Form and Geometry

Overview: Defining Form and Geometry

Form and Geometry settings are used to apply a contour or topography and an edge to the surface of a texture. These properties give a texture a three-dimensional appearance that can be either subtle or dramatic, depending on their settings.

Topographic elements

Topographic elements create a contour for the surface of your texture. You can simulate bumps, dents, ripples, waves, or opt for a flat surface. You can also import bump maps, in which an image (such as .BMP or .TIFF) is transformed into a bumpy pattern. Once you select a topographic algorithm, you can fine tune its properties to achieve the best effect. You can adjust magnification, height, and frequency parameters to create either a subtle or dramatic pattern.

Edge properties

The Edge property of a texture specifies the type and size of the texture's border. You can select none (for no border), bevel, round, extruded, or picture frame

For more information see the following:

{button ,JI(`',`Overview Algorithm settings')} <u>Overview: Algorithm settings</u> {button ,JI(`',`Overview Edge Properties')} <u>Overview: Edge Properties</u>

Form and Geometry Algorithm settings

Overview: Algorithm settings

The Form and Geometry algorithm settings determine the type of topographic effect applied to a texture's surface. Each algorithm can be adjusted to change the effect it produces. To get the best results, try experimenting with different combinations of settings.

For more information see the following:

{button ,JI(`',`Overview Waves')} <u>Overview: Waves</u> {button ,JI(`',`Overview Ripples')} <u>Overview: Ripples</u> {button ,JI(`',`Overview Wrinkles')} <u>Overview: Wrinkles</u> {button ,JI(`',`Overview Bumps')} <u>Overview: Bumps</u> {button ,JI(`',`Overview Dents')} <u>Overview: Dents</u> {button ,JI(`',`Overview Bump maps')} <u>Overview: Bump Maps</u>

{button ,AL(`OVR Form and Geometry;',0,"Defaultoverview",)} Related Topics

Waves



Overview: Waves

This setting produces concentric waves radiating out from the center of the texture. This algorithm is controlled by the following settings:

Magnification

Determines the number and size of the waves you see. At a high magnification level, you can only see a few waves. At a low magnification level, you can see a large number of small, clearly defined waves.

Height

Determines the amount of detail shown by each wave. If you want to create a subtle effect, choose a low height setting. If you want a more dramatic effect, increase the height setting.

Frequency

Like the magnification setting, frequency determines the number of waves visible. Increasing the frequency creates a large number of small, tightly packed waves. Decreasing the frequency results in a smaller number of larger waves.

{button ,AL(`OVR Form and Geometry Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Waves algorithm

- 1. Click the Form and Geometry layer.
- 2. Choose Waves from the Algorithm list box.
- 3. Move the Magnification slider to adjust the magnification level of the layer.
 At a high magnification level, you can see a few waves. At a low magnification level, you can see a large number of small, clearly defined waves.
- 4. Move the Height slider to adjust the height of topographic elements. If you want a more dramatic effect, increase the height setting.
- 5. Move the Frequency slider to adjust the number of visible topographic elements. Decreasing the frequency results in a smaller number of larger waves.

Ripples



Overview: Ripples

Ripples are similar to waves, but they have a higher frequency and therefore produce a greater number of individual ripples. This algorithm is controlled by the following settings:

Magnification

Determines the number and size of the ripples you see. At a high magnification level, you can only see a few large ripples. At a low magnification level, you can see a large number of small, clearly defined ripples. As you increase the magnification, the ripples will gradually move out of focus.

Height

Determines the amount of detail shown by each ripple. If you want to create a subtle effect, choose a low height setting. If you want a more dramatic effect, increase the height setting.

Frequency

Like the magnification setting, frequency determines the number of ripples in a surface element. Increasing the frequency creates a large number of small, tightly packed ripples. Decreasing the frequency results in a smaller number of larger ripples.

{button ,AL(`OVR Form and Geometry Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Ripples algorithm

- 1. Click the Form and Geometry layer.
- 2. Choose Ripples from the Algorithm list box.
- 3. Move the Magnification slider to adjust the magnification level of the layer.
 At a high magnification level, you can see a few ripples. At a low magnification level, you can see a large number of small, clearly defined ripples.
- 4. Move the Height slider to adjust the height of topographic elements.

 If you want a more dramatic effect, increase the height setting.
- 5. Move the Frequency slider to adjust the number of visible topographic elements. Decreasing the frequency results in a smaller number of larger ripples.

Wrinkles



Overview: Wrinkles

Wrinkles create an effect resembling a crumpled piece of paper that has been flattened. The algorithm is controlled by the following settings:

Magnification

Determines the number and size of the wrinkles you see. At a high magnification level, you can see a few large wrinkles. At a low magnification level, you can see a large number of small, clearly defined wrinkles. As you increase the magnification, the wrinkles will gradually move out of focus.

Height

Determines the amount of detail shown by each wrinkle. If you want to create a subtle effect, choose a low height setting. If you want a more dramatic effect, increase the height setting.

{button ,AL(`OVR Form and Geometry Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Wrinkles algorithm

- 1. Click the Form and Geometry layer.
- 2. Choose Wrinkles from the Algorithm list box.
- 3. Move the Magnification slider to adjust the magnification level of the layer.
 At a high magnification level, you can see a few wrinkles. At a low magnification level, you can see a large number of small, clearly defined wrinkles.
- 4. Move the Height slider to adjust the height of topographic elements. If you want a more dramatic effect, increase the height setting.

Bumps



Overview: Bumps

Bumps appear as raised lumps on a texture's surface. They are randomly distributed with a frequency determined by their parameter settings.

Magnification

Determines the number and size of the bumps you see. At a high magnification level, you can see a few large bumps. At a low magnification level, you can see a large number of small, clearly defined bumps. Note that as you increase the magnification, the bumps will gradually move out of focus.

Height

Determines the amount of detail shown by each bump. If you want to create a subtle effect, choose a low height setting. If you want a more dramatic effect, increase the height setting.

{button ,AL(`OVR Form and Geometry;',0,"Defaultoverview",)} Related Topics



Applying the Bumps algorithm

- 1. Click the Form and Geometry layer.
- 2. Choose Bumps from the Algorithm list box.
- 3. Move the Magnification slider to adjust the magnification level of the layer.
 At a high magnification level, you can see a few bumps. At a low magnification level, you can see a large number of small, clearly defined bumps.
- 4. Move the Height slider to adjust the height of topographic elements. If you want a more dramatic effect, increase the height setting.

Dents



Overview: Dents

Dents are the opposite of bumps, resembling indentations or pits in a texture's surface. Like bumps, their location is random and depends on their parameter settings.

Magnification

Determines the number and size of the dents you see. At a high magnification level, you can see a few dents. At a low magnification level, you can see a large number of small, clearly defined dents. Note that as you increase the magnification, the surface dents will gradually move out of focus.

Height

Determines the amount of detail shown by each dent. If you want to create a subtle effect, choose a low height setting. If you want a more dramatic effect, increase the height setting.

{button ,AL(`OVR Bumps;',0,"Defaultoverview",)} Related Topics



Applying the Dents algorithm

- 1. Click the Form and Geometry layer.
- 2. Choose Dents from the Algorithm list box.
- 3. Move the Magnification slider to adjust the magnification level of the layer.
 At a high magnification level, you can see a few dents. At a low magnification level, you can see a large number of small, clearly defined dents.
- 4. Move the Height slider to adjust the height of topographic elements.

If you want a more dramatic effect, increase the height setting.

Bump Maps



Overview: Bump maps

Bump maps are used to carve text or pictures into wood or chisel them into granite or other stone. The contrasting colors in the picture are used to determine the relative height of the bumps. The following scale is used to determine how elements are placed in relation to the surface of the texture:

- Black elements are placed below the surface.
- Elements that are 50% gray are placed level with the texture's surface.
- White elements are placed above the surface

Two-color black and white pictures make high contrast images. Grayscale pictures create softer images. Corel TEXTURE automatically translates color images into grayscale images before creating the bump map.

{button ,AL(`OVR Bumps;',0,"Defaultoverview",)} Related Topics



Importing a picture into the Form and Geometry layer

- 1. Click the Form and Geometry layer.
- 2. Choose Bump Map from the Algorithm list boxs.
- 3. Click the import box located in the center-left of the Work Area.
- 4. Locate the folder containing the picture you want to import.
- 5. Select the filename and click OK.
- 6. Click one of the following import options:

Stretch

Automatically adjusts the picture to fit over the entire texture surface.

Center

Places the image in the middle of the layer, surrounded by a gray border.

Tile

Creates a tiled bump map from the imported image.

