

PRIMATTE chromakey

Make masks in minutes.

Quickstart for Primatte 5.0

Get started with this step-by-step guide that explains how to quickly create a mask



Digital Anarchy
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Quickstart Guide for Primatte 5.0

This Quickstart Guide is an overview of the Primatte 5.0 interface and process. The plugin is simple to use but different than using Photoshop tools, and a basic explanation can be sublime. The Quickstart also helpful if you are already familiar with chromakey software and just need to find the functions that you expect.

Get the Quickstart files

Primatte can extract a foreground from any solid color. Since blue or green are typically used, through this tutorial we will refer to the background screen color as 'green'. For more info about specific tools and concepts, please refer to the full Primatte 5.0 manual and watch our video tutorials at www.digitalanarchy.com.

To follow along, please download this Zip file:
www.digitalanarchy.com/tutes/primatte50_quick.zip

This file contains a few Photoshop files. There is a green screen photograph that has been saved out twice, as a single layer file and as a multi-layer file. You can use either file for this exercise or choose your own. There is also an 'other green' folder containing extra photos from the same photoshoot, if you want to experiment with Actions and Batching.

We hope you enjoy this Quickstart Guide. If you have questions, email sales@digitalanarchy.com. Thanks! –The Anarchists

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Select the subject layer

Let's open our green screen Photoshop file and select the layer that contains the subject to be masked.

First open the file called 'green girl multiple.psd'. It contains multiple layers. Two layers are textures that will act as new backdrops once the subject is surrounded by transparent pixels. If you click to select the topmost layer called 'girl', showing a girl against green, then you are ready to use Primatte.

Instead, close that file and open 'green girl single.psd'. This file has only one layer, called 'Background', again showing the girl against green. Obviously... this is the layer that you will select. However, first you need to edit that layer to allow your Photoshop file to support transparency. You must do this BEFORE working with Primatte.



The 'green girl multiple.psd' file.

Unlock the Background layer

Still the file called 'green girl single.psd', we are going to edit its 'Background' layer to allow your Photoshop file to support transparency..

That Background layer has a Lock icon, which means it is like a piece of paper that is glued down. You need to un-glue the Background layer for Primatte to work properly.

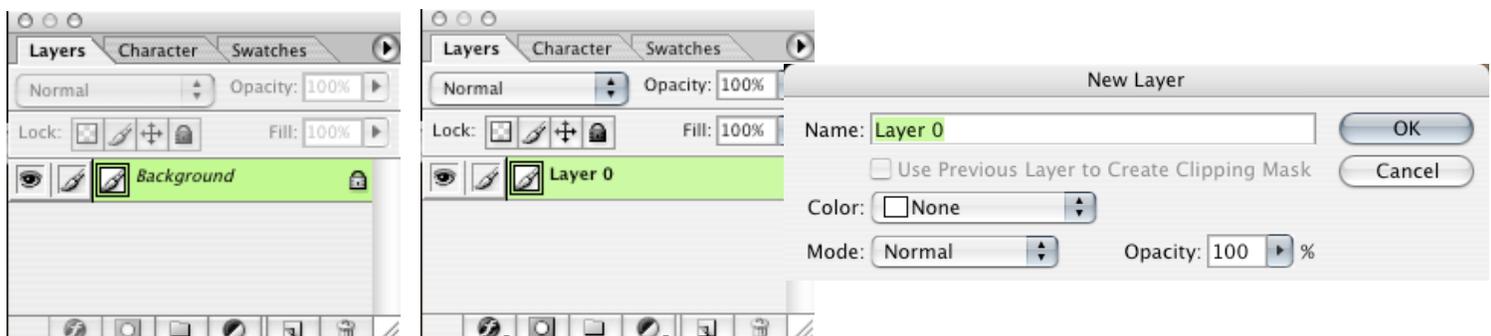
To do so, in your Photoshop Layers palette, double-click the Background layer. You will get a dialog box; just click 'OK'.

