"The Anatomy of My Idea of an Organized Flow"

by **Bil Abington, pa** Tue Jun 04, 2013 1:30 am

I'm going to split it into a few different tutorials so people can digest a little at a time. Besides I can't type that fast.

The practices I'm going to show you may seem tedious, but if you get into these habits now, you'll be glad later when you start progressing with Photo Reactor and your work flow gets much more elaborate. We're going to build our own Poor Man's version of a soft focus filter step by step. The great thing about this filter or module is we will be able to save it, add on to it as our abilities grow and incorporate it into other filters or modules rather than have to recreate it each time we need this feature in a project.

If you want to use the same image I am, right click it and save it to your computer.

01 Double click on the Main Image Box on the left in your workspace and browse your computer for the image you want.

02 Then drag the Output Box over to the right and parallel to the Main Image Box like I did below to give us some working room.


03 The basic mechanics of our simple filter will be this: We are going to take 2 copies of our image and stack them on top of each other. From here on out we will reference the images as layers. The top Layer (Image) will be blurred and then the opacity of it will be adjusted to let more of the bottom Layer (image) show through thus softening our image.

To accomplish this, the 1st thing we need is a "Blend Layers" module from our building blocks menu on the left.
It will be the 1st building block listed. Drag it to the center of your workspace. The 1st thing you'll notice is that it has 3 nodes. Some effects, building blocks or whatever we're using have 3 nodes, some have 2 and some just one.

The one constant with nodes is you can only have 1 image or layer connected to an "in node" but you can have as many as you want connected to an "out node". The "Input nodes" are usually on the left and the "output nodes" are on the right. For our filter if you remember I told you we would need 2 images, that's why we're
using the "Blend Layers" building block. It has two input nodes.
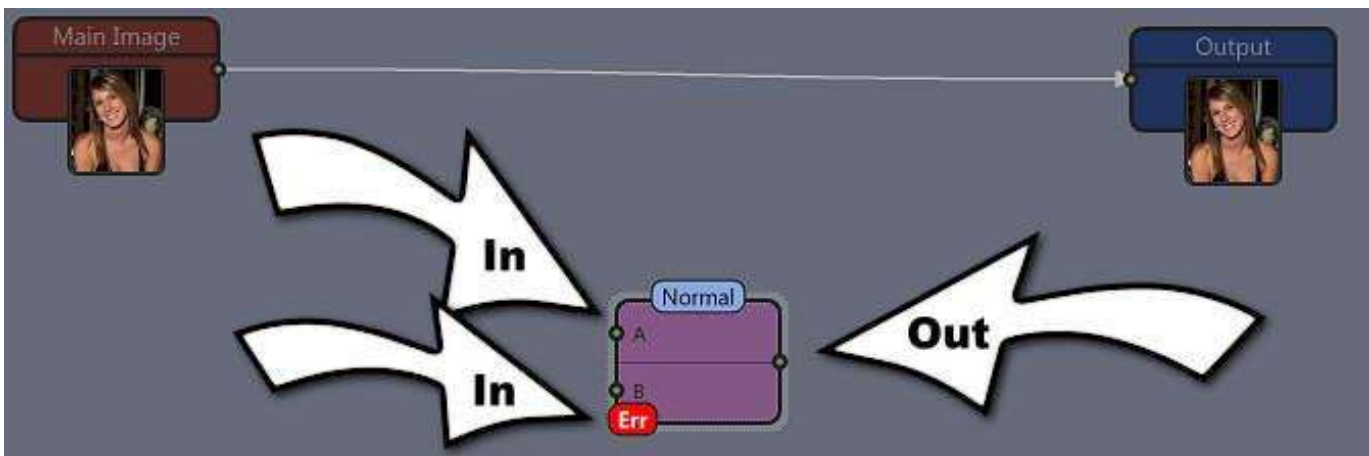
04 Click on the Blending Layers module and then look to your right and you'll see a control panel like the one below in the left image. Just for the heck of it click on the Main Image module and watch what happens to the control panel. Catching on yet to what's happening? Guess what? By time you are done this tutorial you're going to be creating your own control panel without knowing a line of code. Back to business.
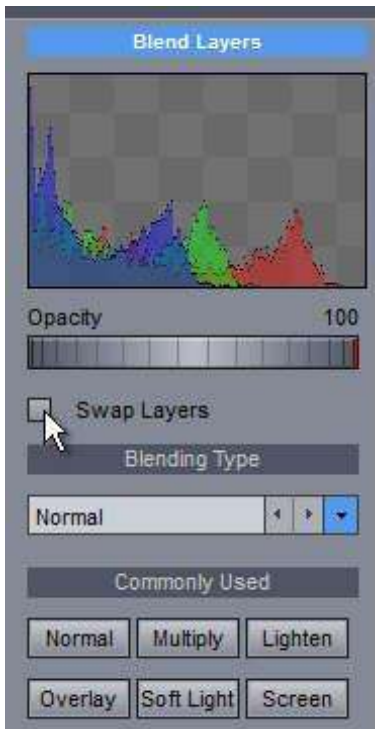
05 Select the Blending Layers Module and in the control panel on the right, select swap layers. (The reason we are swapping layers isn't apparent now but will be later on because we'll be adding another neat feature to our filter. Now select the "Normal Button" below it for blending type.

06 Now go to the "Image Processing" menu on the right and drag "Gaussian Blur" to the left of "Blending Layers" and halfway down like in my image below on the right.

07 Now the fun begins! Let's see how our filter is doing. Go to the "Output Node" of our main image, when the cursor turns to a crosshair drag the arrow to "Node A on the Blending Layers" module.

08 Go back to the output node on our main image and drag another instance or connector to the "Input Node of our Blur module" (Node on the left).

09 Now we need to connect our blur module to the "Blending Layers" module. Connect the "Output Node" (Right) of the "Blur" module to "Node B of the Blending Layers" module.

10 One last connection. Go to the "Output Node of our Blending Layers" (Right Node) and connect it to our Output Image Module. You'll see 2 images above your workspace. Unfortunately they're both blurred.
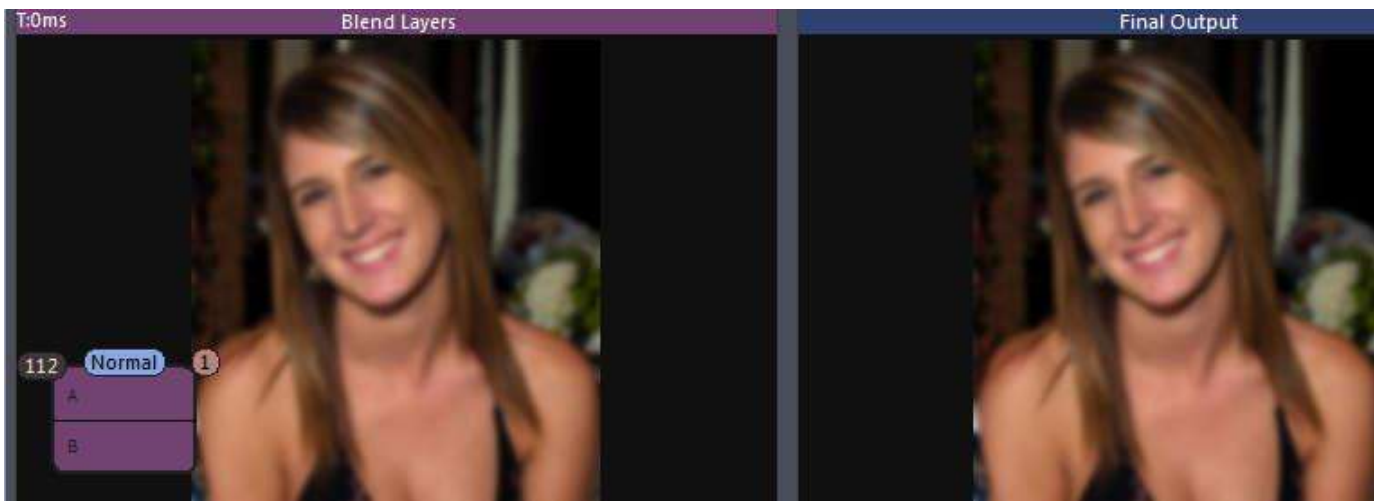
11 No problem: 1st click on the Input Image and you'll see the image on the left revert to the original image.

