

Black and White using Photoshop

Topics to be covered:

- Methods for B&W conversion
- Improving the image
- Toning
- Printer color management

Various ways to get to B&W

- Adobe Raw Converter (ACR) – in from Bridge or Lightroom
- Desaturate – in ACR or Photoshop
- Mode/Convert to Grayscale File type
- Channel Mixer adjustment layer – (not available in Elements)
- Channel Mixer and Hue/Saturation adjustment layers
- Gradient Map
- B&W Adjustment Layer
- Plug-in (Nik Silver Efex Pro, Topaz, etc.)
- Convert to Black and White – Elements only
- In the camera – many of today's cameras can create B&W in the camera.
Avoid this as the conversion is probably going to be flat (low contrast) and it reduces your options for a color version later.
Note: It may not always be the same choice for all images.

Terms

- Dodge – lighten an area
- Burn – to darken an area
- Flat – low contrast; mostly middle gray tones
- Blocked up – highlight areas with no detail
- Under printed – contrast is too low or too light; maybe needs more blacks

Implementation

- Do as much as possible in the raw converter
- Use 16-bit files if you have the RAM and software that can handle them. 16-bit files makes for a better conversion with smoother tonal graduations.
- Put everything on its own layer
 - ALL adjustments (levels / curves)
 - Cloning
 - Burning
 - Soft Focus
- Use Layer Masks

Adobe Camera Raw Converter

- Select the HSL/Grayscale tab (4th tab) – Or B&W panel in Lightroom
- Check the Convert to Grayscale box

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- Adjust the sliders to your liking
- You can then go back to all the other tabs and adjustment tools to make further global or local adjustments to the image

Desaturate in Photoshop

- Select Image > Adjustments > Desaturate from the menu
- There are no options with this method but Levels could then be used to improve the image

Convert to Grayscale in Photoshop

- Select the Image > Mode > Grayscale
- Again, there are no options with this method but Levels could then be used to improve the image

Channel Mixer Adjustment layer (not available in Elements)

- Select Layer > New Adjustment Layer > Channel Mixer
- Check the Monochrome box at the bottom
- Adjust the sliders to your liking. The Constant slider changes the overall brightness
- Adobe will tell you the Total value under the RGB sliders should be 100%. I find that too arbitrary and rarely does that give me the best looking image

Channel Mixer and Hue/Saturation adjustment layers

- Select Layer > New Adjustment Layer > Hue/Saturation
- Select Layer > New Adjustment Layer > Channel Mixer
- It is important that the Channel Mixer layer be above the Hue/Sat layer in the Layers panel. (Both of which should be above the background layer)
- In the Channel Mixer layer properties, check the Monochrome box
- I often adjust the Channel Mixer Red slider to come close to what I want
- Then switch to the Hue/Sat layer adjustments panel
- Try some of the Presets as they may get you closer to what you want
- Under Preset is a list that includes several color channels (it starts out with Master selected)
- Adjusting the sliders for each color will affect different parts of the image. That will change from one image to the next. Usually, only 2-4 colors will actually affect the image.
- Click on that list and select the first color, Reds
- Adjust the Hue, Saturation and Lightness sliders for Reds to see how they affect the image
- Then repeat the last 2 steps for each of the other colors by selecting them, one at a time, from the list and adjusting the sliders
- Adjust the sliders to your liking. The Constant slider changes the overall

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Gradient Map

- Select Layer > New Adjustment Layer > Gradient map
- There are no adjustments available. Any adjustments would require additional adjustment layers, such as Levels

Black and White Adjustment layer

- Select Layer > New Adjustment Layer > Black and White
- Now you have adjustments in 6 sliders plus tinting capability
- You might first try the presets
- One quick way to adjust the values is to click on the hand icon in the B&W layer's Properties panel. Then click and drag your mouse on an area in the photo that you would like to change. Dragging to the left or right will decrease or increase all similar color values in the photo.
- Or, each color slider can be adjusted individually. Any given slider will affect each photograph differently so you will always want to try them all.
- There is an icon at the bottom of the Properties panel that provides easy access to making this a clipping mask

Nik Silver Efex Pro

- Plugin from Nik software
- Very powerful and can save a lot of time over the methods above
- It can automatically create a new layer with the black and white changes
- Contains several presets. Presets are a good way to start and often require no further adjustments. You can also add your own or load some you may have downloaded from others.
- Click on the star under any preset to add it to the Favorites list
- Unlimited Control points can be added to make adjustments to specific areas. This greatly adds to the flexibility of the plugin
- Each control point has seven attributes that can be changed individually
- Clicking the small black box next to each control point in the list of those you have created will show you what will be affected by that point. Everything white will be affected and everything that is black, will not be affected.
- Toning is available
- Vignettes can be created and there are several presets
- It can automatically burn the edges
- Borders can be added and there are several presets

