

## Processing a Digital Image – Revision 11.17 Best Practices

1. Transfer original JPEG (.jpg ) or RAW camera file to hard drive of your choice via USB or Firewire – directly from the camera or with a card reader.
2. Sort, Select and Process (if shooting RAW) within **Adobe Bridge**
3. Open JPEGs requiring adjustment in **Adobe Photoshop**.

3a. Duplicate background layer

3b. Apply all corrections/modifications as “adjustment layers”

Luminance – Levels

Color – Curves

Grayscale – Channel Mixer

Sharpening – Unsharp Mask applied to Duplicate Background Layer

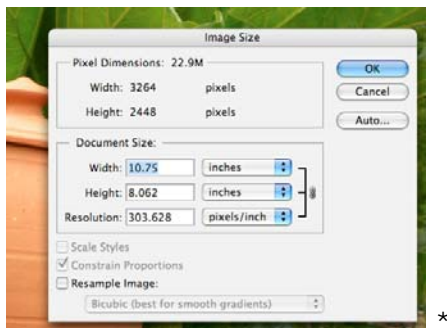
4. Saving Working copy of file as Photoshop File Format (.PSD) or .TIFF (without compression, or maintaining layers)

### Preparing the working copy for Print

Color working space should be configured to **Adobe RGB 1998 / Pro Photo RGB (?)** prior to opening files for print.

1. Open working copy of the file and apply any adjustments required prior to scaling resolution to appropriate dimension for the final print (as described above).

2. Convert Resolution to appropriate print dimensions with **Resample OFF**  
**Photoshop Menu -> Image -> Image Size**



### Print Dimension Recommendations:

8.5X11 Sheet with Narrow Margin – 10.75 on the largest dimension/height or width

8.5X11 Sheet with No Margin – Borderless – 11 (requires borderless sheet feeder selection in Page Setup)

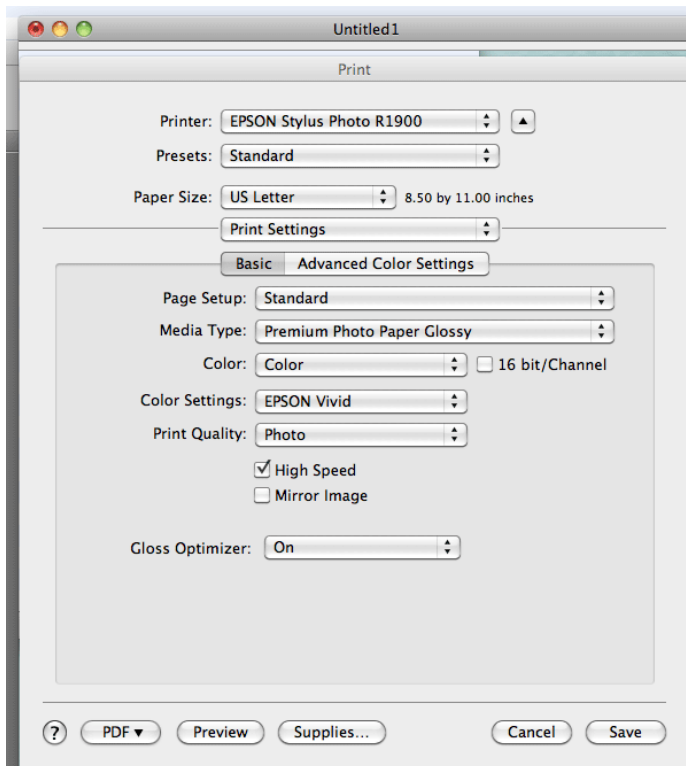
8.5X11 Sheet with Larger Margin for Mount/Matting – 9.5 on the largest dimension

**Sharpening** – Unsharp mask applied as final step prior to printing (\*Unsharp Mask applied to Duplicate Background Layer)

Depending on the size and complexity of the file an optional final step prior to sending to printer is to flatten all layers. (**\*Do not overwrite your working file in the flattened state!**)

