is to use Shapes or Dynamic Text, then redefine their attributes (color, opacity, size, and so on) for each state.

Whatever method you choose, make sure you can easily move between states for each slice. This is necessary when exporting states using the Image Slicer.

Press **Option**+click (Mac OS) or **Alt**+click (Windows) to control alignment when duplicating layers for use in rollovers. If in doubt, check layer alignment by double-clicking each layer and verifying the Position > Top and Position > Left fields. Make any necessary adjustments in alignment by typing numbers into these fields.

To define rollovers with the Image Slicer, follow the general steps below. For detailed information, refer to the procedures in “Working with Image Slices” on page 397.

To define rollovers:

- 1 Set up your image so you can easily move between states for each rollover area or slice.
- 2 Use the Image Slicer's slice tools to divide the image. Each rollover area in the image should occupy its own slice.

- 3 For each rollover slice, specify the supported rollover states (Mouse over - out or Mouse over - out - click). You do this by choosing an option from the Rollover State pop-up menu in the Image Slicer dialog box. For more information, refer to the procedure, “To set slice options:” on page 399.

Exporting Rollover Slices

Once you have defined slices, you are ready to export the slices and the associated HTML file. You must do a separate export operation for each rollover state.

Because there are two or three possible states, you must do two or three separate export operations. All the Mouse out (default) images are exported together, all the Mouse over images are exported together, and all the Mouse click images (if any) are exported together.

To export rollover slices:

- 1 Set up your image so that all slices display their Mouse out (default) state.

This is how you want slices to appear when the Web page first loads. As mentioned in “Creating Rollovers from Image Slices” on page 402, this is often done by hiding or showing layers, or by changing the attributes of Shapes or Dynamic Text.

- 2 On the Layers palette, double-click the Image Slicing layer in the Layer list.
- 3 In the Image Slicer dialog box, click Export Settings for Current Image State.
- 4 In the Export Settings dialog box, enter the HTML and image export locations.
- 5 Enable the Include JavaScript check box, and enable the Mouse out (default) option.
- 6 Click Export.
Corel Painter exports the slices and the HTML file.
- 7 Click OK in the Image Slicer dialog to return to the image.
- 8 Set up the image so that all slices with rollovers display their Mouse over state.

This is how you want slices to look when the user's cursor passes over them. You can choose to do this by manipulating layers in your image.

- 9 On the Layers palette, double-click the Image Slicing layer in the Layer list.
- 10 In the Image Slicer dialog box, click Export Settings for Current Image State.
- 11 In the Export Settings dialog box, enable the Include JavaScript check box, and enable the Mouse over option.
- 12 Click Export.
Corel Painter exports the Mouse over slices and displays a confirmation message.
- 13 Click OK in the Image Slicer dialog to return to the image.
If slices in your image have a Mouse click state, repeat steps 8 through 13 for this state.
- 14 Load the exported HTML file into your Web browser and test the rollover effects to make sure they work as you intended.

Notes

- *You must exit the Image Slicer dialog to manipulate the image.*
- *It's important not to modify the image slice settings in any way between each of these export operations (for example, do not change any slice name or resize/add slices). Any changes you make may result in a nonfunctional HTML file. If you decide to modify one or more slice settings, you must repeat the export process from the beginning.*

Image Maps

Understanding Image Maps

An image map is a Web feature that lets you jump to different locations by clicking on specific areas within an image.

There are two types of image maps:

- Client-side image maps store image map information right in your HTML document. URL information appears at the bottom of the browser window when a cursor is moved over the mapped areas.

- A server-side image map works differently. Image map information is saved in a separate file that is stored on a server and accessed by a Common Gateway Interface (CGI) script. Coordinate information, not URL information, is displayed at the bottom of the browser window when a cursor is moved over a mapped area.

Client-side image maps are faster and more efficient because all the imagery information is present in the HTML for the page. A server-side image map, in contrast, requires an extra round trip of information between the browser and the Web server. However, client-side image maps are not supported by very old browsers (Netscape Navigator 1.0, for example).



When a hotspot is clicked (top), the browser jumps to the page referenced by that link (bottom).

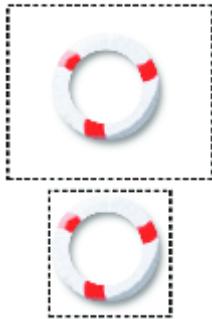
Client-Side Image Mapping

A client-side image map is an image that has “hotspots” directly associated with URL information. When a hotspot is clicked, the browser jumps to the page referenced by that link information.

A client-side image map recognizes circular and rectangular “hotspots.” Therefore, Corel Painter treats a

circular area as a circle and a rectangle as a rectangle. Oval areas are exported as rectangles.

Image maps are created using layers. The size of the layer determines the clickable area. For information about working with layers, refer to “Using Layers and Layer Masks” on page 227.



The size of the layer determines the size of the clickable area, or hotspot.

Server-side image mapping handles circles and ovals differently. With server-side mapping, you can export ovals. For more information on server-side image maps, refer to “Server-Side Image Mapping” on page 406.

To define a client-side image map:

- 1 Select or create a layer or shape in the exact place in your image where you want a link created. If you can't see the layer's marquee, click the palette menu arrow on the Layers palette and choose Show Layer Indicators.
- 2 On the Layers palette, select a layer in the Layer list.
- 3 Click the palette menu arrow, and choose Layer Attributes.
- 4 In the Layer Attributes dialog box, specify a name for the layer.
- 5 Enable the WWW Map Clickable Region check box.
- 6 In the URL box, specify a URL to associate with this portion of your image, for example, `http://www.corel.com`.
- 7 Click OK to return to the image.
- 8 Deselect the layer, then define the next area of your image map. If there are two or more overlapping areas in an image map, the topmost one takes priority.

- 9 Export your image to the GIF or JPEG file format. In the Save As GIF Options or Save As JPEG Options dialog box, enable the Client Side Map File check box to indicate that Corel Painter should export an HTML file containing the image map definition.

Note

- *The RIFF format contains data about your image that is lost when you convert it to GIF or JPEG. If you want to edit the file later, save a RIFF copy before you generate a GIF or JPEG version.*

When a client-side image map is exported, Corel Painter exports both the image and an HTML file. You can then open the HTML file in a text or HTML editor and copy the code into another Web page.

To define a default URL for an image map:

- 1 To define a default, or base, URL to use when a user clicks outside of defined hotspot areas in an image map, choose **File menu > Get Info** when no layers, shapes, or plug-ins are selected.

The File Information dialog is displayed.

- 2 Select WWW Map default URL.
- 3 Enter a URL address.
- 4 Click OK.

If you don't provide a default URL, clicking outside the defined hotspot areas has no effect.

Server-Side Image Mapping

In Corel Painter, you can define a layer as a clickable region. Corel Painter saves this image map information within a separate text file, which you can upload to your Web server. It can then be accessed by a CGI script.

Because server-side image mapping is becoming obsolete, be sure to read the previous section on client-side image mapping support.

To create a server-side image map:

- 1 Select or create a layer or shape in the exact place in your image where you want a link created. For

information about working with layers and setting general layer preferences, refer to "Using Layers and Layer Masks" on page 227.

- 2 On the Layers palette, select a layer in the Layer list.
- 3 Click the palette menu arrow and choose Layer Attributes.
- 4 In the Layer Attributes dialog box, specify a name for the layer.
- 5 Enable the WWW Map Clickable Region check box.
- 6 In the URL box, specify a URL to associate with this portion of your image, for example, `http://www.corel.com`.
- 7 Click OK to return to the image.
- 8 Deselect the layer, then select the next hotspot in your image map. Try to avoid overlapping hotspot areas within an image map. You can set a default base URL to use if the user clicks outside of your defined hotspot areas. See "To define a default URL for an image map:" on page 405.

- 9 Export your image to the GIF or JPEG file format. In the Save As GIF Options or Save As JPEG

Options dialog box, enable either the NCSA Map File check box or the CERN Map File check box, depending on which format is recommended by your Internet Service Provider.

When you save the image, Corel Painter creates an additional text file that describes the clickable regions and their associated URLs.

- 10 Store both files (the image file and its associated image map definition file) on your Web server, as directed in the documentation for your image mapping CGI script/program. Both files must be present for the server-side image map to work.

Note

- *The RIFF format contains data about your image that is lost when you convert it to GIF or JPEG. If you want to edit the file later, save a RIFF copy before you generate a GIF or JPEG version.*

Creating GIF Files

Creating Transparent GIFs

The ability to define transparent areas in a GIF file is used everywhere on the Web today. If designed correctly, GIFs with transparent areas are very effective when displayed over background colors or tiles.



A transparent GIF (the airplane) is displayed over a blue background image.

With the increasing use of Cascading Style Sheets (CSS), Dynamic HTML (DHTML), and layers, there are even more possibilities for using transparency to your advantage.

In Corel Painter, the method of defining transparency during GIF export is to define the transparent areas based on the current selection.

When your image contains layers, you will often want the edges of the floating elements to define the transparent areas. For more information about layers, refer to “Using Layers and Layer Masks” on page 227.

When saving to the GIF file format, you can reduce the number of colors, which translates into smaller files. For more information about reducing the number of colors, refer to “Reducing the Number of Colors” on page 408.

For information about other options available for saving GIF files, refer to “Saving GIF Files” on page 46.

To create a transparent GIF from a layer or group of layers:

- 1 To output transparency in a GIF, you need an active selection. Select a layer or group of layers.
- 2 On the Layers palette, click the palette menu arrow and choose Drop and Select.

The layers are merged with the canvas and a selection containing the contents of the dropped layers is made.

- 3 Choose **File menu > Save As**.
- 4 In the Save dialog box, choose the GIF file format, specify a location and filename, and click Save.
- 5 In the Save As GIF Options dialog box, enable the Output Transparency check box to make the selected area the only part of the canvas displayed on your Web page.
- 6 Enable one of the following options:
 - **Background is WWW Gray** sets the transparent color to 75% gray (the default background color of the Netscape Navigator browser).
 - **Background is BG Color** sets the transparent color to the secondary color on the Colors palette. Note that this setting does not refer to the HTML page’s background color.
- 7 In the Preview window, verify that the selected area is correctly

masked and that the transparent area is correctly positioned. Transparent areas are designated with a grid.

If necessary, drag in the Preview window to view all parts of the image.

8 Choose one of the following imaging methods:

- **Quantize to Nearest Color** causes Corel Painter to look at each pixel and pick the nearest color. This is useful when the image you are saving has broad areas of a single color.
- **Dither Colors** causes Corel Painter to apply a stippled effect to the colors chosen to generate a more accurate, less banded result. Unfortunately, Dither Colors can reduce the effectiveness of GIF file compression.

Note

• *The RIFF format contains data about your image that is lost when you convert it to GIF or JPEG. If you want to edit the file later, save a RIFF copy before saving to the GIF or JPEG file format.*

Creating Animated GIFs

Corel Painter can open a QuickTime movie, which can be painted on, then saved as an animated GIF.

Additionally, you can create a new movie or animation from scratch in Corel Painter and save it as an animated GIF, QuickTime, or Audio/Video Interleaved (AVI) movie.

For information about creating movies, refer to “Creating a Movie” on page 423. For information about creating and exporting animated GIFs, refer to “Animations for the World Wide Web” on page 440.

Reducing the Number of Colors

Web designers are always seeking a careful balance when creating graphics for the Web. Artwork and imagery must be as rich and vibrant as possible while remaining small and easily downloadable.

One way of keeping an image’s file size small is to reduce the number of colors used to create that graphic

element. Reducing the number of colors used reduces file size and, therefore, download time.

A Web artist may end up saving multiple versions (varying in the number of colors used) of the same graphic element. These versions must then be placed on a page, loaded to the page, and viewed to determine if the quantity of colors used is acceptable. This whole process can be time-consuming and confusing.

In Corel Painter, you can make this decision during the process of saving the image to GIF format, by using the Preview window on the GIF Save As dialog.

To visually reduce the number of colors

- 1 Choose **File menu > Save As** and name your image file.
- 2 Choose the GIF file format, and click Save.
- 3 Click OK to dismiss the layer warning, if displayed.
- 4 In the Save As GIF Options dialog box, in the Number of Colors area, choose 256 colors.

In the preview window, the image appears in 256 colors.

- 5 Change the number of colors to 128.

In the preview window, the image appears in 128 colors.

- 6 Continue reducing the number of colors in the graphic until you find the minimum number of colors necessary for adequate display on your Web page.
- 7 Choose Quantize to Nearest Color if you want Corel Painter to look at each pixel and pick the nearest color. Choose Dither Colors if you want Corel Painter to apply a pattern to the colors chosen to generate a more accurate, less banded result.

You can now either save the graphic element to place on the web page or return to Corel Painter to work on the design and color balance.

