

Adjusting Continuous Stroke Brushes in Corel® Painter™

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In our previous installments, we've utilized some of the components of Painter's brush engine to create new brushes from scratch. This week, we'll take a look at some of the existing variants that constitute the Continuous Stroke brush category and learn how to adjust them for our own particular needs. Let's go!

Continuous Stroke Dab Types

There are several *Dab Types* that make up the suite of Continuous Stroke brushes:

- Camel Hair
- Flat
- Palette Knife
- Bristle Spray
- Airbrush
- Pixel Airbrush
- Line Airbrush
- Projected

To review what we've learned in earlier installments: the *Brush Dab* component of the brush engine is responsible for the mark that is applied to the image. Some *Dab Types* (Circular, Static Bristle, Captured) employ a progression of closely spaced single dabs giving the impression of a single stroke.

The *Continuous Stroke* dabs are made up of many individually rendered one-pixel lines. These anti-aliased lines represent the many hairs that make up a brush's tip. Additionally, each brush hair within a *Continuous Stroke* dab has its own individual color well. These color wells enable strokes with multiple colors across the width of the stroke. This provides an enhanced visual simulation of traditionally-painted brush strokes.

Note: Continuous Strokes take advantage of the Tilt and Bearing featured on some Wacom tablet models. Consult your Wacom user manual to determine whether or not your tablet supports these features.

For this installment, I am going to concentrate on the *Camel*

Hair, Flat, and Bristle Spray dab types. These dabs principally recreate hair-based brush strokes.

OK, enough of the underlying theory; let's start adjusting.

Feature Size: The Continuous Stroke's Gas Pedal

Feature Size controls the density of hairs that make up a *Continuous Stroke*'s hairs. This control is so important that it is included on the *Brush Property Bar*. Why? Many times I've seen some Painter users get frustrated when a Continuous Stroke-based variant performs sluggishly on their processor. What could be done to speed up this variant? This sluggishness is almost always related to the current setting of *Feature Size*.

Here's the skinny: As brush hair density (the *feature size*) increases, greater processor bandwidth is required to render strokes in real time. When a *Continuous Stroke* brush behaves sluggishly, adjust the *Feature Size* slider upward (to the right) and then test the brush. A bit of experimentation will determine the *sweet spot* of the brush's optimum performance. Conversely, you can control *Feature Size* to increase (adjust slider to the left) a brush's hair density for a fuller stroke; just keep in mind that you will potentially see a performance decrease in stroke responsiveness.

Let Your Hairs Wander: Add a Bit of Randomness

By design, all of the hairs comprising a continuous stroke follow the stroke direction in a uniform manner. If the brush's *Feature Size* is set to a higher setting (less hair density), these lockstep parallel hair strokes can appear artificial. A solution to this appearance is to add a small amount of randomness to each hair's path. This is accomplished via the *Brush Control* palette's *Random* sub-palette. I find that values between *.04* and *.10* add a nice visual effect to a stroke.

Flat and Bristle Spray Dabs: Stylus Bearing Aware

The presence of bearing in a *Wacom* pen enables greater expressive range when used in combination with many Painter brushes. *Flat* and *Bristle Spray* dab-constructed brushes are prime examples. A bearing-enabled brush's dab shape will dynamically change based upon the current bearing angle of the stylus. When initially using bearing-enabled brushes, it takes

a bit of conscious effort to control the brush shape. However, with some time logged using these brushes, it becomes second nature.

The Flat Dab Type

The *Flat* dab type emulates a traditional flat bristle brush which has both a wide and narrow aspect to its shape. Depending on how the artist handles the brush in his hand, the aspect of the brush changes during the creation of a stroke. Painter automatically detects bearing information when present and applies it to the angle of a bearing-enabled dab.

The *Smeary Flat* variant (*Oils* Brush Category) is a good example of a bearing enabled brush. Once you understand how bearing is controlling the brush, you'll want to take advantage of it. A good control exercise is to hold your stylus more from the rear of the shaft much like a paint brush. As you gain control, you can selectively make your strokes wider or narrower. To be honest, you don't even need to think about it and the strokes will expressively vary their width just like a traditional flat-tipped brush.

The Bristle Spray Dab Type

The *Bristle Spray* dab type emulates the effect of splaying a bristle brush's hairs via bearing. Splaying occurs when unequal pressure is distributed at the brush's tip. This causes the hairs' surface contact to increase, resulting in a wider stroke with unequal hair distribution. The result is a graduated hair density across the brush stroke. The *Smeary Bristle Spray* variant (*Oils* Category) is a good example to play with. Like *Flat* dab-enabled brushes, controlling *Bristle Spray*-enabled dabs takes a bit of practice. The aforementioned paint brush-style upper-shaft-holding exercise will help you to understand how *Bristle Spray* dynamically controls the dab shape.

Recess!