3. Adobe Photoshop File Menu - Select **Print**

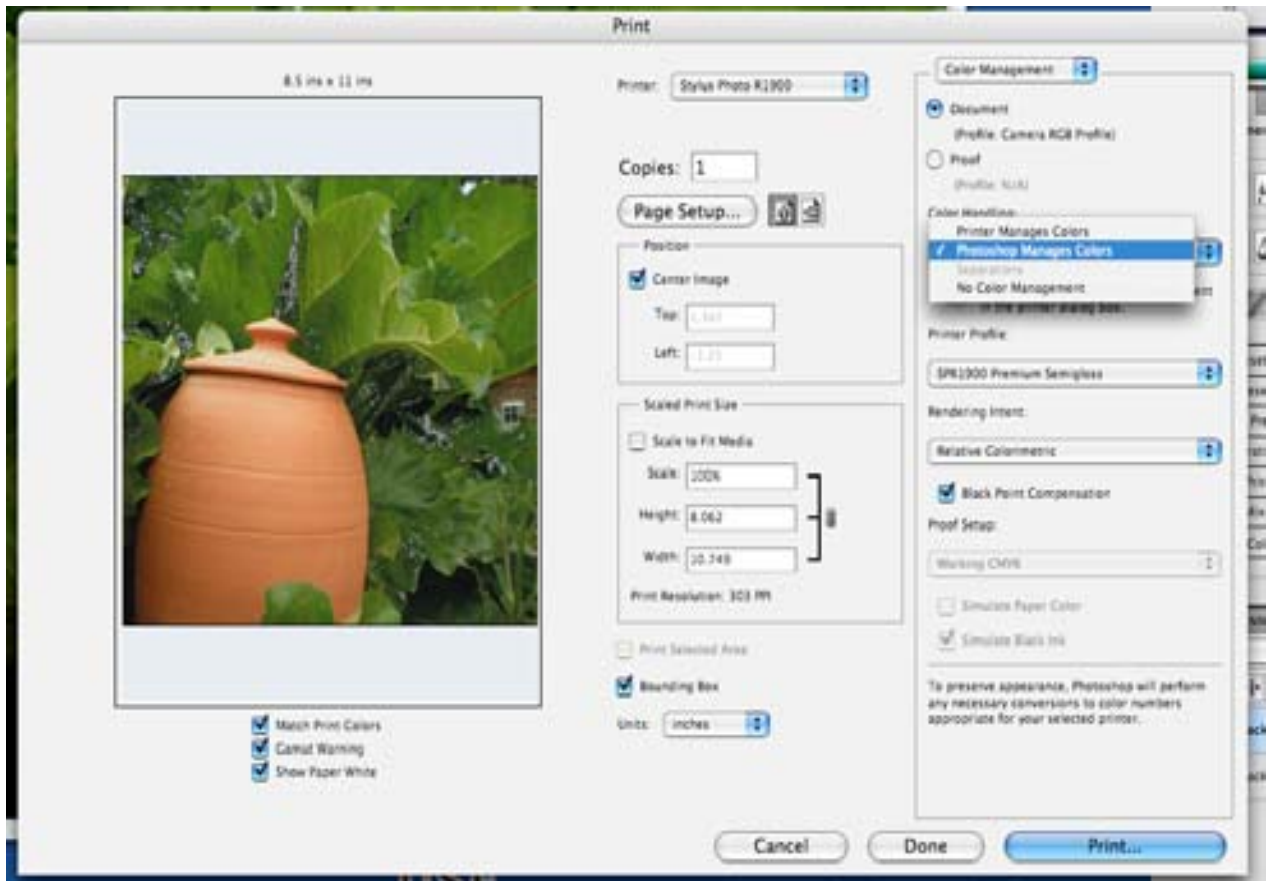
4. Click on **Print Settings** – Select **Printer**, **Presets** are **Standard**, and **Paper Size**.



### Print Settings

- **Media Type** - set the appropriate paper surface or media type.
- **Color** - Ink Use **Color** or **Black** only \*grayscale
- **Color Settings** - **OFF (No Color Adjustment)**
- **Print Quality** \*should be resolution:
  - Photo (1440x720)
  - Best Photo (1440x1440)**
  - Photo RPM (5769x1440)
- **High Speed** - **ON**
- **Gloss Optimizer** – **ON/OFF** (\*optional)

Select **Save**. Return to Printing with Preview menu



7. **Color Management** menu (\*right hand column)

**Let Photoshop Determine Colors**

8. **Printer Profile Selection**– choose Profile for specific printer and paper.

The primary difference with regard to an Epson print using a printer profile is the selection, installation and application of a paper profile specific to the paper and printer combination. In the initial color management menu under Print select the Printer Profile provided by the manufacturer of the paper you have chosen for this specific printer. All other color management systems and options will be turned off in a later menu.