Toning

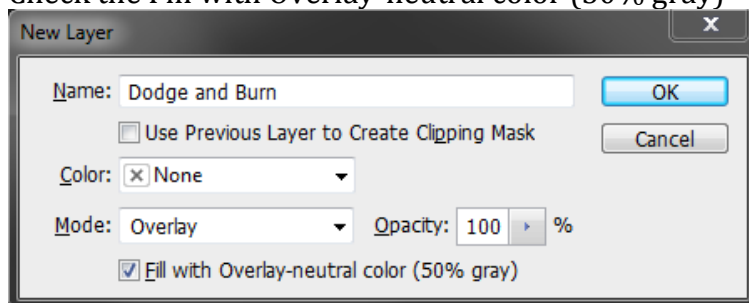
- In Photoshop
 - Convert to black and white with Channel Mixer or Gradient Map

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- Add a Solid Color Adjustment layer above your black and white layer using icon at the bottom of the Layers panel
- Select a color in the tone that you want – i.e. brownish tone for sepia appearance
- Click OK and then change the blend mode of the color layer to Overlay
- Reduce the opacity of the color layer to get the desired look
- Alternative in Photoshop
 - Convert to B&W using the Black and White adjustment layer
 - Click the Tint checkbox in the properties panel and choose a color
 - If you want to reduce or increase the intensity of the color, click on the color swatch again and slide the circular selection to the left or right
- in ACR
 - Select the Split Toning tab (5th tab)
 - Adjust the Saturation sliders first to get close to desired tone
 - Then adjust the Hue sliders for fine tuning the color
 - Try the Balance slider for different appearances

Improving the image

- Dodging and burning
 - Create a new layer. Ctrl + Shift + N or Layer > New > Layer from the menu
 - Change the name to Dodge and Burn
 - Change the Mode to Overlay. This should make the checkbox below Mode available
 - Check the Fill with Overlay-neutral color (50% gray)



- Click OK
- Select the brush tool. Make sure it has a very soft edge and adjust the size of the tool for the area you want to adjust.
- Keep the brush opacity low, around 10-20%
- If you would like to burn (darken) an area, make the foreground color black.
- With the Dodge and Burn layer still selected, paint over the areas you want to burn.
- If you want to dodge (lighten) an area, make white the foreground color before painting.
- Each time you paint over the same area it will increase the effect.

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- You could also make one layer for dodging and a separate layer for burning. This would allow you to change the opacity of the layer and only effect just the darkened or the lightened areas but not both.
- Improving contrast
 - Create a new Levels or Curves adjustment layer
 - Adjust the three sliders to your liking
 - If some parts of the image are made too dark or too light by this, you can reduce the effect in those areas by painting on the layer mask.

Printer options

Black ink only

Using all inks

Printer Controls – Show and demo

Get ICC Profiles

Paper options

Luster/Pearl/Satin – most forgiving – recommended

Glossy

Smooth

Matte – most risky – can look very good but it can also easily take away the “pop” of an image and can flatten the contrast if not printed correctly

It is usually best to stick with a paper from the same manufacturer as your printer.

Best advice – choose a paper and stick with it

Black and White using Photoshop

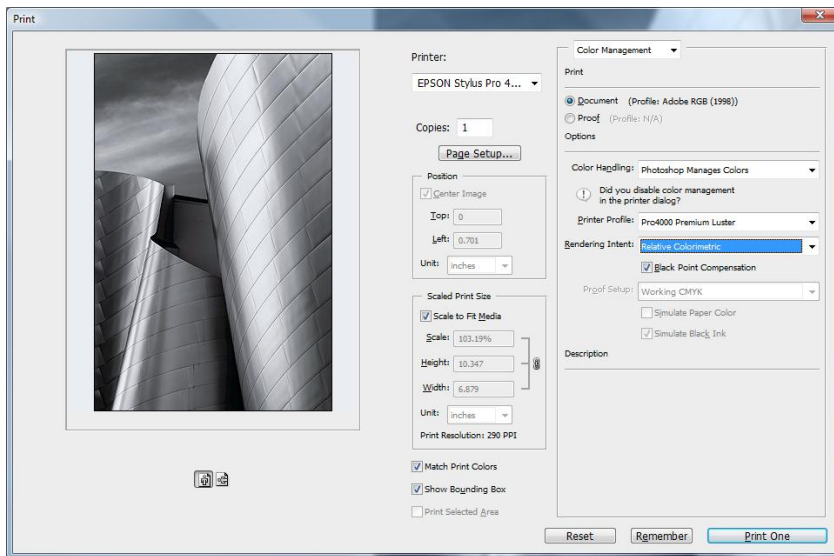
Epson Color Managed Workflow (for PC users)

Depending on your model of printer and the version of Photoshop you are using, your screens may look different from those below. But the concepts and the choices you need to make should be the same.