Edge properties



Overview: Edge properties

Edges are used to enhance the three-dimensional effect of a texture. When you create a new texture, it is generated as a flat slab. Edge properties can simulate height by carving the outline of the texture into various shapes. The Bevel slider lets you set the overall size of the edge.



You must have at least one of the overhead lights turned on to see the effect of any of the Edge property settings.

{button ,AL(`OVR Form and Geometry;',0,"Defaultoverview",)} Related Topics



Defining Edge Properties

- 1. Click the Form and Geometry layer.
- 2. Choose a border effect from the Edge list box.

 When you choose an option, its effect on the texture is displayed in the Preview window.
- 3. Move the Bevel slider to change the effect's properties.

Getting Started with Corel TEXTURE

Overview: Creating a texture

To create a unique texture that you can export to other applications, follow the four steps listed below.

- 1. Create a texture design using a blank texture, one of Corel's preset templates, or the Texture Wizard.
- 2. Define or modify the elements that make up the texture.
- 3. Save the modified texture in an $\underline{\text{unrendered}}$ form as a template for future designs.
- 4. Render the texture to create a bitmap that you can use in other applications, and save the rendered image.

For more information see the following:

{button ,JI(`',`Overview Texture Wizard')} Overview: Texture wizard

{button ,JI(`',`Overview Defining a textures size and resolution')} Overview: Defining a texture's size and resolution

Creating textures



Creating a new texture design

- 1. Click File, New.
- 2. Click one of the available options.
 - Start with a "Blank" texture.
 - Load one of Corel's Preset textures, which you can then modify to create a unique design.
 - Access the Texture Wizard, which will help you define all the elements required to produce a finished texture.



Creating a texture from a blank texture

- 1. Click File, New.
- 2. Click the "Blank" Texture radio button.



When you select this option, you begin with a "blank slate" in which two lights shine on a flat, black, featureless surface. If you're an experienced Corel TEXTURE user, you may find this option to be the most efficient way to create your own designs. If you're new to Corel TEXTURE, you can use this option to experiment with the way in which different elements interact.



Creating a texture by modifying a preset texture

- 1. Click File, New
- 2. Click the Texture Preset radio button.
- 3. Click New.
- 4 Double-click the Gallery folder.
- 5. Browse through the Gallery subfolders to find the most appropriate Preset Texture.
- 6. When you locate the right design, double-click on its file name, for example, Black Marble, in the Black and White folder.

The Corel TEXTURE screen appears with the selected design in the Preview window.



You should save the texture using a new filename to avoid overwriting the Preset.



Overview: Texture wizard

The Texture wizard will help you create complex, custom textures from scratch. The wizard takes you through all the steps required to create a complex texture by prompting you for design decisions, making all the required settings behind the scenes, and displaying the results of your work. If you don't like the way your texture is developing, you can always back up and specify different settings. The Texture Wizard is the fastest and easiest way to experiment with the wide range of possibilities offered by Corel TEXTURE.

{button ,AL(`OVR Getting Started with Corel TEXTURE;',0,"Defaultoverview",)} Related Topics



Creating a texture using the Texture wizard

- 1. Click File, New
- 2. Click the Texture Wizard button.
- 3. Click the New button.
- 4. Follow the on-screen instructions.



• Always start with the lowest possible resolution and change to a higher resolution only if necessary. Higher resolutions can take substantially longer to render, redraw, and save.

Texture size and resolution



Overview: Defining a texture's size and resolution

Before you edit an image, you must define its size and resolution. The size you define depends on how you plan to use the texture. You may plan to use the texture as a full-page background, as part of a composite image, or even as a small box on part of a page. The resolution will depend on whether the image will be produced as part of an electronic file or printed on paper. Note that the height and width of the Preview Window will change to reflect the settings you select.

{button ,AL(`OVR Getting Started with Corel TEXTURE;',0,"Defaultoverview",)} Related Topics



Defining texture size and resolution

- 1. Click File, Image Setup.
- 2. Click one of the Measurement System buttons.
- 3. Enable the appropriate button in the Resolution section.
 - Different printing and display situations require different resolution values. Textures intended only for screen display should be rendered at 72 dots per inch (dpi). Most printed textures are acceptable at 150 dpi, regardless of the printer resolution. Geometric patterns, that have sharp line boundaries require a higher resolution.
- 4. Type values in the Texture Width and Texture Height boxes.

Large images (large Height and Width values) show the same pattern as small ones, but with more detail.



These choices directly affect the rendering time and the size of the rendered texture file. A large, high resolution texture can be several megabytes in size and take some time to render.

Lighting Properties



Overview: Defining Lighting Properties

Lighting Properties are used to determine the amount, intensity, and quality of the illumination on a texture's surface. In Corel TEXTURE, lighting effects are created by manipulating up to three lights suspended above the surface of the texture. You can switch on some, all, or none of the lights and adjust their position over different parts of the texture (Note: you don't need to switch on any lights to see a texture's surface).

By using the <u>Color Swatches bar</u>, or the <u>Color Palette</u>, you can assign a different color to each light. Note that the overall lighting will also be affected by the settings applied to the Surface Properties of the texture.

You can adjust the following properties for each light:

- Ambient: Sets the intensity of the ambient lighting.
- Shading: Determines the amount by which color values are reduced to create shading.
- Highlights: Sets the amount of contrast to be created by each light.

For more information see the following:

{button ,JI(`',`Overview Ambient Lighting')} <u>Overview: Ambient Lighting</u> {button ,JI(`',`Overview Shading and Highlighting')} <u>Overview: Shading and Highlighting</u>

Setting Lighting Properties



Setting lighting properties

- 1. Click the Lighting Properties layer.
- 2. Click the check box of the light number you want to turn on or off.
 - When you turn a light on, a pin representing the light appears on the representation of the texture's surface in the Work Area.
- 3. Position the light over the surface of the texture by dragging the light's pin.
- 4. If you want to color the light, drag the appropriate color from either the <u>Color Swatches bar</u> or the <u>Color Palette</u> and drop it onto the light's pin.
- 5. Adjust the controls for the Ambient, Shading, and Highlights settings of the light.



Placing lights on a texture's surface

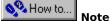
- 1. Click one or all of the Light check boxes.
- Drag a light pin to the desired position on the Lighting preview.The Preview window displays the results of the move.



Switching lights on and off

• Click the check boxes in the upper left corner of the work area to switch each light on or off.

When a light is on, an X appears in the check box, the appropriate light bulb shines in the Lighting Properties controls, and a pin appears on the representation of the texture surface in the work area.



Lighting controls have no effect on the texture when all three overhead lights are off.



Using a preset lighting effect

- 1. Click arrow button the Lighting title bar.
- 2. Click the lighting effect you want to use.

The lighting controls change to reflect the preset you selected.



Overview: Ambient Lighting

Ambient lighting refers to the intensity of the light shining on the texture's surface. An increase in the amount of ambient light will lighten the surface of the texture.



Adjusting the Ambient Lighting

• Move the Ambient Lighting slider to adjust the amount of ambient light.

Higher values lighten the surface of the texture; lower values darken the surface.



Overview: Shading and Highlighting

Shading and Highlighting are used to control the shadows and surface irregularities of a texture. By using a geometric setting such as dents or wrinkles, you can create a more dramatic effect by increasing either the shading or the highlighting.



Setting values for Shading

• Move the Shading slider to adjust the amount of shading applied to the texture.

Shading controls the amount of shadowing that is created by surface irregularities. As you increase shading, shadows lengthen and surface elements stand out more clearly.



Setting values for Highlights

• Move the Highlights slider to adjust the amount of highlighting applied to the texture.

Highlight values control the amount of light that is reflected from the highest points of a surface element. The tops of bumps, ripples, and waves will stand out more clearly as you increase the amount of surface highlights.

Applying color to lights

Overview: Applying colors to individual lights

Each light source can have its own color. When you shine a colored light on the surface of a texture, the color of the light blends with the colors defined for each <u>Shader layer</u> in the texture. To emphasize the color provided by the Lighting Properties, increase the amount of Metallicity in the Surface Properties of the texture.

{button ,AL(`PRC Applying color to lights;',0,"Defaultoverview",)} Related Topics

Adding color to a light using the Color Swatches bar

• Drag a color from the <u>Color Swatches bar</u> onto a light pin.