Note

- *The RIFF format contains data about your image that is lost when you convert it to GIF. If you want to edit the file later, save a RIFF copy before you generate a GIF version.*

Using Web-Safe Colors

Using a Web-safe color table becomes important when you expect to deliver your Web page to viewers who use monitors displaying 256 or fewer colors. On such a monitor, Web browsers dither colors that aren't found in the Web-safe palette. So, depending on your audience, making sure that some or all of your image conforms to the Web-safe palette can make good sense.

The colors in the default palette included with Corel Painter are the same 216 colors present in the Netscape browser-safe palette. Included with Corel Painter are Web-safe color palettes that identify colors by a hex value displayed immediately under each color chip—values used in HTML code to identify a color.

To select a Web-safe color palette:

- 1 Click the palette menu arrow on the Color Sets palette, and choose Open Color Set.
- 2 In the Select Color Set dialog box, select the Hexadecimal folder within the Color Sets folder.
- 3 Choose a hex file from the list, and click Open.

The selected color palette displays on the Color Sets palette.

Working with Posterize Using Color Set

You can use the Posterize Using Color Set option to force your image to use the default color set. Posterize Using Color Set can help make colors in your resulting image ready for delivery to the Web — without a lot of dithering or shifting of colors.

Posterizing means adjusting the number of color levels an image contains. Corel Painter can automatically constrain all the colors in your image to a web-safe, 216-color palette. Although the Posterize Using Color Set option is not designed to be

a highly sophisticated method of reducing color (it offers you no control over exactly how color reduction is performed), Posterize Using Color Set can be a real time-saver.

In addition, you can constrain the colors you use to the default or another Corel Painter Web-safe palette, utilize new Web-safe single color brushes (refer to “One-Color Brushes” on page 410) and keep the number of colors in your image to a minimum.

To use Posterize Using Color Set to adjust color levels:

- 1 Select an area of your image you want affected or select nothing if you want the entire image affected.
- 2 Make sure the proper color set is active.
- 3 Select **Effects menu > Tonal Control > Posterize Using Color Set**.

It’s important to note that exporting to GIF format can compromise the color set values used when Posterize Using Color Set has been performed. For best results in those cases:

- First, save your reduced-color image in a 24-bit format, like Windows Bitmap, TIFF, or PICT. This maintains the benefits of defining Web-safe colors in Corel Painter.
- Next, open the image in a tool that supports indexed color to save the GIF—one that offers “constrain to color set” features, such as GifBuilder (Mac OS) or GIF Construction Set (Windows).
- Finally, save the image to GIF format. The web-safe colors from Corel Painter are maintained and your image is ready to go right on the Web.

Brushes for the Web

Natural-Media and Low Bandwidth

Web artists are pulled between the desire for beautiful imagery and the need for small image file sizes, with faster download times.

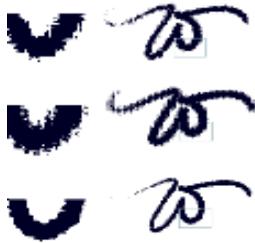
Bitmapped images can be roughly divided into two general types—images with areas of flat color and continuous-tone images. Continuous-tone images (which most of the normal features in Corel Painter produce) are best saved as JPEG images. Images with flat areas of color are best saved as GIF images. The more regions of flat color contained in an image, the more compressed (smaller) the resulting GIF file. For more information about reducing colors in the final GIF file, refer to “Reducing the Number of Colors” on page 408.

The strength of Corel Painter is its Natural-Media brushes; however, Corel Painter is also versatile in the creation of flat color suitable for GIF images on the Web.

One-Color Brushes

You can set the brush controls to create areas of flat color, while keeping all the feeling and nuance of a Natural-Media brush. These brush edges are aliased, meaning they have jagged edges. For example, if a brush

color is black, there are no intermediate gray pixels at the brush's edge. There is either black or the background color. In addition to a flat color, this brush type responds to paper texture. Different paper textures cause the same type of brush stroke to look different.



Magnified detail of the stroke is shown to the left of each W-stroke. In this image, the identical brush and stroke is applied using a different paper texture.

To make a brush with a flat-edged appearance, change the method to Cover and the subcategory to Grainy Edge Flat Cover in the Brush Creator. For more information about the Brush Creator, refer to “The Brush Creator” on page 141. If you have created some

of your own brush variations in Corel Painter, you can convert them to Web-friendly brushes, too.

To change the brush method and subcategory:

- 1 On the Stroke Designer page of the Brush Creator, click General.
- 2 From the Method pop-up menu, choose Cover.
- 3 From the Subcategory pop-up menu, choose Grainy Edge Flat Cover.
The result is the current brush with a Web-friendly hard edge.
- 4 Save your creation as a variant.

Note

- *Brushes that require a particular method, such as Wet, Eraser, or Plug-in, will not work as well with the Cover method. If you use another brush method, you will not be working with a one-color brush.*

Web-Friendly Brushes

Included with Corel Painter are brushes that have been converted from the default Corel Painter brushes to Web-friendly, low-bandwidth brushes.

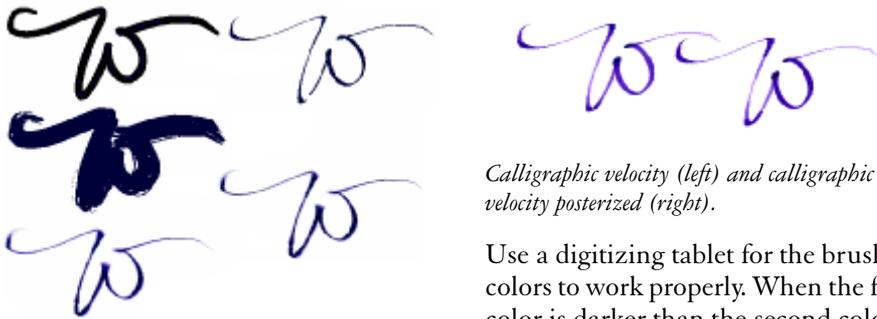
To load Corel Painter Web-friendly brushes into a library:

- 1 In the Brush Creator, choose **Brush menu > Import Brush Library**.
- 2 In the Select Brush Library dialog box, locate the Web brushes library on the CD-ROM.
- 3 Click Open.

A set of one-color Web brushes, along with some one-color Calligraphy brushes, is included with Corel Painter.

Experiment with these brushes, using different papers for Web-friendly Natural-Media effects.

Install the brushes, then use the file browsing feature (accessed from the Open dialog box) to review all the Web-friendly variations on standard Corel Painter brushes. Here are some samples of what you'll find:



Examples of brush strokes produced by Web-friendly brushes.

A few of the new brush variants included in Corel Painter are not one-color brushes. If you are concerned about having Web-safe colors, make sure the Corel Painter Color set or the Corel Painter Colors-WEB Color Set is loaded, then change the image into Web-safe colors by choosing **Effects menu > Tonal Control > Posterize Using Color Set**. For more information about the Posterize Using Color Set command, refer to “Working with Posterize Using Color Set” on page 409.

Calligraphic velocity (left) and calligraphic velocity posterized (right).

Use a digitizing tablet for the brush’s colors to work properly. When the first color is darker than the second color, dark areas show up in the thicker parts of the brush strokes—the places where brush velocity is slower. After posterizing, the stroke has the appearance of pigment that has pooled in one place and dried darker. The result is a very web-efficient, limited-color image, with the appearance of natural media.

22 Scripting

You can record anything in a script—from a single edit command to an entire work session.

There are a number of ways to take advantage of scripting:

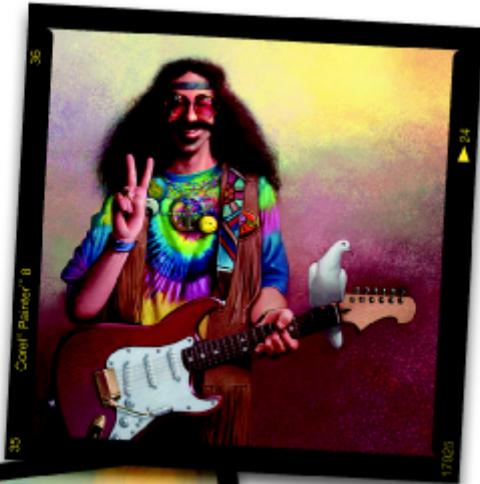
- Scripts offer the ultimate in Undo. If you record your work, you can revert to any stage in the project by playing the script and stopping it at the stage you want.
- You can use scripts to create macros. If you have a repetitive task or an operation you use frequently, you can record that series of commands. Whenever you want to perform the task, play the script.
- You can play back a script at a different resolution. You can record at a low resolution, then automatically produce the same results at a higher resolution.

Scripts allow you to record every action you make in the Corel Painter application. Scripts can replay the artist's process of creating an image, or they can hold procedures and operations. For example, if you must apply color adjustments to a collection of images, you can script these operations. Playing back the script lets you perform color correction on other images with the click of a button.

By default, every action you perform is recorded in an “always script” that’s used for operations such as undo.

Understanding Scripting

A script is similar to a video. You can record, edit, and play it back at any time from the Scripts palette. The ability to edit scripts step-by-step also gives you control over recorded action sequences.



- You can record a script that plays back using the current art materials. For example, you can record a script of a pencil drawing, then open a new document, choose a different paper texture, color, and brush, and play back the script. Watch Corel Painter repeat your drawing with the selected art materials.
- Scripts are a great educational tool. Playing the script of an art project lets you see the step-by-step process used to make the image. It's like looking over the artist's shoulder.
- Scripts are particularly useful for working with movies. When you have an operation you want to apply to each frame in a movie, record the set of commands in a script. You can then apply the script to the entire movie as one command.
- When you play a script, you can output it to a movie. Every action you take becomes a frame in the movie. This is a great way to create

special effects for your QuickTime or Video for Windows (VFW) movies.

How Scripts Work

The Script recorder saves each instruction you give Corel Painter, including what values, locations, colors, and textures are used. By repeating the instructions, you can reproduce the artwork “from scratch.”

Because Corel Painter saves instructions, scripts are efficient and flexible. For example, you can play a script one instruction at a time. You can also edit scripts, taking a few instructions from one script and inserting them into another one.

The Scripts Palette

The Scripts palette supplies the basic tools for recording, playing, and storing scripts.

To show the Scripts palette:

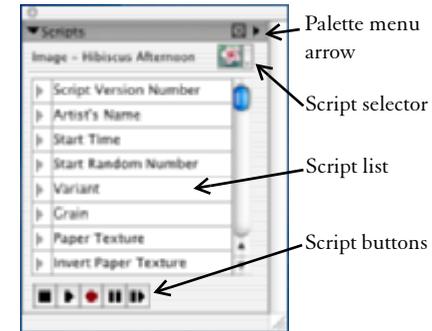
- Choose **Window menu > Show Scripts**.

Note

- *The Script list is empty until you open a script for editing.*

To hide the Scripts palette:

- Choose **Window menu > Hide Scripts**.



The Scripts palette

Record and Playback Buttons

The Script buttons on the bottom of the palette make it easy to stop, play, record, pause, and step forward when you're working with scripts.



Script buttons, from left to right: Stop, Play, Record, Pause, and Step Forward.

Script List

The Script list on the Scripts palette offers tighter control in developing and playing scripts. The Script list contains the instructions that make up a script. You can edit, copy, and move instructions. You can also copy and move instructions between scripts. For more information, refer to “Editing Scripts” on page 417.

Recording Scripts

When you record a script, first you set up your Script Options.

Record Initial State records the tools and art materials you use during the session, including brushes, colors, and paper textures. Corel Painter plays the session using the materials you recorded.

When Record Initial State is disabled, Corel Painter uses the tools and art materials selected at the time you play back the script. So, by disabling Record Initial State, you can use a different brush, color, and paper texture each time you play the script.

Save Frames on Playback and the frame rate option are for playback. For more information on these options, refer to “Converting a Scripted Session into a Movie” on page 419.

After you have set the Script Options, you begin the recording and perform the actions you want scripted.

Corel Painter saves new scripts to the current library. You can move scripts between libraries using the Script Mover. For information on working with libraries and movers, refer to “Libraries and Movers” on page 25.

Because Corel Painter always saves your script data, this data can build up in your Corel Painter Script Data file. You can control the number of days these scripts persist in the file by entering a number of days into the Auto Save box in the General

Preferences dialog. For more information, refer to “Setting Preferences” on page 48.

To record a script:

- 1 On the Scripts palette, click the palette menu arrow and choose Script Options.
- 2 In the Script Options dialog box, set your options.
If you want to record a script where you can change art materials on playback, disable the Record Initial State option.
- 3 Click the palette menu arrow and choose Record Script, or click the Record button.
The Record button glows red while recording.
- 4 Draw, paint, or use any features and effects you want to record.
- 5 When you’re finished, click the palette menu arrow and choose Stop Recording Script, or click the Stop button.
- 6 In the Script Name dialog box, type a name.

Corel Painter automatically adds an icon for the script in the Script selector.