12 Click on the "Blur Module" and set it to around 2.50 in your control panel on the right.

13 Click on the "Blending Layers Module", again go to your control panel and adjust the opacity. Start at around 55. Play with different settings of both "Blur" and "Blending Layers Opacity" to get a feel of what our filter can do. Going much past 4 for "Blur Settings" will not produce good results. Hopefully you have an image

like mine below Before and After.
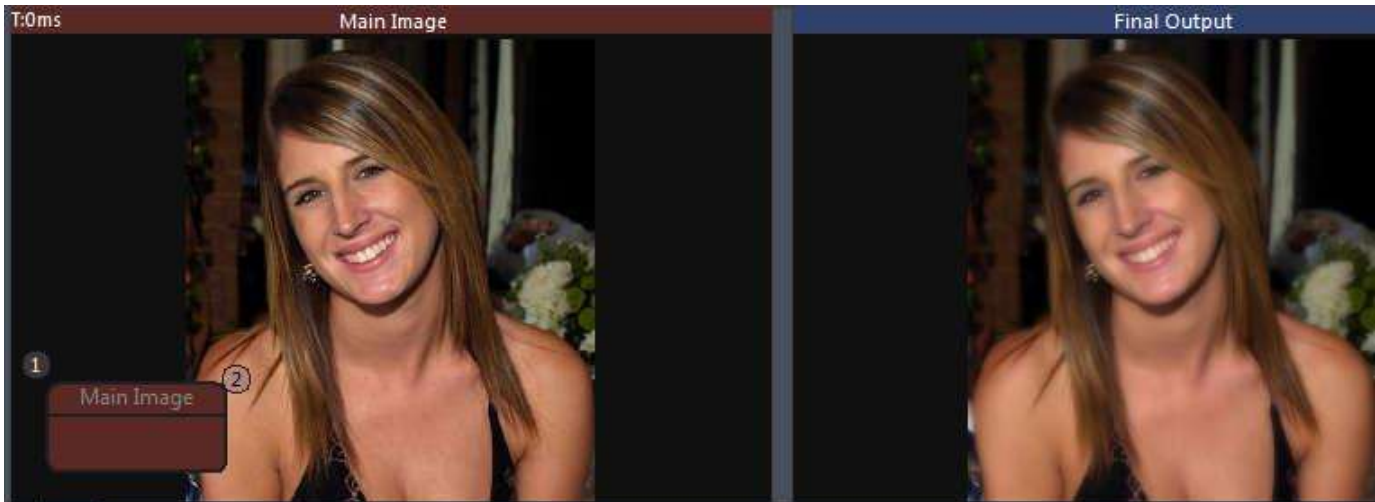
A couple notes: Make sure you keep a copy of the original image, when you save this one don't overwrite the original file. Now save your project as and name it Soft Focus Filter. It will save as a flow file.

We aren't even close to being done with our filter but I figured I'd let you play a while. I see all kinds of problems with it that we'll address in a couple more tutorials. Don't worry what we did isn't bad, it can just be a lot better.

Below is my final image. If you save it to you save it to your computer and open it in Photo Reactor it'll have all the details I've done so far to our filter.

Photo-Reactor *BETA* Mediachance

Part II Bypass Switch and The Little Black Box

I told you earlier that our Soft Focus Filter would become a module that we can use separately or incorporate it into other filters. One of the things I'd like to be able to do is have an Off/On switch allowing us to use or not use the soft focus when it is part of a more elaborate scheme. So that's what we're going to do.

01 Go to File / Open Project and open our Soft Focus Filter file.

02 Now select your Main Image.

03 No place for the meek and mild we're going to dig right in. Go to the Building Blocks Menu and scroll down to "Switch Bypass" and drag it to the right of our "Blending Layers" module.

04 Now go to the "Blending Layers" output node (Right Node) and drag a connection to the Input Node (Left
Node) of our switch. Click the Off/On button and see what happens.
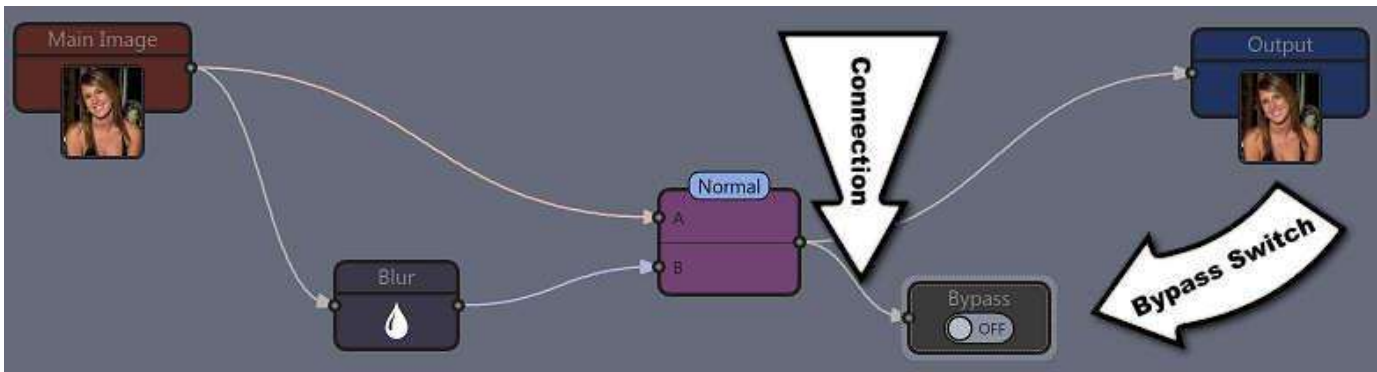
05 Cool we now have an On/Off Switch but we're not done yet. Remember we're going to be using this in other filters so there are a couple things we can do to make life easier for later use. Select Your Switch and then go to your control panel on the right where it says Label, type in Soft Focus Filter. Our Switch is now called Soft
Focus Filter. Could you imagine having 20 switches and having to trace wires to see what they turned off and on? Get into this habit folks.