{button ,AL(`PRC Applying color to lights;',0,"Defaultoverview",)} Related Topics

Changing a light's color using the Color dialog

- 1. Double-click a color swatch
- 2. Drag the color shade indicator in the Color Wheel.
- 3. Move the Brightness slider to adjust the brightness of the color.
- 4. Move the Opacity slider to adjust the transparency of the color.
- 5. Drag the new color onto a light pin

{button ,AL(`PRC Applying color to lights;',0,"Defaultoverview",)} Related Topics

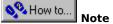
Rendering Textures



Overview: Rendering a texture

Rendering transforms a texture design into a bitmap that can be used in other applications. A rendered texture cannot be edited in Corel TEXTURE.

You can choose to render your texture in one of two ways: you can either render the image to a window, where you can review its final, rendered appearance, or render the image to a file. When you render an image to a file, a bitmap is created from the texture design. Rendering to a window is considerably faster than rendering to a file, and ensures that the rendered texture matches your design. This feature is particularly useful with large, complex textures that may require a considerable amount of memory to convert into a bitmap.



Before you render an image to either a window or a file, you should verify that the size and resolution settings
are correct.



Rendering a texture to a window

1. Click Texture, Render to Window.

When you perform this step, a window appears that is gradually filled by the texture in its final dimensions. A Status Bar under the Title Bar illustrates the speed at which the image is being rendered and shows the portion of the image that remains to be rendered.

- 2. If you're satisfied with the rendered image, click File, Save As.
- 3. Locate the folder where the texture is to be stored and enter a unique file name.



Note

• To suspend the rendering process, click the Stop button. You can resume the process by clicking the same button, now labeled Refresh.



Rendering a texture to a file

• Click Texture, Render to File.

If you haven't saved the texture design, you will be prompted to save it now.

You can monitor the process of rendering by observing the Status Bar. To suspend the rendering, click the Cancel button.

Rendering is a background operation. During the process, you can run other programs; however you may find the other programs a little slower than usual.



Creating a tile pattern from a texture design

- 1. Open or create the pattern you want to tile.
- 2. Click Texture, Generate Tiling Image or click the Tiling button in the toolbar. This step prepares the image for tiling.
- 3. Click Preview, Test Tiling to view the image before rendering it. Click anywhere on the screen to remove the pattern window that appears.
- 4. Render the tiled texture.



Overview: Memory allocation

Since the size of some rendered files can become quite large, memory allocation can become an important consideration. Corel TEXTURE calculates the memory requirements before rendering the texture. If there isn't enough memory, an alert box appears, specifying the amount of extra memory needed.



Allocating more memory

- 1. Save the texture design you want to render.
- 2. Choose Quit from the File menu to quit the program.
- 3. Choose Finder from the Applications menu at the right end of the Macintosh menu bar.
- 4. Click the Corel TEXTURE program icon to select it.
- 5. Choose Get Info from the File menu.
- 6. In the Memory Requirements section, type the value which appears in the Alert box.
 For Example: The alert box indicates that an additional 207K are required. In the Get Info window, the value in the Preferred size box is 3250K. To allocate enough memory, type 3457 in the Preferred size box.
- 7. Close the Get Info dialog box and re-start Corel TEXTURE.



Saving the rendered texture

- 1. Click File, Save As.
- 2. Type a name for the rendered texture in the File name field.
- 3. If you want to save the texture in a different folder, click the Save in list box and choose a new folder.
- 4 Click Save

The file is saved in .BMP format.



Saving texture designs in an unrendered form

- Click File, Save to save any changes you've made to the current texture.
 OR
- Click File, Save As to save the file under a different name and location. This leaves the original texture unmodified.

📜 Tip

If you have selected one of the Preset Textures you should save it with a different file name before performing any edits.

Shader Layers



What are Shader Layers

Shader layers are used to apply a color, surface emulation, or picture to a layer within a texture. One or more Shader layers make up the body of any texture and provide both its material and color. By blending several layers together, you can create a composite texture that contains different amounts of each layer. Since a texture is created by looking down through each layer, its a good idea to define the bottom layer first and then work your way up.



Defining Shader layers

- 1. Define the bottom layer by selecting an <u>algorithm</u>, which can be a solid color, a material emulation (such as granite, wood, or marble), a geometric shape (such as checkers, gradient, or spots), or a picture (a .BMP file or a .TIFF file).
- 2. Adjust the properties of the algorithm (such as magnification, rotation, and turbulence) to achieve the effect you require. Use the Selected Only button to preview the changes made to the bottom layer. The Blend for the bottom layer will always be opaque.
- 3. Add additional layers by clicking the Add Layer button on the toolbar. When you define the properties for the new layers pay particular attention to the Blend setting. The more Opaque a layer, the less the layers under it will show through. Blend settings can also be used to add or subtract different colors or to create contrasts through shading or highlighting.
 - Use the Selected Only button on the toolbar to examine the layer you are working on. Use the Selected and Below button to review the texture you're building "from the ground up."
- 4. Click Preview, Preview All Layers to see the effect of combining all the Shader layers.

If you aren't satisfied with the final result, you can edit, delete, or reorder any or all of the layers.

Manipulating Shader Layers



Overview: Manipulating Shader Layers

<u>Shader layers</u> can be reordered, deleted, copied to the clipboard, or saved for use in other textures. You can also disable a Shader layer to see how the composite texture looks without that layer.

{button ,AL(`OVR Shader Layers;',0,"Defaultoverview",)} Related Topics



Deleting a Shader layer

- 1. Select the Shader layer you want to delete by clicking on it's icon in the stack.
- 2. Click the Delete Layer button on the toolbar.

{button ,AL(`PRC Manipulating Shader Layers;',0,"Defaultoverview",)} Related Topics



Changing the order of a Shader layer

- 1. Click the Shader layer you want to move.
- 2. Drag the layer to its new position.

{button ,AL(`PRC Manipulating Shader Layers;',0,"Defaultoverview",)} Related Topics



Copying and pasting a Shader layer into another texture

- 1. Click the Shader layer you want to copy.
- 2. Click Edit, Copy Layer.
- 3. Click File, Open.
- 4. Use the dialog box controls, to open the texture into which you want to paste the copied Shader layer.
- 5. Click Edit, Paste.
- 6. Drag the Shader layer to the appropriate place in the stack.

{button ,AL(`PRC Manipulating Shader Layers;',0,"Defaultoverview",)} Related Topics



Saving a specific Shader layer within a texture.

- 1. Click the Shader layer you want to save.
- 2. Click the arrow button in layer's Title Bar and choose Save Layer.
- 4. Type a name for the layer in the Save Layer dialog box.

{button ,AL(`PRC Manipulating Shader Layers;',0,"Defaultoverview",)} Related Topics



Disabling a Shader layer

- 1. Click the Shader layer you want to disable.
- 2. Click the check box in the upper left corner of the <u>Shader layers</u> work area.

When the check mark disappears, the representation of the Shader layer becomes transparent and the layer is disabled.

Enabling a Shader Layer

• Click the check box again.

When the check mark appears, the layer will become active.

{button ,AL(`PRC Manipulating Shader Layers;',0,"Defaultoverview",)} Related Topics

Applying Color to Shader Layers



Overview: Applying colors to Shader layers with the Color Gradient bar

You can use the <u>Color Gradient bar</u> to apply a color or several shades of color to each layer within a texture. The Color Gradient bar lets you use color pins to define exactly how colors will blend. The placement of a color pin indicates the highest point of intensity for that color. On either side of the color pin, the color gradually fades and blends into the color defined by the closest pin. The colors you enter in the Color Gradient bar are used to create contrasts in the material you've selected for the layer. For example, you can create colored streaks in a marble layer, dark grains in a wood layer, or yellow polka dots in a spot layer. Once you've created a color pattern in the Color Gradient bar, you can save it for use in other textures or layers.

Colors marked with a X are transparent colors

Solid colors with transparent bands which allow colors and other elements from lower layers to show through.

{button ,AL(`OVR Shader Layers;',0,"Defaultoverview",)} Related Topics



Adding a color pin to the Color Gradient bar

- 1. Click the appropriate color in the <u>Color Swatches bar</u> and drag it on to the Color Gradient bar.

 A new <u>color pin</u> appears in the Color Gradient bar.
- 2. Drag the color pin to the correct location.

 As you drag the pin across the Color Gradient bar, the color will blend with the colors closest to it.



Removing a color pin from the Color Gradient bar

- 1. Click the <u>color pin</u> you want to remove.
- 2. Drag the pin off the Color Gradient bar and out of the Work Area. The pin vanishes when you release the mouse button.



Changing the color of a color pin

- 1. Click the <u>color pin</u> you want to edit.
- 2. Drag the new color from the $\underline{\text{Color Swatches bar}}$ onto the color pin.



