In Search of... <u>The</u> PERFECT COLOR PRINT

Printing in Photoshop CS3

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PhotoPlus Expo 2007

Additional Notes:

schewephoto.com/workshop

Printing in Photoshop



It's All About The Print...

Tone & Color Correction using... Soft Proofing To optimize tone and color for the final output.

How Many People Use Soft Proofing EVERY TIME THEY PRINT?

Proof Setup	•	Custom	N
Proof Colors	ЖY	Custonin	4
Gamut Warning	企 業Y	Working CMYK	
Pixel Aspect Ratio C	orrection	Working Cyan P	late
32-bit Preview Opti	ons	Working Magen	ta Plate
Zoom In	# +	Working Yellow	Plate
Zoom Out	# –	Working Black P	late
Fit on Screen	¥0	working CMY PI	ates
Actual Pixels	2第2	Macintosh RGB	
Print Size		Windows RGB	

Soft Proof in Photoshop

	Customize Proof Condition	
Custom Proof Condition:	Custom	СК
- Proof Conditions		Cancel
Device to Simulate:	SP4800 PI PP250 PK 2880 icc Perceptual Saturation	Coad
Rendering Intent:	✓ Relative Colorimetric Absolute Colorimetric	Preview
- Display Options (On-	Screen)	
Simulate Paper Cold	r	
Simulate Black Ink		

If color & the relationship of color is prime **Perceptual Rendering** If the tone values are prime

Relative Colorimetric Rendering

ustom Proof Condition:	Custom	+	OK
Proof Conditions			Cance
Device to Simulate: Rendering Intent:	SP4800 PI PP250 PK 2880 icc Perceptual Saturation ✓ Relative Colorimetric Absolute Colorimetric	*	Load Save Preview
 ─ Display Options (On- ✓ Simulate Paper Colo ✓ Simulate Black Ink 	Screen) r		

The "Make My Image Look Like Crap" Button.

ustom Proof Condition:	Custom	; 0
Proof Conditions		Car
Device to Simulate:	SP4800 PI PP250 PK 2880 icc Perceptual Saturation	Loa
Rendering Intent:	✓ Relative Colorimetric Absolute Colorimetric	Previ
 Display Options (On- Simulate Paper Colo 	Screen)	
Simulate Black Ink		

With Simulate <u>on</u> it's an **Absolute Colorimeteric Screen Rendering** With Simulate <u>off</u> it's a **Relative Colorimetric Screen Rendering** You need it <u>ON</u> to see the effect of the reduced dynamic range of the print.



Duplicate the image and apply Soft Proofing to the Original



Apply Adjustment Layers for corrections to match.



Usually a Contrast adjustment and a Saturation bump will do it.

Image Optimization IMAGE PROCESSING Okay, Now You're Ready To Print, Right? Uh, NO!

Image Optimization IMAGE PROCESSING Now You're Ready to...

Get It Sharp!









Sharpened

Each film format or digital capture device has their own signature of resolution and noise. The ideal is to sharpen the detail without exaggerating the noise.

Incorrect sharpening can lose detail and increase noise!

Different subjects require different treatments.

High-frequency texture needs different sharpening than low-frequency texture.





Low-frequency

High-frequency

Localized Sharpening and Smoothing helps emphasize details...

Sharpen the "Eyes" not the "Skin".





Local Sharpen/Smooth

Original

No single sharpening will be right for all purposes.

The Sharpening Workflow Solution

Capture Sharpening: is applied early in the image-editing process. But ONLY restore the loss.

Creative Sharpening:

is applied locally to accentuate features in an image. The image dictates this stage.

Output Sharpening:

is applied only to final output size & resolution, and is tailored to a specific type of output process. (Printer, Paper & Ink)

Image Optimization IMAGE PROCESSING Sharpening Workflow

Ease of use Optimal Sharpening Repurposability

Image Optimization IMAGE PROCESSING Sharpening Workflow A Lot of Ways to Skin that Cat... **USM** in Photoshop Smart Sharpen in Photoshop 3rd party plug-ins, BUT...

Image Optimization **IMAGE PROCESSING** Sharpening Workflow The Problem is, You can't use a Display To Judge the AMOUNT To Sharpen

Sharpening Workflow

An LCD might be able to display about 100PPI which is 1/3 the resolution of an image at 300PPI and less than 1/4 of an image at 480PPI. So, an image at 100% zoom will be 3-4 TIMES the size of the final print size. And that's a REAL PROBLEM...

