

Creating a Captured Dab Brush in Corel® Painter™



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This week we are going to create a Captured Dab (CD) brush variant. CD variants are made by first creating a graphic element, then capturing it for use as a variant's mark-making tip. This is one of the most personal brushes you can make as the process gives you complete control over the source of the mark made by your brush. There are a few rules you'll need to learn to successfully put CD variant to use. Once you've got these rules under your belt, you'll have a valuable tool for expanding your personal expressivity. Let's go!

Captured Dab Rule #1: Always Make a Copy!

The easiest way to create a CD variant that behaves in a manner that you expect is to start with an existing variant, preferably one that is also a CD variant. Why? Most CD variants commonly utilize a set of settings unique to CDs. By starting with an existing CD variant, you won't have to go through the *Brush Controls* and adjust all of these settings. Of course, it is important to understand what these settings are, as well as adjusting them for specific brushes. I'll go through these settings later in this tutorial.

Before we even begin, the most important single Captured Dab rule to remember and follow is this: *Always make a copy of the source variant that you intend to utilize as your starting point.* Why? Besides the usual *XML brush description file*, the CD variant has an additional *JPG file* associated with it. This JPG file stores the captured dab. When a new graphic is captured and applied to the source variant, the original JPG file is overwritten. Neither the *Undo* nor the *Restore Default Variant* commands can revert this original JPG file; consider it gone. To avoid overwriting an existing variant, always first make a copy to avoid this scenario.

Copying a Source Variant

As I mentioned earlier, the best choice for creating a CD variant is to start with an existing one. For our exercise, we'll use the *Square Chalk* variant (Brush Selector Bar: Chalk: Square Chalk). Select this variant, then use the *Save Variant* command (Brush Selector Bar: Flyout menu) to create a copy with a different name. This places the copy in the same brush loca-

tion that the source variant came from; in this case, the *Chalk* category.

Examining the Donor Variant

Let's now take a closer look at our copied CD variant. You can look at the original captured dab by going to the *Size Palette* (Brush Controls) and clicking on the *Brush Dab Preview Window* to toggle the display to the CD view. We can see that this captured dab is designed to simulate the texture of the tip of a piece of porous chalk. In order to get a better sense of how this CD variant works, we are going to capture our initial dab: an arrow.

Performing Captured Dab Surgery

I've constructed my arrow graphic using the *Pen Tool*; however, you can just as easily paint one with an existing brush. The final graphic must reside on the *Canvas* (not on a layer) and should be *100% black*. Color will not be recognized; only the *Value* component matters.

Note: you can take advantage of this by using grayscale values to represent opacity control within the captured dab. For example, a captured graphic created with 50% gray will paint with 50% opacity when used as a captured dab.

To capture a canvas-residing graphic element, you must first select it with the *Rectangular Selection Tool* (Tool Palette). Note that the rectangle must be a square to avoid introducing geometric distortion into the captured dab. A square selection is created by first placing your cursor at a corner location of your soon-to-be square, clicking down, then holding down the *Shift* key and dragging to constrain the selection to a square (If you first hold down the *Shift* key, then make your selection, Painter will interpret this action as an *Add To Current Selection* option).

With the arrow graphic properly selected, use the *Capture Dab* command (Brush Selector Bar: Flyout menu) to perform the capture. The *Brush Dab Preview Window* will update to display the new arrow dab (if it is showing the *Max/Min circle display*, click on the display to toggle it). Go ahead and try out your new variant (be sure to deselect your arrow graphic;

otherwise the new variant will not draw to the canvas). Under some circumstances, Painter will initially use the former dab; in this case, adjusting the brush size a bit will purge the old captured dab and activate the new one.

Because this variant is based on its *Square Chalk* source, the resulting strokes will interact with the current paper grain. To change this grainy behavior, we'll need to adjust this variant's *Subcategory* (Brush Controls: General Palette) from *Grainy Hard Cover* to *Soft Cover* (Subcategory Pop-up). This will change the variant's behavior to paint a stroke with a solid arrow graphic.

You'll notice that the arrow dab is closely overlapping each painted iteration. Let's adjust the *Dab Spacing* (Brush Controls: Spacing Palette). The *Spacing slider* controls the distance between brush dabs in a stroke. The *Min Spacing slider* specifies the minimum number of pixels between dabs. I've set both sliders to their maximum in my example to prevent any overlapping.

Further Refinements

If you take a look at the *Angle Palette* (Brush Controls: Angle Palette), you'll see that the source variant had the *Squeeze percentage* set to 74%. Try adjusting this value and you can observe the arrow dab's geometry change. To minimize any geometric distortion with respect to the original graphic, set the *Squeeze slider* to 99%. Why not 100%? If the *Squeeze slider* is at 100%, Painter interprets this to mean that the dab is *round* (a vestige of the earliest versions of Painter) and will therefore not have any rotational behavior. Setting the *Squeeze value* to anything less than 100% indicates that rotation will be applied to the dab.

