

RGB Target Image Printing

Windows & Mac OS

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Introduction

Congratulations! You've taken the next step in perfecting your desktop printing process! Creating a custom ICC profile is the best way to ensure that your printer is creating a print with a quality image. We recommend that you print out the checklist from our <u>Downloads page</u>, to make it easier to complete these steps.

You'll need to carefully follow the steps outlined in this document to print out our "Target Images" so that the "Target Prints" can be pressed onto your specified blank. This Target Print is used to create a custom ICC profile which will capture the baseline of your printer's characteristics along with the ink and paper, giving you a custom profile.

You **MUST** follow the steps in this document to avoid problems with the profiling. If you have -any- questions, please contact us at <u>Support@thePeridotPig.com</u>. We recommend that you print out this document and/or the checklist to ensure you've completed all the steps for proper profiling.

The most difficult part of this process will be to print the Target Image(s) without any color management from your software or printer driver. These distort the results of the printer profiling process. You will also want to have your printer in good working state with the proper drivers before printing.

Before we get started:

- **DO NOT** open the Target Images in Photoshop, Elements, Lightroom, Aperture, Preview, Gimp, etc. You run the risk of changing the color profiles.
- Each of the following sections will have a checklist for you to complete. We recommend that you print this document and use it to ensure you complete all the necessary steps.
- Make sure you have completed the ICC Guide steps from the checklist on our <u>download page</u>.

Download and Install the Printing Utility

The hardest part of creating a good baseline Target Image, is getting the Color Management software disabled. This is especially hard on a Mac computer. You **CANNOT** use any software like Photoshop, Gimp or even the Mac Image Viewer to do this reliably.

The easiest solution is to use the free Adobe Color Printer Utility (APCU) from <u>Adobe's</u> <u>website</u> or our <u>download page</u>. It does not require that you use Photoshop or any other Adobe products.

Mac Users - Note the Adobe site says that ACPU is no longer supported on MacOS Catalina 10.15 or later but it DOES still work.

You can also use one of the following applications, which are the ONLY other applications that will work:

- <u>QTR Print-tool</u> (Mac only)
- <u>Qimage One</u>

Windows Users - Instructions to download and install ACPU:

- 1. To install ACPU, download the <u>ACPU.zip</u> file
- 2. Double click on the .zip file
- 3. Choose to extract all the files.
- 4. After the extraction is complete, drag the Adobe Color Printer Utility to the "Programs" folder or your preferred folder.

Mac Users - Instructions to download and install ACPU:

- 1. To install ACPU, download the appropriate ACPU installation file
- 2. Double click on the file to unzip it.
- 3. Double click the resulting .dmg file.
- 4. If you get a security warning since the file was not downloaded from the App Store, go to your "System Preferences" and select "Security & Privacy". Under the "General" tab, you should be able to allow the ACPU file to be opened.
- 5. Drag the "Adobe Color Printer Utility.app" file to your "Applications" folder

Printing Setup

Before you purchase an ICC profiling package, please download the Target Images, and ensure that you're able to print them correctly. The Target Images are available for free on our <u>downloads page</u>. Note that we have different profiling services available. For RGB desktop printers, select the "RGB Basic ICC profile images" for matte paper and matte vinyl. Use the "RGB Advanced ICC profile images" for glossy papers and vinyls. Please contact us if you have questions on which images to use.

Windows Users - Instructions for setting up a test print:

- 1. <u>Download</u> the Target Images and unzip the file
- 2. <u>Download</u> the Color Printer Test Page (color-printer-test-page.jpg) file and print it using your normal software and settings. This will be your "before" image.
- 3. <u>Download</u> the Adobe Color Printer Utility (ACPU) and unzip the file
- 4. Read the readme file and when ready, double click the .exe file
- 5. Select "File" -> "Open..." and choose one of the Target Image .tif files



6. Click "Open"



- 7. The image preview will appear. Select "Print Setup..."
- 8. Select the correct orientation (should be "Landscape"). Make sure to select "Letter 8.5" x 11" 22x28cm". You may need to adjust the margins if the page does not fit.