Image Optimization **IMAGE PROCESSING** Sharpening Workflow A Photoshop Screen Zoom of 100% Is only useful to see what's happening to the pixels Not to Judge the Amount to Sharpen.

Image Optimization IMAGE PROCESSING Sharpening Workflow

A Photoshop Screen Zoom of 50% Allows you to <u>SEE</u> the Results Of Dithering Four Images Pixels into a Single Display Pixel Very Similar to the Practice of Supplying 2X the Line Screen Ruling 300PPI for a 150LPI Screen

Image Optimization **IMAGE PROCESSING** Sharpening Workflow A Photoshop Screen Zoom of 25% Will Help You Judge The Amount of Sharpening For High Rez Ink Jet

Image Optimization IMAGE PROCESSING Sharpening Workflow It "Ain't Perfect" But it's Better than Spitting Into the Wind...

Color Management EEEEK!

Yep, sorry... But it's really easy..!

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Cat Comp Comp Recycla Comp Recycla Parte Parte Date	HC HC ORC NV ORY			
Crack Summy				
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August The productions	1.	Color Settings	N	÷ት 🕆 🕆
Dates bush trong		Assign Profile	4	
		Convert to Profile		
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Working Spaces		Load
RGB:	sRGB IEC61966-2.1	Save
СМҮК:	U.S. Web Coated (SWOP) v2	
Gray:	Dot Gain 20%	More Options
Spot:	Dot Gain 20%	Preview
Color Managemer	nt Policies	
RGB:	Preserve Embedded Profiles	
СМҮК:	Preserve Embedded Profiles	
Gray:	Preserve Embedded Profiles	
rofile Mismatches:	Ask When Opening Ask When Pasting	
Missing Profiles:	Ask When Opening	
Description		
lorth America Gene nd print in North A	eral Purpose 2: General-purpose color settings for screen merica. Profile warnings are disabled.	
and the second		

The "Default" is NOT for you...

	color settings	
Unsynchr synchron	onized: Your Creative Suite applications are not ized for consistent color.	ОК
Settings:	Custom + -	Cancel
- Working Sp	aces	Load
	RGB: ProPhoto RGB	Save
	CMYK: U.S. Web Coated (SWOP) v2	
	Gray: Gray Gamma 1.8	Fewer Option
	Spot: Dot Gain 20%	Preview
- Color Mana	gement Policies	
	RGB: Preserve Embedded Profiles	
	CMYK: Preserve Embedded Profiles	
	Gray: Preserve Embedded Profiles	
Profile Misma	tches: Ask When Opening Ask When Pasting	
Missing Pr	ofiles: 🗹 Ask When Opening	
- Conversion	Options	
E	ngine: Adobe (ACE)	
	ntent: Relative Colorimetric	
	Use Black Point Compensation	
	Use Dither (8-bit/channel images)	
- Advanced C	Controls	
Desaturat	e Monitor Colors By: 20 %	
Blend KGB	Colors Using Gamma: 1.00	
 Description 		

- Working Spaces -		
RGB:	ProPhoto RGB	+
CMYK:	U.S. Web Coated (SWOP) v2	+
Gray:	Gray Gamma 1.8	+
Spot:	Dot Gain 20%	+
- Color Managemen	t Policies	
RGB:	Preserve Embedded Profiles	
СМҮК:	Preserve Embedded Profiles	
Gray:	Preserve Embedded Profiles	
Gray: Profile Mismatches:	Ask When Opening Ask When Pasting	

ettings:	ProPho	oto RGB	-
- Working Sp	aces		
	RGB: P	roPhoto RGB	+
	СМҮК: О	.S. Web Coated (SWOP) v2	+
	Gray:	ray Gamma 1.8	+
	Spot: D	ot Gain 20%	+
- Color Mana	gement Po	olicies	
	RGB: P	reserve Embedded Profiles	
3		reserve Embedded Profiles	
	Gray: P	reserve Embedded Profiles	
Profile Misma	tches:	Ask When Opening 🔲 Ask When Pasting	
Missing Pr	ofiles: 🗸	Ask When Opening	

Why Pro Photo RGB?

- Working Spaces -		
RGB:	ProPhoto RGB	+
CMYK:	U.S. Web Coated (SWOP) v2	\$
Gray:	Gray Gamma 1.8	+
Spot:	Dot Gain 20%	;
- Color Managemen	t Policies	
RGB:	Preserve Embedded Profiles	
CMYK:	Preserve Embedded Profiles	
Gray:	Preserve Embedded Profiles	
Profile Mismatches:	Ask When Opening Ask When Pasting	
Missing Profiles:	Ask When Opening	

So you don't clip printable color.



