

Custom Brush Options

Photoshop provides many options to change the appearance of brushes, either to create new brushes or customize preset ones.

Brushes can be completely altered, almost the point of being a new brush, simply by changing a few of their aspects.

- **Shape Dynamics**
- **Scattering**
- **Texture**
- **Dual Brush**
- **Color Dynamics**
- **Other Dynamics / Transfer**
- **Control Options**

Shape Dynamics

Changing the shape dynamics of your brush allows you to vary the size and rotation of each application of the brush within the stroke.

Size Jitter

Adjusts the amount that each application of the brush can vary from the original size. Larger values cause more variation, and smaller values create more uniform sizes. Jitter percentages specify the randomness of dynamic elements. At 0%, an element does not change over the course of a stroke; at 100%, an element has the maximum amount of randomness.

Control

Allows you to manipulate the size jitter in a variety of ways.

Minimum Diameter

Adjusts the smallest possible size that an application of the brush can be with consideration to size jitter. Specify a percentage of the original size.

Tilt Scale

This option is available only if the Control is set to *Pen Tilt* and you choose to use a pressure-sensitive pen and stylus. It specifies how much the pen tilt affects your brush stroke.

Angle Jitter

Allows each application of the brush within a brush stroke to be rotated to a slightly different alignment. Larger values create more variation.

Roundness Jitter

Varies only the height of each instance of the brush.

Minimum Roundness

Minimum roundness of the brush tip when *Roundness Jitter* is enabled. Larger values create less jitter.

Flip X Jitter

Flips the direction of the jitter variation horizontally.

Flip Y Jitter

Flips the direction of the jitter variation vertically. #

Scattering

Scattering allows you to set the distance off the cursor that you want individual instances of the brush tip to occur, as well as the number of instances you wish to see each time the brush is "set down" within the stroke.

HINT: To adjust the number of times the brush is "set down," change the spacing in the *Brush Tip Shape* section.

Scatter

Distance that each individual application of the brush can deviate from the exact path of your brush stroke.

HINT: If *Both Axes* is selected, applications of the brush will stray both horizontally and vertically from your brush stroke; if unselected, applications will stray only vertically.

Count

Number of brush tips that are seen with each application of the brush within the stroke.

Count Jitter

Amount of variation in the number of brush strokes that are seen with each application of the brush within the stroke.

Texture

Adding textures to brush strokes can add depth and distinction.

Texture

Allows you to select from a collection of texture patterns which can be applied to your brush stroke.

HINT: To reverse the areas of dark and light within the brush stroke, select **Invert**.

Scale

Determines the size that the texture pattern appears within the brush stroke.

Texture Each Tip

Begins the texture pattern over with each application of the brush rather than applying the pattern to the brush stroke as a whole.

Mode

Select Blending Mode for the texture.

Depth

Applies a three-dimensional appearance to the brush stroke; light areas and dark areas within the original pattern appear as high and low points.

HINT: Low depth values minimize the appearance of texture, while high values highlight it.

Minimum Depth

Smallest possible percentage of the original depth that an application of the brush stroke can appear with depth jitter.

Depth Jitter

Amount of depth variation that can appear in your brush stroke.

Dual Brush

Dual Brush allows you to overlap the original brush stroke you created with a second, different stroke. The options available for the dual brush are the same as those for the original brush stroke, set in the *Brush Tip Shape* section. However, be sure to set **Blending Mode** to define how the two strokes interact when they overlap.

Color Dynamics

Color dynamics allow color variations to appear within your brush stroke.

NOTE: Color dynamics are not visible in your preview within the *Brushes* palette.

Other Dynamics

Other Dynamics has been replaced by Transfer in CS5 – included is both CS4 info and CS5 info in case you're still using CS4

Opacity Jitter

Amount of variation in the transparency of the brush stroke.

Flow Jitter

Variation in the continuity of the brush stroke.

Noise

Makes the brush stroke grainier, especially at the edges.

Wet Edges

Causes the edges of the stroke to appear darkest, with the center slightly transparent.

Airbrush

Allows you to darken an area of color by hovering your mouse above it.

Smoothing

Steadies and smoothes minor variations within your brush stroke, such as those caused by a shaky hand.

Protect Texture

Applies the texture that you are currently using to all presets that have a texture specified.

Transfer brush options

Transfer brush options determine how paint changes over the course of a stroke.

Opacity Jitter and Control

Specifies how the opacity of paint varies in a brush stroke, up to (but not exceeding) the opacity value specified in the options bar. To specify a percentage by which the opacity of the paint can vary, type a number or use the slider to enter a value. To specify how you want to control the opacity variance of brush marks, choose an option from the Control pop-up menu:

- **Off**

Specifies no control over the opacity variance of brush marks.

- **Fade**

Fades the opacity of paint from the opacity value in the options bar to 0, in the specified number of steps.

- **Pen Pressure, Pen Tilt, Stylus Wheel**

Varies the opacity of paint based on the pen pressure, pen tilt, or the position of the pen thumbwheel.

Flow Jitter and Control

Specifies how the flow of paint varies in a brush stroke, up to (but not exceeding) the flow value specified in the options bar.

