



Fast Electronic Makeup Artist

Cameras do not see as the human eye does. High definition and harsh lighting can add unwanted skin detail. Million dollar studio cameras have built in circuits to correct this. Now you too can have that power in your post production workflow. The Fast EMA plugin, much like the original Electronic Makeup Artist, does selective smoothing of skin tones while using edge detection techniques to maintain enough detail to avoid an overly blurry, "vaseline lens" look. Although the Fast EMA plugin is not as flexible as the original EMA, it is easier to use. This simplicity translates into increased speed both in workflow and processing and means it is generally about 2 to 3 times faster than EMA.



How to install the Fast EMA plugin

After download, you should find a folder called FastEMA containing an installer and these instructions. Double click on **FastEMA.pkg** to install SSfastEMA.fxplug into the /Library/Plug-Ins/FxPlug folder.

How to use the Fast EMA plugin

Fast EMA (or FEMA) is an FxPlug plugin for use in Apple's Final Cut Pro and Motion software. It is compatible with FCP 6 and higher and Motion 3 and above. It requires at least 10.5 (Leopard) of the operating system. FEMA makes use of the power of your GFX card to do its rendering, thus does not load down your CPU.

FEMA generates a mask based on standard skintones. This mask is used to determine where smoothing occurs. You can adjust the mask to suit your situation. You may alter the mask density and the detail retention. Fast EMA contains an Advanced section for blocking unwanted smoothing when it's high-speed skin selection routines mistakenly pick up areas of your image you do not want smoothed.

The easiest way to use FEMA is to activate the Show Mask checkbox so you can see the results of your adjustments and play with the controls until you get the results you're looking for, then turn off Show Mask. The goal should be to achieve adequate skin smoothing while avoiding an over-smoothed "plastic-y" look.

Because FEMA keys into standard skintones, if you are planning on adding a stylized "look" to your material (for instance with the Movie Color plugin), it is best to add FEMA first, before anything that may alter the skintones. However, if skintones are "off" due to localized lighting conditions, it would be better to correct for that prior to adding FEMA.

Fast EMA plugin Control Description

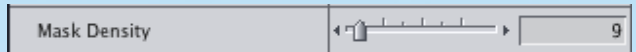
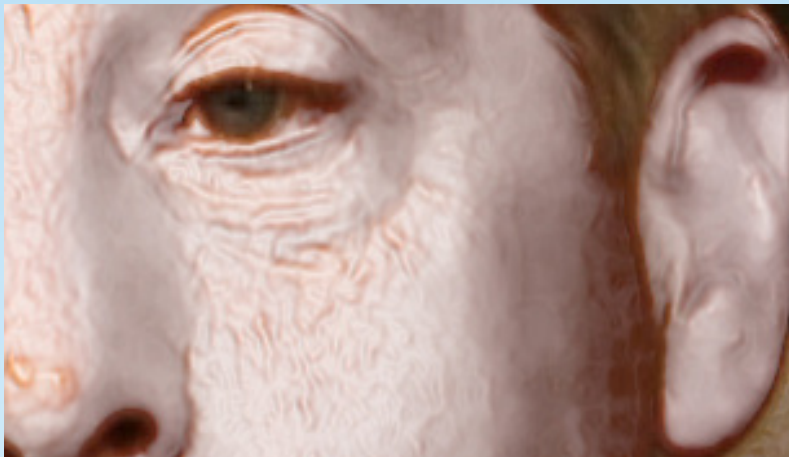
Softness		12
Mask Density		26
Mask Detail		29
Mask Contrast		0
Show Mask	<input type="checkbox"/>	
		Advanced

Fast EMA's basic controls are simple and in most cases are all that is needed to achieve a good result. You may control the Softness, Mask Density, Mask Detail and Mask Contrast. The Show Mask Checkbox makes these changes easily visible.

If you have problems with smoothing occurring in unwanted areas of your image, Open the Advanced section to generate a Cutout Mask. See the Advanced section below for more details.



Softness controls how much the skin is smoothed. Don't overdo it as this can result in a unnatural "plastic-y look".



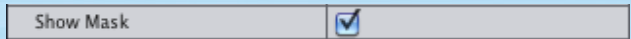
Mask Density controls how "thick" the mask is. This mask will determine where and to what degree the smoothing is applied. Subjects with darker skin or in lower lighting conditions may require higher Mask Density levels to achieve adequate skin smoothing. The Mask Density setting may be more efficient than Mix to control the mixing of the original image and the smoothed one.



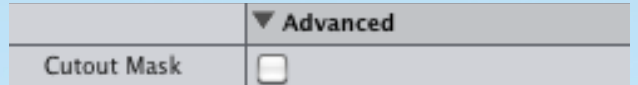
Mask Detail controls how much detail is retained and "shows thru" the mask..



Mask Contrast affects both the detail retention of the mask and the areas of the image that are smoothed.



Show Mask makes the areas that will be smoothed visible by showing them as white.



There are times when Fast EMA's high-speed skin selection routines mistakenly pick up areas of your image you do not want smoothed, like the red shirt in the image here. To correct for this, you can use the Advanced Cutout Mask. Be aware that this does cause increased overhead during render.



Turn off Show Mask, then use the eyedropper to sample the color most representative of the area you want excluded from smoothing. Then turn back on Show Mask to see if you need to adjust the Cutout Mask.



Grow, Soften, Clamp Mask alter the mask generated by the **Cutout Color**. At left you can see how they can be used to "clean up" the mask. **Grow** expands the mask. **Soften** blurs the mask. **Clamp** is a threshold, the lower it is set, the higher the mask's contrast. Note: this can only be seen in how it "eats away" at the skintone mask.



Hue Threshold	<input type="text" value="0.95"/>
Sat Threshold	<input type="text" value="0.86"/>
Luma Threshold	<input type="text" value="0.53"/>

Hue, Sat, and Luma Thresholds adjust the chroma key that is used for the Cutout Mask. They determine how close an image color has to be in order to be included. The higher the thresholds, the closer the color must be to be included. Note: this can only be seen in how it "eats away" at the skintone mask.



	▼ Advanced
Cutout Mask	<input checked="" type="checkbox"/>

Lips and dark areas can be oversmoothed and cause loss of detail or generate light artifacts (like the nostrils at left). The Advanced Cutout Mask can help with these too.