06 Now I'm not letting you get off that easy so we'll look at 1 more feature, groups. Take your mouse and drag a rectangle around the 3 modules for our filter: The Blur, Layers and Switch Modules. When you do it should look like mine below on the right. Right Click and select Group in the menu.
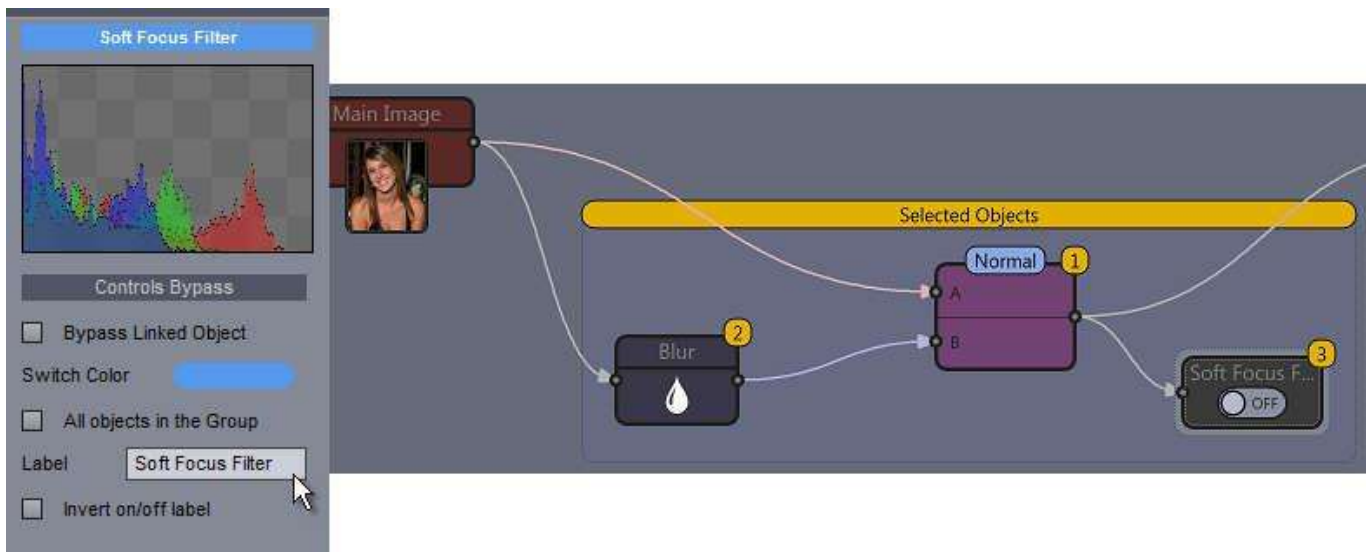
07 With the Group still selected go to your control panel on the right and for label type in "Soft Focus". Go back to your workspace and you'll see the group is now called "Soft Focus". Select the group and drag it around a little and you'll see everything stays nice and organized and nothing gets disconnected.

08 Go back to your control panel and select "Minimize to Black Box". Now look what happened to your Group. In got even smaller with everything tucked away in a little black box. Just think of the possibilities when we have 10 / 15 / 20 or 100's of function how handy the little black boxes will be.


The Little Black Box
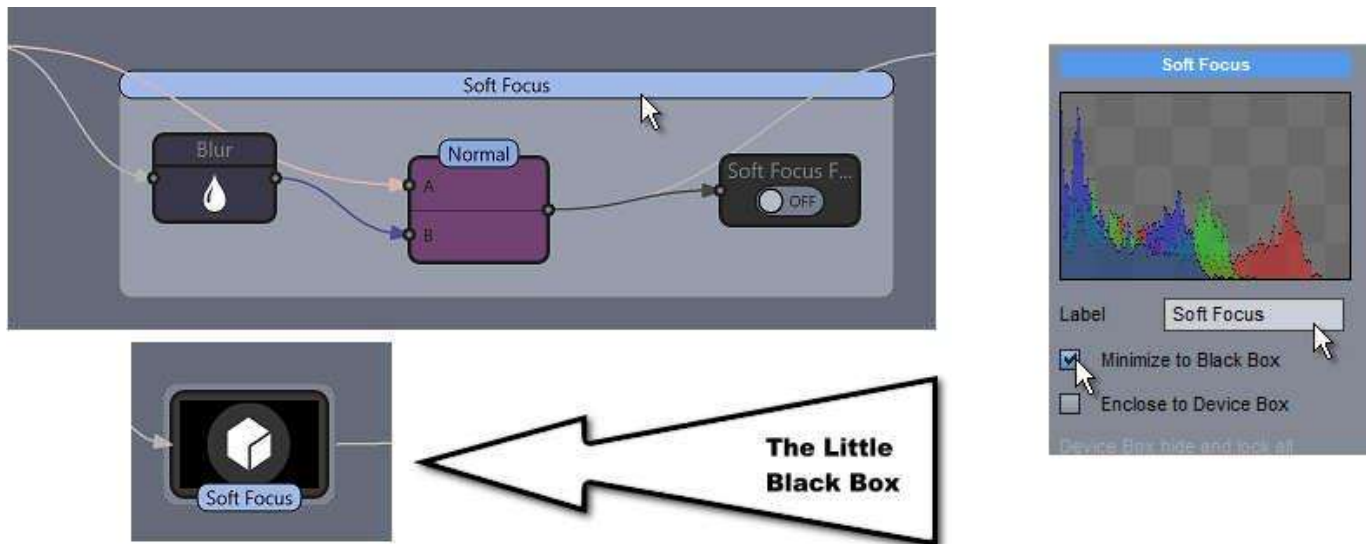
Hold on there folks, I now see a couple of new problems. We'll deal with them later. Don't forget to save your project as a flow file. Project Save As!

Part III we lost our connection

01 Open your Soft Focus Filter Project and load your main image. We left off with the Black Box. The 1st thing that sticks out at me is there is no way to connect anything to our Little Black Box (Soft Focus Filter). Not good since we want to be able to use it with other Little Black Boxes.

02 If you didn't notice, when we created our Little Black Box a new Tab was created under our Workspace. See Image 2 below. Click on your "Soft Focus Box" and the tab will magically appear.

03 Now click on the "Edit Inside Tab" and you'll go to a new window with just the items used for our "Soft Focus Filter". The great thing about this feature is we can add features we forgot like connectors. It's also a way to change controls for our filter but we'll be using a better method. That's another tutorial.

Image 1
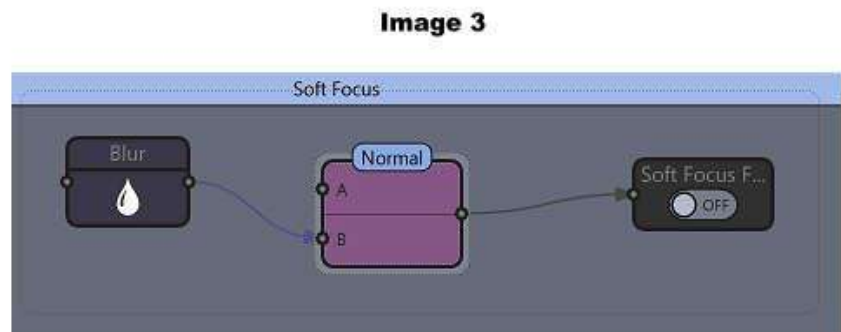
Image 2

Image 3

04 If you look at image 3 above for a moment you'll see 3 nodes that need to connect to the outside world. The Blur Input Node, Node A on The Blending Layers Module and we need to send the image to the outside world so we need a way to connect the Output Node of the Blending Layers Module.