Your layer now reads as 'Layer 0' instead of 'Background' and does not have a Lock icon. This means the Photoshop layer can support the transparency that Primatte needs.

NOTE: You only have to go through this process with your own Photoshop file if the green screen layer is a Background layer.



The 'green girl single.psd' file.



Launch the Primatte plugin

We are ready to use Primatte! From Photoshop's Filter menu, select Digital Anarchy> Primatte 5.0. Primatte opens up and covers the Photoshop interface. You won't be able to use Photoshop's menus and tools until you apply or cancel Primatte.

Approach A: AutoMask buttons

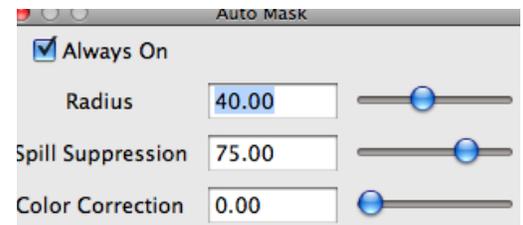
Masking in Primatte is very easy. Your first approach should be the AutoMask tool, which has been greatly improved in Primatte 5.0 and is the fastest way to generate a mask.

By default, Automask is active and will automatically key your image. Primatte does the work and you are checking to make sure the mask looks right. As soon as you launch Primatte, Automask will remove the background. You don't need to do anything.

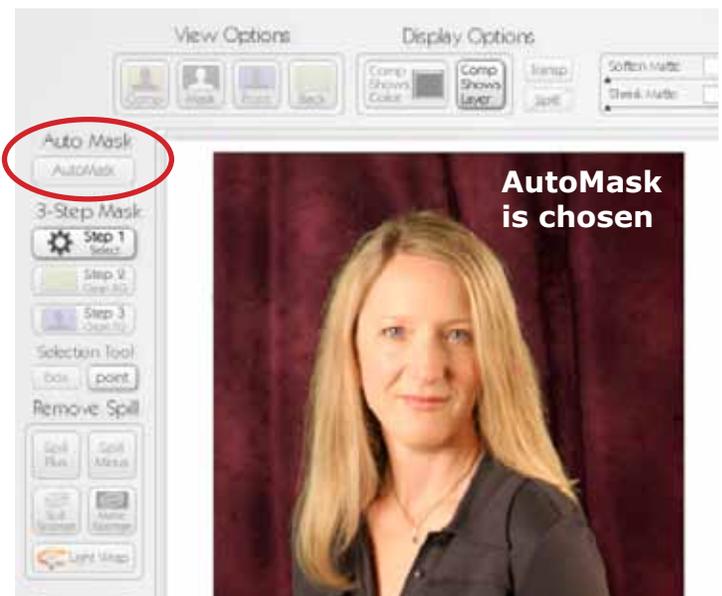
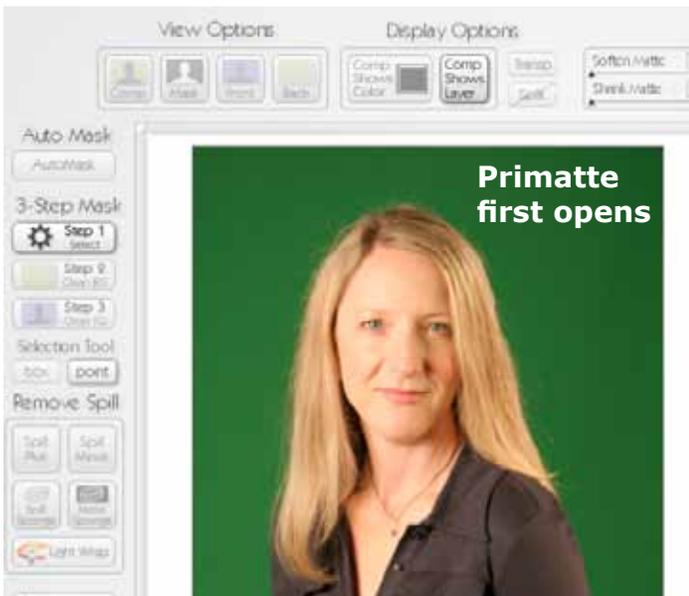
If the mask is acceptable, click the OK button to render your Primatte mask. If not, you can change the AutoMask Settings by clicking on the AM Settings button, or you can manually tweak the mask with the Select, Clean FG and Clean BG tools.