Lab Color

✓ Adobe RGB (1998)

Apple RGB  
ColorMatch RGB  
ProPhoto RGB  
sRGB IEC61966-2.1

Coated FOGRA27 (ISO 12647-2:2004)  
Coated FOGRA39 (ISO 12647-2:2004)  
Coated GRACoL 2006 (ISO 12647-2:2004)  
Japan Color 2001 Coated  
Japan Color 2001 Uncoated  
Japan Color 2002 Newspaper  
Japan Color 2003 Web Coated  
Japan Web Coated (Ad)  
U.S. Sheetfed Coated v2  
U.S. Sheetfed Uncoated v2  
U.S. Web Coated (SWOP) v2  
U.S. Web Uncoated v2  
Uncoated FOGRA29 (ISO 12647-2:2004)  
US Newsprint (SNAP 2007)  
Web Coated FOGRA28 (ISO 12647-2:2004)  
Web Coated SWOP 2006 Grade 3 Paper  
Web Coated SWOP 2006 Grade 5 Paper

Dot Gain 10%  
Dot Gain 15%  
Dot Gain 20%  
Dot Gain 25%  
Dot Gain 30%  
Gray Gamma 1.8  
Gray Gamma 2.2

CIE RGB  
Display  
e-sRGB

Generic RGB Profile

HDTV (Rec. 709)

HFA\_Eps1900\_PK\_FABaryta

HFA\_Eps1900\_PK\_PRbaryta

hp color LaserJet RGB v402

IGSGP11\_EPR1900\_PSPPn.icc

IGSGP9\_EPR1900\_PSPPn.icc

IGSHMP\_EPR1900\_PQIPn.icc

IGSPP9\_EPR1900\_PSPPn.icc

INK\_MAT80\_1900.icc

IP BARYTA-EPS 1900.icc

IP LUSTER-EPS 1900.icc

IP SATIN FIBER-EPS 1900.icc

IP WARMTONES-EPS 1900.icc

MOAB Colorado Fiber Gloss Epson R1900.icc

MOAB Colorado Satine R1900.icc

MOAB Entrada Bright R1900.icc

MOAB Entrada Natural R1900.icc

MOAB Lasal Matte R1900.icc

Museo Silver Rag\_Epson R1900 (UltraPremiumPhotoPaperLuster\_Gloss OFF\_BestPhoto).icc

Museo Silver Rag\_Epson R1900 (UltraPremiumPhotoPaperLuster\_Gloss ON\_BestPhoto).icc

NTSC (1953)

PAL/SECAM

ROMM-RGB

SDTV NTSC

SDTV PAL

SMPTE-C

SPR1900 Double-Sided Matte Paper

SPR1900 Matte Paper-HW

SPR1900 Photo Paper Glossy

SPR1900 Photo Qty IJP

SPR1900 Premium Glossy

SPR1900 Premium Luster

SPR1900 Premium Semigloss

SPR1900 Standard

SPR1900 Ultra Premium Presentation Matte

SPR1900 Ultra Smooth Fine Art Paper

SPR1900 Velvet Fine Art Paper

SPR1900 Watercolor Paper - Radiant White

Wide Gamut RGB

IGS Ilford:  
GP 11/9 = Glossy  
PP9 = Pearl

IP - Ink Press + Surface

MOAB = MOAB

Epson = SPR + Surface

## 9. Rendering Intent – Relative Colorimetric,

A **rendering intent** determines how a color management system handles color conversion from one color space to another. Different rendering intents use different rules to determine how the source colors are adjusted; for example, colors that fall inside the destination gamut may remain unchanged, or they may be adjusted to preserve the original range of visual relationships when translated to a smaller destination gamut. The result of choosing a rendering intent depends on the graphical content of documents and on the profiles used to specify color spaces. Some profiles produce identical results for different rendering intents.

**Perceptual** Aims to preserve the visual relationship between colors so it's perceived as natural to the human eye, even though the color values themselves may change. This intent is suitable for photographic images with lots of out-of-gamut colors. This is the standard rendering intent for the Japanese printing industry.

**Saturation** Tries to produce vivid colors in an image at the expense of color accuracy. This rendering intent is suitable for business graphics like graphs or charts, where bright saturated colors are more important than the exact relationship between colors.

**Relative Colorimetric** Compares the extreme highlight of the source color space to that of the destination color space and shifts all colors accordingly. Out-of-gamut colors are shifted to the closest reproducible color in the destination color space. Relative colorimetric preserves more of the original colors in an image than Perceptual. This is the standard rendering intent for printing in North America and Europe

**Absolute Colorimetric** Leaves colors that fall inside the destination gamut unchanged. Out of gamut colors are clipped. No scaling of colors to destination white point is performed. This intent aims to maintain color accuracy at the expense of preserving relationships between colors and is suitable for proofing to simulate the output of a particular device. This intent is particularly useful for previewing how paper color affects printed colors.

## 10. Black point compensation – checked

**Black Point Compensation** Ensures that the shadow detail in the image is preserved by simulating the full dynamic range of the output device. Select this option if you plan to use black point compensation when printing (which is recommended in most situations).

## 11. Select **Print – Load Paper / face up**