Saving a color set contained in the Color Gradient bar

- 1. Click the arrow button in the <u>Color Swatches bar</u> and choose Save Color Set from the menu.
- 2. Type a unique file name for the color set in the Save Color Set dialog box.



Loading a preset color set into the Gradient bar

- 1. Click the arrow button in the Color Swatches bar and choose Import Color Set from the menu.
- 2. Double-click the Goodies folder.
- 4. Double-click the Colorset folder.
- 5. Select the <u>color set</u> you want to import.
- 6. Click Open.

Shader Layer Algorithm settings



Overview: Algorithm settings

The algorithm settings determine the type of graphic effect that is contained in the layer. There are nine different settings you can choose from. Once you've selected an algorithm, you can adjust its parameters and its cut to create different effects. You can also apply any color or combination of colors to an algorithm. The parameter settings for each algorithm appear in the Work Area after you've made your selection. The cut, which determines how the simulated material is sliced to create a textured surface, is adjusted by clicking the Layer Orientation button on the toolbar

{button ,AL(`OVR Shader Layers;',0,"Defaultoverview",)} Related Topics



Applying a preset algorithm to a Shader layer

- 1. Click the **Shader layers** you want to change
- 2. Click the arrow button in the Work Area Title Bar and choose an algorithm preset from the menu.

The preset changes the values of both the Algorithm and Blend settings and loads a preset gradient into the Color Gradient bar.

Colored Algorithm



Overview: Colored Algorithm

The Colored algorithm assigns a solid color to a <u>Shader layer</u>. You can use the Colored algorithm to add a tint to a texture or to create different shades by combining different colored layers. The amount of color added by each layer to the overall texture is controlled by the Blend setting

When you assign the Colored algorithm to a Shader layer, you must select a gradient for the color. Gradients are used to create surface designs by applying the color as either a solid color or a wash, that flows from light to dark, in various directions.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Colored algorithm to a Shader Layer

- 1. Click the Shader layer you want to change
- 2. Choose Colored from the Algorithm list box.
- 3. Choose a gradient option from the Gradient list box.

 These options adjust the direction of the gradient.
- 4. Choose a blend option from the Blend list box.
- 5. If you want to adjust the cut of the layer, click the Layer Orientation button and type values for 3D transformation parameters in the Layer Orientation dialog.

{button ,AL(`PRC Colored Algorithm;',0,"Defaultoverview",)} Related Topics



Adding colors to the Color Gradient Bar

- 1. Drag a color swatch from the <u>Color Swatches bar</u> to the <u>Color Gradient bar</u>.

 A color pin appears on the Color Gradient bar.
- 2. Add additional colors to create the desired gradient effect.
- 3. Adjust the position of the color pins to edit the gradient effect.



 You can also create a custom color by double-clicking on a color pin and using the Color dialog box to create a custom color.

{button ,AL(`PRC Colored Algorithm;',0,"Defaultoverview",)} Related Topics

Clouds Algorithm



Overview: Clouds algorithm

The Clouds algorithm creates the effect of a cloudy sky. This algorithm is derived from the Spots algorithm with settings for turbulence added. If you want a cloud pattern without any turbulence, try modifying the Spots algorithm until you get the results you want.

Magnification

Magnification is used to control surface detail. A high level of magnification creates a small number of large clouds while a low level of magnification creates many small clouds.

Rotation

Rotation rotates the pattern on the Z-axis. Since clouds appear in a random pattern, rotation affects each pattern differently.

Turbulence

Turbulence controls the smoothness of each pattern. In the Clouds algorithm, the turbulence setting determines how the edges of each cloud appear. Low turbulence produces smooth, rounded edges for each cloud. High turbulence gives each cloud a jagged, indistinct appearance. You can use the turbulence settings to create a wispy effect.

Variance

Variance controls how uniformly the turbulence setting is applied. Low variance means that most elements in the pattern have the same turbulence setting. High variance means that turbulence settings are applied randomly, so that most elements in a pattern receive a different setting.

Cut

Since the cloud pattern is random, the cut setting will affect each pattern differently. You will need to experiment to find the best combination.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Clouds algorithm to a Shader layer

- 1. Click the Shader layer you want to change
- 2. Choose Clouds from the Algorithm list box
- Move the Magnification slider the adjust the magnification level applied to the layer.
 A high level of magnification creates a small number of large clouds while a low level of magnification creates many small clouds.
- 4. Move the Rotation slider to adjust the rotation angle of the layer.
- 5. Move the Turbulence slider to adjust the amount of turbulence applied to the layer.
 - Low turbulence produces smooth, rounded edges for each cloud. High turbulence gives each cloud a jagged, indistinct appearance.
- 6. Move the Variance slider to adjust the layer's variance setting.
 - Low variance means that most elements in the pattern have the same turbulence setting. High variance means that turbulence settings are applied randomly, so that most elements in a pattern receive a different setting.
- 7. Choose a blend option from the Blend list box.
- 8. If you want to adjust the cut of the layer, click the Layer Orientation button and type values for 3D transformation parameters in the Layer Orientation dialog.

Marble Algorithm



Overview: Marble algorithm

Marble patterns are created by slicing a simulated block of marble in different directions. The direction of the cut determines whether the surface contains streaks, bands, or splotches.

Magnification

A low magnification creates a large number of small splotches or veins in the marble surface. A high magnification results in a small number of large splotches or veins.

Rotation

Rotation determines the direction of the veins or streaks, which can be horizontal, vertical, or diagonal.

Turbulence

Turbulence gives the layer a randomly uneven surface. With no turbulence, the marble pattern will be flat and uniform in color. A low turbulence setting produces a flat surface marked with a few irregularities. As the turbulence is increased, more irregularities appear in the marble's surface.

Variance

Variance determines how uniformly the turbulence setting is applied. If the turbulence setting is low, variance has little effect. With a low variance setting, most elements receive the same amount of turbulence. High variance means that turbulence is applied randomly.

Cut

Cut determines whether the marble has splotches, streaks, or a combination of both. The default cut slices the bars lengthwise, which produces a striped pattern. Altering the cut creates blobs, diagonal streaks, and splotches.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Marble algorithm to a Shader layer

- 1. Click the Shader layer you want to change
- 2. Choose Marble from the Algorithm list box.
- 3. Move the Magnification slider the adjust the magnification level applied to the layer.
 A low magnification creates a large number of small splotches or veins in the marble surface. A high magnification results in a few, large splotches or veins.
- 4. Move the Rotation slider to adjust the rotation angle of the layer.

 Rotation determines the direction of the veins or streaks, which can be horizontal, vertical, or diagonal.
- 5. Move the Turbulence slider to adjust the amount of turbulence applied to the layer.

 Low turbulence setting produces a flat surface marked with a few irregularities. As the turbulence is increased, more irregularities appear in the marble's surface.
- 6. Move the Variance slider to adjust the layer's variance setting.
 Low variance means that most elements in the pattern have the same turbulence setting. High variance means that turbulence settings are applied randomly.
- 7. Choose a blend option from the Blend list box.
- 8. Click the Layer Orientation button in the toolbar.
- Enter values for the Rotation, Stretch/Scale and Position parameters.
 The 3D transformation parameters are used to determine the Cut of the shader layer.

Wood Algorithm



Overview: Wood algorithm

The Wood algorithm simulates the growth rings found in a block of wood. By altering the cut or rotation, you can simulate textures such as grain or veneer.

Magnification

At a high level of magnification, you see less grain but more detail in each grain. A low level of magnification shows many tightly spaced growth rings or a very fine grain.

Rotation

Rotation is used to alter the orientation of a simulated grain or veneer. Rotation has little effect on a texture simulating growth rings.

Turbulence

Turbulence jumbles the grain. A low turbulence setting simulates a straight-grained wood. More turbulence will create a wood like curly-maple. A high turbulence setting creates a burled wood effect and very high settings hide the grain.

Variance

At no variance, the turbulence setting is applied evenly to the grain. At 100% variation, some of the grain is given no turbulence while some is given full turbulence.

Cut

The angle of the cut determines whether the texture simulates growth rings, wood grain, or veneer. The default setting resembles growth rings.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Wood algorithm to a Shader layer

- 1. Click the Shader layer you want to change
- 2. Choose Wood from the Algorithm list box.
- 3. Move the Magnification slider the adjust the magnification level applied to the layer.
 - At a high magnification, you see less grain but more detail in each grain. A low magnification can be used to show many tightly spaced growth rings, or a very fine grain.
- 4. Move the Rotation slider to adjust the rotation angle of the layer.
 - Rotation is used to alter the orientation of a simulated grain or veneer.
- 5. Move the Turbulence slider to adjust the amount of turbulence applied to the layer.
 - A low turbulence setting simulates a straight-grained wood. A high turbulence setting creates a burled wood effect and very high settings hides the grain.
- 6. Move the Variance slider to adjust the layer's variance setting.
 - At no variance, the turbulence setting is applied to the grain evenly. At 100% variation, some of the grain is given no turbulence while some is given full turbulence.
- 7. Choose a blend option from the Blend list box.
- 8. Click the Layer Orientation button in the toolbar.
- 9. Type values for the Rotation, Stretch/Scale and Position parameters.