AM Settings button

When you click on AM Settings, you will get a dialog box with three parameters: Radius, Spill Suppression, and Color Correction. Radius determines how much of the background to look at to figure out what color to get rid of. Spill Suppression then tries to automatically remove that color from the foreground image. Color Correction supports Spill Suppression.



The default settings are good and have been thoroughly tested to produce the best results on the widest range of images. If you make changes to these settings make sure to test them on a variety of images you plan to use Primatte on. You might make a change that works better on one image, but is worse on the rest of your images.



AutoMask sliders

Color Correction and Spill Suppression work together, so the usable values are going to be dependent on what the other value is set to. Experiment moving both sliders around to see how they work.

The usable Radius range is between 30% and 80%. Setting Radius too low will result in too much green/blue being left around the edges. Setting it too high will cause fine detail, like hair, to be lost. Once you've changed the Radius, Primatte will re-render AutoMask and produce a different mask.

Always On checkbox

If you don't want AutoMask to always run, turn off the Always On button. If this is nchecked, Primatte will use the settings from the last time you ran it. This can be useful if you have a set of very similar images, like a set of photos all of one model.

AutoMask reality check!

AutoMask does **not** work on all photos. It is designed to work on head/shoulder and $\frac{3}{4}$ length shots, like our example photo. It will typically not work as well on full length shots.

One of the ways AutoMask determines the correct color is by analyzing the right, left and top of an image. It's important the green/blue screen covers the entire wall. If the wall behind the green screen is showing along the sides or top, you'll need to crop the image before AutoMask will function correctly.

Did AutoMask work?

Our sample photo is well shot and therefore pulls a great mask. If AutoMask worked correctly for you, then skip to Step X. The most powerful use of AutoMask is tied into Batch processing and we talk about it there. You can run a Batch Action in Photoshop, select a folder full of images, and end up with a folder full of properly masked images.

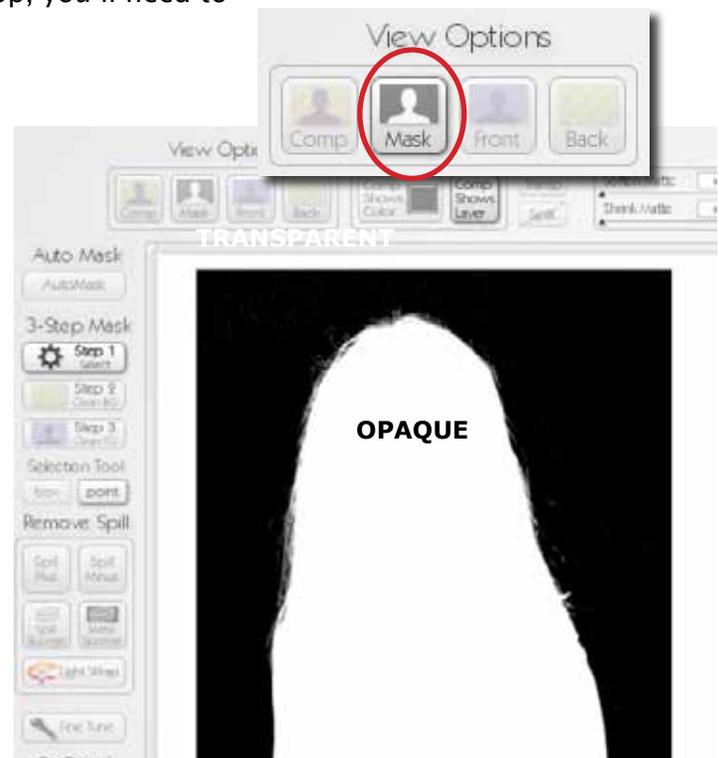
Preview in Mask View

Let's look at how our mask has built. By default, Primatte displays in Comp View, which shows a composite of the subject and backdrop.