Note

- *If brushes, papers, patterns, or other materials required by the script are stored in alternate libraries, these libraries must be available during playback.*

Playing Scripts

When you play your recorded script, you can sit back and watch the operations unfold. In Corel Painter, replaying a script of a painting is like watching the artist at work.

Playing a Script from the Scripts Palette

To play a script:

- 1 On the Scripts palette, choose a script from the Script selector.
If you want to load another script library, click the selector menu arrow and choose Load Library.
- 2 Click the Play button.

The button glows green during playback.

- 3 Use the Stop, Pause, and Step Forward buttons to control playback.

Tips

- *To switch between List and Thumbnails view in the Script selector, click the selector menu arrow and choose List or Thumbnails.*
- *You can also use **Command+**. (Mac OS) or **Ctrl+**. (Windows) to stop a script from playing.*

Replaying a Script at a New Resolution

Replaying a script at a higher resolution is a good way of creating a high-resolution image without working on a high-resolution image.

When you're creating the image, you can get smoother, more responsive performance by working at low resolution. Then, when you play back the script at a higher resolution, you get the benefit of a higher quality image.

The record-to-playback scaling ratio is limited. A factor of 4 is probably too much. For best results, experiment.

To record for resolution-independent playback:

- 1 Before you start recording, open a new document at the resolution in which you want to work.
- 2 Before painting or drawing, choose **Select menu > All**, or press **Command+A** (Mac OS) or **Ctrl+A** (Windows).

This action creates a reference rectangle that is part of the recording. The rectangle must be recorded to play a session back into a higher resolution file later.

- 3 Click the Record button.
- 4 Deselect the reference rectangle by doing one of the following:
 - Choose **Select menu > None**.
 - Draw inside the selected area.
 - Press **Command+D** (Mac OS) or **Ctrl+D** (Windows).
- 5 Proceed with your script recording as usual.

To play back at a different resolution:

- 1 Create a new document with the resolution at which you want to play the script.
If you want the resulting image to be a higher resolution than the original, create a document with proportionally larger dimensions. For example, if the original document is 500 X 500 pixels, make the new document 1000 X 1000 pixels to double the size.
If the destination document has a different aspect ratio from the original, the image created by the script will be proportionally distorted.
- 2 On the Scripts palette, click the Script selector arrow and choose the resolution-independent script you recorded.
- 3 Before playing back the script, choose **Select menu > All**, or press **Command+A** (Mac OS) or **Ctrl+A** (Windows) in the new document. The rectangle recorded at the outset of the original script is referenced to the selected rectangle in this document.

- 4 Click Play.

The original script replays into the new document. All brushes, paper textures, and related functions are appropriately scaled for the new resolution.

Editing Scripts

Corel Painter lets you edit your scripts. You can cut, copy, and paste steps to change script behavior. You must first open the script before you can edit.

Opening a Script

To open a script for editing:

- 1 On the Scripts palette, click the palette menu arrow and choose Open Script.
- 2 In the dialog box, choose a script and click Open.
Corel Painter displays the script's instructions in the Script list. If the script you want is in a different library, click Open Library.

Note

- *The open script becomes the current script and is displayed in the Script selector. If you choose another script from the Script selector, the open script does not change.*

To close an open script:

- On the Scripts palette, click the palette menu arrow and choose Close Script.

Working with Script Instructions

You can edit a script to change the order of instructions, remove an instruction, or add a segment from a different script.

An open script displays in the Script list as a series of instructions, each with a triangle at its left. You can click the triangle to open the instruction and see the steps or parameters it uses. Most of these parameters can be edited by double-clicking them.

Corel Painter always records every action you take in the “always script.” This script appears as (Current Script)

in the Open Script dialog. You cannot edit the “always script.” However, if you open this script, you can copy instructions from it and paste them into another script. In this way, you can easily record recently taken steps into a script.

To select one or several instructions:

- You can select a single instruction by clicking it.
- You can select multiple instructions by holding down Shift and clicking each instruction.
- You can select all instructions in a script by clicking the palette menu arrow and choosing Select All.
- You can deselect all selected script instructions by clicking the palette menu arrow and choosing Deselect.

To copy, cut, and paste instructions:

- 1 Select one or more instructions.
- 2 Click the palette menu arrow and choose Cut or Copy.

- 3 Select the instruction before which you want to paste.
- 4 Click the palette menu arrow and choose Paste.

Note

• *Corel Painter stores copied instructions on the Clipboard, so you can close one script, open another, and paste the instructions there.*

Creating a New Script

To create a new script:

- 1 On the Scripts palette, click the palette menu arrow and choose New Script.
- 2 You can now build a script by copying segments from other scripts and pasting them into the new script.

Adding a Keyboard Shortcut for a Script

Do you have a script that you run frequently? When you create a script, you can give it a keyboard shortcut by adding “[letter]” to the script name.

The script shortcut is used by pressing **Command+K+[letter]** (Mac OS) or **Ctrl+K+[letter]** (Windows). For example, a script named “Myscript\T” can be played by pressing **Command+K+T** (Mac OS) or **Ctrl+K+T** (Windows). You can create shortcuts for as many scripts as there are letters in the alphabet.

Scripts and Movies

Corel Painter allows you to play back a script in a movie file. This allows you to create some interesting effects, as well as automate processes.

Corel Painter lets you apply a script to a movie. This feature is particularly useful when you have a script that functions as a macro.

For example, you might want to apply an effect like Motion Blur to a video clip. You can record a script that applies the Motion Blur effect to a single image. Then, with a single command, you can apply the script to each frame of a movie. You can also use a script to set grain position in a movie.

For more information about applying a script to a movie, refer to “Applying Scripts to Movies” on page 431. For more information about setting the resolution of a movie, refer to “Replaying a Script at a New Resolution” on page 416.

Converting a Scripted Session into a Movie

You can convert a script into a Corel Painter movie and save it as a QuickTime or AVI movie. Every action you take becomes a frame in the movie. This is a great way of creating special effects for your movies.

For more information about creating movies, see “Creating a Movie” on page 423.

If the script was recorded to be resolution-independent, you can replay your session into a movie with different dimensions. For additional information, refer to “Replaying a Script at a New Resolution” on page 416.

If the script is not resolution-independent and the new image window is larger, the script plays back in the upper-left corner of the movie. If the new image is smaller than the script dimensions, only the upper-left portion of the scripted session appears in the movie.

To replay a script into a movie:

- 1 On the Scripts palette, click the Script selector arrow and choose a script.
- 2 Open a new image at the size you want the movie to be.
- 3 On the Scripts palette, click the palette menu arrow and choose Script Options.
- 4 In the Script Options dialog box, enable Save Frames on Playback. This is the option that directs Corel Painter to create a movie on playback.
- 5 Choose how many tenths of a second you want between frames. The lower the number, the more frequently a frame is created and the more fluid the movie is. More

frames, however, use more disk space.

- 6 On the Scripts palette, click Play.
- 7 In the Enter Movie Name dialog box, type a name, choose a destination folder, and click Save.
- 8 In the New Frame Stack dialog box, choose the number of layers of onion skin and the storage type you want. Corel Painter plays the script into the frame stack.

Note

- *Not all actions can be converted into a movie. For example, a script that contains a **File menu > New** command will not be converted properly.*

23 Animation and Video

An animation is a series of drawings with progressive change. When viewed in rapid succession, they create a moving image.

Because Corel Painter has its full suite of Natural-Media tools and effects available for each image in a frame stack, it's an extraordinary program for creating original animation.

The animation features in the Corel Painter application give you the power to work with video and create animations, including onion skinning and rotoscoping.

Onion skinning is a feature animators use to view previous and future frames while working in the current frame.

Rotoscoping is the ability to paint on and apply effects to existing movies. Corel Painter controls allow you to clone, trace, edit, and combine movies.

In this chapter, you'll learn animation and compositing techniques. You'll learn how to create, open, and modify movies, how to navigate the Frame Stacks palette, and how to export movies to QuickTime or VFW/AVI format (Windows only).

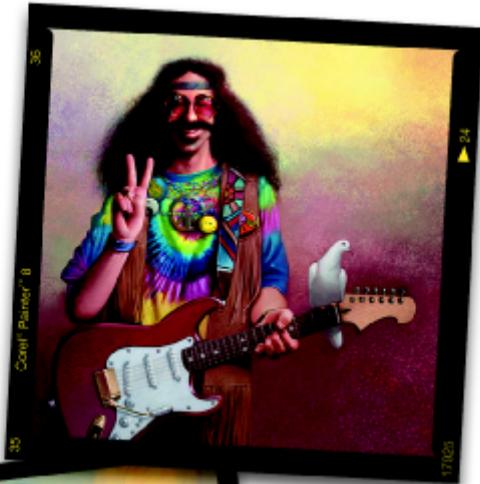
Creating Animations and Video

Creating Animations

Corel Painter offers several methods to create original animations:

- By cloning or tracing video. For more information, refer to "Cloning a Movie" on page 434.
- By manipulating layers
- By drawing each frame by hand

Corel Painter has powerful features that simplify animation and help you get the best quality possible. You can



use the Natural-Media tools in Corel Painter to create your own animations with a traditional look. Onion skinning allows you to see multiple frames at the same time. In Corel Painter, you can view up to five frames at a time: the current frame and four other frames adjacent to it. This will help you determine where the next frame of motion should be drawn. You can play back your animation over and over as you create it, to be sure you have the correct flow of movement.

Working with Video

Corel Painter offers certain ways of working with video that QuickTime or Audio Video Interleaved (AVI) applications don't. You can use any of the Corel Painter brushes, textures, and effects to modify a QuickTime or AVI movie. You can paint directly into video frames, you can clone video using the Natural-Media tools, and you can combine or *composite* portions of one video clip with another.

When you open a QuickTime or AVI movie, Corel Painter automatically converts it to a *frame stack*. A frame stack is a series of images, each equal in size and resolution.

Corel Painter does not provide features for working with audio.

When you're finished with the movie in Corel Painter, you can save it as a QuickTime, AVI, or animated GIF file. You can then open the QuickTime or AVI movie in a video-editing application, like Adobe® Premiere®, where you can add sound effects and other finishing touches.

The Frame Stacks Palette

In Corel Painter, digital video and animation files are known as movies or frame stacks. Whether you're working with imported video or building a new animation, the tools you'll use are the same. They're found on the Frame Stacks palette and in the Movie menu.



The number of frames displayed on the Frame Stacks palette is determined by the number of onion skin layers. A red triangle displays above the current frame.

Icon	Keyboard shortcut	Comment
	Home	Returns to the first frame in a stack
	Page Down	Moves back one frame
	Command +. (Mac OS) or Ctrl+. (Windows)	Halts a frame stack that's playing
	Command + Shift + P (Mac OS) or Ctrl+Shift + P (Windows)	Plays the frame stack

Icon	Keyboard shortcut	Comment
Step Forward 	Page Up	Advances to the next frame. When a frame is the last in the stack, Corel Painter adds a new frame to the end and advances
Fast Forward 	End	Advances to the last frame in the stack

The frame stack format in Corel Painter is a series of images, each equal in size and resolution. The Frame Stacks palette appears whenever you open or create a movie file. The Frame Stacks palette must stay open while you work with a movie.

You'll work in one frame at a time—the one appearing in the image window. The Frame Stacks palette helps you navigate the frames in the stack and choose which frame to modify.

Each frame in a frame stack can have one layer. For example, if you drag an item from the image portfolio onto a

frame, Corel Painter places the image on a layer. You can move the image around using the Layer Adjuster tool. However, when you move between frames or close the file, Corel Painter drops all layers—the layer is deleted and the layer's content is flattened onto the background Canvas. Refer to “Using Layers and Layer Masks” on page 227 for more information about working with layers.

The Frame Stacks palette displays thumbnails of several frames. The frame numbers appear under the thumbnails. The current frame is shown with a red triangle over it.

The number of thumbnails is determined by the layers of onion skin you've chosen. By default, QuickTime and AVI files are opened with two layers of onion skin. For more information on onion skinning, refer to “Understanding Onion Skinning” on page 425.

Navigating through a Movie

To select a frame:

- You can select a particular frame by clicking its thumbnail.

To jump to a particular frame:

- Choose **Movie menu > Go To Frame** and enter the number of the frame you want.

Creating a Movie

The first step in creating a new animation is to create a movie file. Corel Painter automatically saves movie files as you proceed from frame to frame.

To create a new movie:

- 1 Choose **File menu > New**.
- 2 In the New Picture dialog box, select the frame size and paper color you want.

The standard digital video frame is 640 by 480 pixels, which is a 4:3 aspect ratio. Many people work at

sizes consistent with this aspect ratio.

- 3 Click the Movie radio button under Picture Type and enter the number of frames you want to create.

Remember, you will be able to add and delete frames at any time.

- 4 Click OK. A dialog prompts you to name your new movie.
- 5 Type a name for the movie and click Save.
- 6 In the New Frame Stack dialog box, choose a number of onion skin layers.