05 Go to our Building Blocks Menu on the left and scroll until you get to "Bridge Pin", it's the second
one. Drag 3 copies of it, 1 next to the "Blur Module", 1 next to "Node A of the Blending Layer Module" and 1 next to the "Blending Layer Output node". Your workspace should look like mine below. Make sure your pins
are inside the dotted line of the
group.
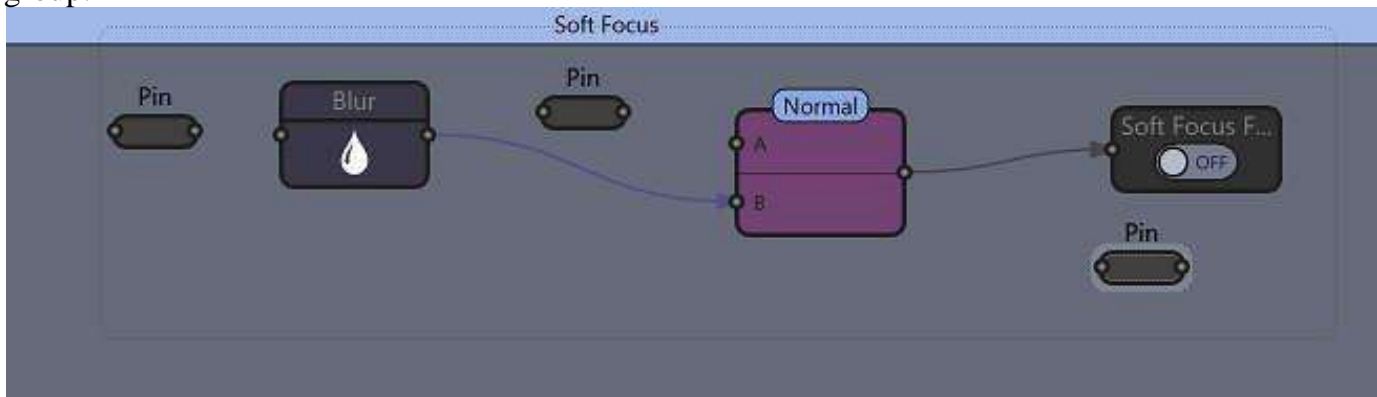
06 The 1st thing we need to do with our Bridge Pins is connect them to the modules inside our group. Connect the "Output Node" (Right Node) of our 1st Bridge Pin to the "Input Node" (Left Node) of the "Blur Module". Now connect the "Output Node" of the 2nd Bridge Pin to "A Node of the Blending Layers Module" and finally we want to send the processed image out into the world so we'll connect the "Output Node" of the Blending Layers Module to the Input of the 3rd Bridge Pin. Your Workspace should now look like mine below. Don't
worry about the little red err flags we'll address them in a minute.
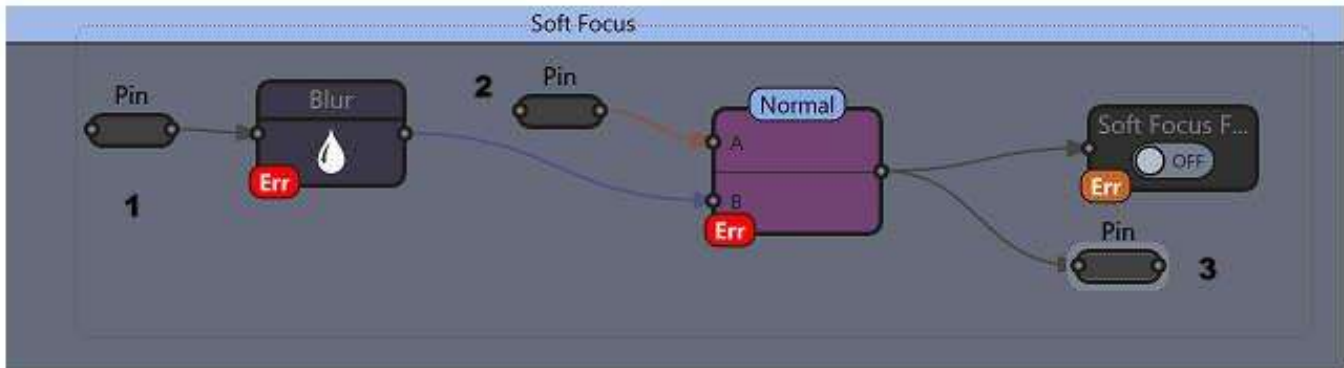
07 One more thing to do while we're still in this window. Remember, this tutorial is more about the proper work ethic than the filter we're creating. I'm doing these things in the order I am and forgetting to put things in on purpose so you'll see the importance. Next time you create a filter or module as I keep calling them you'll put the Bridge Pins in before you group and create the Little Black Box.

08 Select your 1st Bridge Pin and look at the control panel. You'll see you can name the Pin and set its color. I'm going to name my pin "Blur In" and set its color to red. I use red for input and green for output. You can use whatever colors you want. As you get more elaborate filters going you'll appreciate the fact you label your pins and color code. The more features you use the more colors you'll come up with. Below is how mine looks and the labels I used.
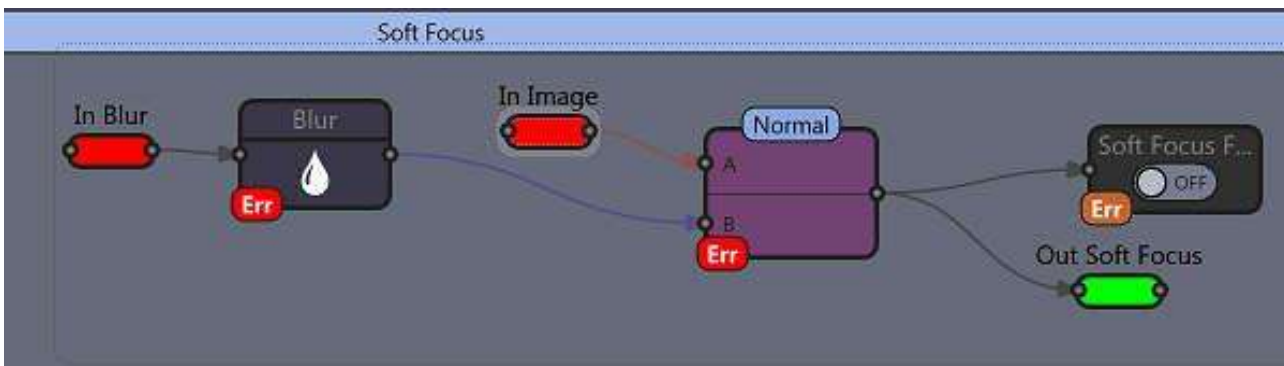
09 Now click on the "Main Flow Tab" on the bottom to go back to your main workspace.

10 Connect your main image to the 2 input connectors for your black box and connect the output connector of the black box to the output image and we're done for the moment.


We're starting to get there, I know my Black Box is the Soft Focus Filter, I can connect images or other filters to my Black Box but something is still not right. I'll leave that for another day. Don't forget to save your project file.

I need Better Control

01 Open up your Soft Focus Filter Project, go to File / Save Project As and put a 1 or an a after Soft Focus Filter so we don't write over the original file. We will be looking at 2 different ways to add controls to our project and will need the original file to do the 2nd way.

