Stipple Effect with Roto Toon

Speckle your footage with shading
Create a Stipple effect with Roto Toon

The Roto Toon and Outlines Only ToonIt! filters give you the ability to use a stippling shading option. Traditionally, stippling is an artistic method of shading by using small dots or specks in varying densities. The Stipple parameter will do exactly that, filling in gradients of shade in your footage with varying densities of pixels. Here’s a quick guide on how to use stippling.

This tutorial is set up for use in After Effects (Mac/Win), Final Cut Pro (Mac), Motion (Mac) and Premiere Pro (Win). Follow along! You can download our finished movie and the source footage at http://www.anarchyunderground.net/tutes/toonit_stipple.zip.

step 1: load your footage

The first item of business is to load your footage up in a sequence or composition. If you are using our example footage, please import the QuickTime movie ‘becky_original.mov’. This footage is a 7.0 second clip at 640x480 resolution.

In After Effects, drag the source footage from the Project Window down onto the ‘New Composition’ button. Doing this will create a new composition set up to match your footage exactly.

In FCP, Motion or Premiere Pro, create a sequence set to your footage size. If you are using our footage, create a 640x480 sequence with a Square pixel aspect ratio at 30 frames a second. If you are importing your own footage, set the sequence to match the footage settings, then drop it into the sequence Timeline.
ToonIt! Film/Video: Create a Stipple effect

step 2: apply roto toon

The moment of magic! Apply ToonIt! Roto Toon from your Filter menu [After Effects, Premiere Pro] or Video Filters bin [FCP, Motion].

The filter automatically defaults to using the ‘Roto1’ rotoscoping algorithm along with the ‘Soft’ outline mode.

step 3: adjust roto colors

Adjust your Roto colors as necessary, and then head on down to the outline section of the plug-in. Uncheck the ‘Use Main Blur’ checkbox. This will allow you to use separate blurring parameters to tell ToonIt! where to shade/place outlines in your image.

In doing this, you’ll have much more control over your entire image in regards to how the rotoscoped color segments match up with your comic outlines or shading.

step 4: turn on stipple

Turn off the ‘Soft’ outlines and toggle the ‘Stipple’ checkbox on. The Soft parameters will deactivate and the Stippling parameters will become available.

step 5: balance density & thresh

The two controls for Stipple are fairly straightforward:

- ‘Stipple Density’ controls the amount of black specks that will generate. You can think of these specks as visual noise.
- ‘Stipple Thresh’ will determine the percentage of the image used to place noise.
- If you have a low stipple threshold and a high stipple density, you’ll end up with relatively few and sporadic areas of dense noise across the whole image.
- If you have a low density and high threshold, the noise will only appear around the most shaded parts of your image. This effect is generally what an artist would aim for.
**step 6: compare density & thresh**

So... Let’s experiment. First set a high density and low threshold. Try setting ‘Stipple Density’ to 80% and ‘Stipple Thresh’ to 20%. Note how there is stippling all over the frame, loosely based around the darker parts of the image.

Now reverse the values to a low density and high threshold. Set ‘Density’ to 20% and ‘Thresh’ to 80%. Doing so will constrain the stippling to only appear around the dark areas and not appear randomly throughout the frame.

Our example image is fairly dark already, so we’re going to tinker with the values. We will settle on ‘Density’ to 1 and ‘Thresh’ to 50. These new settings let the image breathe, especially the light areas around the baby’s face.

**step 7: experiment!**

You’re done with the main part of this tutorial! Like most things in ToonIt!, creating a stippled effect is very easy. To view our results, play the movie in your download folder called ‘becky_stipple.mov’. The next couple of steps give you some suggested uses and ideas.

**idea A: shading effect**

Use stippling to add a nice shading effect to the basic Roto Toon effect. It can give a more organic feel to the darker areas of your frame.

To do this, you could experiment with the ‘Blend With Original’ option to let your original footage show through. See how the image looks when you activate the ‘Shadow’ checkbox and set a low ‘Shadow Threshold’.

There’s also a ‘Lighter’ filter towards the top of the parameter list. The more analogous two colors are, the more likely they’ll get blended by the roto process. By raising the lightness (or brightness), you re-separate those colors a bit.
This is also just a good way to fix your footage if it looks too dark. Kind of a low-level Brightness filter without any mid-tone control. Alternately, you could apply a Brightness & Contrast filter.

idea B: outlines only

For this idea, we’re going to tell you to turn off the Roto Toon filter. Now apply ToonIt’s Outlines Only filter to that footage. Outlines Only strips away color to create a black-and-white version of your footage.

Turn on the ‘Stipple’ option. Your image will turn into only varying densities of specks, which is a fairly interesting artistic stylization on its own. Turn off the ‘Soft’ option to see a variation of this effect. One again, you can play around with ‘Density’ and ‘Threshold’.

To view our results, play the movie in your download folder called ‘becky_outlines.mov’.

In your Timeline, duplicate the footage layer. Place the copy beneath the Outlines Only layer and delete the filter from that bottom layer. Now set the Outlines Only layer to a Multiply or Darken composite mode for highly stylized grain.

At right, a screenshot of our After Effects layers. We’ve added a Brightness & Contrast filter to lighten/brighten the footage since there’s no ‘Lighten’ parameter in the Outlines Only filter.

To view our results, play the movie in your download folder called ‘becky_multiply.mov’.
idea C: built-in blurs

For either the Roto Toon or Outlines Only stippling, remember to use the filter’s built-in Blurs along with the Stipple parameters.

In the Roto Toon filter, make sure to adjust the Outline-related Blur settings (halfway down the param list). You’ll need to uncheck ‘Use Main Blur’. In the Outlines Only filter, there’s only one set of Blur options.

‘Outline Blur Radius’ sets how much the blur fans out. The higher the value, the less color detail will be apparent in the footage, because the color areas blur together more. ‘Outline Blur Threshold’ sets how much of the footage is actually affected by the blurring. The higher this value is, the more of the frame will be affected.

The Blur amount and threshold will ultimately determine what parts of the image are used to generate the shading areas. The lower the Blur and Threshold, the more finely detailed the noise densities will be.

talk to us! Have questions about this ToonIt! tutorial? Just contact Marco at marco@digitalanarchy.com. Thanks for reading!