Page Setup		X
Paper	*1mail off, upped tame *1mail off, u	
i apei		
Size:	Letter 8.5"x11" 22x28cm V	
Source:	Rear Tray ~	
Orientation	Margins (inches)	
Portrait	Left: 1 Right: 1	
O Landscape	e Top: 1 Bottom: 1	
	OK Cancel	

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- 9. Select OK to return to the image preview menu
- 10. Then select the "Print..." button and select "Properties..."
- 11. Click the "More Options" tab

Adobe Color Printer Utility				×
Print EPSON ET-2720 Series Properties			×	×
Main More Options Maintenance		2		
Printing Presets	Document Size	Letter (8.5 x 11 in)		~
Add/Remove Presets	Output Paper	Same as Document S	ize	~
 Document - Fast Document - Standard Quality Document - High Quality Document - 2-Up 	Reduce/Enlarg		¥	%
 Document - Fast Grayscale Document - Grayscale Heatpress Template - Landscape Heatpress Template - Portrait 	Color Correction	● Custom	Advanced Image Options	
	Watermark Fo	eatures		
	Additional Setting Rotate 180 High Speed	•		
Show Settings				
Reset Defaults				
		OK Ca	ancel H	elp

- 12. Under "Color Correction", select the "Custom" radio button to enable the Advanced options
- 13. Select "Advanced..."

14. On the "Color Correction" menu, select "No Color Adjustment"

	Color Correction	×
Ma	Color Management	
Р	O Color Controls	Letter (8.5 x 11 in) V
	O Fix Photo O ICM	Same as Document Size
	No Color Adjustment	
		Document Zoom to %
		Custom Advanced
*		Image Options
		tures
-		
	OK Cancel Help	OK Cancel Help

15. Select "OK"

16. Back on the "More Options" tab, turn off "High Speed". Do not use "Mirror Image"

EPSON ET-2720 Series Properties		×
Main More Options Maintenance		
Printing Presets	Document Size	Letter (8.5 x 11 in) $$
Add/Remove Presets	Output Paper	Same as Document Size $\qquad \lor$
 Document - Fast Document - Standard Quality Document - High Quality Document - 2-Up 	Reduce/Enlarge Fit to Page Center	e Document Zoom to
 Document - Fast Grayscale Document - Grayscale Heatpress Template - Landscape Heatpress Template - Portrait 	Color Correction	Custom Advanced Image Options
	Watermark Fea	atures
	Additional Settings	
Show Settings Reset Defaults		6
	[OK Cancel Help

unless you are doing sublimation printing.

- 17. Save this configuration as a preset, select "Add/Remove Presets..."
- 18. Give the preset a name (we used "CustomICCProfile") and click "Save"