11880 with Vivid Magenta Profile Plotted Against Adobe RGB

Blues, Greens, Reds and Oranges clip in Adobe RGB **So, does color matter to you?**

Printing in Photoshop



Printing in Photoshop





Print	
Printer: StylusPro3800 Copies: 1 Page Setup Position Position Center Image Top: 2812 Left: 2.604 Unit: inches Scaled Print Size Scale to Fit Media Scale: 100%	Color Management Print Document (Profile: ProPhoto RCB) Proof (Profile: N/A) Options Color Handing: Photoshop Manages Colors Did you disast the management in the printer dialog? Printer Profile: SP3800_EFP_PK_2880 Rendering Intent: Relative Colorimetric Black Point Compensation Proof Setup: 3800-Luster-Preceptual Simulate Paper Color Simulate Black Ink
Width: 16.549 Unit: inches Print Resolution: 300 PPI Match Print Colors Show Bounding Box Print Selected Area Cancel	Done Print

Photoshop CS3 Print-Let Photoshop Determine Colors

Print	
Print Printer: StylusPro3800 Copies: 1 Page Setup Position Position Center Image Top: 2.812 Left: 2.604 Unit: inches ‡ Scaled Print Size Scaled Print Size Scale to Fit Media Scale: 100%	Color Management Print • Document (Profile: ProPhoto RGB) • Proof (Profile: N/A) Options Color Handling: Photoshop Manages Colors • Did you disable of the management in the primer dialog? Printer Profile: Spisson_EFP_PK_2880 Printer Profile: • Black Point Compensation Proof Setup: 3800-Luster-Preceptual • Simulate Paper Color • Simulate Black Ink
Width: 16.549 Unit: inches Print Resolution: 300 PPI Match Print Colors Show Bounding Box Print Selected Area Cancel	Done Print

Photoshop CS3 Print-Use the Correct Profile

Print	
Printer: StylusPro3800 Copies: 1 Page Setup Position Center Image Top: 2.812 Left: 2.604 Unit: inches + Scaled Print Size Scale to Fit Media Scale: 100% Height: 11.126	Color Management Print Document (Profile: ProPhoto RGB) Proof (Profile: N/A) Options Color Handling: Photoshop Manages Colors Image: Did you disable color management in the printer dialog? Printer Profile: SP3905 Printer Profile: SP3905 Image: Did you disable color management in the printer dialog? Printer Profile: SP3905 Printer Profile: SP3905 Image: Did you disable color management in the printer dialog? Printer Profile: SP3905 Proof Setup: Stimulate Colorimetric Image: Dimulate Paper Color Image: Simulate Black Ink Description
Width: 16.549 Unit: inches Print Resolution: 300 PPI Match Print Colors Show Bounding Box Print Selected Area Cancel	Done Print

Photoshop CS3 Print-Use the Best Rendering Intent

Page Setup

	Page Setup	
Settings:	Page Attributes	:
Format for:	StylusPro 3800	:
Paper Size:	EPSON SPro 3800 (5)	;
Orientation:		
Scale:	100 %	

Page Setup-Choose your print & paper size.

Page Setup Centering

16x20-centered	Page Size:	16.00 in	20.00 in
		Width	Height
	Printer Margin	ns:	
	User defined	ł	\$
		0.56 in	
	0.56 in	Тор	0.56 in
	Left	0.56 in	Right
		Bottom	
+ - Duplicate			
3		Cancal	OK

Page Setup-Create a Custom Paper Size Create equal margins to print in exact center.

	Print
Printer:	StylusPro 3800
Presets:	Standard
	Frint Settings
Page Serup:	Photo Black
Media Type: Color: Mode:	 Premium Luster Photo Caper Premium Glossy Photo Paper Premium Semigloss Photo Paper Proofing Paper Semimatte Plain Paper - Photo Black Matte Black Enhanced Matte Paper Archival Matte Paper Velvet Fine Art Paper UltraSmooth Fine Art Paper Watercolor Paper - Radiant White Photo Quality Ink Jet Paper Singleweight Matte Paper (line drawing)

Print Settings-Selecting correct media.