02 Now add your Main Image to the project.
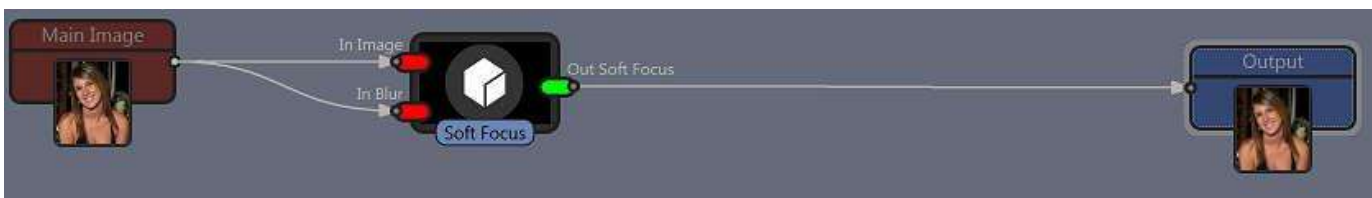
03 When we last left off we had our neat and tidy Little Black Box but unfortunately we don't have any controls. We can select our Soft Focus Little Black Box and click on the "Edit Inside" tab to get to the controls but that's too awkward. We would need to click on each module in our filter one at a time and then adjust the settings in our control panel on the right. There are different ways of doing this. The 1st method we're going to use is not
my preferred method but I'll let you decided what works best for you.

04 Right click on your Soft Focus Little Black Box and select Ungroup. If you have to, move some of the objects so we can spread it apart and have some room to work with like below.
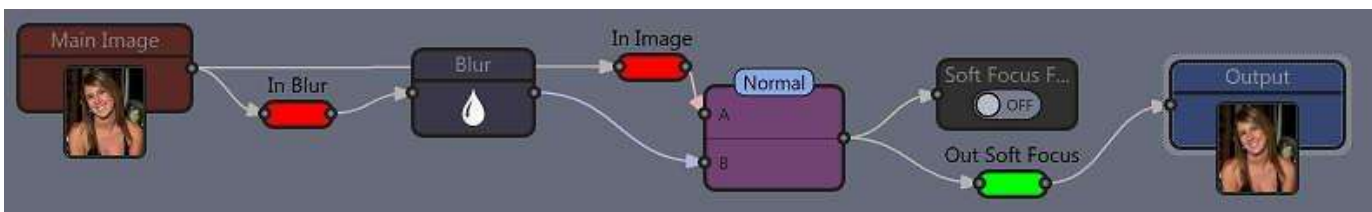
05 Drag your Soft Focus Switch and move it to under the Blur In Pin (#1 Below).

06 Go to the building blocks menu on the left and scroll down to "Knob (log)" and drag it to your workspace under "Blur". Make sure it is "Knob (log)" and not just the plain "Knob". Now go to the "Output Node" (Right Node) of the "Blur Module" and drag a connection to your "Knob" the node is on the left. Now play with your knob a little to watch the effect change. Don't go much past 4 for a setting.

07 Go back to the building blocks menu on the left and scroll down to "Slider" and drag the slider under the "Blending Layers Module" (Normal). If the slider doesn't connect on its own connect the "Output Node" (Right Node) of the "Blending Layers Module" to your slider. Now play with your slider a little and watch the opacity
change in your output image. Your flow should look like mine below.
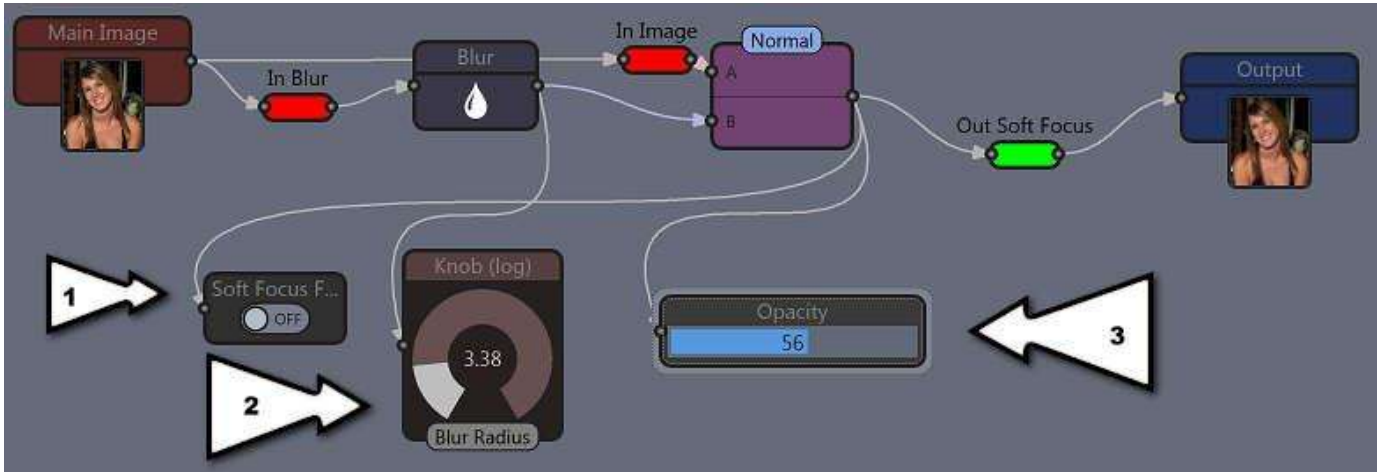
08 Select your Knob in the workspace, go to the control panel on the right and type in Soft Focus for the label. If you're having a hard time with the labels, type in the label and then click anywhere on the blank workspace. (Image 1 Below)

09 Select your Slider in the workspace, go to the control panel on the right and type in Opacity. (Image 2 Below). Your controls should now look like Image 3 below.
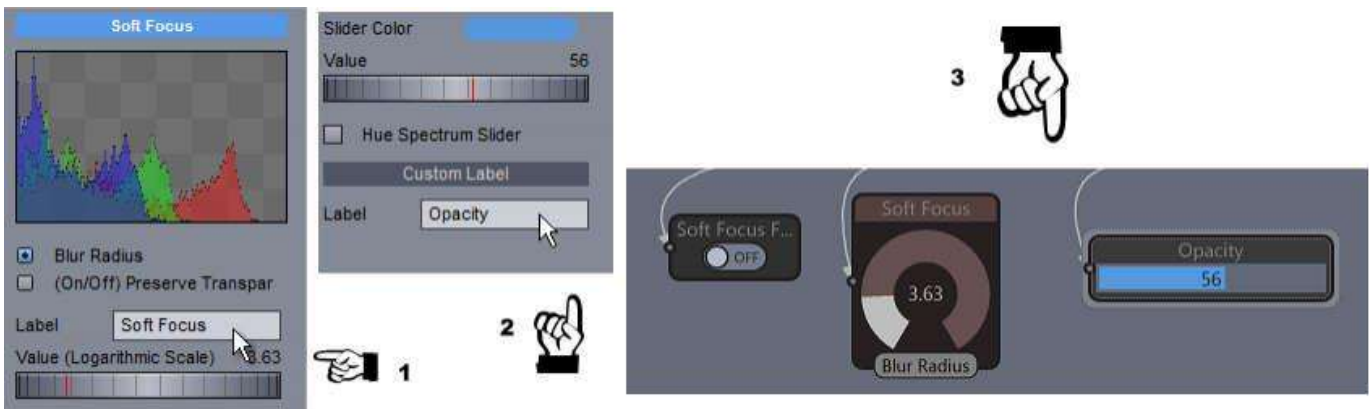