Let's change that preview to Mask View. This opens a grayscale representation of the mask.

The results: AutoMask has done an excellent job! Here is the breakdown.

- The green screen area is identified as black. Black shows the pixels that are now transparent.



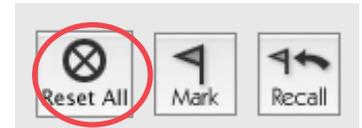
- The subject is identified as white. White shows the pixels that are opaque and fully retained.
- There are gray values along the edges of our model where her hair becomes wispy. Gray shows the pixels that will be retained to some degree.
- Dark gray means the pixels are more transparent (closer to black) and the underlying image will be kept to a lesser degree.
- Light gray means the pixels are less transparent (closer to white) and will be kept to a greater degree.

Approach B: The 3-step process

Suppose AutoMask didn't work properly on your photograph? Or your green screen photo isn't a good candidate for AutoMask? Then you will move to the second method of masking in Primatte, which is a simple 3-step process.

Clear mask with Reset All

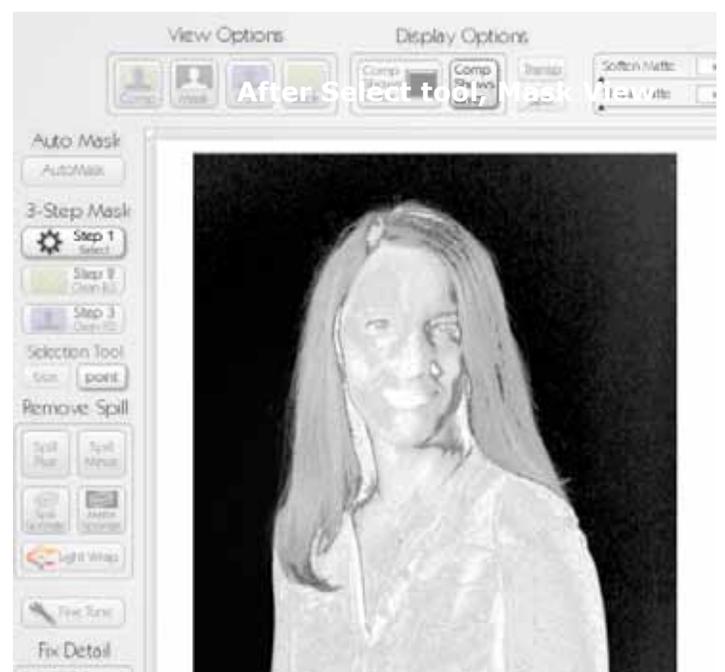
Before you redo your mask, you will need to clear the mask settings in Primatte. That's easy to fix. Click the Reset All button to forget those mask settings and start from scratch.



Step 1 of 3: Select tool

Go back to Comp View, then click the Select tool. To generate your mask in Primatte, click in the green background. It's best to click on a medium tone green.

You will immediately see a color shift. That's because Primatte now recognizes green as the color range to delete. Primatte probably hasn't identified all of the pixels correctly on the first pass. We can easily fix that.