in More Options Maintenance	Custom Settings			
inting Presets	Dc Printing Presets		Name	
Add/Remove Presets	OL 🗐 Document - Fast		CustomICCProfile	
Document - Fast	Document - Standa		Icon	
Document - Standard Quality	Document - High Q	uality		
Document - High Quality	Document - Fast G	rayscale	<	>
Document - 2-Up	Document - Grayso		Comments (optional)	
Document - Fast Grayscale Document - Grayscale	Cc 🧳 Heatpress Template -			~
Heatpress Template - Landscape	Heatpress Template -	Portrait		
Heatpress Template - Portrait				4
	_		Date and Time	
		1	2	
			2.1	_
	Show Hide	Delete Reset		Save
	Ac			
200 Last	Items	Current Settings	Registered Settings	
~~~	Paper Source Document Size	Rear Paper Feed Letter (8.5 x 11 in)		
A1 A1	Borderless	Off	-	
_3m3m	Orientation	Portrait	-	
et a una	Paper Type	Plain Paper / Bright White Paper		
Show Settings	Quality	Standard		
	Coome A	arour rates of	550 S	

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#### 19. Close the preset menu

20.You're now ready to create a test print. Select "OK"

EPSON ET-2720 Series Properties			×
Main More Options Maintenance			
Printing Presets	Document Size	Letter (8.5 x 11 in)	~
Add/Remove Presets	Output Paper	Same as Document S	Size 🗸
<ul> <li>Document - Fast</li> <li>Document - Standard Quality</li> <li>Document - High Quality</li> <li>Document - 2-Up</li> <li>Document - Fast Grayscale</li> <li>Document - Grayscale</li> <li>Heatpress Template - Landscape</li> <li>Heatpress Template - Portrait</li> </ul>	Color Correction	e Document Zoom to	Advanced
🞸 Custom ICC Profiler			Image Options
Show Settings Reset Defaults	Watermark Fe	3	
	[	ок 🔓 С	ancel Help

### Mac Users - Instructions for setting up a test print:

- 1. <u>Download</u> the Target Images and unzip the file
- 2. <u>Download</u> the Color Printer Test Page (color-printer-test-page.jpg) file and print it using your normal software and settings. This will be your "before" image.
- 3. Open the Adobe Color Printer Utility (ACPU)
- 4. Select "File" -> "Open..." and the first Target Image .tif file
- 5. Select "File" -> "Page Setup..." and select the correct orientation (Landscape or Portrait). It should say "Scale" is at 100%. Click "OK"

			olor Printing U	Itility	
314	ww.ThePeridotPig.com me der Number		Chart 918 Patches et Chart Page 1 of 7, Sze 26.5 :	r 19.5 cm	colors - Verify First
	-				
	Format For:	EPSON WF-	7720 Series		0
	Paper Size:	US Letter 8.5	50 by 11.00 incl	nes	0
	Orientation:	🔿 🖈 Portrai	t 🔾 🕩 Lands	cape	
	Scale:	100%			
	?			Cancel	ОК

- 6. Select "File" -> "Print..." but don't press "Print" yet!
- 7. Open the "Advance Setting" by clicking the "Show Details" button.
- 8. Confirm that you have the correct Printer model selected.
- 9. Select each of the center dropdown menus and check the following settings. The names will vary by model, but you should see menus similar to "Layout", "Print Settings", "Quality & Media", "Color Matching", "Paper Handling", etc.
  - a. **SCALE:** make sure that the image is printed at 100%. **DO NOT** select "Expand to Fit" nor "Scale to fit paper size".
  - b. **Paper or Media Type:** Select the items that you'll be using with this profile and matches your chosen paper. You must select the appropriate "Media Type" and "Print Quality"

c. **Color Matching:** All the options should be grayed out. If your printer model has "Advanced Color Settings", the "Color Settings" should be grayed out and say "Off (No Color Management)".

Printer:	EPSON WF-7720 Series	0
Presets:	Default Settings	0
Copies:	1	
Pages:	O All	
	From: 1 to: 1	
	Color Matching	0
	ColorSync     O EPSON	Color Controls
	Hide Details	Cancel

d. Print Settings: Deselect "Mirror Image" for regular printing.

	Adobe Color Printing U	tility
Printer: EPSOI	NWF-7720 Series	0
Presets: Defau	It Settings	6
Copies: 1 Pages: 0 All From	÷	
Layout	t	٢
	Pages per Sheet: 1	0
1	Layout Direction:	ZNN
	Border: No	one 😒
. L	Two-Sided: 01	f ()
		Reverse page orientation Flip horizontally

10. Save these settings as a preset and/or write them down. You'll want to use the same configuration with your new custom ICC profile. These same settings should be used with each of the Target Images.