	Print		
Printer:	StylusPro 3800	•	
Presets:	Standard	;	
+	Print Settings	•	
Page Setup:	Sheet Feeder		\$
Media Type:	Premium Luster Phot	o Paper	\$
Color:	Color		+
Mode: (Automatic Dr Custom Fil	aft ormal - 360dpi ne - 720dpi	
	Advanced Set Su	perFine – 1440dpi	
	Print Quality: 🗸 Su	perPhoto – 2880dpi	
		ah Speed	
	□ Fir	est Detail	
(?) (PDF v) (Pre	iew Supplies	Can	cel Print

Print Settings Advanced-Selecting Print Quality.

	rint	-
Printer:	StylusPro 3800	\$
Presets:	Standard	•
	Printer Color Management	•
O Color Controls		
ColorSync		
ColorSync Off (No Color Adj	ustment)	
 ColorSync Off (No Color Adj 	ustment)	
 ColorSync Off (No Color Adj 	ustment)	
 ColorSync Off (No Color Adj 	ustment)	
 ColorSync Off (No Color Adj 	ustment)	
OColorSync Off (No Color Adj	view Supplies	Cancel Pri

Printer Color Printer Color Management? Color Management **OFF**

Printing in Photoshop







Photoshop CS3 Print-Let Photoshop Determine Colors



Photoshop CS3 Print-Use the Correct Profile



Photoshop CS3 Print-Use the Best Rendering Intent

USC17x22in	Realized Landson Director Design	
	Premium Luster Photo Paper	Y
	Color Mode	
	Automat O Automat O Custom	ic
A B B	Custom Settings	~
A.	Ad	vanced
SuperPhoto - 2880dpi No Color Adjustment High Speed : On		
	1 2 3 4 5 6 7	8 9

Print Settings-Select Properties Setting Media and Advanced Settings

Advanced					
 Media Type Premium Luster P Color Color Color 	hoto Paper	~	 Printer C Color Control PhotoEnhand Off (No Color ICM 	olor Management ce Adjustment)	
🛫 🖓 High Spee	d	~			
Edge Smo	ntal ail othing				
Paper Conf	ig Save Settings		OK	Cancel	Help

Printer Color Management-Color Management **OFF** If you wish to use your own profiles.

No Color Management

If your printed image is darker than expected and has a strong greenish cast, you probably turned off color management in both Photoshop and the Epson printer driver.

Double Color Management

If your printed image is lighter than expected and has a strong red/magenta cast, you probably turned on color management in both Photoshop and the Epson printer driver.

Wrong Profile Selected

Make sure you select the correct ICC profile for your media.

Wrong Media Settings

Make sure you select both the correct media AND

output resolution for your intended output.

Optimum Final Resolution for ink jet: Based on 720/1440/2880 DPI 180 ppi. 240 ppi. 288 ppi. 360 ppi. 480 ppi.

Optimum Resolution for ink jet:

8x10 prints or smaller:

Image resolution: 360-480 ppi. Printer resolution: 2880 dpi.

||x|4 - |3x|9:

Image resolution: 240-360 ppi. Printer resolution: 1440-2880 dpi.

16x20 and bigger:

Image Resolution: 180-240 ppi. Printer Resolution: 720-1440 dpi.

But Don't Resample! If your image is between 180PPI - 480PPI Use the "Native Resolution" and "Resize"

Image Size	Image Size
Pixel Dimensions: 46.5M Width: 4975 pixels Height: 3268 pixels Document Size: Width: 27.639 inches Height: 18.156 inches Resolution: 180 pixels/inch +	Pixel Dimensions: 46.5M Width: 4975 pixels Height: 3268 pixels Document Size: Width: 10.365 inches Height: 6.808 inches Resolution: 480 pixels/inch Width: 10.365
 Scale Styles Constrain Proportions Resample Image: Bicubic Sharper (best for reduction) * 	 Scale Styles Constrain Proportions Resample Image: Bicubic Sharper (best for reduction) *

27.63" x 18.15 @ 180PPI

10.35" x 6.8 @ 480PPI

Top Printing Errors If you Need a Specific Size, Set It...

		Image Size	
Pixel Dim	ensions: 46.	.5M	ОК
Width:	4975	pixels	Cance
Height:	3268	pixels	Auto
- Documer	nt Size:		
Width:	20	inches 🗘 –	
Height:	13.138	inches 🛟 –	8
Decelutions			

...and let the PPI Resolution fall where it will. Don't Resample just to hit some number! Then sharpen for that resolution.

From Camera To Print Fine Art Printing Tutorial

with Michael Reichmann & Jeff Schewe



10% Discount Code: JKJavits www.luminous-landscape.com

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