10 Back to your workspace drag a box around the 5 components of our Soft Focus Filter. Do not include the controls, just the 2 red pins, the green pin, the Blur Module and the Blend Layers Module. See Below.
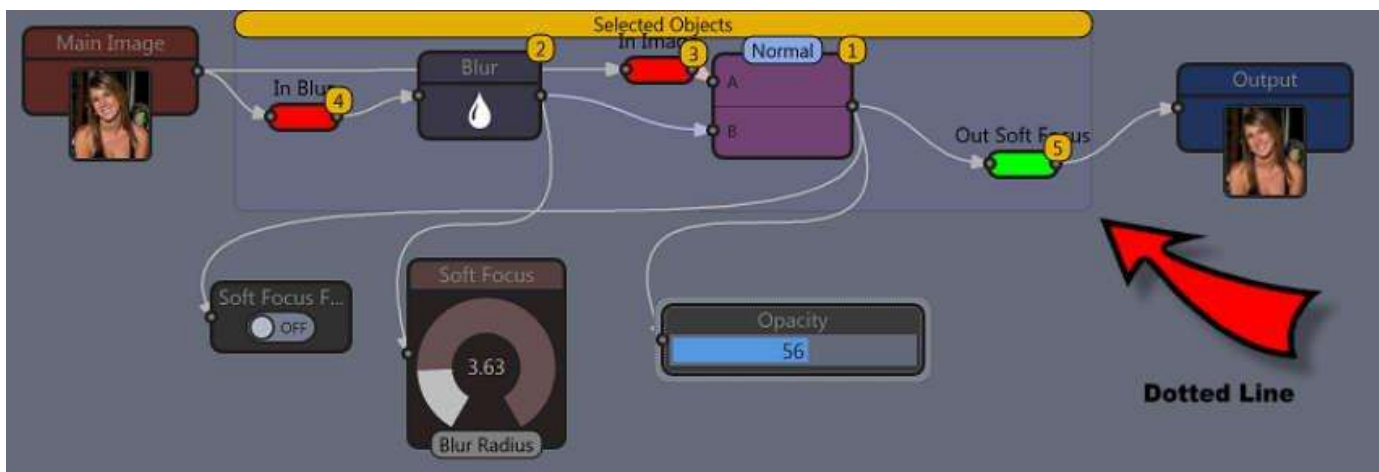
11 Right click your group and select "Group"

12 With the group still selected go to the control panel on the right and label it Soft Focus and then select Minimize to Black Box. Our Little Black Box will appear again, the pins are labeled, we know it's a Soft Focus
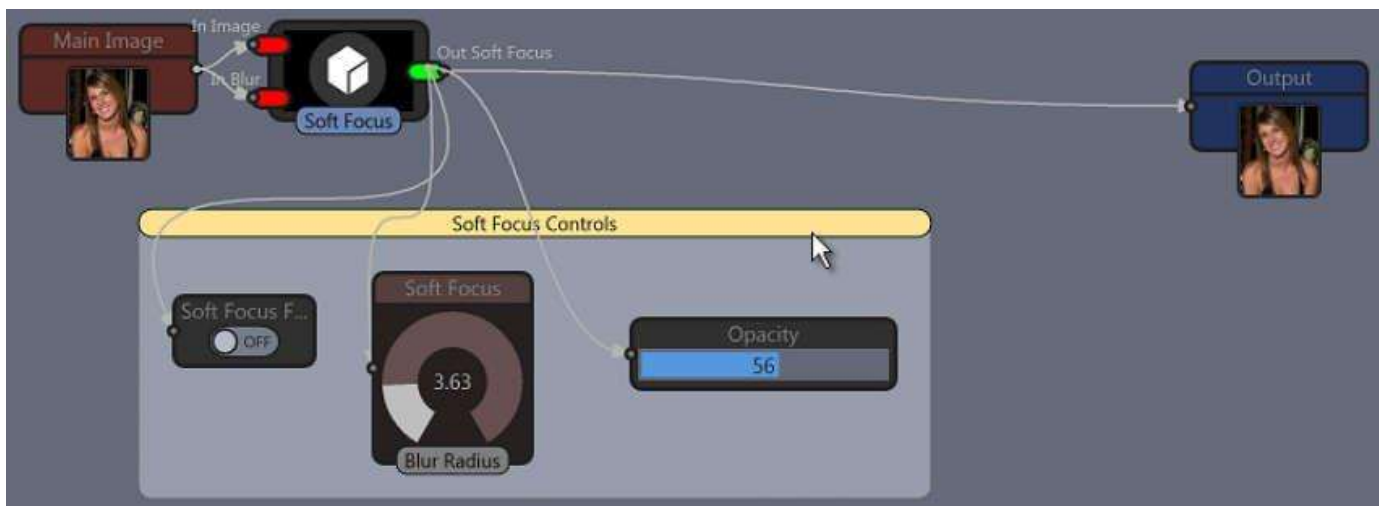Filter and now we have controls. We're on our way.
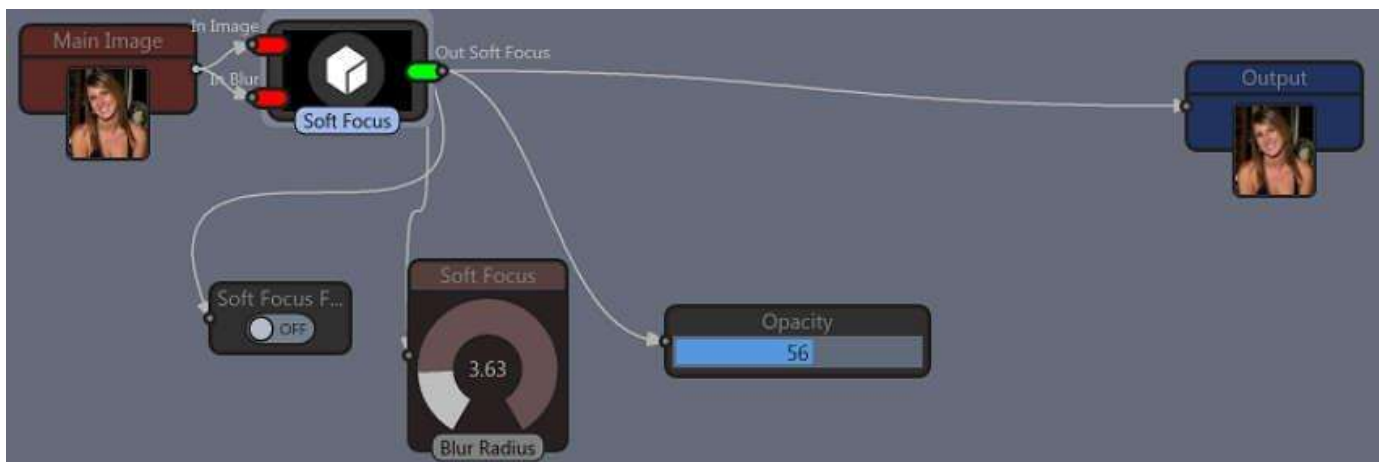
13 The last thing we're going to do for this tutorial is group the controls. Draw a box around your 3 controls, right click and then select Group.