The number of onion skin layers determines the number of frames displayed in the Frame Stacks palette. For more information about onion skinning, refer to “Understanding Onion Skinning” on page 425.

- 7 Choose one of the following storage types:
 - 8-bit gray — 256 levels of gray
 - 8-bit color system palette — 256 colors

- 15-bit color with 1-bit alpha — 32,768 colors and a layer for a channel
- 24-bit color with 8-bit alpha — 16.7 million colors and a layer for an anti-aliased channel

- 8 Click OK.

When the movie opens, the Frame Stacks palette appears and the image window displays the first frame of the movie.

Note

• *The storage type lets you specify the color depth for saving each frame. This applies to the saved frame stack—not to working in the current frame. For example, choosing 256 colors as the storage type still allows you to work with a selection and 24-bit tools in the image window for the current frame. As soon as you change frames, however, the image is saved in the 256 color format and the selection is lost. If you want to maintain selections in saved frames, you’ll need to choose the 15-bit or 24-bit storage type. These storage types allow you to take advantage of compositing options that require a selection layer.*

Opening a Movie

Quite often, you’ll start by opening a movie created in another program—like a captured video segment. You’ll also open an existing movie if you worked on a frame stack earlier and now want to return to it.

For efficiency, don’t bring in more video frames than you’re going to work on. For example, if you have a two minute video clip and you want to paint on the first 10 seconds, don’t open the entire clip in Corel Painter. You’re better off separating the first 10 seconds in your editing application and bringing in just those frames. After finishing that clip in Corel Painter, you can join it to the other part in your editing application.

You can also import a movie that has been saved as a series of numbered files. For more information, refer to “Working with Numbered Files” on page 439.

To open a QuickTime or AVI movie or a Corel Painter frame stack:

- 1 Choose **File menu > Open**.

2 In the Open dialog box, locate the movie or frame stack.

When a file is selected, the dialog shows the frame size, file size, and the number of frames. If a preview is available, it will show a thumbnail of the first frame.

3 Click Open.

4 In the Open Frame Stack dialog box, choose the number of onion skin layers you want to appear in the Frame Stacks palette.

The number you choose also determines the number of thumbnails visible in the Frame Stacks palette. In most cases, you'll want four or five layers.

5 Click OK.

The Frame Stacks palette appears and the image window displays the first frame of the movie.

Notes

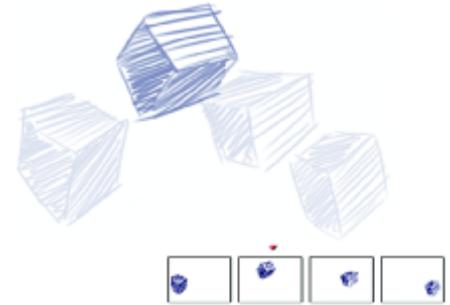
- *When you open a QuickTime or AVI movie, Corel Painter makes a frame stack copy of the movie. This ensures the original won't be changed.*

- *Frame stacks are uncompressed, so you will need an adequate amount of disk space to create them. For example, a 1 MB QuickTime or AVI movie can become a 20 MB frame stack.*

Understanding Onion Skinning

Traditional cartoon animators work on an onion skin paper that allows them to see a sequence of frames through the transparent layers. They then draw successive frames using the previous frames for reference. Seeing the several images superimposed helps in incrementing the action evenly.

Corel Painter lets you work in two to five layers of onion skin. You specify the number of layers when you open a frame stack. To change the number of onion skin layers, you must close the file and re-open it.



Onion skin view (Tracing Paper on). Each frame in the frame stack represents one onion skin layer.

To use the onion skin feature:

- Choose **Canvas menu > Tracing Paper** or press **Command+T** (Mac OS) or press **Ctrl+T** (Windows).

In the image window, the current frame appears darkest. Each frame moving away is progressively fainter.

The Frame Stacks palette displays a linear view of the onion skin layers. Each thumbnail represents one onion skin layer, and the thumbnail of the current frame has a red triangle above it.

You can change the current frame by clicking any thumbnail in the Frame Stacks palette. This lets you view a frame in any position of the onion skin sequence. For example, if you want to display the reference frames before the current frame, set the current frame to the far-right position in the palette. If you want to display the frames before and after the current frame, set the current frame to the middle thumbnail in the palette.

Animating with Layers

One of the simplest ways to create animation in Corel Painter is to move an item from the Image Portfolio palette across a series of frames.

This is the most basic example of animating with layers. Adding multiple layers allows you to make more complex animations.

You can also group layers and move them simultaneously, but be careful. When you leave a frame, Corel Painter drops the layers in that frame. When a layer is dropped, its contents are merged with the canvas and can no longer be accessed separately. For

this reason, you may want to work from the background forward; start by animating what's farthest from your point of view. For more information, refer to "Merging Layers with the Canvas" on page 238.

You can also rotate a layer. Rotating a layer can degrade its on-screen image quality, but this does not affect its printed quality.

The more you work with layers, the more creative ways you'll find to animate them.

To create motion with layers:

- 1 Choose **File menu > New**.
- 2 Enable Movie and enter 1 frame.
- 3 Open the Image Portfolio palette by choosing **Window menu > Show Image Portfolio**.
- 4 Drag an item from the Image Portfolio palette to the document window.
A new layer is created.
- 5 Position the layer to the far left of the image window.
- 6 Click the Step Forward button  on the Frame Stacks palette.

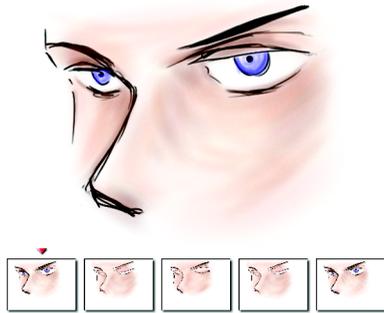
A new frame is added and becomes the current frame. The layer in the previous frame is merged with the canvas. In the new, current frame, the layer is active.

- 7 On the keyboard, press the right arrow key five times to nudge the image toward the center of the frame.
- 8 Repeat steps 6 and 7 until you've created a dozen frames.
- 9 In the last frame, deselect the layer.
- 10 Click the Play button  on the Frame Stacks palette.

The portfolio image moves across the screen.

Repeating Actions

You can repeat actions to create an animated cycle. Take, for example, a blinking eye. For this type of action, draw the cycle once and repeat it as many times as needed.



This example shows a blinking eye as an animated cycle. You draw the frames once, and then repeat them.

To create a clean cycle, the beginning and ending images must be the same. For example, in an animation of a blinking eye, the eye would be open at the beginning and the end. This way, when the end of one cycle is “hooked up” to the beginning of the next, the action continues smoothly.

Scrolling a background is another example of a cycled action. Commonly, a subject remains in one place while the background slides by.

Modifying a Movie

Frames can be added to, or deleted from, a movie. You can also erase the contents of a frame while leaving the frame in the movie. These changes cannot be undone, so it's best that you create your animation in segments and combine them when you are finished.

Adding Frames to a Movie

You can add frames at any time to your movie. Frames can be added at the end or beginning of a movie or between any frame in the stack. You can also repeat the last frame at the end of the stack.

To add frames to a movie:

- 1 Choose **Movie menu > Add Frames**.
A dialog prompts you to enter the number of frames to add and choose where to insert them.
- 2 Click **Before** or **After** and enter a frame number as reference.
For example, to add 6 blank frames before frame 10, enter 6 in the Add

box, click **Before**, and enter 10 in the frame number box. To add frames before frame 1, click **At start of movie**. To add frames after the last frame, click **At end of movie**.

- 3 When you've set the number and selected the insertion point, click **OK**.

To repeat the last frame:

- 1 Select the last frame in the movie.
- 2 Choose **Movie menu > Clear New Frames** to disable this option.
The check mark beside the **Clear New Frames** menu item is removed.
- 3 Click the **Step Forward** button  on the **Frame Stacks** palette.

Tip

- You can add blank frames at the end of a movie with **Step Forward** by enabling **Movie menu > Clear New Frames**.

Deleting Frames from a Movie

When you delete frames, the frames are removed from the movie and subsequent frames are renumbered as necessary.

To delete frames from a movie:

- 1 Choose **Movie menu > Delete Frames**.
- 2 In the Delete Frames dialog box, enter the range of frames you wish to delete.

Erasing Frame Contents

Erasing clears the image to the paper color. The frames themselves remain in the movie.

To erase frame contents:

- 1 Choose **Movie menu > Erase Frames**.
- 2 In the Erase Frames dialog box, enter the range of frames whose contents you wish to erase.

Animation Considerations

This section provides more information on creating animations. These topics can give you ideas about how to work with animation files.

Color

You might want to create a color set for the animation. Creating a color set helps you better control the use of color. For example, you wouldn't want the colors of your characters shifting between frames. Using a particular color set prevents this from happening.

Not all colors are video legal. For information about converting colors for use in video, refer to "Video Legal Colors" on page 271. For more information about using color, refer to "Working with Color" on page 75.

You might want to set up an image of each character with annotations to specify which colors to use in which areas.

Frame Rate—A Matter of Time

Frame rate describes the number of image frames displayed per second (fps). The frame rate can determine not only how big a file your animation is, but also how smooth the motion appears.

When you save a movie as a QuickTime or AVI file, you can specify the rate of display. This doesn't necessarily mean that what you specify is what you'll experience. Factors like frame size, compression method, and computer speed can prevent some movies from achieving their set rate.

If your animations are going no farther than the computer, frame rates of 8, 10, and 12 fps are good choices.

If you intend to create your work for NTSC video, 15 fps is a good choice. If you're less concerned with quality, you might use 10 fps.

- The frame rate of film is 24 fps.
- The frame rate of NTSC video is 30 fps (29.97 fps in broadcast)

video). This is the video standard used in the United States.

- The frame rate of PAL video is 25 fps.

These frame rates are sufficient to produce smooth, continuous motion with filmed or video-recorded subjects.

Animation drawings contain far less detail than live-action images. The difference in the level of detail allows animations to be produced at frame rates significantly below those designed for live action. Because of the smoothness of color fills and continuity between images, animations can look quite nice at rates between 10 and 15 frames per second.

You must consider frame rates to know how many drawings are needed to make actions smooth, natural, and consistent throughout the project.

The computer can display frames at any reasonable rate. You'll define the rate after creating the artwork. The Frame Stacks palette does not provide

control over frame display rates. For more control over display rates, save the movie as QuickTime or AVI.

You can't display different sections of a movie at different rates. What you can do is create sections separately at different rates, then modulate them to the same rate before joining them. This is the kind of work you'll do in your video-editing application.

Movies and File Size

Keep in mind that video and animation can produce huge files. When planning a project, be careful you don't over-estimate your available disk space. To get an idea of disk requirements, consider this example: Each 640 by 480, 24-bit color frame is 1.2 MB. At this size, a 12 fps, 30-second animation would consume more than 400 MB of disk space.

To calculate the disk space required for a frame stack:

- 1 (Frame Width) X (Frame Height) X (Bytes per Pixel) X (number of frames) = Bytes required to save the frame stack.

- 2 Divide by 1024 to convert to kilobytes.

Notes

- *Bytes per Pixel is determined by the storage type. For example, 24-bit color with an 8-bit alpha channel uses 4 bytes per pixel. For more information about storage types, refer to "Creating a Movie" on page 423.*
- *When you save a movie as QuickTime or AVI, the file size can be reduced by compression. For more information on compression, refer to "Saving and Exporting Movies" on page 436.*

Combining Movies

You can combine movies by inserting the contents of one movie into another.

You can insert only a Corel Painter movie, not a QuickTime or AVI movie or numbered files. Convert your movie to a Corel Painter frame stack before trying to insert it.

The movie you insert must have the same frame size (width and height) as the current movie.

You'll get better results if the movie you insert is designed for the same frame rate as the current movie.

You can insert a movie before or after a specific frame, at the start of a movie, or at the end of a movie.

To insert a movie:

- 1 Choose **Movie menu > Insert Movie**.
- 2 In the Insert Movie dialog box, choose where to insert the movie and click OK.
- 3 In the Select Movie dialog box, locate the movie you want to insert, and click Open.

Rotoscoping

Rotoscoping is the process of painting on a movie, applying effects to a movie, or compositing a portion of the images from one movie with the images of another. This is often done to put the action of a person filmed in one place on a background filmed in another. You can also use rotoscoping to remove an element from a video clip. As an example, we made a short

movie of an owl on a roost. After capturing the video digitally, we imported it into Corel Painter and removed the roost frame by frame, using the masking tools.



At the top is a frame of a movie showing an owl perched on a roost. The bottom left frame shows the owl without the roost. The bottom right frame shows the mask used to hide the roost.

Rotoscoping is also useful for adding a background to an animation. The process is the same whether you're working with digitized video or painted animation cells.