When a *Custom Dab* is created in Painter, an internal array of dab graphics representing all of the potential sizes and angles is created. These internal representations can get quite large. Depending on the particular system Painter is running on, larger internal arrays can tax system performance. For this reason, it is important to adjust the *Size* and *Angle Steps* to acceptable—yet not performance affecting—increments. This is what I call the *sweet spot*.

There almost always is a trade-off between graphic fidelity and brush performance. The sweet spot represents the best balance of these two factors. If your arrow brush is behaving sluggishly, then you may want to adjust the *Angle Step slider* (Angle Palette) up a bit. Set too high, there will not be enough

angular iterations of the arrow to create a flowing stroke; set too low and the brush performance will degrade.

The same advice applies to the *Size controls* (Size Palette). I wanted to add pressure-controlled size variation to my example, so I set the *Minimum Size slider* to 25%. I additionally set the *Size Step slider* to 10%. I then set the *Size Expression Pop-up* to *Pressure*.

My final adjustment was for the *Brush Opacity* (Brush Controls: General Palette). For this arrow-painting brush, I don't want any opacity changes. I reset the *Opacity Expression Pop-up* setting from *Pressure* to *None*.

Once I have this variant adjusted to my liking, it's time to *Save* it (Brush Selector Bar: Flyout menu: Save Variant). Note that after saving a variant, your current brush will remain active. My customary practice is to apply the *Restore Default Variant* command (Brush Selector Bar: Flyout menu) to this variant and then select my new variant from the *Brush Variant* list. If I want to continue experimenting with new captured dabs, I'll begin the process again by saving this variant with a new name.

What Will Your Captured Dab Be?

With the procedure outlined in this tutorial, you can create the arrow variant, save it, and then start creating your own CD brushes. This is one case where the phrase, *If you can imagine it, you can create it*, is true!

Viva la Painter!

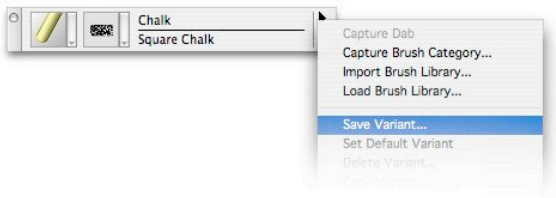
John Derry is a pioneer of digital painting and one of the original authors of Corel® Painter™. Since 1985, he has leveraged his background in drawing and painting to advance the look and experience of traditional art-making tools on the computer. John has a bachelor's degree and a master's degree in Fine Art and is a practicing artist and photographer. He is currently serving as Corel's Painter Ambassador-at-Large. John's Web site is at www.pixlart.com.

Creating a Captured Dab Brush

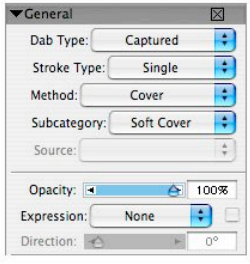
in Corel® Painter™

John Deery

1 Copying the Source Variant

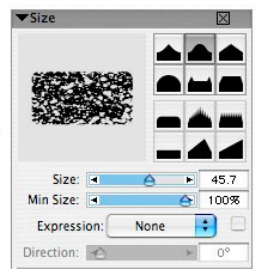


7 Opacity Adjustment



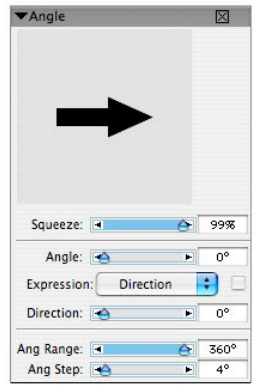
Opacity Pop-up set to None

2 Examining the Donor Variant



Click in preview window to toggle dab display

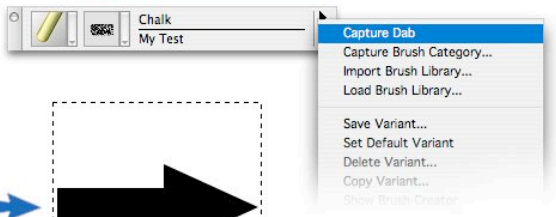
6 Squeeze & Angle Adjustments



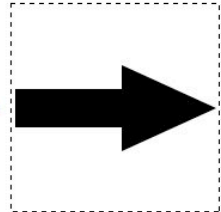
Squeeze Amount must be set to less than 100%

Set Angle Step higher if performance is sluggish

3 Capturing a Dab



Selection must be a square to avoid distortion



5 Changing Methods & Sizing

Original Grainy Method



Soft Cover Method Applied



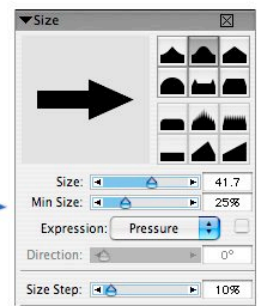
Initial Spacing Adjustment



Maximum Spacing Applied



4 New Dab in Size Preview



Adjust Minimum Size and Expression to Pressure for variable size

Set Size Step higher if performance is sluggish