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Printer: EPSON	WF-7720 Series	
Presets: Default	Settings	6
Copies: 1	$\diamond$	
Pages: 🗿 All		
From:	1 to: 1	
Print Se	ettings	$\bigcirc$
Paper Source:	Auto Select	0
Media Type:	High quality plain paper	0
Print Quality:	Fine	0
	Borderless	
	Expansion: Max	0
	Grayscale	
	Mirror Image	
PDF 🔽 Hide Det	ails	Cancel

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# Print a Test Target Image

You're now ready to print your first Target Image file. We recommend doing this step before making the purchase. If you have problems with the verification, please <u>contact us</u> before you buy a profiling package.

- 1. Print one of the Target Image .tiff files.
- 2. Inspect the Pre-Profile Colors using the criteria below:
  - a. At the top of each Target Image file, you'll find the following graphic with color swatches. Inspect each Target Print and Target Image to make sure they are clear and crisp.

### **Test Colors - Verify First**

- b. The colors should be solid and clean with no bars or "pizza wheel" marks
- c. Patch 1 Blue should be a solid dark blue
- d. Patch 2 Cyan should be solid cyan with no magenta or yellow dots
- e. Patch 3 Green should be somewhat dark and not a light green
- f. Patch 4 Yellow should be solid yellow with no cyan or magenta dots
- g. Patch 5 Orange should have no cyan dots
- h. Patch 6 Red should have no cyan dots
- i. Patch 7 Magenta should be solid magenta with no cyan or yellow dots
- j. Patch 8 Dark Gray will be slightly lighter than the black
- k. Patch 9 Black should be solid black
- 3. If the colors look correct, then move onto the next section
- 4. If the colors do not look correct:
  - a. **Windows Users** The problem is usually due to Color Management (ICM) being left ON somewhere in the printer driver settings. ACPU (or any other application) cannot turn off Color Management in the print driver, so you must always verify the driver settings to confirm it is **OFF**
  - b. **Mac Users** The problem is normally because the AirPrint driver is still being used. If you have an older printer, it might be that color management is still turned on in the print driver. It could also be that the Target Images were opened in Photoshop, Gimp, etc and were converted to a color profile.

# Purchase the Appropriate Custom Profile Package

There are two selections for RGB desktop printers. If you have a large format or specialty printer, contact us first. For regular desktop printers, you have two choices:

#### **Option #1: Matte Papers – Basic Profile**

For matte paper, cardstock, sticker paper or printable vinyl, we recommend getting a basic profile completed.

#### **Option #2: Gloss Papers – Advanced Profile**

For gloss photo paper, sticker paper or printable vinyl, we recommend getting an advanced profile completed. The glossy surfaces require a slightly larger sample size and polarized measurements to reduce glare.

**NOTE:** Make sure you test print a Target Image *before* making your purchase! **NOTE:** Make sure you include your email address in your order so that we can send you final instructions and your Custom ICC Profile!

Visit <u>our website</u> to review the different <u>Custom ICC Profile Packages</u> we offer. Not finding the combination you need? Contact us at <u>support@ThePeridotPig.com</u>.

# Print the Target Image

After you have purchased your Custom ICC Profile package, you'll receive an email with instructions regarding the number of images that will be required to create your ICC profile. Fifteen (15) Target Image Pages are required for the Basic Profile. Nineteen (19) Target Images are required for the Advanced Profile.

You'll want to use the same printer settings that were saved out of the "Setup and Test Print the Target Image" exercise.

### Instructions to print the Target Image:

- 1. Download the .zip file specified in your Custom ICC Profile purchase email
- 2. Unzip the file and save the image .tif files to a folder that you can locate