Applying Effects to a Single Frame

You can paint on, or apply effects to any frame in a movie. For information about applying effects, refer to “Basics of Applying Effects” on page 257.

To paint on or apply an effect to a single frame:

- 1 Using the Frame Stacks palette, go to the frame you want to work in. To go to a frame, you can click on the thumbnail of the frame or click the Step Forward button  to advance to the frame. You can also choose **Movie menu > Go to Frame** and enter the number of the frame to which you want to go.
- 2 When the frame appears in the image window, you can use any of the Natural-Media tools to modify the image. Anything you can do in a single image, you can do in a frame. Paint with a brush, add layers, or apply an effect to a selection or to the entire image. Paint on the image in the image window—not on the thumbnail in the Frame Stacks palette.

- 3 When you're ready to work on the next frame, click the Step Forward button.

Changing frames automatically saves the frame. You cannot undo changes after the frame is saved.

Applying Scripts to Movies

The Script feature in Corel Painter lets you repeat the same actions for each frame in a movie. For example, you might want to apply an effect like Glass Distortion to a video clip. You can record a script that applies the Glass Distortion effect to a single image, then with a single command, apply that script to the entire movie.

For complete information on working with scripts, refer to “Scripting” on page 413.

A script can contain almost any action—a single command, a series of commands, or the many steps in creating an original drawing. You'll devise scripts based on the needs of your project.

There is no Undo for applying a script to a movie. You might want to work with a copy of the movie, or you might apply the script to a short sample movie to test it.

To create a script for a movie:

- 1 Become familiar with recording a script in *Scripting* on page .
- 2 Working with a separate sample image, determine the precise set of actions you want to record as a script; for example, applying the Adjust Colors or Brightness/Contrast effect.
- 3 When you've determined the actions, start over with your sample image. This time, record the entire process as a script.
- 4 Save the script and assign it a descriptive name—you might want to use it on a different project sometime in the future.

To apply a script to a movie:

- 1 Open the movie to which you want to apply the script.
- 2 Choose **Movie menu > Apply Script to Movie**.

- 3 A dialog appears listing the scripts in the current library and offers options for using them.
- 4 Double-click the script you saved. Corel Painter applies that script to each frame in the stack. If you have few, small frames in your movie, and the script is not a complicated one, the script can be applied quickly. If the movie has several large frames, a complicated script could take a long time.

Using Scripts to Set Grain Position

You might use a script to apply a surface texture (paper grain) to an entire movie. In this case, you have several options for the position of the grain in each frame. You can put the grain in exactly the same position, move the grain randomly, or move it linearly by a set number of pixels.

For instructions on applying surface texture and dye concentration, refer to “Basics of Applying Effects” on page 257. For instructions on recording a script, refer to “Scripting” on page 413.

To set grain position:

- 1 Record a script that applies surface texture or dye concentration to an entire image.
- 2 Choose **Movie menu > Set Grain Position**. The Frame-to-Frame Grain Position dialog appears.
- 3 Choose one of the following options:
 - Grain Stays Still**—this option allows the grain to remain in the same position throughout the movie.
 - Grain Moves Randomly**—this option moves the grain as the movie plays.
 - Grain Moves Linearly**—this option increments the grain movement. Fill in the number of pixels you want the grain to move horizontally and vertically from one frame to the next.
- 4 Click OK.
- 5 Apply the grain script by choosing **Movie menu > Apply Script to Movie**. Each frame is textured according to your selected method.

Tip

• *If you choose Grain Moves Randomly, you must disable the Record Initial State option when recording your script. For more information, refer to “Recording Scripts” on page 415.*

Using Scripts to Apply Brush Strokes

Corel Painter also lets you apply a brush stroke to a movie.

Corel Painter divides the stroke into as many segments as there are frames and places the segments in successive frames.

This feature is most useful when used with the Image Hose. When you apply a brush stroke to a movie using the Image Hose brush, Corel Painter deposits one or more Nozzle images on each frame. If the Nozzle file is an animated sequence—for example, a person walking—Corel Painter can drop successive images on successive frames. Play the movie back, and the person walks across the image window. For this to work, you must set up the Nozzle file appropriately and

have the right Image Hose brush size. For more information, refer to “Using the Image Hose” on page 332.

To apply a brush stroke script:

- 1 Record a brush stroke.
 - For more information on this feature, refer to “Recording and Playing Back Strokes” on page 115.
- 2 Open a movie file.
- 3 Choose **Movie menu > Apply Brush Stroke to Movie**.

Compositing Movies

You can composite two movies together into one—for example, you can composite a foreground action against a new background. To do this, you must create a selection in each frame of the foreground movie. For information about selections, refer to “Creating Selections” on page 204. You can also create an alpha channel for each frame and load it as a selection as you work. For more information, refer to “Creating Channels” on page 218.

When creating selections in the foreground movie, if the background is uniform—all white, for example—you can take advantage of the automatic selection and script features. For more information, refer to “Automatic Selecting and Scripting for Efficiency in Compositing” on page 434.

The drawing mode determines whether Corel Painter draws inside or outside of a selection, so you can create selections that either include or exclude the foreground image—whichever is easiest—then set the drawing mode accordingly. For more information about drawing modes, refer to “Selecting a Drawing Mode” on page 202.

To composite one movie with another:

- 1 Open the foreground movie.
- 2 In each frame, create a selection that defines the foreground image. Because the foreground image continues to move, the selection in each frame must be different.

- 3 When each frame of the foreground is properly protected by a selection, rewind the movie to frame 1.
- 4 Open the background movie or image. If the background is a movie, rewind it to frame 1.
- 5 Do one of the following:
 - Select the background movie and choose **Movie menu > Set Movie Clone Source**.
 - Select the background image and choose **File menu > Clone Source > [Image Title]**.
- 6 Select the foreground movie.
- 7 Click the Drawing Mode button in the bottom-left corner of the document window and choose one of the following:
 -  **Draw Outside**—choose this mode if you selected the portion of the image that you want to keep.
 -  **Draw Inside**—choose this mode if you selected the portion of the image that you want to replace.

You can also invert the selection instead of changing the drawing mode.

- 8 On the Brush selector bar, choose Cloners from the Brush selector, and choose a variant from the Variant selector. If you want to bring the background across perfectly, select the Straight Cloner variant.
- 9 Paint in the foreground movie to replace the background using the clone source.
- 10 Click the Step Forward button  and paint the background of the next frame.

If your clone source is a movie, Corel Painter automatically advances the foreground and clone source movies by one frame. The movies stay synchronized as you proceed.

- 11 Repeat step 10 for each frame in the movie.

Tip

- *If you want to automate the painting process, you can record the complete painting of one frame as a script, then apply that script to the entire movie. Of*

course, this assumes that the entire movie can use the cloned background. For more information, refer to “Applying Scripts to Movies” on page 431.



The frame stack of the background movie



The frame stack of the foreground movie where selections of the dog are generated



The composited movie

Automatic Selecting and Scripting for Efficiency in Compositing

When compositing movies, it takes a long time to generate selections and paint in the background for each frame. Scripting can make this much

easier and faster. For information about recording scripts, refer to “Scripting” on page 413.

You can create a selection based on image characteristics or color. You do this once and record the process as a script. You can then apply the script to all frames in your movie. For information about creating selections based on image characteristics, refer to “Creating an Auto Selection” on page 206. For information about creating selections based on color, refer to “Selecting By Color” on page 207.

To use Scripting and Auto Select to create a movie:

- 1 Work with a separate, sample image to determine whether **Auto Select** or **Color Select** works best with your image.
- 2 When you’ve determined the settings for the best method, start over. This time, record the Auto Select or Color Select process as a script. When you’ve finished creating the selection, stop recording. Save the script.

- 3 Open the frame stack you wish to create selections in.
- 4 Choose **Movie menu > Apply Script to Movie**.
- 5 In the dialog box, select the Auto Select or Color Select script you saved.

Corel Painter applies the script to each frame in the stack.

Cloning a Movie

Cloning from one movie to another is almost like cloning from one image to another. The only difference is that you are cloning from one sequence of frames to another sequence of frames. In this case, by advancing one frame in the clone frame stack, Corel Painter automatically advances one frame in the source frame stack.

When you set a movie clone source, the current frame in the clone is matched to the current frame in the source. If both movies are rewound to frame 1, the clone-to-source correspondence is 1-1, 2-2, 3-3. This means that the source for frame 1 in the clone movie is frame 1 in the source movie, and so on. If you like,

you can create a different correspondence by choosing other frames before setting the movie clone source. For example, if the current frame of the clone movie is frame 1 and the current frame of the source movie is frame 5, the correspondence would be 1-5, 2-6, 3-7. This means that the source for frame 1 in the clone movie is frame 5 in the source movie, and so on.

For information on cloning brushes, refer to “Cloning Imagery” on page 185.

You can control the areas cloned by setting up a selection in the clone movie. For complete information on creating selections, refer to “Working with Selections” on page 201.

Additionally, you can use Auto Clone to do the cloning. You can also record an Auto Clone script and apply the script to the new movie with a Cloner brush selected. For more information about using Auto Clone, refer to “Auto Clone” on page 299 or “Using Auto Clone” on page 189. For information about working with scripts, refer to “Recording Scripts” on page 415.

To clone a movie:

- 1 Choose **File menu > Open** and open the source movie you want to clone.
- 2 Create a new movie with the same dimensions and number of frames as the source.

With these two frame stacks open, you’re ready to clone the source into the new movie.

- 3 Select frame 1 of the new movie.
- 4 With the source movie selected, choose the first frame you want to clone.
- 5 Choose **Movie menu > Set Movie Clone Source**.
- 6 Select the new movie.
- 7 Using any Cloner brush, paint on the image window.

You will be painting the source movie into the clone.

- 8 When you’re finished cloning in one frame, advance to the next one.

Corel Painter automatically advances the clone source to maintain the frame-to-frame correspondence.

Note

- *If you have a Corel Painter movie open and you choose **File menu > Clone**, Corel Painter will create a clone only of the frame in the image window.*

To apply an Auto Clone script to a movie:

First record the Auto Clone effect on a sample image and save the script.

- 1 Open the frame stack you wish to clone in.
- 2 Choose **Movie menu > Apply Script to Movie**.
- 3 In the dialog, select a saved Auto Clone script.

Corel Painter clones the source movie into the destination movie.

Tracing a Movie

Have you ever wanted to animate your own cartoon, but didn’t know where to start? The Tracing Paper feature in Corel Painter makes it possible to trace the contents of a movie into a brand-new animated feature. This is particularly useful with video as the source.

For best results, the source should have the same frame rate you intend for the animation. For more information on frame rates, refer to “Frame Rate—A Matter of Time” on page 428.

To trace a movie:

- 1 Choose **File menu > Open** and open the source movie you want to trace.
- 2 Create a new movie with the same dimensions and number of frames as the source.
With these two frame stacks open, you're ready to trace the source into the new movie.
- 3 With the original movie selected and rewind to frame 1, choose **Movie menu > Set Movie Clone Source**.
- 4 Select the new movie and choose **Canvas menu > Tracing Paper**.
The first frame of the original movie appears ghosted in the first frame of the new movie.
- 5 Trace the first frame using any of the Corel Painter tools, textures, and effects.

- 6 When finished, click the Step Forward button  on the Frame Stacks palette (or press **Page Up**) and trace the second frame.
- 7 Continue frame by frame until you have created your own animation.

Saving and Exporting Movies

Corel Painter provides several options for saving and exporting your finished movies.

Some file formats (like QuickTime and Video for Windows) have compression options available.

Exporting a Single Image from a Movie

To export a frame as a single image:

- 1 Display the frame you want to export in the image window.
You can click on the frame thumbnail in the Frame Stacks palette or use the controls in the

Frames Stacks palette to display the frame.

- 2 Choose **File menu > Save As**. The Save Movie dialog appears.
- 3 Select Save current frame as image.
- 4 In the Save dialog box, choose a location and file format, enter a name for the file, and click Save.

Exporting Movies as QuickTime Movies

You can export a movie as a QuickTime movie on either the Macintosh or Windows platform.

QuickTime supports several compression schemes. The following descriptions should help you choose one; however, you'll probably want to experiment with different compressors and settings to identify the best settings for your work. You may also have additional compression methods available.

- **Animation**—this compression method works well with areas of continuous tone. If you set Quality to Best and make every frame a key

frame, this compressor is lossless. For most Corel Painter animations, this compressor is a good choice.

- **Cinepak®**—this method produces acceptable motion and image quality at remarkably small file sizes. It is the preferred format for CD-ROM delivery and transfer across the Internet. Cinepak can take a long time to compress, and it can be difficult to find the best compression settings for certain image types and frame rates.
- **Graphics**—this method is limited to 256 colors. It compresses the file at a greater ratio than the Animation compressor, but does not play as quickly.
- **None**—with this setting, no compression is used, so the images retain all of their quality. With a large frame size, some computers might not be fast enough to play at a high frame rate.
- **Photo-JPEG**—JPEG is an international standard for image compression. It allows high

compression ratios while maintaining excellent image quality. However, it does not play at high rates.