To specify a percentage by which the flow of the paint can vary, type a number or use the slider to enter a value. To specify how you want to control the flow variance of brush marks, choose an option from the Control pop-up menu:

- **Off**

Specifies no control over the flow variance of brush marks.

- **Fade**

Fades the flow of paint from the flow value in the options bar to 0 in the specified number of steps.

- **Pen Pressure, Pen Tilt, Stylus Wheel**

Varies the flow of paint based on the pen pressure, pen tilt, or position of the pen thumbwheel.

Control Options

When creating a brush stroke that includes any type of jitter, you have the option of selecting a control. Applying a control to a jitter allows you to control the amount of variation in your brush stroke. The type of control you select determines the method used to control the jitter. Each type of jitter offers different control options. Options in the Control pop-up menus specify how you want to control the variance of dynamic elements. You can choose not to control the variance of an element, to fade an element over the specified number of steps, or to vary an element based on pen pressure, pen tilt, position of the pen thumbwheel, or pen rotation.

Control: Off

Jitter is applied randomly throughout the brush stroke.

Control: Fade

Causes the brush stroke to gradually disappear. Type a value in the text box at the right of the palette to specify how quickly the stroke disappears; larger numbers cause a slower disappearance.

Control: Pen Pressure

The jitter within your brush stroke varies according to the pressure of your pen; this option is relevant if you are using a pressure-sensitive pad and stylus in working with your image.

Control: Pen Tilt

The jitter of the brush stroke varies based on the tilt of your pen; this option is relevant if you are using a pressure-sensitive pad and stylus to work with your image.

Control: Stylus Wheel

The jitter of your brush stroke changes based on your adjustment of the stylus wheel; this option is relevant if you are using a pressure-sensitive tablet and a stylus with a fingerwheel to work with your image.

Control: Rotation

The jitter of your brush stroke varies based on the rotation of your pen; this option is available if you are using a pressure-sensitive pad and stylus to work with your image.

Control: Initial Direction

This option affects only angle jitter. The variation in rotation is based on the original orientation of each application of the brush and can only vary by the percentage selected in the *Angle Jitter* section.

EXAMPLE: If the angle jitter is set to 25%, and the control is set to initial direction, no instance of the brush can vary more than 90 degrees, or 25% of a circle, in either direction from its original orientation.

Control: Direction

This option affects only *Angle Jitter*. The variation in rotation is based on the original orientation of each instance of the brush stroke in relation to the path of the brush stroke. Each application can only vary from the original orientation by the percentage specified in the *Angle Jitter* section.

Bristle Tips

Bristle tips let you specify precise bristle characteristics, creating highly realistic, natural-looking strokes. Set the following brush tip shape options in the Brush panel:

Shape

Determines the overall arrangement of bristles.

Bristles

Controls overall bristle density.

Length

Changes bristle length.

Thickness

Controls the width of individual bristles.

Stiffness

Controls bristle flexibility. At low settings, brush shape deforms easily.

Angle

When painting with a mouse, determines the brush tip angle.

Spacing

Controls the distance between the brush marks in a stroke. To change the spacing, type a number or use the slider to specify a percentage of the brush diameter. When this option is deselected, the speed of the cursor determines the spacing.

Bristle Brush preview

Shows brush tip that reflects changes to settings above, as well as current pressure and stroke angle. Click the preview window to see the brush from different sides.

Mode

Sets the method for blending the color you paint with the underlying existing pixels. Available modes change with the currently selected tool. Paint modes are similar to layer blending modes. See [Blending modes](#).

Opacity

Sets the transparency of color you apply. As you paint over an area, the opacity will not exceed the set level no matter how many times you move the pointer over the area, until you release the mouse button. If you stroke over the area again, you will apply additional color, equivalent to the set opacity. Opacity of 100 percent is opaque.

Flow

Sets the rate at which color is applied as you move the pointer over an area. As you paint over an area, keeping the mouse button down, the amount of color will build up based on the flow rate, up to the opacity setting. For example, if you set the opacity to 33% and the flow to 33%, each time you move over an area, its color moves 33% towards the brush color. The total will not exceed 33% opacity unless you release the mouse button and stroke over the area again.

Press a single number key to set a tool's opacity in multiples of 10% (pressing 1 sets it to 10%; pressing 0 sets it to 100%). Press two number keys to set a specific opacity. To set Flow, press Shift and number keys.

Airbrush

Simulates painting with an airbrush. As you move the pointer over an area, paint builds up as you hold down the mouse button. Brush hardness, opacity, and flow options control how fast and how much the paint is applied. Click the button to turn this option on or off.

Auto erase

(Pencil tool only) Paints the background color over areas containing the foreground color. Select the foreground color you want to erase and the background color you want to change to. (See Auto Erase with the Pencil tool.)

Tablet pressure buttons

Use stylus pressure to override opacity and size settings in the Brush panel.

To Change Brush Size and Opacity with Pen Pressure:

Select the Brush , Pencil , or other painting tool.
In the options bar, do either of the following:



Click the Tablet Pressure Controls Size button .



Click the Tablet Pressure Controls Opacity button .