14 Go to the control panel on the right and label it Soft Focus Controls.

15 Now drag your Soft Focus Control group around and you'll notice everything stays together and connected in a neat little Control Panel. You're going to hate me but I don't like it. Still too many wires and stuff in the workspace. I hate wires. Have you ever cleaned behind your desktop computer and wondered how these wires get all tangled up when nobody ever touches them?

Next tutorial The Remote Control Era and Custom Control Panel!

Remember Save this project with a different name. You'll need the original one we started this tutorial with for the next method of control.

The Remote Control Era and Custom Control Panel

01 Open our original Soft Focus Filter file (not the one we just added controls to) and then save it as Soft Focus
Filter2 or B so we can compare methods if you're not convinced this method is the way to go.

02 Load your Main Image.

03 Go to the building blocks menu on the left, scroll down and find Parameters Group and drag it to under our
Soft Focus Filter in our workspace.
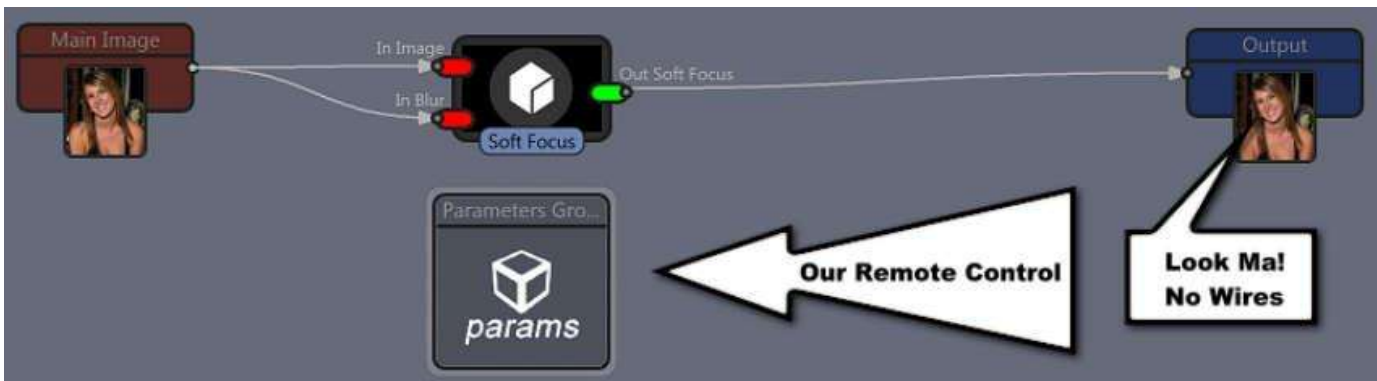
04 Double click on your Parameters Group Module and a new window will open like below. There are basically
5 Boxes you'll be working with in this window. Trust me it's a lot easier than it looks. The only change I would make with this window is I think the order of boxes 1 to 4 should be reversed for an easier work flow.

05 Down to business. Go to Box #4 in our new window, type in Soft Focus Controls for the label. You'll see notes next to this, notes are basically if you plan on copyrighting your module and sell it. There is really no reason

to fill it in. For the heck of it so you can see how it works Click on the BG Color tab and change it to Blue. Click on the Title Color Tab and change it to White. See Image 1 Below.

06 Go to Box 3 and select "Blend Layers" you'll see all the controls for the Blend Layers Module appear below. See Image 2 Below.
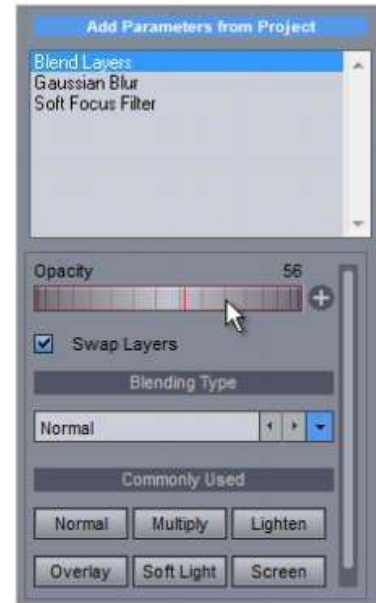
07 The only control we'll really need for this module is the Opacity Control. Click on the wheel or control of the

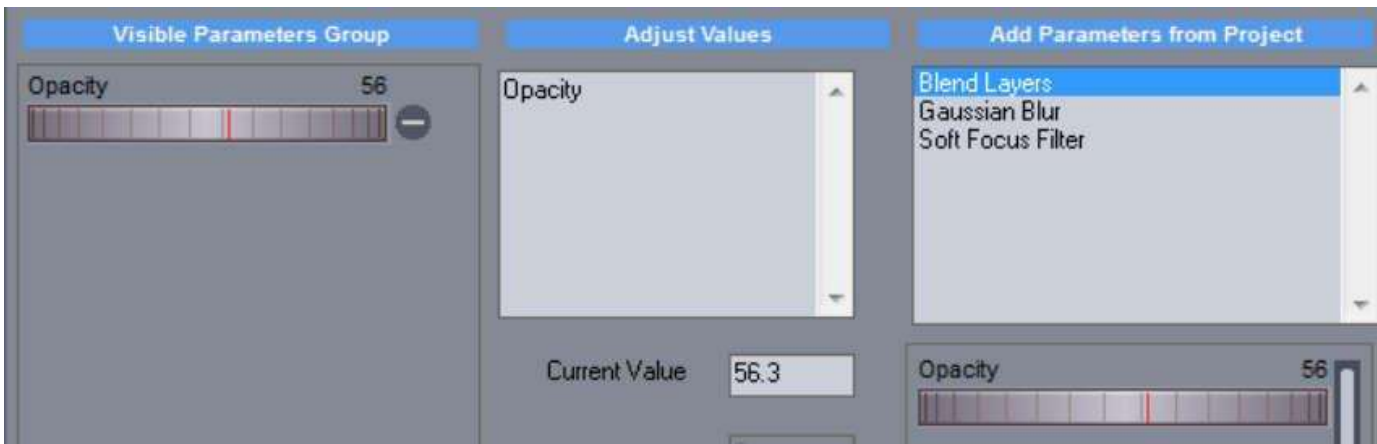Opacity Control and a "+" sign will appear on the right of the control like in Image 3 Below.

Image 1

Image 2


Image 3

08 Click on the + (Plus Sign) next the control and you'll see "Opacity" show up in Box 2, and the Control Wheel show up in Box 1 like below.

09 We can add just about any element and control we want. Next select Gaussian Blur in Box 3, click on the Blur Radius Wheel underneath, click on the plus sign and you'll see them listed in Box 1 and 2.