- **Video**—this method is designed for recording and playing back digitized video at high rates. Because of the spatial compression method it uses, the Video compressor does not provide great results for images with large areas of continuous tone, such as those in most animations.

The compression ratio is inversely proportional to image quality. The Quality slider allows you to set an optimum level between the amount of compression and image quality. For most work in Corel Painter, you'll want Quality set to High.

Frames per second controls the speed of display. Specify the number of frames you want displayed per second.

Key frames are used in temporal compression methods. Each key frame is stored in its entirety. The next set of frames—up to the next key—are saved only as changes. With some

compression methods, you can specify the frequency of key frames with the Key Frame Every option.

With some compression methods, you can also limit the speed of data transmission with the Limit Data Rate option. The data rate limit overrides the Quality setting, if necessary, to keep the compressed movie within the set limit.

To export a Corel Painter movie as a QuickTime movie:

- 1 Choose **File menu > Save As**.
- 2 In the Save Movie dialog box, enable the Save Movie as QuickTime option.
- 3 In the Enter Movie Name dialog box, choose a location, enter a name for the file, and click Save.
- 4 In the Compression Settings dialog box, choose a compression method from the pop-up menu.
- 5 Specify the options you want.

Exporting a Movie as an AVI Movie (Windows)

If you are using a Windows system, you can export your movie as an AVI movie.

AVI supports several compression schemes. The following descriptions should help you choose one; however, you'll probably want to experiment with different compressors and settings to identify the best settings for your work. You may also have additional compression methods available.

- Cinepak produces acceptable motion and image quality at remarkably small file sizes. It is the preferred format for CD-ROM delivery and transfer across the Internet. Cinepak takes a long time to compress, and it can be difficult to find the best compression settings for certain image types and frame rates.
- Indeo® Video R3.2 is capable of full-motion playback on systems with a hardware compression accelerator.

- Microsoft Video 1 is designed for recording and playing back digitized video at high rates.
- Full Frames (Uncompressed) uses no compression, so the images retain all of their quality. With a large frame size, some computers might not be fast enough to play at a high frame rate. This is the preferred format for transferring Corel Painter movies to AVI-editing applications.

The compression ratio is inversely proportional to image quality. The Compression Quality slider allows you to set an optimum level between the amount of compression and image quality.

Key frames are used in temporal compression methods. Each key frame is stored in its entirety. The next set of frames—up to the next key—are saved only as changes. With some compression methods, you can specify the frequency of key frames with the Key Frame Every option.

With some compression methods, you can also limit the speed of data transmission with the Data Rate option. The data rate limit overrides the Quality setting, if necessary, to keep the compressed movie within the set limit.

To export a Corel Painter movie as an AVI movie:

- 1 Choose **File menu > Save As**.
- 2 In the Save Movie dialog box, enable the Save Movie as AVI option, and specify the number of frames per second.
- 3 In the Enter Movie Name dialog box, choose a location, enter a name for the file, and click Save.
- 4 In the Video Compression dialog box, choose a compression method from the Compressor pop-up menu.
- 5 Specify the options you want.
For some compression methods, you can press Configure to specify additional options.

Working with Numbered Files

Corel Painter supports importing and exporting numbered files. Numbered files are any series of files that are the same size and resolution, and named following a specific style, which includes a number at the beginning or end of each file name. For example, the first frame might be called Movie01, the second frame Movie02, and so on.

When you export a movie as numbered files, you can import the numbered files into an application that may not support other movie formats.

When exporting, you specify the filename for the first file. You must include zeroes so that all numbered files have the same number of digits. For example, if you are creating numbered files from 1 to 24, include “01” in the filename. If you are creating numbered files from 89 to 110, include “089” in the filename.

Importing numbered files is an excellent method of bringing an animation from another 3D or animation program into Corel Painter.

When importing numbered files, the file format must be supported by Corel Painter, and the number of digits in each filename must be the same.

When you import numbered files, you create a new frame stack, and you are prompted to choose a number of onion skin layers and a storage type. For more information, refer to “Creating a Movie” on page 423.

To export a movie as numbered files:

- 1 Choose **File menu > Save As**. The Save Movie dialog appears.
- 2 Select Save movie as numbered files.
- 3 In the Save dialog box, choose a location and file format, enter a name for the first file, and click Save.

You must begin or end the filename with a number—for

example, “01Movie” or “Animation14.”

To import numbered files:

- 1 Choose **File menu > Open**.
- 2 In the Open dialog box, enable the Open Numbered Files check box.
- 3 Select the first numbered file.
- 4 Double-click the last numbered file. You can also select it and click Open.
- 5 In the Enter Movie Name dialog box, choose a location to save the imported movie, enter a filename, and click Save.
- 6 In the New Frame Stack dialog box, choose a number of onion skin layers and a storage type.
- 7 Click OK. Corel Painter sequences the images into the frames of a new frame stack.

Animations for the World Wide Web

Corel Painter lets you export a frame stack as an animated GIF file. The animated GIF format is ideal for displaying simple animations on the World Wide Web (WWW).

Animated GIFs are easy to create and add to your Web pages. You give them the same HTML tag you would any GIF image. The only difference is that the browser displays the file as an animation. Animated GIFs can be used as a link anchor or as an image map. However, they cannot be used as a background.

Your browser must support GIF animations for the images to display properly.

Refer to “The Web” on page 391 for more information about creating content for Web pages.

Creating Animated GIFs

If your movie is intended for the Web, you should consider file size and number of colors in your animation, as these factors affect the speed of the animation.

Create your animation in a Corel Painter frame stack. Take advantage of your favorite animation features and techniques to develop the images.

As you design your animation, consider the file size and transfer time necessary. Your animations will be more accessible if they're small enough to download in a reasonable time. You can minimize file size by considering the following:

- Reduce the frame size. A smaller frame leads to a smaller file. You choose the frame size when you create a new movie. If you import an existing animation or video, you cannot resize the frames.
- Limit the number of frames. Good animations do not necessarily need a large number of frames. Each frame increases the file size, so if

you can get by with fewer frames, do it.

- Limit the number of colors. Fewer colors in the image reduces the size of the color palette and leads to smaller files. For best results, choose colors from the default 256-color set. This color set matches the color palette of Netscape Navigator, so the colors in your GIF will be reproduced on the client without dithering.

If the animation requires transparency, you must set up a selection for each frame. For information about creating selections, refer to “Creating Selections” on page 204.

Exporting Animated GIFs

There are many options available when saving to the GIF file format.

You can choose the number of colors and the imaging method—Quantize or Dither.

If you want to gradually display images in the Web browser as they load, you can enable the Interlaced option.

If you have created selections in each frame, you can make your image transparent and choose your background option. You might need to adjust the Threshold slider to determine at what selection mask value the image becomes transparent.

For more information on these GIF options, refer to “Saving GIF Files” on page 46.

You can also set animation-specific GIF options—Frame Delay, Disposal Method, and Looping.

The Frame Delay allows you to specify a pause (in 100ths of a second) between each frame. Without a delay, the frames appear as quickly as the system can load and display them. The display of each image (especially with larger frames) will vary between computer systems, so the actual animation display rate may be lower. You can use the Frame Delay to approximate a particular frame rate. For example, you capture some one-

quarter size video at 8 frames per second (fps). You want 8 frames to appear in one second, so divide one second (100 hundredths of a second) by 8. The result is $8/100=12.5$. Discard the decimal portion and enter 12 as the frame delay. Discarding the decimal is the only allowance for the time required to display each image. For a large frame size, you might want to allow more time for display.

The Disposal Method lets you specify what happens to an image after it has been displayed (and its frame delay has passed), and before the next image is displayed. The disposal method is significant only when using transparency that differs between frames.

- With Default, the client browser’s default disposal method is used.
- With None, the image is left on-screen and the next frame is rendered over it.
- With Background, the region covered by the image is restored to the background color.

- With Previous, the region covered by the graphic is returned to the imagery of the previous frame.

If you want the animation to repeat, enable the Loop option. Enter the number of times the animation should repeat. If you want it to repeat indefinitely, enter 0 (zero).

To export a frame stack as an animated GIF:

- 1 With the frame stack open, choose **File menu > Save As**.
- 2 In the Save Movie dialog box, choose Save Movie as GIF Animation.
- 3 In the Enter Movie Name dialog box, choose a location, enter a filename, and click Save.
- 4 In the Save as GIF Options dialog box, specify the options you want.

You can now use your browser to open the file and view the animation. You can place the animation on a Web page with the same HTML image tag you’d use for a simple GIF file.

In the client browser, the animation will appear one frame at a time during the download. In most cases, this will be significantly slower than the intended display rate. After all frames have been downloaded, the browser will loop the animation (if the loop option is used), with the specified delay between frames. The animation plays from the browser's cache so it's much faster.

If the animation in the browser window stops playing, it's probably finished the set number of loops. In some browsers, you can get it started again by resizing the window. In all browsers, you can get it started again by reloading the page.

24 Printing

You can print Corel Painter images on a wide variety of printers, including PostScript, Windows Graphics Device Interface (GDI), and Quick Draw® printers, and high-resolution imagers.

Understanding Printing

Even if your final goal is to print high-quality color prints, it's a good idea to first print proofs on any printer you have available.

You can use a black and white printer to check page size and placement of images on the page. If you have a color printer, you can print proofs to get a general impression of what your image will look like. Keep in mind that the proof is not an accurate representation of a final print produced by an offset printing process. The print process, inks, and paper types combined will affect the final output.

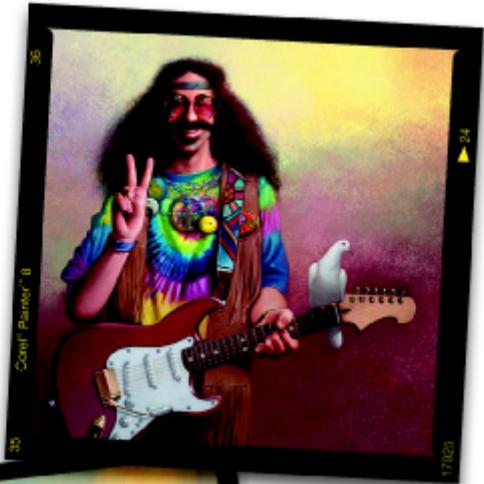
To help you prepare for color printing and to ensure that you get the best results when you do print, Corel Painter supports color management through the Kodak® Color Management System (KCMS).

Color management is not enabled by default. If you want to use it while you work or when you print, you must first set it up for your system. Refer to “Color Management” on page 445 for more on KCMS in Corel Painter.

Printing Images with Vector Shapes

Shapes can be interleaved with layers on the Layers palette, which can affect the way your document prints.

Shapes are inherently resolution-independent—they're mathematical representations of curves, not actual pixels. When you print on a PostScript printer, these curves are usually



turned into PostScript paths and printed at the full printer resolution, although there are some exceptions.

Some effects that you can apply to Corel Painter shapes, such as transparency and compositing, are not actually printable with PostScript Level I or II. You must rasterize them on the canvas before printing.

Any object in a lower position on the Layers list “touched” by a rasterized shape must also be rasterized to preserve the effect. For example, if you have a shape with transparency on top of a number of other shapes, all the shapes below it must be rasterized to preserve the transparency all the way down to the canvas. This is true even if the overlap area is small.

Similarly, if you place any imagery from a layer partially over a shape, the shape must be rasterized to print correctly.

If you want shapes to print at the full resolution of your printer, make sure they do not overlap with raster layers, that they are not transparent, and that their compositing method is set to Default.

Printing Composited Images

Having many layers and shapes in a document increases printing time. Printing a fully composited version of the image is much faster.

Instead of creating a composited version by dropping all the layers in the image, you can clone the file, and then print the clone. Keep layers in the saved RIF file so you can return and make changes. For more information about cloning documents, see “Cloning a Document” on page 186.

Setting Up Printing

Options for setting up your file for printing depend on several factors—the output device, color versus black and white printing, and whether you are printing separations.

Mac OS options are located in the Page Setup dialog box.

Windows options are contained in the Print Setup dialog box.

To access print settings:

- Choose **File** menu > **Page Setup**.

Previewing an Image

To preview an image:

- On the Info palette, click the palette menu arrow and choose one of the following:
 - Choose **Canvas Preview** to view the image as it appears on your canvas with no relation to the printing paper.
 - Choose **Page Layout Preview** to view the image as it will appear on the currently selected printing paper.

Image Size and Printing

If you want to print an image that is larger than a selected page size, you can size the image to fit the page. For example, when this option is enabled, a 12” x 12” image would be resized to fit on an 8 1/2” x 11” page.

To size an image to fit your page:

- 1 Do one of the following:
 - (Mac OS) Choose **File menu > Page Setup**.
 - (Windows) Choose **File menu > Print**.
- 2 Enable the Size to Fit Page check box.