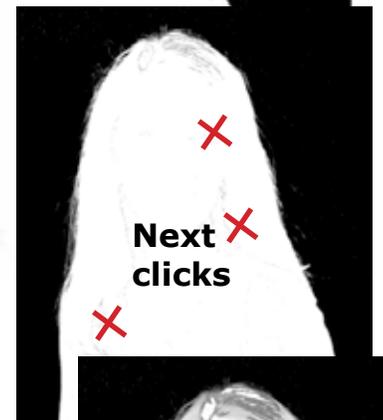
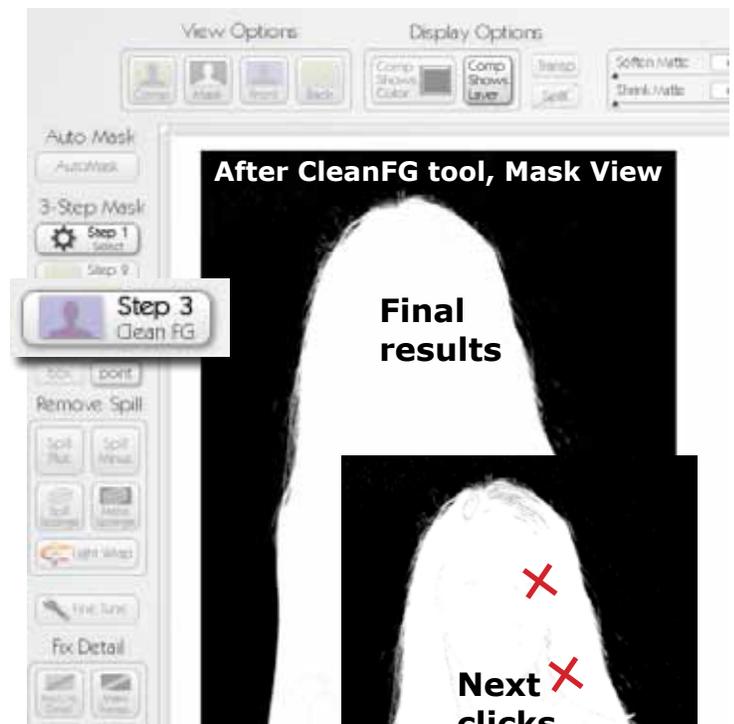
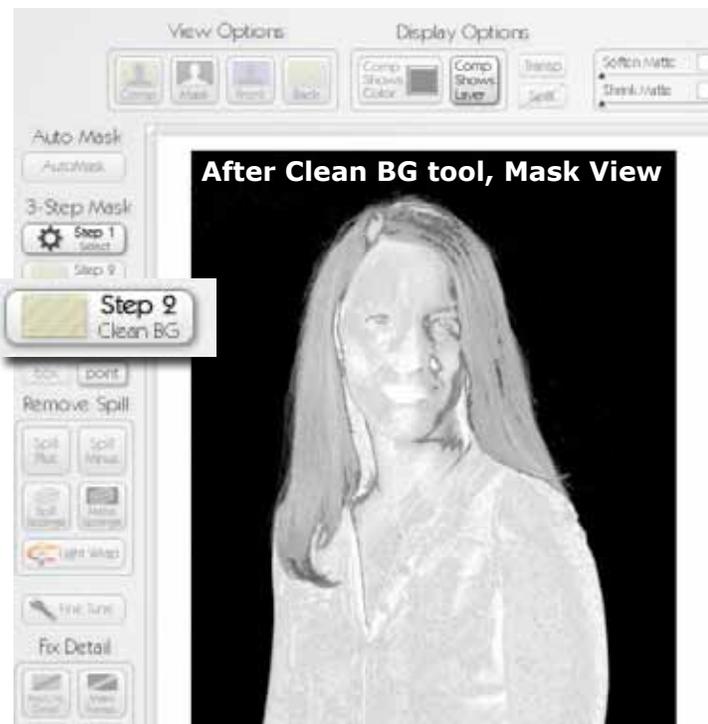


Step 2 of 3: Clean BG tool

To improve your mask, click the Clean BG (Background) button. Clean BG will clean up any pixels in the green screen that should have turned transparent, but didn't on the first pass.

Switch to Mask View. Click and drag along the areas in the green screen that are white or gray. This tells Primatte to make those pixels transparent. You want all of the green background pixels to be transparent, which means they will turn black in Mask View.

Be careful to only click-drag in the solid area of the background screen. Clean BG has to sample areas that do not have transparency, so you don't want to accidentally drag over the subject's hair, for instance.