The 3D transformation parameters are used to determine the Cut of the shader layer.

Checker Algorithm



Overview: Checkers algorithm

The Checkers algorithm is a geometric pattern created by sliceing a cube made of small, rectangular blocks (like a Rubiks Cube). Each small block is one solid color that changes from block to block. With magnification set to 1.00, the texture has eight blocks on each side. Checkers are ideal for making tablecloths. With some imagination you can use other layers and properties to make the tablecloth shine, or you can even create the effect of spilled ketchup.

Magnification

The magnification setting determines the number of small blocks that appear in a texture. High levels of magnification produce a small number of large blocks; whereas lower levels of magnification create a larger number of small blocks.

Rotation

Rotation controls the orientation of a checkered pattern. By adjusting the rotation, you can create diamond or diagonal patterns. No manner how you adjust the rotation, the symmetry of the pattern remains constant. To create an asymmetrical pattern, you must alter the Cut of the material.

Contrast

The color of each individual block is taken from the <u>Color Gradient bar</u>. The Contrast setting determines how the colors are taken. For example:

Contrast = 0%: Colors are taken from randomly chosen positions along the Color Gradient bar.

Contrast = 50%: More colors are selected from the ends of the Color Gradient bar then from the middle.

Contrast = 100%: Two colors are taken, one from either end of the Color Gradient bar. Colors in the middle are ignored.

Turbulence

The turbulence setting alters the edges of each block. A low turbulence setting results in a neat, orderly checkered pattern. As turbulence increases, the edges of each block become more and more ragged until a "salt and pepper" pattern is produced.

Variance

The variance setting determines how the turbulence setting is applied. At a low variance, all blocks have the same turbulence setting. As the variance in increased, more and more blocks have wider turbulence settings.

Cut

The default cut produces a symmetrical pattern of blocks. By altering the cut, you can create asymmetrical patterns in which some blocks are larger or angled differently than others. Because the results of a combination of X and Y rotations within a cut are difficult to predict, you will need to experiment to find the best result.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Checkers algorithm to a Shader layer

- 1. Click the Shader layer you want to change
- 2. Choose Checkers from the Algorithm list box.
- Move the Magnification slider the adjust the magnification level applied to the layer.
 High magnification produces a small number of large blocks, while lower magnification creates a larger number of small blocks.
- 4. Move the Rotation slider to adjust the rotation angle of the layer.

 By adjusting the rotation, you can create diamond, or diagonal patterns.
- 5. Move the Contrast slider to adjust he contrast level of the layer.

 The contrast setting determines the shades of colors that are taken from the <u>Color Gradient bar</u>.
- 6. Move the Turbulence slider to adjust the amount of turbulence applied to the layer.
 As turbulence increases, the edges of each block become more and more ragged, until a "salt and pepper" pattern is produced.
- 7. Move the Variance slider to adjust the layer's variance setting.

 As the variance in increased, more and more blocks have wider turbulence settings.
- 8. Choose a blend option from the Blend list box.
- 9. If you want to adjust the cut of the layer, click the Layer Orientation button and type values for 3D transformation parameters in the Layer Orientation dialog.

Spots Algorithm



Overview: Spots Algorithm

Unlike other materials, the Spots algorithm is created by looking down on a surface rather than by slicing an object. The model for Spots is an irregular mountain range. Peaks and valleys are assigned colors from opposite ends of the color range that is shown in the <u>Color Gradient bar</u>. Colors of intermediate elevations are taken from colors that are located in the middle of the Color Gradient bar.

Magnification

A high level of magnification prduces a small number of large spots. A low level of magnification creates a large number of small spots.

Rotation

Rotation moves the texture around the Z-axis. The effect varies with each spot texture.

Cut

The cut has a random effect on a spot texture.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Spots algorithm to a Shader layer

- 1. Click the Shader layer you want to change
- 2. Choose Spots from the Algorithm list box.
- Move the Magnification slider the adjust the magnification level applied to the layer.
 A high level of magnification produces a small number of large spots. A low level of magnification produces a large number of small spots.
- 4. Move the Rotation slider to adjust the rotation angle of the layer.

 Rotation moves the texture around the Z-axis. The effect varies with each spot texture.
- 5. Choose a blend option from the Blend list box.
- 6. If you want to adjust the cut of the layer, click the Layer Orientation button and type values for 3D transformation parameters in the Layer Orientation dialog.

Agate Algorithm



Overview: Agate algorithm

The Agate algorithm simulates a cut from a block of agate, a translucent quartz that is commonly pale blue or gray with a wax-like luster.

You can set the following parameters for the Agate algorithm:

Magnification

Magnification increases or decreases the grain of the stone.

Rotation

Rotation makes subtle changes to the texture of the layer. The texture of agate is almost random, and will show only small changes when rotated.

Cut

Like rotation, the cut angle will not have a dramatic effect on an agate algorithm. Adjust the cut to produce subtle changes and variations.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Agate algorithm to a Shader layer

- 1. Click the Shader layer you want to change
- 2. Choose Agate from the Algorithm list box.s
- 3. Move the Magnification slider the adjust the magnification level applied to the layer. Magnification increases the grain of the stone.
- 4. Move the Rotation slider to adjust the rotation angle of the layer.

 The texture of agate is almost random, and will show only small changes when rotated.
- 5. Choose a blend option from the Blend list box.
- 6. If you want to adjust the cut of the layer, click the Layer Orientation button and type values for 3D transformation parameters in the Layer Orientation dialog.

Granite Algorithm



Overview: Granite Algorithm

Use the Granite algorithm to create uniform, sandpaper-like textures. In many respects the texture looks like the mottled grain of a real block of granite. Like the Spots algorithm, the Granite algorithm is a flat surface, not a sliced solid. Random irregularities can be applied right down to the pixel level.

You can set the following parameters for the Granite algorithm:

Magnification

Magnification affects the grain of the stone. The higher the magnification, the more detail appears in the grain shapes.

Rotation

Since much of the detail in granite is random, rotation has no obvious effect. Like the settings in the Agate algorithm, you can use rotation to make subtle alterations to a granite texture.

Cut

Like rotation, the cut angle doesn't have a predictable effect on a granite texture.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Applying the Granite algorithm to a Shader layer

- 1. Click the Shader layer you want to change
- 2. Choose Granite from the Algorithm list box.
- 3. Move the Magnification slider the adjust the magnification level applied to the layer.

 The higher the magnification, the more detail will appear in the grain shapes.
- 4. Move the Rotation slider to adjust the rotation angle of the layer.

 The texture of granite is almost random, and will show only small changes when rotated.
- 5. Choose a blend option from the Blend list box.
- 6. If you want to adjust the cut of the layer, click the Layer Orientation button and type values for 3D transformation parameters in the Layer Orientation dialog.

Using a picture as a Shader layer



Overview: the Picture setting

A layer can be used to hold a picture imported from another application. By filtering the picture through other <u>Shader layers</u> and applying a contour, you can achieve dramatic effects. If you use a picture, it is usually loaded into the texture's bottom Shader layer.

When you load a picture into a Shader layer, Corel TEXTURE doesn't just copy the picture into the texture. Instead, it attaches the picture file to the texture file. This ensures that your texture design always contains the most up-to-date version of the picture file. For this reason, it's important to keep track of the location of the picture files you've attached to any <u>unrendered</u> textures — especially if you're sending the design to another user or system. (Since rendered textures are texture designs converted into bitmaps, any imported pictures included in the design will become part of the bitmap. If the original picture is changed, you'll need to render the texture again to update the picture.)

How Corel TEXTURE locates a picture file

When you open a texture containing a picture, Corel TEXTURE uses the following methods to locate the file.

- 1. Corel TEXTURE checks the location (i.e. folder) that the picture was in when the texture was last saved.
- 2. Corel TEXTURE searchs through the Corel TEXTURE folder for an image file with the appropriate name.
- 3. Corel TEXTURE searchs the folder containing the texture file for an image file with the appropriate name. If Corel TEXTURE cannot locate the file using the these three methods, the texture will be loaded without the



If you are rendering textures that you've received from another user, you should always preview them first to ensure no picture files are missing.