We've covered several techniques for adding gesturally expressive strokes to your painting repertoire. As always, I encourage you to take what you've learned here and try out some of these tools. Depending on your personal style, you may -or may not- find these sophisticated brush attributes applicable. Either way, you are hopefully gaining a greater depth of understanding with respect to Painter's wide variety of brushes.

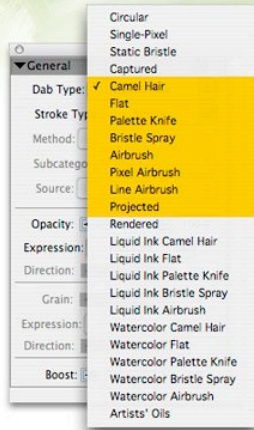
Viva la Painter!

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.

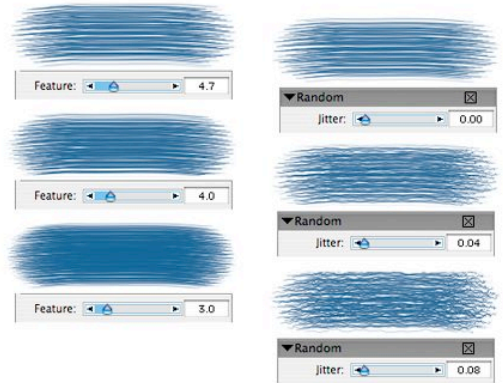
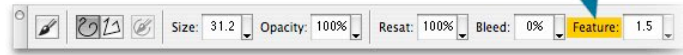
Continuous Stroke Brush Adjustments

John Davis

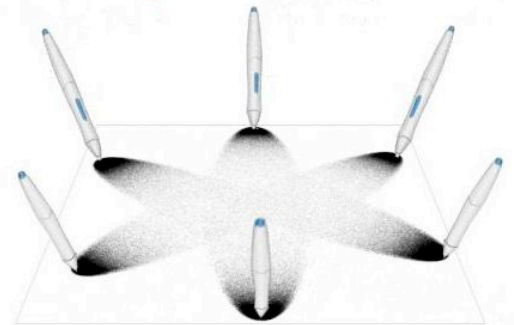
1 Continuous Stroke Dab Types



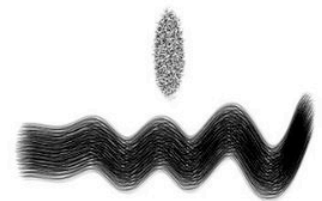
2 Feature Size & Jitter Control



3 Bearing Control via Stylus



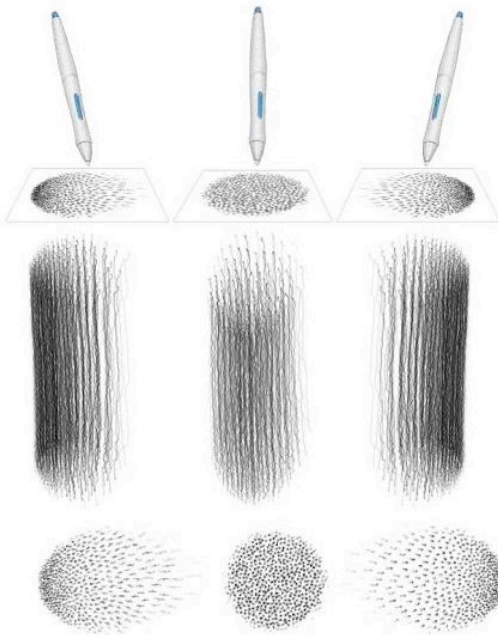
4 Flat Dab Type



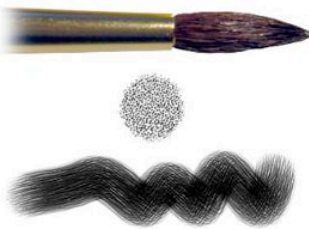
Bearing of dab dictates the shape of a stroke.



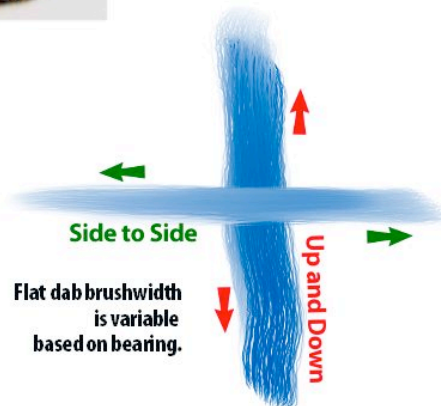
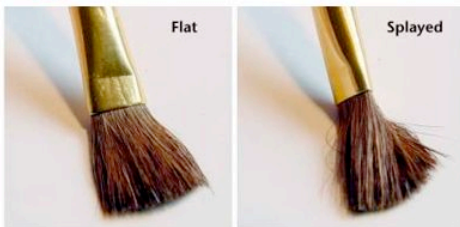
6 Splay Control via Stylus Bearing



Camel Hair Dab



5 Bristle Spray Dab's Splay Effect



Flat dab brushwidth is variable based on bearing.