Make sure that you have the ICC profiles for the Printer AND Paper you plan to use. You can usually get them from the Paper Manufacturer (Epson, Ilford, ...)

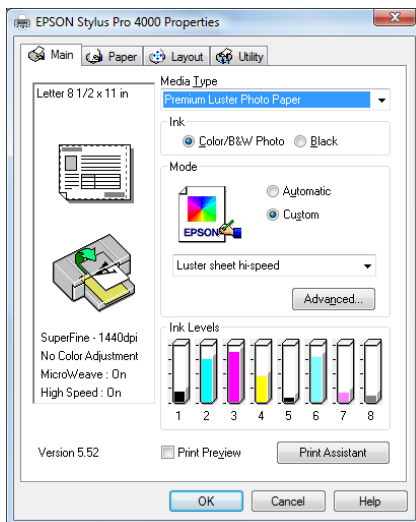
In Photoshop Select “File/Print...”

This includes a preview:



First Choose Printer at top Center.

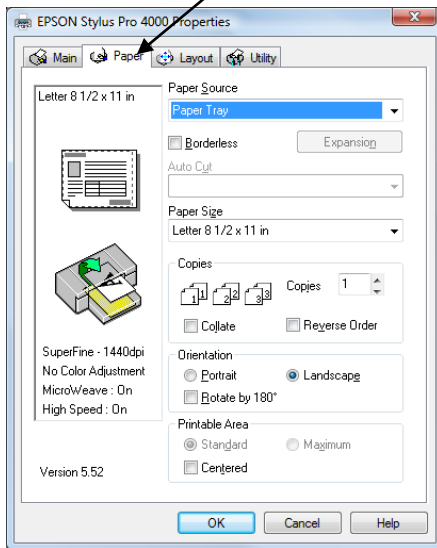
Select the Page Setup button to bring up the Printer dialog box, below.



Select (again) the paper in the “Media Type” drop down.

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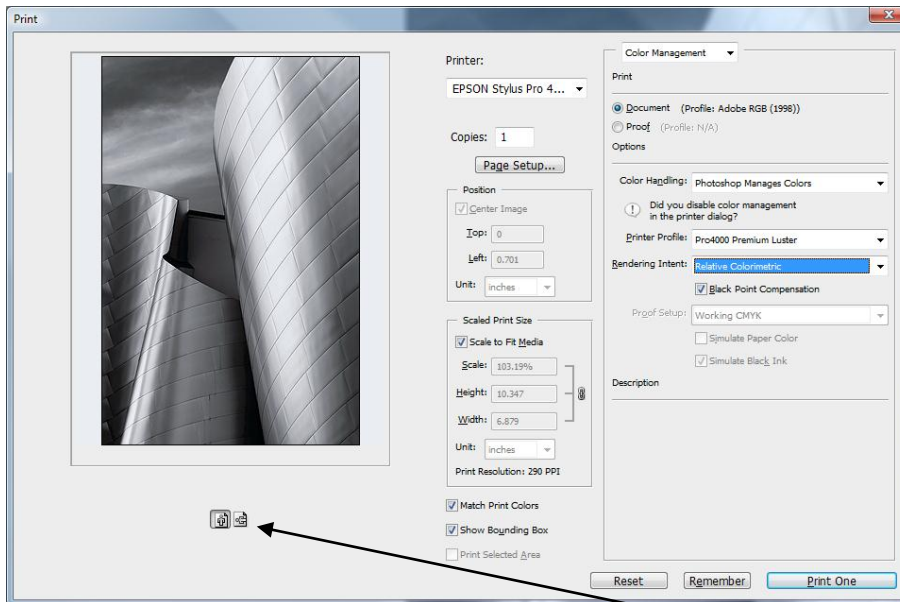
Switch to the Paper tab at the top.



Select the correct Paper Source and Paper Size.

Orientation can be done on the Photoshop Print screen you will go back to next.

Click OK on the screen above to return to the Photoshop Print screen below



In the center, select size and centering. Then select Orientation.