{button ,AL(`OVR Shader Layer Algorithm settings;',0,"Defaultoverview",)} Related Topics



Importing a picture into a Shader layer

- 1. Click a Shader layer.
- 2. Choose Picture from the Algorithm list box.
- 3. Click the import box located in the center-left of the Work Area.
- 4. Locate the picture you want to import.
- 5. Select the filename and click OK.
- 6. Click one of the following import options:

Stretch

Automatically adjusts the picture to fit over the entire texture surface.

Center

Places the image in the middle of the layer, surrounded by a gray border.

Tile

Creates a tiled pattern from the imported image.

Blend settings

Overview: Blend settings

Blend settings define how a layer combines with those layers underneath it to create a composite texture. There are eleven blend settings you can use to create distinct effects. By combining opaque <u>Shader layers</u> with layers of varying transparency, you can create very different effects from the same texture. The best way to see the effect of a Blend setting is to apply it to a layer and see how it affects the preview of the completed texture.

For more information see the following:

{button ,JI(`',`Overview Opaque blend settings')} Overview: Opaque blend settings {button ,JI(`',`Overview Additive blend setting')} Overview: Additive blend setting {button ,JI(`',`Overview Subtractive blend setting')} Overview: Subtractive blend setting {button ,JI(`',`Overview Lighten blend setting')} Overview: Lighten blend setting {button ,JI(`',`Overview Darken blend setting')} Overview: Darken blend setting

{button ,II(`',`Overview Shade blend setting')} Overview: Shade blend setting

{button, JI(`,`Overview Shade Blend Setting')} Overview: Hue Shift blend setting

{button ,||(`',`Overview Multiply blend setting')} Overview: Multiply blend setting

{button ,AL(`OVR Shader Layers;',0,"Defaultoverview",)} Related Topics

Opaque



Overview: Opaque blend settings

Opacity refers to the transparency of a layer. If you choose a low opacity setting for a layer more elements from underlying layers will show through. A layer with a high opacity will blot out most of the elements from layers beneath it. Opacity can be set to one of four levels.

• Opaque (No transparency)

75% Opaque (25% transparent)
50% Opaque (50% transparent)
25% Opaque (75% transparent)

The colors created by combining several layers depend on the opacity setting of each layer. Low opacity uses a small amount of the opaque layer's colors and a large amount of the colors from below. High opacity uses a large amount of the color of the opaque layer and a small amount of the colors from below.

Transparent colors

A fully opaque blend blocks all light coming from below. However, if you assign a transparent color to an opaque layer, potions of lower layers will show through. Transparent colors are those colors marked with an X on the Color Swatches bar. Using transparent colors is similar to placing a colored filter over a camera lens — light can shine through, but it is subtly altered or colored. By combining different opacity settings with transparent colors, you can control exactly how much each layer contributes to the final, composite texture. A layer containing a solid color and has a fully opaque setting will blot out all layers beneath it.

Since the bottom layer has nothing underneath, it is automatically assigned an Opaque blend setting.



Applying an Opaque blend setting to a Shader layer

- 1. Click a Shader layer.
- 2. Choose one of the four Opaque blend setting from the Blend list box.

Low opacity uses a small amount of the opaque layer's colors and a large amount of the colors from below. High opacity uses a lot of the opaque layer and little of the colors from below.

{button ,AL(`PRC Opaque;',0,"Defaultoverview",)} Related Topics



Applying a transparent color to a Shader layer

- 1. Click a Shader layer.
- 2. Drag a transparent color swatch from the <u>Color Swatches bar</u> to the Color Gradient bar. Transparent colors are those colors marked with an X on the Color Swatches bar.
- 3. Adjust the position of the color pin until you're satisfied with the color effect.

{button ,AL(`PRC Opaque;',0,"Defaultoverview",)} Related Topics

Additive



Overview: Additive blend setting

In an Additive blend, the color values of the additive layer are added to the color values of those from lower layers. Since the resultant color components can only stay the same or become larger, an Additive blend never causes darkening. The resultant color is a combination of the Additive layer and all other layers in the stack.

White in the Additive layer swamps any color from the lower layers, resulting in a white texture. Black in the Additive layer has no effect on color from the lower layers.



Applying the Additive blend setting to a Shader layer

- 1. Click a <u>Shader layer</u>.
- 2. Choose Additive from the Blend list box.

Subtractive



Overview: Subtractive blend setting

In a Subtractive blend, the color values of the subtractive layer are subtracted from the color values of those in lower layers. Since light is always removed, Subtractive layers have the effect of darkening the texture. The lighter areas in a Subtractive layer create a darkening effect.

White areas are converted to black in a Subtractive blend, while Black areas don't change the underlying colors, since black has no light to subtract.



Applying the Subtractive blend setting to a Shader layer

- 1. Click a <u>Shader layer</u>.
- 2. Choose Subtractive from the Blend list box.

Lighten



Overview: Lighten blend setting

The Lighten blend lightens all the colors in the Color Gradient bar. While an additive layer lightens only those colors filtered through it (i.e. all the layers below it), a layer set to Lighten will affect all the colors in a texture.



Applying the Lighten blend setting to a Shader layer

- 1. Click a <u>Shader layer</u>.
- 2. Choose Lighten from the Blend list box.

Darken



Overview: Darken blend setting

The Darken blend darkens all the colors in the Color Gradient bar. While a Subtractive layer darkens only those colors filtered through it (i.e. all the layers below it), a layer set to Darken affects all colors in the texture.



Applying the Darken blend setting to a Shader layer

- 1. Click a <u>Shader layer</u>.
- 2. Choose Darken from the Blend list box.

Shade



Overview: Shade blend setting

The Shade blend is an additive blend in which white brightens a color and black darkens it. By applying a shading layer, you can turn a solid color layer into a layer in which colors gradually shift from light to dark



Applying the Shade blend setting to a Shader layer

- 1. Click a <u>Shader layer</u>.
- 2. Choose Shade from the Blend list box.

Hue Shift



Overview: Hue Shift blend setting

When you apply a hue shift, all the combined color pins in the layers below the Hue Shift layer are inverted.



Applying Hue Shit blend setting to a Shader layer

- 1. Click a <u>Shader layer</u>.
- 2. Choose Hue Shift from the Blend list box.

Multiply



Overview: Multiply blend setting

The Multiply blend acts like a color filter, allowing some color to show through while blocking others. When a layer is set to multiply, white allows all colors to show through, a color with a medium brightness allows some of the color to show though, and black blocks all colors.



Applying the Multiply blend setting to a Shader layer

- 1. Click a <u>Shader layer</u>.
- 2. Choose Multiply from the Blend list box.

Surface Properties



What are Surface Properties

Surface Properties are used to define the characteristics of a texture's surface. Surface properties act like a filter; they control how the lighting properties interact with the <u>Shader layers</u>.

Roughness

Surface Roughness controls the focus of the overhead lighting. Low settings focus each overhead light into a small, intense circle. As you increasing Roughness, the light gradually spreads the light out over the surface of the texture.

Brilliance

Surface Brilliance controls the length and depth of shadows on the surface of a texture. Surface irregularities (e.g., bumps, and wrinkles) stand out more clearly as Brilliance is decreased.

Metallicity

Metallicity determines how the colors in the overhead lighting and Shader layers blend. At low Metallicity, a large amount of surface lighting appears in the final, composite texture. At high Metallicity, the color is almost entirely taken from the Shader layers; little color comes from the lighting. Use 0% Metallicity to suppress the surface color and 100% Metallicity to remove all color from the overhead lights.

Graininess

Graininess controls the sharpness and crispness of a texture. An increase in Graininess has the same effect as using high-speed film in a camera.



Setting Surface Properties

• Move the Roughness, Brilliance, Metallicity, and Graininess sliders to adjust the effect of the four surface properties settings on the surface of the texture.

Welcome to Corel TEXTURE

About Corel TEXTURE

What is Corel TEXTURE

Often, textures can only be created by making a scan of a textured surface and importing it into a graphics program. Images created in this manner are static and can only be changed by creating a new scan.

Corel TEXTURE, however, is a much more powerful tool for producing textures as it creates textures algorithmically, giving you the freedom to design and edit them at any time. Corel TEXTURE can create such natural textures of wood, clouds, stone, ripples, and bumpy surfaces. It can also make orderly patterns of checkers, dots, and lines and combine natural textures with these patterns to create unique images and effects.

