

# Layers 5: Layer Types 2: Vector and Dynamic Layer Types in Corel® Painter™

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Painter's various layer types can be distilled into 4 groups: Pixel-based layers, Media layers, Vector layers, and Dynamic layers. In the previous installment, Layer Types 1: Pixel and Media Layer Types, we looked at Painter's Pixel and Media Layer types. In this installment, we will finish up by taking a look at the Vector and Dynamic layer types.

## Vector Layers

*Vector* graphics are made up of lines, curves, objects, and fills that are all calculated mathematically. This is in opposition to pixel—or *raster*—graphics, which are composed of a mosaic of individually colored elements. *Vector* graphics enable both high precision as well as high resolution imagery. *Vector* graphics are particularly well-suited to the creation of crisp graphic shape, line work, and text. *Pixel-based* tools such as brushes cannot interact with *Vector* layers.

Painter's *vector* layers—*Shapes* and *Text*—are edited by adjusting points and curve segments with the *Shape Selection* tools. *Shapes* are created using the *Pen*, *Quick Curve*, and *Rectangular* and *Oval Shape* tools. *Text* is initially created with the *Text* tool, but can be converted into *Shapes* for further editing. All of the the *vector* layer types can be converted to a *pixel* layer for enhancement with Painter's *pixel-based* tools. *Shape* layers can be converted to a *selection* via the *Convert to Selection* command (Shapes menu). This is particularly useful for using the *Pen* tool as a highly controllable selecting tool to extract a complex element from a pixel-based image, such as a photograph.

## Vector Layer: Shapes

A *Shapes* layer is created when any of the *Shapes Tools* are used to create an object. Shapes behave much like the vector tools found in such applications as *CorelDRAW* and *Adobe Illustrator*. The resulting *point* and *curve segments*—referred to as a *path*—are then selectively adjusted with the *Shape Selection* tools to distort or alter the *Shape*. A *Shape* can be an individual line or an enclosed shape. A *Shape* has editable *Stroke* and *Fill* attributes available via the *Set Shape Attributes* dialog (Shapes menu), or by *double-clicking* on the *Shapes layer* entry in the *Layers* palette. The visual appearance of

*Shapes* layers can be modified in the *Layers* palette via the *Compositing Methods* and *Opacity* controls.

*Shapes* can be transformed (scaled, rotated, skewed, etc.) via the *Layer Adjuster* tool. When *Shape* elements are selected with the *Layer Adjuster*, a set of *handles* appear at the corners and sides of the selected shape. These handles can be dragged to *transform* the selected *Shapes*. *Shapes* can be converted to a *pixel-based* layer via the *Convert to Layer* command (Shapes menu). This enables further modifications using tools such as brushes, filters, etc.

An Adobe *Illustrator* file can be imported into Painter as *Shapes* data via the *Adobe Illustrator File* command (File menu > Acquire). Note that the *Illustrator* file must be saved in the legacy *Illustrator 3 format* to be readable by Painter. Painter also supports *PostScript* on the *Clipboard* when you paste content into a 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.

To retain *Shapes* layer information, save the file in Painter's native *RIF* format. Saving in another format, such as Photoshop, will convert the *Shapes* data into *pixel-based* layers.

## Vector Layer: Text Layer

The *Text* layer is a special case vector layer type. A *Text* layer is created when the *Text* tool is used to apply text to a document. Applied text is initially made up of font data that contains kerning and font metrics. This data is used to correctly display the currently selected font. Applied text is live; that is, it can be edited. The *Text* tool is used to highlight text in order to edit spelling or the font used to display the text. Like *Shapes*, *Text* layers can be transformed via the *Layer Selector* tool. Basic text adjustments are available in the *Text Property Bar: Shadowing Options, Font, Size, Alignment, Color, Opacity, and Compositing Method*.

The *Text* palette (Window menu) offers additional font control: *Tracking*, *Leading*, *Curve Style*, and *Shadowing Softness/Angularity*. Through the use of these tools, text can be highly modified from its original appearance.

A *Text* layer can be converted to a *Shapes* layer via the *Convert Text to Shapes* command (Layers Palette Menu). This enables editing the former *Text* layer as vector data using the *Shapes* tools. Note that this is a one-way conversion; *Shapes* cannot be converted back into *Text*.

To retain *Text* layer information, save the file in Painter's native *RIF* format. Saving in another format, such as Photoshop, will convert the *Text* data into *pixel-based* layers.