- 3. Open the Adobe Color Printing Utility (ACPU)
- 4. Click "File" -> "Open..." and select the first downloaded file
- 5. Verify that the page setup and print setting are still as specified in "Setup and Test Print the Target Image" section
- 6. Print the first image
- 7. Inspect the pre-profile colors at the top of the page. If they look good, continue with the remaining files in the Target Image package. If the colors do not look correct, revisit the "Setup and Test Print the Target Image" section and confirm all your settings are correct. If all your settings are correct and you are still having issues, read through our <u>Trouble Shooting guide</u>.
- 8. Inspect the print to ensure all the color patches are on the page and the image has not been resized
- 9. Allow all the Target Images to dry overnight.

### Instructions to Send the Target Image or the Target Prints

- 1. Complete the order form that was included in the download package. Make sure to include your name, email address and order number on the form.
- 2. Package your Target Prints along with your order form and send to The Peridot Pig at the following address:

The Peridot Pig Attn: ICC Profiling Department 11395 Normandy Lane Chagrin Falls, OH USA 44023

- 3. Make sure you do not write on the colored areas of the Target Print or put any stickers or labels on the back.
- 4. Label the envelope/package with "DO NOT BEND" on the front.
- 5. Make sure to use a stiff mailer or include cardboard to prevent damage during shipping.

We'll notify you as soon as we receive your shipment.

# **Appendix – Epson Print Driver Menus**

Applying the print settings will vary depending on the printer model. Below are some common Epson Driver layouts:

### Windows - Type 1

rinting Presets 6	Document Size	Letter (8.5 x 11 in)	~	Color Controls	
Add/Remove Presets	Output Paper	Same as Document Siz	re V	Participant and a second se	7
Document - Fast Document - Standard Quality Document - Standard Quality Document - High Quality Document - 2-Sided	Reduce/Enlarg	e Document O Zoom to	\$ %	No Color Adjustment	5
Document - 2-Up Document - 2-Sided with 2-Up Document - Fast Grayscale Document - Grayscale Document - 11 x 17 in	Color Correction	3 © Custom	4 Advanced Image Options		
	Watermark Fo		Settings		
	Additional Setting Additional Setting Rotate 180 High Speed	5) 51			
Show Settings Reset Defaults					

1. On the "Main" tab, select the appropriate media type and quality setting for your print.

(Avoid using *Plain Paper* and select *High Quality Plain Paper* or *Matte* paper instead. Set the "Quality" to one of the two highest settings).

- 2. Select the tab labeled "More Options"
- 3. Set "Color Correction" to "Custom" to enable the "Advanced..." button
- 4. Click on "Advanced..." to open the "Color Correction" menu
- 5. Select "No Color Adjustment" and press "OK"
- 6. To avoid having to do all this each time you print, we recommend saving a Preset. Press

the "Add/Remove Presets..." button, give the preset a name, choose an icon and then click Save.

7. Turn off "High Speed" if you're having issues with ink not drying quickly enough and causing "pizza wheel marks".

### Windows - Type 2

Paper & Quality Options	Color Management
Sheet	2 Color Controls
Plain Paper / Bright White Paper 💦 🚿	OFix Photo
Fine	
Letter (8 1/2 x 11 in)	Generation Color Adjustment)
Borders     O Borderless	
Orientation	Input Profile
Portrait     O Landscape	
Print Options	Intent
Fix Red-Eye	
High Speed	Printer Profile
🗹 Edge Smoothing	Printer Profile Description
Print Preview	Philice Profile Description
Black/Grayscale	0
	Show all profiles.
Custom Settings V Save Setting	js 5 Show this screen first
Custom Settings V Save Setting	Show this screen first

- 1. Select the "Advanced" tab.
- Select the appropriate media type. (Avoid using *Plain Paper* and select *High Quality Plain Paper* or *Matte* paper instead. Set the "Quality" to one of the two highest settings).
- 3. Under "Color Management", select "ICM".
- 4. Once ICM is selected you will have the option to check the box labeled "Off (No Color Adjustment)". Check the box.