Note

- *If an image is larger than the page size and you haven't enabled Size to Fit Page, your image will not print.*

Printing an Image

Once you have chosen options in the Page/Print Setup dialog box, you are ready to print.

To print an image:

- 1 Choose **File menu > Print** to open the Print dialog box.

The top half of the dialog box contains the standard print commands.
- 2 Select one of the four printing methods that Corel Painter supports.

- Check Color Quick Draw/GDI Printing if your printer is not a PostScript printer. Some common examples are the Hewlett-Packard DeskJet, the Canon® Bubble Jet, and the EPSON Stylus®. You cannot print separations to non-PostScript printers.
- Check Color PostScript if you plan to print to a color PostScript device. The Minolta QMS™ ColorScript and Tektronix® color thermal printers are examples of color PostScript printers.
- Check Separations to print separations. The output consists of four pages, one each for cyan, magenta, yellow, and black. You can print separations from Corel Painter with any PostScript device, including high-resolution imagers.
- Check the B & W PostScript option if you are printing on a black and white PostScript laser printer.

Corel Painter places a color bar, registration marks, and color name

on each of the four separated plates.

- 3 If you want to use the Color Management System to control printing, enable the Use Output Preview option. For more information, refer to “Color Management” on page 445.

Note

- *Corel Painter uses the device's default screening information to produce high quality color separations. If you save to EPS format with Output Preview off, Corel Painter uses the Color Studio separation tables with your device's default screening. For more information about saving to EPS format, see “Saving in EPS file format for Printing” on page 452.*

Color Management

Corel Painter features color management controls designed to match colors between various devices, such as scanners, digital cameras, printers, and monitors.

Understanding Color Management

Each device has a range of colors, or color space, that it uses. For example, a monitor displays a different set of colors than a printer reproduces. So some colors may print differently than they appear on the screen.

You can use a color management system to translate colors from one device to another. Color profiles define the color space for your monitor and for the input and output devices you use.

Color management helps ensure color consistency and accuracy. It improves your output quality and saves you time and money by helping to avoid reprinting.

Color management is designed to help artists create full color images for printing, in two ways:

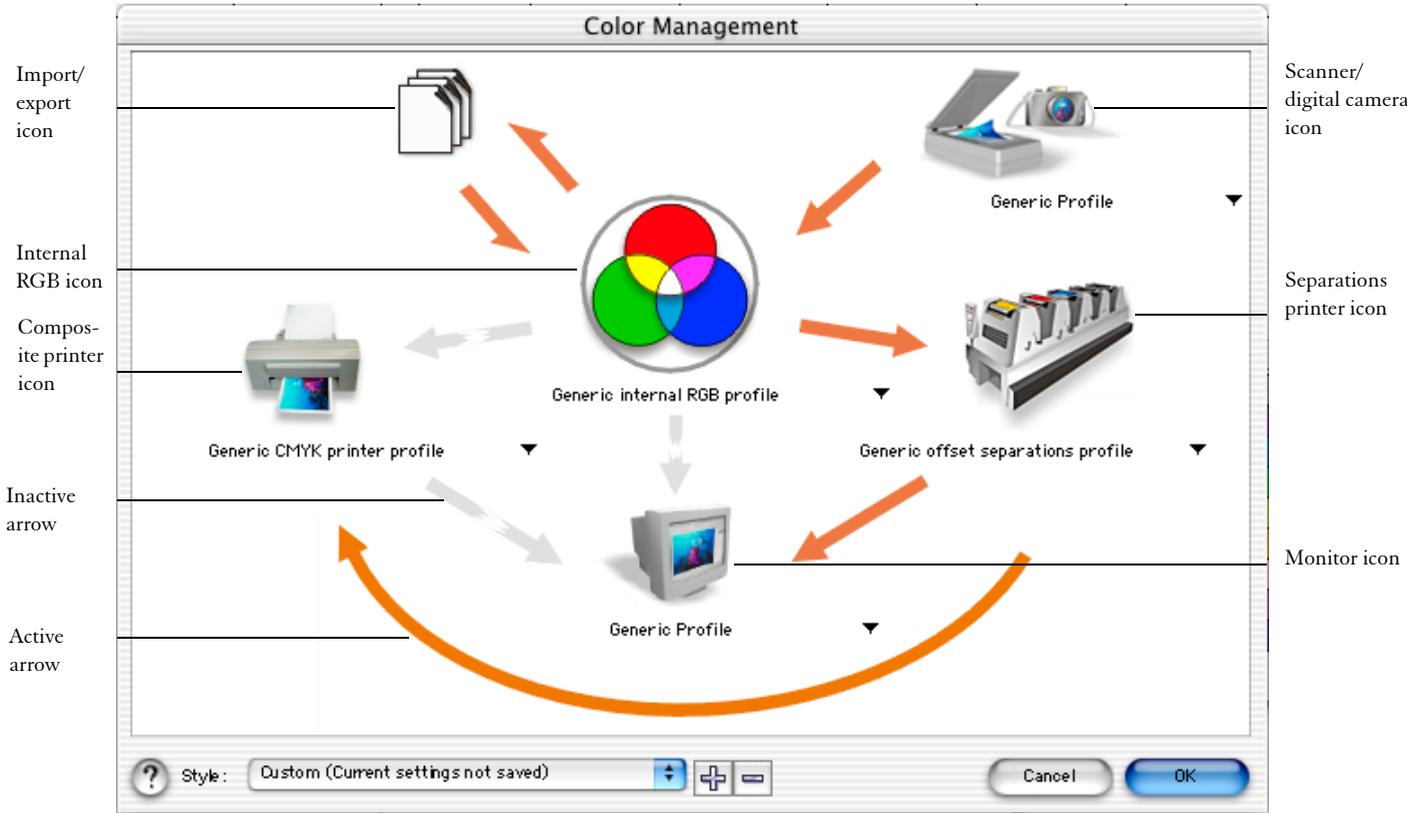
- It lets you view an on-screen preview of how your image will look when printed on a particular printer.

- It lets you apply a device-specific “optimization” to the color data when printing from Corel Painter or saving to EPS format.

Color management is not an issue for artists creating for the World Wide Web, CD-ROM interface, games, or any project destined for the computer display.

The Color Management Dialog Box

The Color Management dialog box looks like this.



In the Color Management dialog box, you can activate the following icons:

- Scanner/digital camera icon 
- Separations printer icon 
- Monitor icon 
- Composite printer icon 
- Import/export icon 
- Internal RGB icon 
- Arrows

With the exception of the scanner/digital camera icon, you can click these elements to choose color management options. When you click the icons, you can choose advanced settings that relate to the devices they represent. For example, clicking on the composite printer icon allows you to link color profiles with any printer connected to your computer.

In addition, you can click the arrows to enable or disable them. The arrows appear orange when enabled, and grayed and broken when disabled. You can use the arrows to correct colors between devices, and control how colors are displayed.

The following table contains descriptions of what happens when an arrow is enabled or disabled.

Arrow	Enabled	Disabled
From the scanner/digital camera to internal RGB	The scanner/digital camera profile is used for color correction.	The profile is not used.
From internal RGB to the monitor	Colors are calibrated for display using the monitor's color profile.	Colors are not calibrated for display.
From internal RGB to the composite printer	The printer's profile is used for color correction.	The profile is not used.
From the composite printer to the monitor	The monitor simulates a composite printer output.	The monitor does not simulate a composite printer output.

Arrow	Enabled	Disabled
From internal RGB to the separations printer	The separations printer profile is used for color correction.	The profile is not used. You can override this setting in the Print dialog box.
From the separations printer to the monitor	The monitor simulates color separations printer output.	The monitor does not simulate color separations printer output.
From the separations printer to the composite printer	The composite printer simulates separations printer output.	The composite printer does not simulate separations printer output.
From internal RGB to import/export	Internal RGB profiles are embedded.	ICC profiles are not embedded.
From import/export to internal RGB	Embedded ICC profiles are used.	ICC profiles are ignored.

Working with Color Profiles

A color management system helps you consistently achieve accurate colors across a variety of devices. The first stage in setting up your color management system is to choose color profiles for your monitor and each of the devices you use, such as scanners, digital cameras, and printers.

Different brands and models of monitors, scanners, digital cameras, and printers have different color spaces, and thus require different color profiles. Some widely used profiles are installed with your application.

Standard ICC (International Color Consortium) color profiles are used in your application. You can choose color profiles for a:

- monitor
- scanner/digital camera
- composite printer
- separations printer
- internal RGB color space

You can also choose to get profiles from disk or get profiles online. To choose the appropriate profile for a device, check the manufacturer's documentation for a device.

To choose a color profile:

- 1 Click **Canvas menu > Color Management**.
- 2 Click a profile name under one of the following icons:
 - Scanner/digital camera 
 - Separations printer 
 - Monitor 
 - Composite printer 
 - Internal RGB 
- 3 Choose a profile from the pop-up.

Obtaining Additional Color Profiles

If you need additional profiles or updates, you can get them from the application CD, or you can download them.

To copy a color profile from the CD:

- 1 Click **Canvas menu > Color Management**.
- 2 Below a device icon, choose **Get Profile From Disk** from the color profile pop-up menu.
- 3 Insert the application CD.
- 4 In the **Browse For Folder** dialog box, choose the folder where the profiles are located.
- 5 In the **Install from Disk** dialog box, choose the color profile you want to copy.
- 6 Click **Choose**.

To download a color profile:

- 1 Click **Canvas menu > Color Management**.
- 2 Below a device icon, choose **Download Profiles** from the color profile pop-up menu.
- 3 In the dialog box, enable the check box for each profile you want to download.
- 4 Click **Download**.
- 5 In the **Save As** dialog box, choose a destination for the color profile.

If you want to store the new color profile with the existing profiles, download it to the application's Color folder.

Choosing Advanced Color Management Settings

To choose a color engine and rendering intent

- 1 Click **Canvas menu > Color Management**.
- 2 Click the Internal RGB icon .
- 3 In the Advanced Settings dialog box, choose one of the following from the Rendering Intent pop-up menu:
 - Absolute colorimetric—good for images that use spot colors
 - Automatic—default setting
 - Perceptual—good for a variety of images, especially bitmapped images and photographic images
 - Relative colorimetric—good for producing proofs on inkjet printers

- Saturation—good for vector graphics (lines, text, and solid colored objects)
- 4 Choose an option from the Color Engine pop-up menu.

To use embedded color profiles

- 1 Click **Canvas menu > Color Management**.
- 2 Click the Import/Export icon .
- 3 In the Import area, enable one of the following options:
 - Use embedded ICC profile
 - Always convert using
 - Ignore embedded ICC profile
- 4 In the Export area, enable one of the following options:
 - Embed internal ICC profile
 - Always embed using
 - Do not embed ICC profiles

Notes:

- *When you enable the Use Embedded ICC Profile or Always Convert Using import options, as well as the Always Embed Using export option, you can choose a profile from the pop-up.*

- *When you enable the Embed Internal RGB profile or the Always Embed Using export options, the Adobe Photoshop (.psd) file format is exported with an embedded ICC profile.*

To choose advanced settings for printers

- 1 Click **Canvas menu > Color Management**.
- 2 Click one of the following icons:
 - Composite printer 
 - Separations printer 
- 3 Choose a setting from the pop-up menu.

Note

- *If you choose an advanced setting, that setting will override the profile that displays under the printer icon in the Color Management dialog box.*

To use color management styles:

- 1 Click **Canvas menu > Color Management**.
- 2 Choose one of the following from the Styles pop-up menu:
 - Color management off

- Default settings
- Optimized for desktop printing
- Optimized for professional output
- Optimized for the Web

Correcting Colors for Display

To correct colors for display

- 1 Click **Canvas menu > Color Management**.
- 2 Do one of the following:
 - To correct display colors, click the arrow from the Internal RGB icon  to the Monitor icon .
 - To display simulation of a composite printer output, click the arrow from the Composite printer icon  to the Monitor icon .
 - To display simulation of a color separations printer output, click the arrow from the Separations printer icon  to the Monitor icon .

- To display simulation of a separations printer on a composite printer, click the arrow from the Separations printer icon  to the Composite printer icon .

Notes:

- *Arrows appear orange when they are enabled, and grayed and broken when they are disabled.*
- *The display simulation of a separations printer on a composite printer does not affect output.*

Enabling or Disabling the Color Management Style

To enable or disable the selected color management style:

- Click the Color Correction icon  on the document window frame.
When the icon shows colors, the color management style is applied to the image.
When the icon shows black, the color management style is not applied to the image.

Note

- *Some color management settings, such as Default, Optimized for Desktop, and Optimized for Professional Output, can result in on-screen colors appearing dull. For a brighter display of on-screen colors, choose another color management setting, or turn off color management.*

Tip

- *You can add or delete a color management style by clicking on the plus (+) or minus (-) buttons.*

About KCMS

Corel Painter supports color management through the Kodak Color Management System. Kodak is the leader in advanced color systems and the KCMS is designed to meet the most demanding standards in color production work.