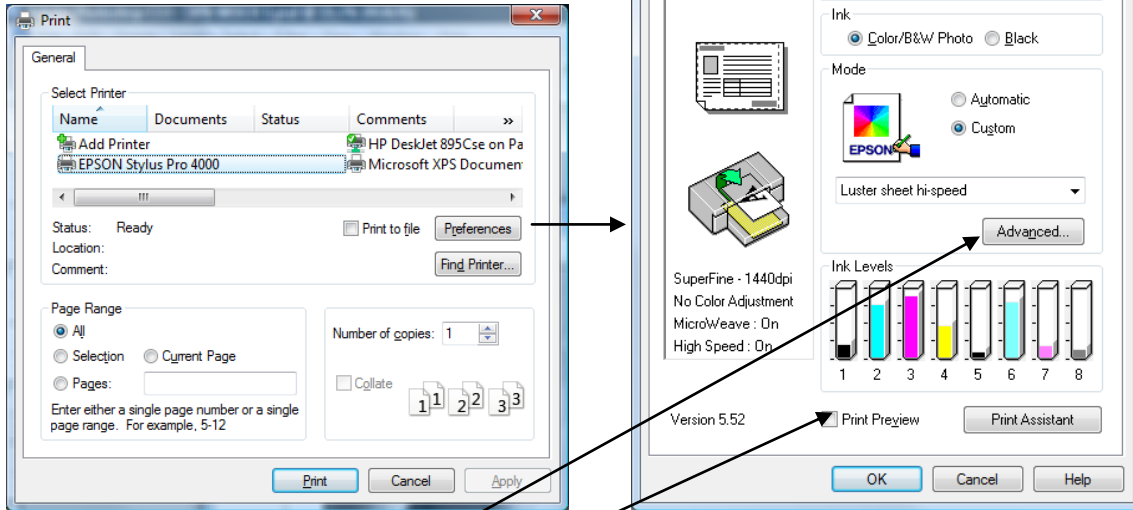
Now to the right 1/3 of the Dialog box:

- Select: "Color Management" in the top drop down menu.
- Select: Document (not proof)
- **Select: Photoshop Manages Color (REMEMBER to Disable Color Management in the Printer Dialog Box!! See next page)**
- Select: the Printer profile – specific to Printer AND Paper
- (I use "Relative Colorimetric" and Black point compensation. Test the others but you probably won't see a difference.)

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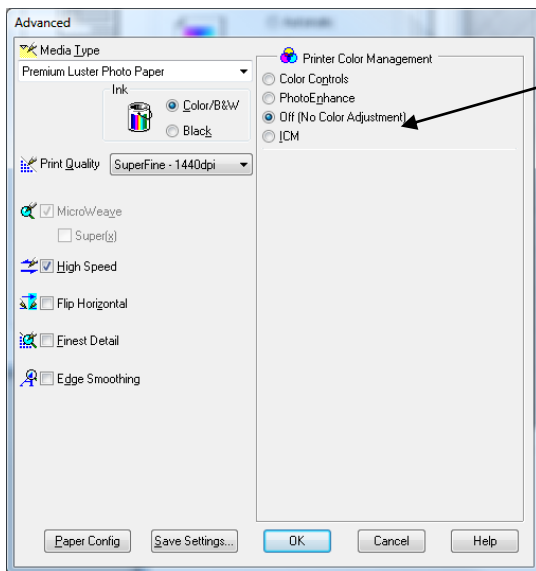
Select: Print – this will take you to the screen on the left below:

Select the correct printer, again.
Select the Preferences button.



Select the Advanced button which will take you to the screen below.

Note: If you use Print Preview, Photoshop will display the image for you again just before it prints. If the image looks bad (colors are off, etc) that is fine. If it looks perfect, there is a good chance that you've selected the wrong choice in the Color Handling field on the first Photoshop Print screen. Cancel out of the preview and start over, double-checking that you do not select "Printer Manages Color" on the first Print screen.



Printer color management is in this dialog box.

Select "OFF" (NO Color Adjustment) – Most important

Double check the Media Type and make sure it is the correct paper. If using roll paper, keep in mind that for some paper, like Epson, there is a different paper profile for the roll paper than there is for the same paper in sheet form. Pick the right one.

Select Print Quality of 1440dpi. In almost all cases, 2880dpi is no better than 1440dpi to the naked eye but it uses much more ink.

Run print tests with and without High Speed. If you can see a difference, choose the appropriate choice from your results.

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Black and White in Lightroom

Option 1 -In the Develop module, the top panel is called Basic. In the top of that panel there is a line that says Treatment. You can select Black and White there.

Option 2 – In the HSL/Color/B&W panel, click on the B&W in the panel header.

If you double click on the line above the sliders, “Black and White Mix”, all the sliders will reset to 0.

Or you can select the Auto button below the sliders

On the left of the screen is the Presets panel. There you will find several useful presets for B&W.

You can now go back to the Basic panel and adjust any of the sliders to improve the image. You may want to go back to the HSL/Color/B&W panel and adjust the Black and White Mix panel.

You can also use any of the adjustment tools.

The backslash key “\” will toggle on and off the Preview so you can see the before and after of your image.

You can press the Y key to see a side by side comparison with the original.