Corel TEXTURE provides immense control over color and design, and gives you a dimension of freedom and creativity not available with scanned textures. In addition, your textures will have consistent characteristics over their entire surface and can be produced at resolutions suitable for either electronic or paper production.

What is a Texture?

In Corel TEXTURE, a texture is a surface produced by slicing a three-dimensional solid. Depending on the type of object, and the angle of cut, a wide range of different textures can be produced. For example, when you slice a block of wood from different angles, you can create surface textures that show growth rings, straight grain, or a veneer effect. With Corel TEXTURE, you can create patterns from rock, marble, wood, a cloudy atmosphere, or other materials. You control the shape of the cutting knife, the direction of the cut, and how the edges of the cut are beveled. You can also enhance the appearance of a texture by adding colors and lighting effects.

Each texture is built by combining a series of layers, each layer providing a different quality, texture, or surface. By looking down through all the layers, a final, composite texture is created.

Texture Theory

Creating a surface by slicing a virtual object

A texture is a surface produced by slicing a solid object. To get a clearer picture of how this can create a texture, it is helpful to understand the geometry of a solid material and the dimensions of a sliced surface.

Object dimensions

Mathematically speaking, the material you slice extends to infinity in all directions; therefore, the slice itself is infinitely wide and high. You can slice this material in any direction and from any angle. A texture is the surface that is revealed by slicing the object. Depending on the type of material being cut, a wide range of surface features can be produced. For example, depending on the angle of the cut, a marbled surface can have veins (from a horizontal cut) or splotches (from a vertical cut).

Since the slice is infinitely wide, you must define the size and characteristics of the rectangular that will become your texture. You can zoom in to the image to include surface details or pull back to gain a broader perspective. You can choose to create a narrow, thin texture, or a short, wide one. When you render the texture, the size and resolution you select also determine how much of the surface detail is shown. The Image Setup command in the File menu is used to define the physical size of each rendered texture.

Details in rendered resolutions

It's important to understand how the resolution of a rendered texture affects surface detail. Details in textures

are like fractals greater and finer details constantly appear as you move closer to the object. This means that larger images are not just grainier blow-ups of smaller images, as is the case with enlarged photographs. The resolution detail remains the same, and the quality doesn't degrade, as the image is enlarged. This useful characteristic comes from the fractal techniques that are used as the mathematical basis for Corel TEXTURE.

Pattern irregularity

The internal structures of the materials used to create texture often have a regular pattern. When the material is sliced, this regularity is shown, for example, by the grains in wood or the layers in granite. Corel TEXTURE allows

you to control the regularity of a pattern by either creating a uniform texture or allowing the pattern to degrade into chaos. You can even set up a pattern in which half the elements are uniform and half are chaotic

Creating Textures

Overview: Creating textures

All textures are created by combining four properties:

- 1. Lighting, in which you manipulate one, two, or three spotlights, that shine down onto a texture's surface.
- 2. Shader layers, which are texture layers that contain any of the following settings:
 - Material, such as wood, marble, or granite
 - Color, which acts like the color filter on a camera lens
 - Blend, which specifies the way layers interact to form the final texture
- 3. Topography, in which you define the surface contour of a texture. The shape of the surface, such as waves, ripples, and bumps, is controlled by the "shape" of the computer knife that slices the material.
- 4. Edge, which provides a round, beveled, or flat border for a texture.

Each of these four properties can be subtly altered to adjust specific aspects of a texture. In all, Corel TEXTURE has over 25 options, each with an average of four continuously variable parameters. The possible combinations and resultant textures are endless.

Corel TEXTURE formats

Unrendered texture designs

Unrendered texture designs include all the property parameters of a texture and a small thumbnail image used to draw the texture on your screen.

All the textures that you initially create in Corel TEXTURE and all ready-made textures are in a texture design format. Corel TEXTURE comes with more than a hundred ready-made textures (called Preset textures). These textures simulate surfaces of numerous real objects, including stone, clouds, carved surfaces, and waves.

Here's what you should remember about the Corel TEXTURE files:

- Texture designs can only be used in Corel TEXTURE.
- Texture designs can be edited and modified at any time.
- Texture designs have a relatively small file size (40-50 Kb).

Once you create a texture design or edit an existing one, you must <u>render</u> it before you can use it in other applications.

Rendering

When a texture is rendered, it is converted into a bitmap that can either imported into other applications or printed. You have the option of rendering a texture either to your screen, where if can be reviewed for any final changes, or to a file. It's important to understand the following points about rendered textures:

- Rendered textures can be used in other applications.
- You can define the specific size and resolution of a rendered texture. Resolution will depend on the ultimate use of the texture electronic documents often call for a low resolution, printed document may require a high resolution.
- Rendered textures are saved in .BMP format.
- You cannot edit or alter a rendered texture in Corel TEXTURE; however, you can load the rendered image into a paint program and edit it as you would any bitmap.

Algorithm settings

Determine the type of graphic element contained in the Shader layer.

Blend settings

Define how a layer combines with the layers underneath it to create a composite texture.

Color Set

A group of predefined colors saved together as a file.

Color Palette

The Color palette allows you to adjust the colors assigned to each element in a texture. You can alter the brightness and opacity of each color and use the Color Wheel to adjust the color's shade. By default, the Color palette is hidden.

Color Swatches bar

The Color Swatches bar allows you to choose colors for the layers, and lights that make up the texture. At the right end of the bar is the Color Menu button. Click the button to display a pop-up menu that allows you to save, or reset the colors displayed in the Color Swatches bar.

Shader layers

Shader layers are used to apply patterns such as solid colors, marble, wood, and granite to a texture. Each Shader layer represents a slice or cut of the material you've selected. Shader layers can also be used to hold a picture (such as a bitmap) that you can filter through several other layers. By blending different Shader layers together, you can achieve a wide range of unique effects.

Color pin

Indicates the highest intensity of a specific color on the Color Gradient bar. On either side of the color pin, the color gradually fades and blends into the color defined by the closest color pin.

Edge properties

Specify the type and size of a texture's border.

Topographic element

Create a contour for the surface of the texture.

Color Gradient bar

The Color Gradient bar is used to create a color pattern which is applied to a shader layer. Once you've created a color pattern , you can save it for use in other textures or layers.

Transparent colors

Colors marked with a X are transparent colors solid colors with transparent bands which allow colors and other elements from lower layers to show through.

Rendering

The process of transforming a texture design into a bitmap that can be used in other applications. Rendered textures cannot be edited in Corel TEXTURE.

Unrendered texture

A texture that has not yet been converted into a bitmap. Unrendered textures can be saved and edited in Corel TEXTURE.

Main Window

Displays all open texture windows. Use the Window menu commands to arrange windows.

Displays previews of the layers in current texture and the setting controls for the selected layer.

Indicates whether or not the current layer is active. If this box is empty, the layer is disabled.

Displays a preview of the active texture. This preview changes as you adjust the properties of the layers that make up your texture. You can control which layers are displayed be enabling the Preview All Layers, Preview Selected Layer and Below, or Preview Selected Layer button in the toolbar.

Provides access to the Shader algorithm controls. These controls let you adjust the appearance of the Shader layer. The controls available depend on the selected algorithm.

You can save your settings for this layer by clicking the down arrow button in the Title Bar and entering a filename and location for the layer.

Provides access to the lighting controls. You can create a wide range of lighting effects by adjusting the position and color of the lights.

You can save your settings for this layer by clicking the arrow button in the Title Bar and entering a filename and location for the layer.

Provides access to the Roughness, Brilliance, Metallicity, and Graininess controls. These controls determine how the lighting effects interact with the shader layers.

You can save your settings for this layer by clicking the arrow button in the Title Bar and entering a filename and location for the layer.

Provides access to the Form and Geometry algorithm controls. These controls let you adjust the topographical effect of the texture. The controls available depend on the selected algorithm.

Click to display the Form and Geometry controls in the Work Area.

Displays the name of the selected layer. The down arrow button at the far right of the Title Bar provides access to the Save Layer command, and a list of available presets.

Provides access to the Save Layer command and a list of available presets.

Displays a preview of the active texture. This preview changes as you adjust the properties of the layers that make up your texture. You can control which layers are displayed be clicking the Preview All Layers, Preview Selected Layer and Below, or Preview Selected Layer button in the toolbar.

Lighting Layer

Indicates whether or not the light is active and displays the color of the light.

Indicates the position of the light on the texture and displays the color of the light.

Use this preview area to position lights on the texture. As you adjust the position of the lights, the Preview window redraws to show the effect of the change.

Controls the amount of shadowing created by surface irregularities. As shading is increased, shadows lengthen and surface elements stand out more clearly.				