Step 3 of 3: Clean FG tool

Still in Mask View, choose the Clean FG (Foreground) button. We will do a similar click-drag pass on our female subject. Click and drag along any areas of the foreground object that are not completely white.

Be careful to only click/drag in the solid interior area of the subject. Do NOT sample along the edges of the girl, like her wispy hair. Clean FG has to sample areas that do not have transparency, just like Clean BG.

Don't sample the edges

You want the subject to preview as white in Mask View with one important exception. Any areas that are meant to be fully or partly transparent – like hair, shadows, glass – should remain gray. In our example at right, the model has wispy hair and is holding a see-through glass bottle.

You should always sample with Clean BG and Clean FG from inside or around your subject, NOT along the edges. The edges of your subject probably contain some transparency value. Sampling a transparent area will throw off the color model the Primatte uses to create its mask.



Don't click here

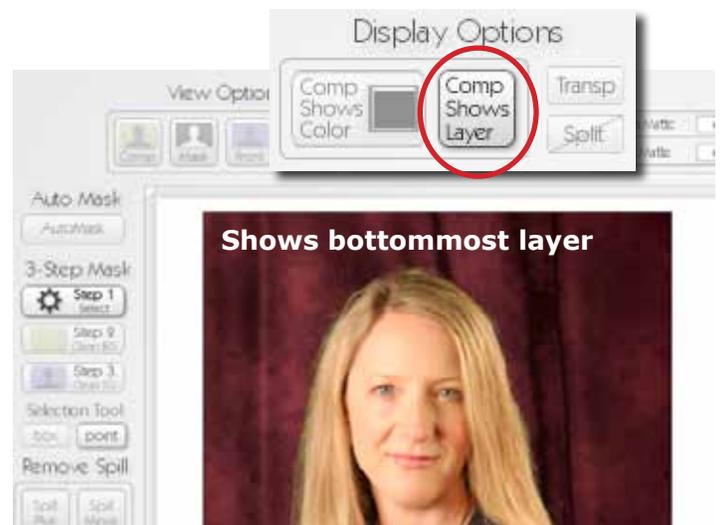


Don't click here either

Preview in Comp View

Your mask is complete! Click on the Comp View button to view a preview of the composite of your masked subject.

- By default, your subject will preview against a solid color. This is controlled by the Comp Shows Color option. By default, the color is neutral gray. You can change the color with the menu's color swatch.
- If your Photoshop file has other layers, your subject can preview against those layers. For this to happen, turn on the Comp Shows Layer option.
- New to Primatte 5.0 is the Background popup. This menu lets you choose any of the layers in your Photoshop file.
- Another new feature in Primatte 5.0 is the Backdrop section. Use this area to load in images as backdrops so you're not limited to the layers in your Photoshop file.
- If your Photoshop file only contains a green screen layer, your subject may preview against a gray-and-white checkerboard grid. This checkerboard shows transparency and is a Photoshop feature. It can be turned on/off in Photoshop's Preferences > Transparency & Gamut settings (you will need to exit Primatte first).

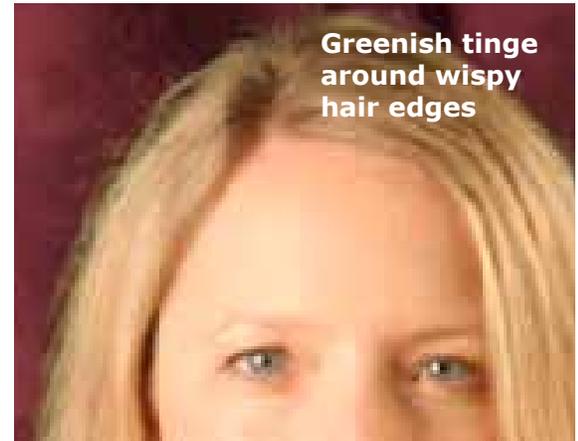


Approach C: AutoMask & Clean BG/FG

If AutoMask doesn't work perfectly, you don't always need to start from scratch with the 3-step process. Another approach is to combine AutoMask with the Clean BG/FG tools.