KCMS integrates with your system software, where Corel Painter and other programs can use it. Several files must be loaded on startup to enable KCMS for a work session. If the files aren't loaded, KCMS is unavailable.

The Corel Painter Installer places the KCMS files in the correct locations. If you choose not to install the KCMS files, the color management features described in this section will be unavailable. If you want to use KCMS files, run the Corel Painter Installer again and do a custom install to obtain just the KCMS files.

If you need a profile for your output device, you can contact the manufacturer and ask for the ICC profile for your specific device. You can also contact Kodak directly.

Options for Files Saved as Encapsulated PostScript (EPS)

Saving in EPS file format for Printing

EPS files in Corel Painter conform to the Desktop Color Separation format (EPS-DCS format). Although you save files in EPS-DCS, you can't open EPS-DCS. If you plan to save an image in EPS-DCS, it's a good idea to

save it in another format first so you will have a copy of it you can reopen in Corel Painter.

When Output Preview is turned on and you save in EPS, Corel Painter uses the loaded ICC profiles to control separation. If Output Preview is turned off, Corel Painter uses the default separation tables. For more information, refer to "Color Management" on page 445.

To save a file in EPS format:

- 1 Choose **File menu > Save As**.
- 2 In the Save As dialog box, choose EPS from the Save As Type pop-up menu, and click Save.
- 3 In the EPS Options dialog box, enable the Hex (ASCII) Picture Data option to change the data format.

This is just another way of storing PostScript information. Some programs require this option be checked. The file size will be approximately twice as large when the file is saved with this option.
- 4 Enable one of the following Preview options:

- No preview
- Black and white preview
- Color preview

Notes:

- *If you have an older laser printer, you may have to use the black and white preview to print these files on your laser printer. Although the preview or display is black and white, the color information remains intact.*
- *If you are going to create on-line documents as well as printed documents—for example a PDF—be sure to choose a high-quality color preview.*

25 Keyboard Shortcuts

Many features in Corel Painter have keyboard shortcuts. These allow the user to access a variety of tools quickly and easily using the keyboard, rather than selecting them from a menu or palette.



The four modifier keys on a Mac-compatible keyboard are Command, Option, Shift, and the Spacebar.



The four modifier keys on the Windows keyboard are Ctrl, Alt, Shift, and the Spacebar.

The keyboard shortcuts rely on four modifier keys on Mac-compatible and Windows keyboards: Command, Option, Shift, and the Spacebar on the Mac OS; and Ctrl, Alt, Shift, and the Spacebar on Windows.

Some of the same key combinations are reused to provide different actions depending on which tool is currently selected. For example, holding down



the Shift key while using the Rectangle shape tool constrains the shape to a square; whereas holding down the Shift key while using a Cloning brush sets the clone destination.

Toolbox Commands

Tool Name	Shortcut Key
-----------	--------------

Navigation and Utility Tools

Magnifier	M
Grabber	G
Rotate Page	E
Perspective	
Crop	C

Drawing and Painting Tools

Brush (Freehand line)	B
Brush (Straight line)	V
Paint Bucket	K
Dropper	D

Selection Tools

Rectangular Selection	R
Oval Selection	O
Lasso	L
Magic Wand	W

Tool Name	Shortcut Key
-----------	--------------

Adjuster Tools

Layer Adjuster	F
Selection Adjuster	S
Shape Selection	H

Shape Design Tools

Pen	P
Quick Curve	Q
Text	T

Shape Object Tools

Rectangular Shape	I
Oval Shape	J

Shape Edit Tools

Scissors	Z
Add Point	A
Convert Point	Y
Remove Point	X

Palette Commands

Command	Mac OS	Windows
Show/Hide Colors	Command + 1	Ctrl + 1
Show/Hide Mixer	Command + 2	Ctrl + 2
Show/Hide Color Sets	Command + 3	Ctrl + 3
Show/Hide Layers	Command + 4	Ctrl + 4
Show/Hide Channels	Command + 5	Ctrl + 5
Show/Hide Text	Command + 6	Ctrl + 6
Show/Hide Info	Command + 7	Ctrl + 7
Show/Hide Gradients	Command + 8	Ctrl + 8
Show/Hide Patterns	Command + 9	Ctrl + 9

File Menu Commands

Command	Mac OS	Windows
New	Command + N	Ctrl + N
Open	Command + O	Ctrl + O
Close	Command + W	Ctrl + W
Save	Command + S	Ctrl + S
Save As	Shift + Command + S	Shift + Ctrl + S
Page Setup	Shift + Command + P	Shift + Ctrl + P
Print	Command + P	Ctrl + P
Brush Creator	Command + B	Ctrl + B
Quit	Command + Q	Ctrl + Q

Edit Menu Commands

Command	Mac OS	Windows
Undo	Command +	Ctrl +
Redo	Command +	Ctrl +
Fade	Command + Shift + F	Ctrl + Shift + F
Cut	Command +	Ctrl +
Copy	Command + C	Ctrl + C
Paste	Command +	Ctrl +

Canvas Menu Commands

Command	Mac OS	Windows
Tracing Paper	Command + T	Ctrl + T
Resize Image	Shift + Command + R	Shift + Ctrl + R

Effects Menu Commands

Command	Mac OS	Windows
Last Effect	Command + /	Ctrl + /
Second to Last Effect	Command + Shift + /	Ctrl + Shift + /
Fill	Command + F	Ctrl + F
Tonal Control		
Correct Colors	Shift + Command + K	Shift + Ctrl + K
Equalize	Command + E	Ctrl + E
Negative	Command + I	Ctrl + I

Select Menu Commands

Command	Mac OS	Windows
Select All	Command + A	Ctrl + A
Deselect	Command + D	Ctrl + D
Invert	Shift + Command + I	Shift + Ctrl + I
Reselect	Shift + Command + D	Shift + Ctrl + D
Hide Marquee	Shift + Command + H	Shift + Ctrl + H
Load Selection	Shift + Command + G	Shift + Ctrl + G

Shapes Menu Commands

Command	Mac OS	Windows
Group	Command + G	Ctrl + G
Ungroup	Command + U	Ctrl + U
Join Endpoints	Shift + J	Ctrl + J
Duplicate	Command +]	Ctrl +]
Set Shape Attributes	Command + [Ctrl + [

Window Menu Commands

Command	Mac OS	Windows
Show/Hide Palettes	Tab	Tab
Zoom In	Command + Plus sign	Ctrl + Plus sign
Zoom Out	Command + Minus sign	Ctrl + Minus sign
Zoom to Fit	Command +	Ctrl + 0
Full Screen Window	Command + M	Ctrl + M

Screen Navigation

Command	Mac OS	Windows
Scroll Image with Grabber	Spacebar	Spacebar
Center Image	Spacebar + click	Spacebar + click
Zoom In	Spacebar + Command + click	Spacebar + Ctrl + click
Zoom Out	Spacebar + Command + Option + click	Spacebar + Ctrl + Alt + click
Rotate Image	Spacebar + Option + drag	Spacebar + Alt + drag
Constrain Rotate to 90 Degrees	Shift + Option + Spacebar + drag	Spacebar + Alt + Shift + drag
Orient Screen to Default View	Shift + Option + click	Shift + Alt + click

Palette Navigation

Command	Mac OS	Windows
Scroll Contents of Palette	Option + click + drag	Alt + click + drag
Expand/Collapse All Palettes	Shift + click on Open/Close triangle	Shift + click on Open/Close triangle

Brush Tools

Command	Mac OS	Windows
Brush Controls		
Dropper	Option	Alt
Layer Adjuster	Command	Ctrl
Resize Brush	Shift + Option + Command	Shift + Alt + Ctrl
Increase Current Brush Size Incrementally]]
Decrease Current Brush Size Incrementally	[[
Constrain to 45 degrees	Shift	Shift
Adjust Opacity in 10% Increments	1 to 0 keys	1 to 0 keys
Unconstrained Draw	Shift + 1	Shift + 1
Draw Outside	Shift + 2	Shift + 2
Draw Inside	Shift + 3	Shift + 3

Command	Mac OS	Windows
Load Nozzle	Command + L	Ctrl + L

Cloning

Set Clone Source	Option	Alt
Set Clone Destination	Option + Shift	Alt + Shift
Re-link Clone Source	Command + Option + Clone	Ctrl + Alt + Clone

Colors

Correct Colors	Command + Shift + K	Ctrl + Shift + K
Toggle Between Primary and Secondary Colors	Shift + X	Shift + X

Gradients

Adjust Spiral	Command + Angle Adjuster	Ctrl + Angle Adjuster
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Paint Bucket

Limit Fill Extent	Drag	Drag
Dropper	Option	Alt

Selection Tools

Command	Mac OS	Windows
Rectangle, Oval, and Lasso Selection Tools		
Constrain to Square or Circle	Shift + click	Shift + click
Add to Selection	Shift	Shift
Subtract from Selection	Option	Alt

Magic Wand

Add Color to Selection	Shift + click	Shift + click
Add Range of Colors to Selection	Shift + drag	Shift + drag
Remove Color from Selection	Option + click	Alt + click
Remove Range of Colors from Selection	Option + drag	Alt + drag

Adjuster Tools

Command	Mac OS	Windows
Layer Adjuster	Command (except when either the Screen Navigation or Shape Tools are selected)	Ctrl (except when either the Screen Navigation or Shape Tools are selected)
Selection Adjuster	Command (when Selection Tools are selected)	Ctrl (when Selection Tools are selected)
Shape Selection Tool	Command (when Shape Tools are selected)	Ctrl (when Shape Tools are selected)
Layer Adjuster		
Duplicate	Option + drag	Alt + drag
Delete layer	Command + Shift + D	Ctrl + Shift + D
Move Layer by One Screen Pixel	Arrow keys	Arrow keys
Hide/Display Marquee	Command + Shift + H	Ctrl + Shift + H
Attribute Dialog Box for Current Layer	Enter	Enter
Adjust Opacity in 10% increments	1 to 0 keys	1 to 0 keys

Command	Mac OS	Windows
Select All Layers	Command + Shift + Option + A	none
Deselect Layers	Command + Shift + Option + D	none
Select/Deselect Mode	Command + Shift	Ctrl + Shift
Selection Adjuster		
Reposition	Click inside active selection, and drag	Click inside active selection, and drag
Duplicate	Option + drag	Alt + drag

Command	Mac OS	Windows
Move Selection by One Screen Pixel	Arrow keys, on canvas	Arrow keys, on canvas
Delete Current Selection	Delete	Backspace
Select/Deselect Mode	Shift	Shift

Free Transform

Resize	Corner handles	Corner handles
Resize/Preserve Aspect	Shift + corner handles	Shift + corner handles
Resize/One Dimension	Side handles	Side handles
Skew	Command + side handles	Ctrl + side handles
Rotate	Command + corner handles	Ctrl + corner handles

Shape Tools

Command	Mac OS	Windows
Shape Selection Tool Toggle	Command	Ctrl

Shape Design Tools

Command	Mac OS	Windows
Pen		
Add to Current Point	Click last point	Click last point

Quick Curve

Add to Current Endpoint	Click and draw from endpoint	Click and draw from endpoint
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Shape Objects Tools

Command	Mac OS	Windows
Rectangle		
Constrain to Square	Shift + click	Shift + click

Circle

Constrain to Circle	Shift + clic	Shift + clic
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Shape Selection Tool

Command	Mac OS	Windows
Direct Selection		
Select Start Point of Shape	Home	Home
Select Endpoint of Shape	End	End
Select Previous Point in Shape	Page Up	Page Up
Select Next Point in Shape	Page Down	Page Down
Move Path by One Screen Pixel	Arrow keys	Arrow keys
Delete Selected (closed) Shape	Delete	Backspace

Animation

Command	Mac OS	Windows
First Frame of Stack	Home	Home
Last Frame of Stack	End	End
Next Frame	Page Up	Page Up
Previous Frame	Page Down	Page Down
Stop at Current Frame	Option + Stop	Alt + Stop
Stop and Return to Current Starting Frame	Command	Ctrl

Lighting

Command	Mac OS	Windows
Lighting Mover	Shift + Command + L	Shift + Ctrl + L

Layer Section Tools

Command	Mac OS	Windows
Group	Command + G	Ctrl + G
Ungroup	Command + U	Ctrl + U

Mosaics

Command	Mac OS	Windows
Get Tile Color	Option + click tile	Alt + click tile
Get Tile Shape	Command + click tile	Ctrl + click tile
Delete Tile	Shift + click tile	Shift + click tile
Select All Tiles	A	A
Deselect All Tiles	D	D
Change Selected Tiles to Current Color	C	C
Tint Selected Tiles with Current Color	T	T
Vary Color of Selected Tiles	V	V

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