### **Dynamic Layers**

*Dynamic* layers are so named because they can be continually edited without permanently altering the layers they are affecting. Some *Dynamic* layers interact with the *underlying* imagery in a specific area to produce an effect. Some *Dynamic* layers interact with the *content* of an existing layer. Other *Dynamic* layers interact with the underlying imagery as *unique brushstrokes* are applied.

*Dynamic* layers are different from other effects because they are distinct objects—you can double-click them in the *Layers* palette to access their controls and change the characteristics of the effect at any time. *Dynamic* layers can be converted into a *pixel-based* layer via the *Convert to Default Layer* command (Layers palette menu). *Dynamic* layer properties are preserved when an image is saved in Painter's native *RIF* format. Saving in other formats will convert *Dynamic* layers to the *pixel-based* default layer type.

### **Dynamic Layer: Dynamic Plugin Layer**

*Dynamic Plugin* layers are accessed via either *Dynamic Plugins* (Layers menu) or the *Dynamic Plugins* icon (located at the bottom of the Layers palette). *Dynamic plugin* layers can be divided into 3 functional subtypes: *Adjust* underlying imagery, *Alter* the content of an existing layer, and *Create* a new media-style layer.

### **Adjust Underlying Imagery**

*Brightness and Contrast*

*Equalize*

*Glass Distortion*

*Kaleidoscope*

*Posterize*

This category of dynamic layer is equivalent to Photoshop's *Adjustment* layers in that the layer resides in the *Layers* list above the underlying affected imagery. Note that dynamic layers *cannot* be imported to Photoshop. Likewise, *Adjustment* layers are not exportable from Photoshop.

### **Alter Existing Layer**

*Burn*

*Tear*

*Bevel World*

This category of dynamic layer applies a specific effect to an existing layer. An applied effect can be eliminated via the *Revert to Original* command (Layers palette menu). Unfortunately, this command appears to be broken in Painter IX.5 (at least on the Mac). To work around this, use the *Off* checkbox found in the respective *Dynamic Plugin* dialog, then apply the *Convert to Default Layer* command to the layer.

*Addendum: I have been informed that Revert to Original's broken state behaves a bit differently on Windows (XP Home). On the Windows version, the Off box cannot be checked. This eliminates the workaround I describe for Macs. Be advised that the only recourse at this time is to utilize Undo to back out of the situation.*

### **Create New Media-style Layer**

*Liquid Lens*

*Liquid Metal*

This category of dynamic layer provides a complete media-like environment that interacts with any underlying imagery. *Liquid Lens* provides tools that pull underlying imagery like taffy. *Liquid Metal* provides tools that paint with a viscous gel-like medium that can appear reflective, refractive, or any degree in-between.

### **Dynamic Layer: Reference Layer**

*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 them in ways that would otherwise require more time. Working with a *Reference* layer allows you to *transform* (resize, rotate, or slant) a layer onscreen by dragging its *handles*. You can adjust various options. Transformations are immediately displayed in the document window. When you finish apply-

ing transformations, you commit the reference layer back to a standard layer via the *Convert to Default Layer* command (Layers palette menu). Painter examines the source image to restore the original resolution. By withholding all of the applied transformation to a *Reference* layer until it is committed back to a *pixel-based* default layer, the highest quality result is achieved.

You cannot edit the image data in a *Reference* layer. If you try to paint on or apply effects to a *Reference* layer, Painter prompts you to commit it back to a *pixel-based* layer. You can create a *Reference* layer by basing it on an existing layer via the *Free Transform* command (Effects menu > Orientation) or by Placing an image (File menu > Place...). Painter can maintain multiple *Reference* layers as needed. *Reference* layers are preserved when saved in Painter's native *RIF* format.

### **Now What?**

In future installments, I'll cover some of Painter's unique layer types in greater depth. For the next installment, however, I'm going to detail how to use layers as a rather large safety net for painting activities—which is what Painter is really all about.

*Viva la Painter!*

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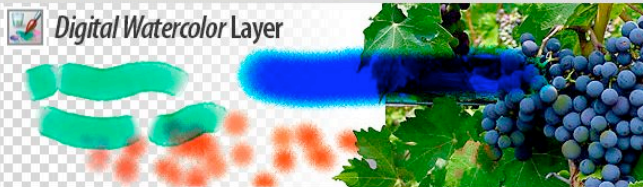
# Layer Types in Corel® Painter™

John Davis

## Pixel-based Layers



## Media Layers



## Vector Layers



## Dynamic Layers



## The Canvas