You can use the AutoMask buttons to generate a mask and skip the Select Tool (Step 1 of Approach B). Switch to Mask View to see the AutoMask, then continue on with the Clean BG and Clean FG tools (Step 2 and Step 3).

Occasionally AutoMask will fail and then you should start from scratch. But most of the time AutoMask will work well enough that only a little Spill touchup or Clean assistance is needed.



Evaluate the color spill

Once the subject is masked, you may see some 'color spill' along her edges. Color spill is generated during your photoshoot, as light bounces off the green background screen and onto the model.

Spill typically shows up in semi-transparent areas like hair, or shiny areas like patent leather shoes, or along other parts of your subject if the lighting was set up incorrectly. In our example, the model's blonde hair has a greenish tinge.

Spill can be easily treated with one or more of Primatte's Spill Removal tools. Of course, the less spill you have, the more easily it is fixed, and that is the result of good chromakey photography principles.

Remove with Spill Sponge

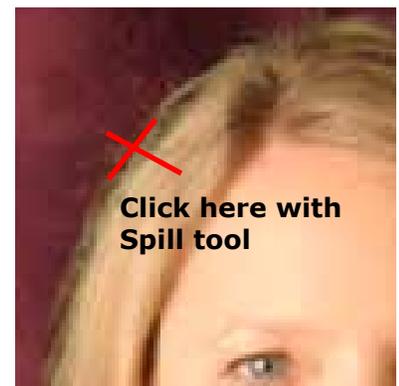
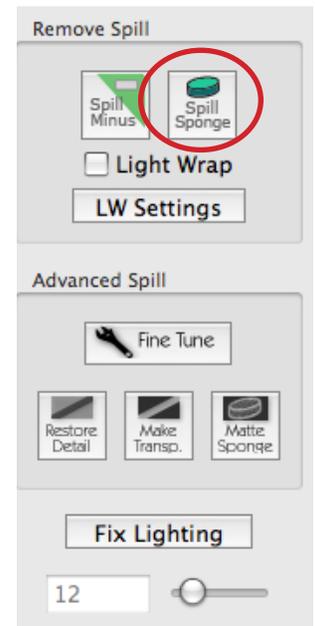
To remove the green in our model's hair, let's try out the Spill Sponge tool. Spill Sponge is very powerful because it has a high threshold; that is, it looks for a wide range of green tones to remove. Select the tool, then click on the primary area tinged with green. By clicking once or twice with the Spill Sponge, the green spill should be removed.

If you only have a slight amount of spill, then the Spill Sponge may remove too much color. It's possible that Spill Sponge will overcorrect for green and remove other colors from the rest of your photo. If too much color is removed, hit the Undo button to go back to your original image. Then try the Spill Minus tool, which has a lower threshold of color tones.

Remove with Spill Minus

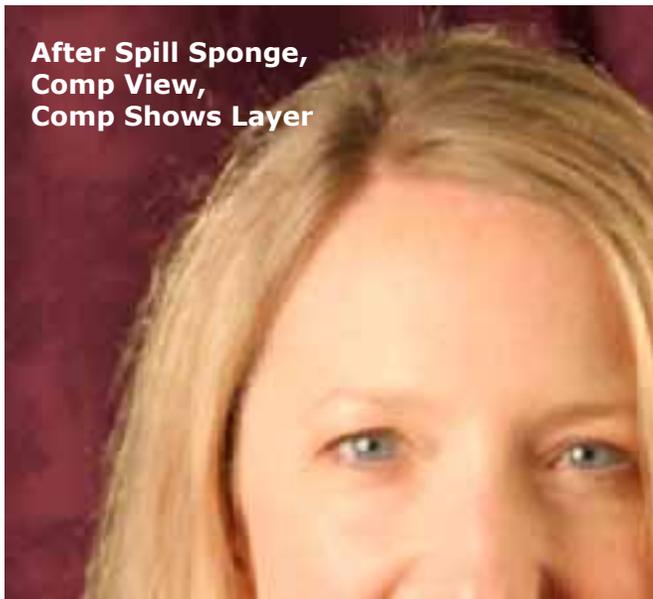
The Spill Minus tool is a great option when the color spill is too light for Spill Sponge to work effectively. This tool will remove a smaller range of the green. In fact, the way to use the Spill Minus tool is to click/drag multiple times along an area until you see a noticeable shift.