10 I don't like Blur Radius for a title so I'm going to change it to Soft Focus in Box 2 and you'll see it update in
Box 1.
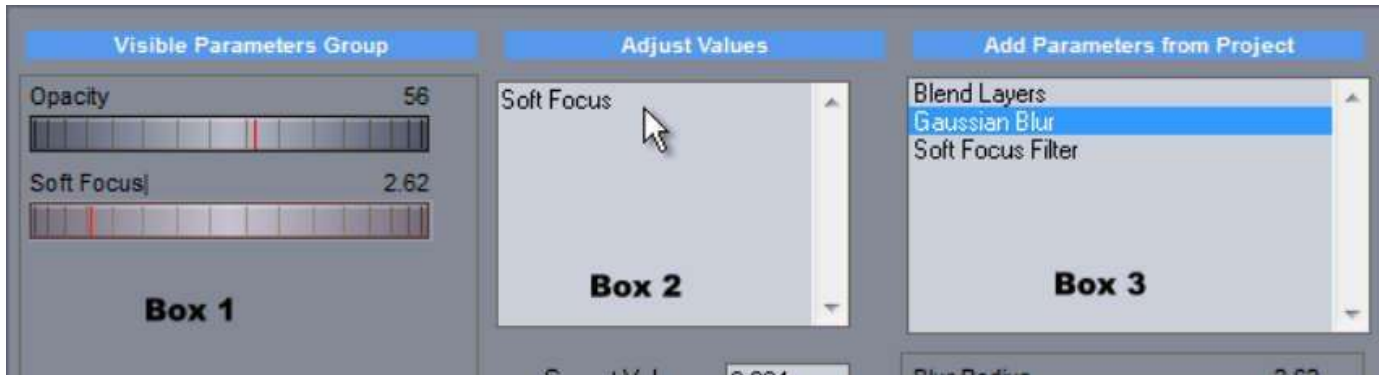
11 The last thing we need to add is our Bypass Switch. Remember we want to be able to turn the effect off and on as needed. Select Soft Focus Filter in Box 3, click on Soft Focus Filter next to label, then click on the plus sign to add it to Boxes 1 and 2.

12 Click on Bypass Linked Object, click on the plus sign to add it to Boxes 1 and 2. I don't like Bypass Linked
Object so I'm going to Box 2 and typing in Turn off Soft Focus. It updates in Box 1.

13 For some final tweaks I'm going to rearrange my controls. We'll be working in Box 1 and using the controls in Box 5 (Buttons) WARNING! When we click on an item in Box 1 DO NOT click on the minus sign or you'll delete it and have to add it again. Click on Soft Focus Filter in Box 1 and go to Box 5 and click on the Up Button until Soft Focus Filter is the top item in our list in Box 1. Image 1 Below.

14 Now select Turn off Soft Focus in Box 1 and again use the Up Button in Box 5 and make it the 2nd item in
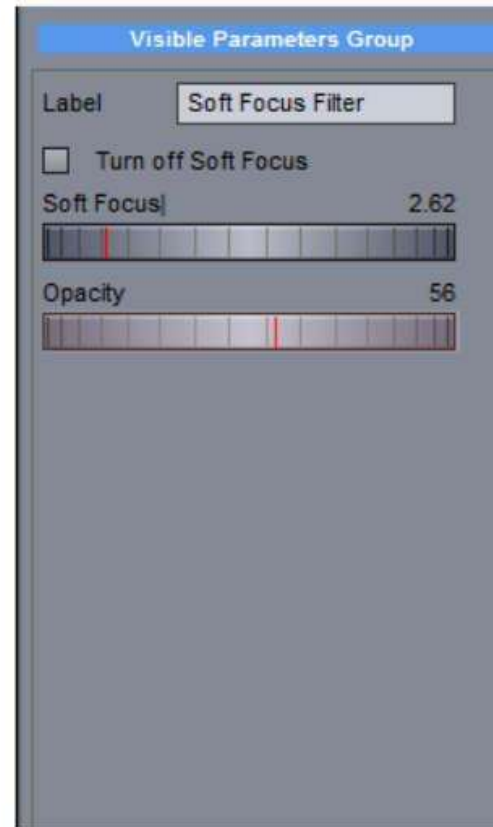Box 1.

15 Finally, select Opacity in Box 1 and use the Down Button in Box 5 to make it the last item on our list.
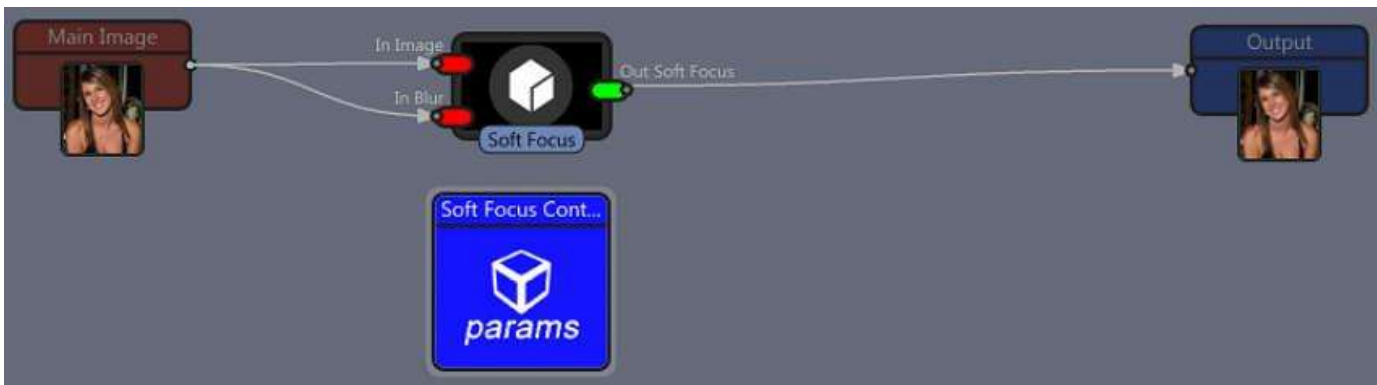
Image 1
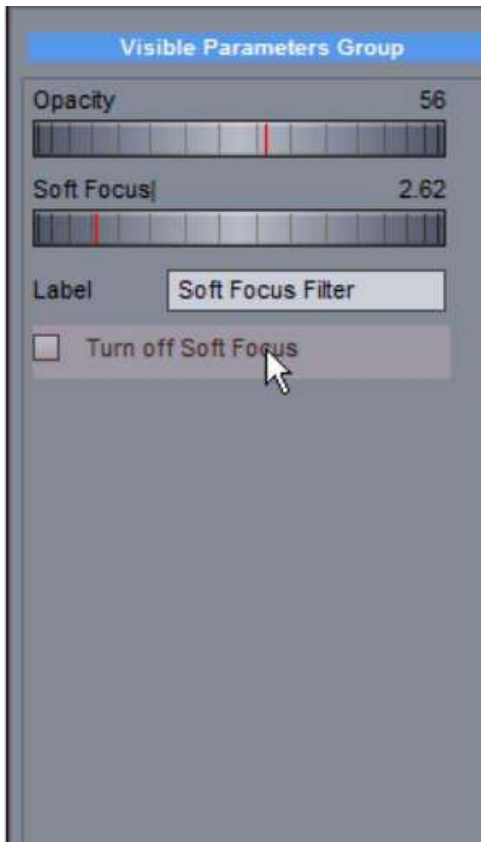
Image 2

16 Now just click OK in the bottom right corner to close this window. Your workspace should look like mine below.

17 Now the beauty of all this hard work. Look at your control panel on the right. Tada! You did it! You just created your own Custom Control Panel. Go ahead give it a whirl. Turn it off, adjust the softness, change the opacity, it works like a charm.

We're not done yet so don't rest on your laurels.