- 5. To avoid having to do all this on each print, we recommend saving a Preset. Press "Save Settings..." to configure a new preset.
- 6. Turn off "High Speed" if you're having issues with ink not drying quickly enough and causing "pizza wheel marks".

#### Windows - Type 3

Current Settings	EPSONFD0454	4 (SC-P800 Series) Printing Preferences
Main Media Type:	🔿 Main 🗊 Pa	age Layout 🥜 Utility
Plain Paper / Bright White Paper Print Quality Level: LEVEL 2 (Quality) Print Quality: Normal - 720x360dpi	Select Setting:	Current Settings V Save/Del
High Speed: On	Media Settings	1
Color: Color Source: Sheet	Media Type:	Plain Paper / Bright White Paper V Custom Settings
	Ink:	Last Used V Paper Config
Page Layout Orientation: Portrait	Color:	Color
Rotate 180°: Off Mirror Image: Off Copies: 1	Print Quality:	Quality 2
Size: Letter (8 1/2 x 11 in)	Mode:	Off (No Color Adjustment)
	Paper Settings	
Job Settings: Off	Source:	Sheet ~
	Size:	Letter (8 1/2 x 11 in) VUser Defined
Entry Control		Borderless
Color Correction Color Adjustment: Off (No Color Adjustment)	Print Preview	Ink Levels
Always show Current Settings.	Reset Defaul	Ts MK PK LK LLK C VM LC VLM Y
Close		OK Cancel Apply Help

- Select the appropriate media type. (Avoid using Plain Paper and select High Quality Plain Paper or Matte paper instead).
- 2. Set "Print Quality" to "Fine" or "Quality".
- 3. "Mode" should be set to "Off (No Color Adjustment)".
- 4. We recommend saving a Preset. Press the "Save/Del..." button to configure a new preset.

### Mac - Type 4

- 1. Select "File"-> "Print..." from your graphics application. In this example, we're using PhotoShop.
- 2. Select the "Print Settings..." button under the "Printer Setup"



3. The Print menu will appear and click the "Show Details" button if it has not been selected.

	Print	
Printer:	EPSON WF-7720 Series	0
Presets:	Sublimation- 8.5 x 11	
Copies:	1 0	
? PDF 💌	Show Details	Cancel Save

- 4. You will see a dialog like below, but it may vary depending on your specific printer model.
  - a. Check that the correct "Printer:" is set
  - b. Select the preset that you made before, if applicable

c. The first menu normally shows "Layout". Click the side arrows to get to the following menus and settings (may vary by printer model):

	Print		
Printer:	EPSON WF-7720 Series	0	
Presets:	Default Settings	0	
Copies:	1		
Paper Size:	US Letter 8.50 by 11.00 inch	es 📀	
	Layout	© <del>(</del>	
	Pages per Sheet:	1 😔	
1	Layout Direction:	ZZNN	
	Border:	None	
	Two-Sided:	Off 🗘	
		<ul> <li>Reverse page orientation</li> <li>Flip horizontally</li> </ul>	
? PDF 💟 Hic	le Details	Cancel	e

d. **Color Matching:** Should be grayed out if you've told Photoshop to manage the color

		Print	
Printer:	EPSON WF-7720	Series	0
Presets:	Sublimation- 8.5	x 11	3
Copies:	1 0		
Paper Size:	US Letter 8.50 by	/ 11.00 inches 📀	
	Color Matching	0	
	ColorSync	EPSON Color Contro	ds
? PDF 🕑 Hic	le Details		Cancel Save

e. Print Settings: Select the preferred paper type for your brand of paper and ink. It should be either "Epson Matte", "Premium Presentation Matte" or "High quality plain paper". Avoid using the "Plain paper" setting.

	Print		
Printer: EPSC	DN WF-7720 Series		
Presets: Subli	mation- 8.5 x 11 📀		
Copies: 1	Ĵ		
Paper Size: US L	Paper Size: US Letter 8.50 by 11.00 inches		
Print	Print Settings		
Paper Source:	Cassette 1		
Media Type:	dia Type: 🛛 High quality plain paper 📀		
Print Quality:	Fine 📀		
	Borderless		
	Expansion: Max		
	Grayscale		
	✓ Mirror Image		
? PDF 🔽 Hide Deta	ails Cancel Save		

f. Color Options: Should show that the printer color management has been disabled.

	Print	
Printer:	EPSON WF-7720 Series	0
Presets:	Sublimation- 8.5 x 11	٢
Copies:	1	
Paper Size:	US Letter 8.50 by 11.00 inches	
	Color Options	3
managed by eithe To enable printer	agement features have been disabled as color is r your application or the operating system. color management, please select printer-managed application or select 'EPSON Color Controls' from the dialog.	-
? PDF 🕑 Hic	le Details	Cancel Save