If you go too far with Spill Minus, you can click the Undo button multiple times to reverse the incremental touchup changes.



Toggle Comp options

A good way of checking whether your spill is corrected is make use of the Comp View's options. Toggle between Comp Shows Layer and different color choices for Comp Shows Color. The visual shift in background will help you detect the success of spill removal.



Render your mask

Your mask is finished! Just click the Apply button (which looks like a checkmark) at top right of the Primatte screen. This will render the mask into your Photoshop file, deleting the green and leaving your subject surrounded by transparent pixels. Now you can add new layers and composite in a new custom image.



Check with Front View

How can you tell if the tonal values have shifted too much during spill correction? One trick is to use the Front View button. If you toggle between the Front and Comp views, you will be able to detect a difference in color between the masked and original images.

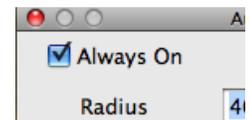


Primatte will remember the last mask that you created. When you reopen Primatte to work on your next photograph, the settings for the previous mask will apply. Either this will be a convenient, fast fix for your next photograph OR the settings will be completely wrong. That's easy to fix. Just click the Reset All button to forget those mask settings and start from scratch.

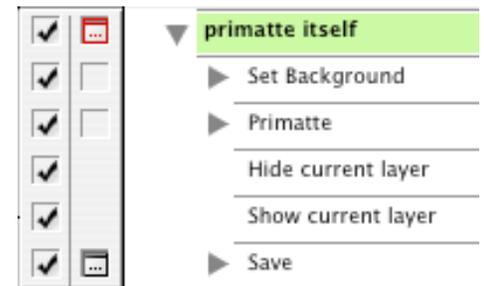
Use AutoMask for Action/Batch

Now that you've quickly and successfully created a mask, you can tie Primatte into something even more powerful. Primatte fully supports Actions and Batch processes in Photoshop. The real power of the AutoMask tool is its ability to work with group of photographs that were taken under similar lighting and environmental conditions.

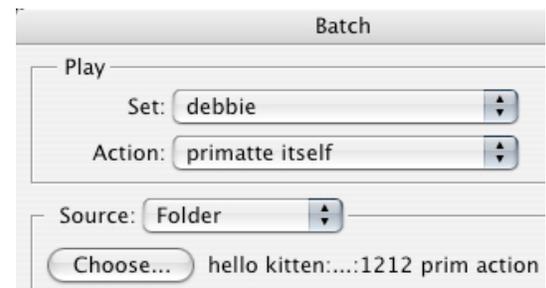
When working with Actions, you want to checkmark the AM Settings > AlwaysOn. When AlwaysOn is turned on, Primatte analyzes each image separately, pulling the best mask for that image. The settings for the previous image are discarded as soon as the new image is loaded.



Once you've rendered your Primatte mask, the Primatte interface closes and you're back in Photoshop. In Photoshop's Action palette, tie Primatte's mask settings into an Action by running AutoMask on one photo in the group.



Next, tie that Action into a Batch process. Select a folder full of images, run your Batch Action, and end up with a folder full of properly masked images. This is an extremely powerful workflow and wonderful for people who work with a large volume of photos, like school portraits. The more visually similar your group of photos is, from the subject to the green screen setup, the more powerfully that AutoMask, Actions and Batch will work together.



For more info about automating Primatte and photo groups, please check out our tutorials at www.digitalanarchy.com/primatte/tutes.html. You can also check the Photoshop Help menu to learn more about Actions and Batch processing.