Controls the amount of light reflected from the highest points of a surface element. The tops of bumps, ripples, and waves stand out more clearly as you increase the amount of surface highlights.

Adjusts the amount of ambient light applied to the entire texture. High values brighten the texture. Low values darken the texture.

Surface Properties Layer

Controls the focus of the overhead lighting. A low Roughness setting will focus each overhead light into a small, intense circle. Increasing the Roughness setting gradually spreads the light out over the texture's surface.

Controls the length and depth of shadows on a texture's surface. Surface irregularities (e.g. bumps and wrinkles) stand out more clearly as surface brilliance is decreased.

Determines how the colors in the overhead lighting and Shader layers blend. At low metallicity, a large amount of surface lighting appears in the final, composite texture. At high metallicity, the color is almost entirely taken from the Shader layers; little color comes from the overhead lights. Use 0% metallicity to suppress the surface color and 100% to remove all color from the overhead lights.

Controls the sharpness and crispness of a texture. Increasing the graininess has the same effect as using a high-speed film in a camera.	

Shader Layer Controls

Displays the current Algorithm setting. To select a different setting, click the list box and select a new algorithm. Each algorithm has a different set of controls. When you select an algorithm the Work Area changes to display the controls for the selected setting.

Displays the current Blend setting. To select a different blend setting, click the list box and select a Blend setting from the list.

Displays the current color gradient. You can adjust the gradient by adding new colors from the Color Swatch and adjusting the position of the color pins. The color gradient is saved when you save the layer.	:h bar

Controls surface detail. A high level of magnification creates a small number of large elements whereas a lovel of magnification creates many small elements.	w

Rotates the pattern on the Z-axis. Since clouds appear in a random pattern, rotation affects each pattern differently.

Controls the smoothness of each pattern. A low Turbulence setting results in smooth, rounded edges for each cloud. A high Turbulence setting gives each cloud a jagged, indistinct appearance. You can use the Turbulence settings to create a wispy effect.

Controls how uniformly the Turbulence setting is applied. Low variance means that most elements in the pattern have the same turbulence setting. High variance means that turbulence settings are applied randomly, therefore most elements in a pattern receive a different setting.

Determines how the colors are taken from the Color Gradient bar and applied to each block in the Shader layer. For example:

Contrast = 0%: Colors are taken from randomly chosen positions along the Color Gradient bar.

Contrast = 50%: More colors are selected from the ends of the Color Gradient bar than from the middle.

 $\mbox{Contrast} = 100\%: \qquad \mbox{Two colors are taken, one from either end of the Color Gradient bar. Colors in the middle are ignored.}$

Opens the Choose a Picture dialog box, which lets you open bitmap file to be used as a layer.

Automatically adjusts the picture to fit over the entire texture surface.

Places the picture in the middle of the layer and surrounds it with a gray border.

Creates a tiled pattern from the imported image.

Displays a preview of the bitmap you are using as a layer.

Displays the current gradient. To select a different gradient, click the list box and select a new gradient from the list. The colors in the gradient are determined by the colors in the Color Gradient bar. You can only use to one color with the Flat Color gradient.

Form and Geometry Controls

Displays the current algorithm setting. To select a different setting, click the list box and select a new algorithm. The algorithm settings determine the type of topographical effect applied to a texture's surface. Each algorithm can be adjusted to change the effect it produces. To get the best results, try experimenting with different combinations of settings.

Determines the number and size of the surface elements you see. At a high level of magnification, you can see a few surface elements. At a low level of magnification, you can see a large number of small, clearly defined surface elements.

etermines the amount of detail shown by each surface element. If you want to create a subtle effect, choose a w height setting. If you want a more dramatic effect, increase the setting.	1

Determines the number of surface elements that are visible. Increasing the frequency creates a large number of small, tightly packed surface elements. Decreasing the frequency results in a smaller number of larger surface elements.

Rotates the pattern on the Z-axis. Since clouds appear in a random pattern, rotation affects each pattern differently.

Controls the smoothness of each pattern. A low Turbulence setting results in smooth, rounded edges for each cloud. A high Turbulence setting gives each cloud a jagged, indistinct appearance. You can use the Turbulence settings to create a wispy effect.

Controls how uniformly the Turbulence setting is applied. Low variance means that most elements in the pattern have the same turbulence setting. High variance means that turbulence settings are applied randomly; therefore most elements in a pattern receive a different setting.

Opens the Choose a Picture dialog box, which lets you open bitmap file to be used as a bump map.

Automatically adjusts the picture to fit over the entire texture surface.

Places the picture in the middle of the layer and surrounds it with a gray border.

Creates a tiled pattern from the imported image.

Displays a preview of the bitmap you are using as a bump map.

Displays the current Edge effect. To select a different effect, click the list box and choose a new effect from the list. Edge properties can simulate height by carving the outline of the texture into various shapes.

Determines the height of the Edge effect or bump map. The higher the value, the more dramatic the three- limensional effect.	

The Color Swatches bar displays all the colors swatches available in the current color set. The down arrow button at the far right of the bar provides access to the Save Color Set and Import Color Set commands and a list of available color sets.

Displays all the color swatches in the selected color set. The down arrow button at the far right of the bar provides access to the Save Color Set and Import Color Set commands and a list of available color sets.

Provides access to the Save Color Set and Import Color Set commands and to a list of available color sets.

File Menu

Opens the Start New Texture dialog box, where you can select how you want to create a new texture.

Opens the Open dialog box, where you can select an existing file to open or import.

Closes the active texture. If you have more than one texture open, you must close each texture separately.

Saves the active texture. If you have never saved the texture, the Save As dialog box opens.

Opens the Save As dialog box, which lets you specify the name, location, and file format of the texture. Use this command to save a texture for the first time or to change the name, location, or file format of an existing texture.

Opens the Image Setup dialog box, which lets you specify the dimensions and resolution of the texture.

Closes the application. If you have not saved the open texture, a warning appears asking you to save the texture to a file.	

Edit Menu

Reapplies, if possible, the most recent operation. If the last operation cannot be repeated, the command name i grayed out.	is

Copies the selected layer from the texture and copies it to the Clipboard.

Pastes the contents of the selected layer.	clipboard into your text	ure. When you paste	a layer, it replaces the	contents of the

Deletes the currently selected layer. This command is disabled if you have only one Shader layer in your texture.

Removes the selected layer from the texture and copies it to the Clipboard. This command is disabled if you have only one Shader layer in your texture.

Preview Menu

Redraws the texture in the Preview window.

Displays the current texture as a tiled pattern. Use this command to view how your texture will appear as a tiled fill in other applications. Click anywhere on the screen to clear the displayed pattern.

When this command is enabled, all the layers in your texture will be displayed in the Preview window. The command is enabled when a bullet appears next to the command name.

When this command is enabled, the Preview window displays the selected layer and all the layers below it. The command is enabled when a bullet appears next to the command name.

When this command is enabled, only the selected layer is displayed in the Preview window. The command is enabled when a bullet appears next to the command name.	

Texture Menu

Opens the Render window and starts the rendering process. To stop the rendering, click the Stop button.

you click Save, the rendering process begins. To stop the process click Cancel.

Opens the Render to File dialog box, which lets you set the name and location for the rendered texture. When

Adds a new Shader layer above the current layer.

Deletes the current layer.

Opens the Layer Orient for the selected Shader	ation dialog box, which layer.	th lets you set the R	otation, Scale/Stretc	h, and Position para	ameters

Prepares the current texture to be rendered as a tiled pattern.

View Menu

Displays or hides the Standard Toolbar, which displays by default across the top of your screen.

Displays or hides the Status Bar, which displays by default across the bottom of your screen.

Window Menu

Arranges the icons of minimized windows across the bottom of you screen.

Arranges all open windows so that they overlap.

Displays the names of open texture windows. A check mark beside a window indicates that the window is the active window.	

Help Menu

Opens the Corel TEXTURE help file.

Displays the Context-Sensitive Help cursor. Use the cursor to get help on screen items or menu commands.

Miscellaneous UI

Opens the Color Palette dialog box where you can adjust the Hue, Brightness, and Opacity of a selected color.

Opens the Color Palette dialog box where you can adjust the Hue, Brightness. and Opacity of a selected color.

Stops the rendering process. When the rendering stops, the title of the button changes to Refresh to allow you to restart the rendering.

Starts the rendering of a texture. When the rendering begins, the title of the button changes to Stop to allow you to stop the rendering.

Reduces the window to an icon.

Enlarges the window to fill the screen.

Click to close the window.

Displays the name of the current texture file.