

# Implementing a G7 Curve in Fiery proServer and Fiery XF 7.0 & 7.1



## HOW-TO GUIDE

*For simplicity within this document, "Fiery XF" will be used to represent both the EFI™ Fiery® proServer and Fiery XF. All information presented applies to both Fiery proServer and Fiery XF unless otherwise specified. This document was prepared using Fiery XF version 7.1. For the greatest benefit of this process, you should have a full understanding of the G7 process, as well as a working knowledge of Fiery XF 7.*

Introducing a G7 type curve into Fiery XF or Fiery proServer 7.0 or 7.1 is a fairly straightforward procedure, but it differs from the procedure used with earlier versions of this program. This document illustrates the process, but it is recommended that you refer to additional documentation available from the IDEAlliance (<https://connect.idealliance.org/g7/home>) for information on the G7 process itself.

In addition to your Fiery proServer or Fiery XF 7.x system, you will need either a software program that has the capability of building a G7 curve, or you can use the manual procedure, explained in the [Idealliance G7 How-to-guide](#).

The primary reason for using a G7 curve with your Fiery proServer or Fiery XF system is when you wish to print your jobs ensuring that neutral tones remain neutral, utilizing the entire gamut of your printer, a process often referred to as Expanded Gamut printing, Full-Gamut printing, or G7 Extreme. This will produce printed jobs with enhanced saturation, but will not conform to traditional industry specifications such as GRACoL or Fogra 51.

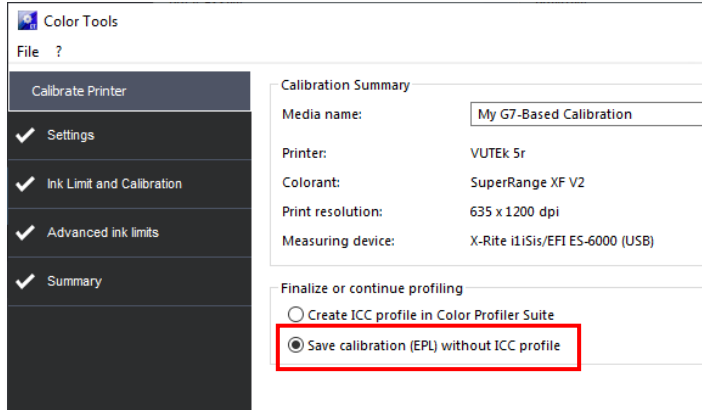
If you need to produce printed jobs that you can successfully verify against one of the industry standards, you will only need to produce a traditional calibration set (.epl calibration file and .icc media profile) and use the Optimize Profile feature in Color Tools to provide the lowest Delta-E values possible with your particular printer/ink/media combination.

However, if you wish to utilize your entire printer gamut to print jobs with enhanced saturation and neutral grays, the procedure detailed in this document will show you how to accomplish this.



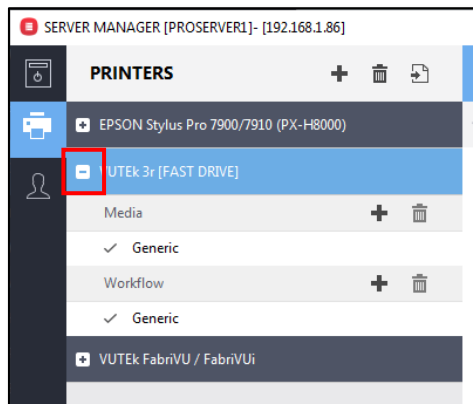
## Step 1

Begin by building a normal .epl file for your media/ink/output device. Do not build a Media ICC Profile at this time.



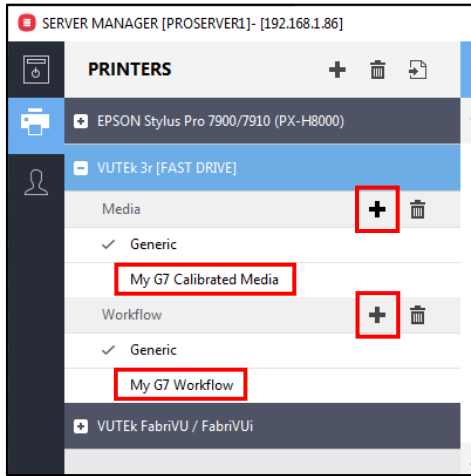
## Step 2

In Fiery Command WorkStation, launch Server Manager and maximize your selected printer to display the Media and Workflow entries.



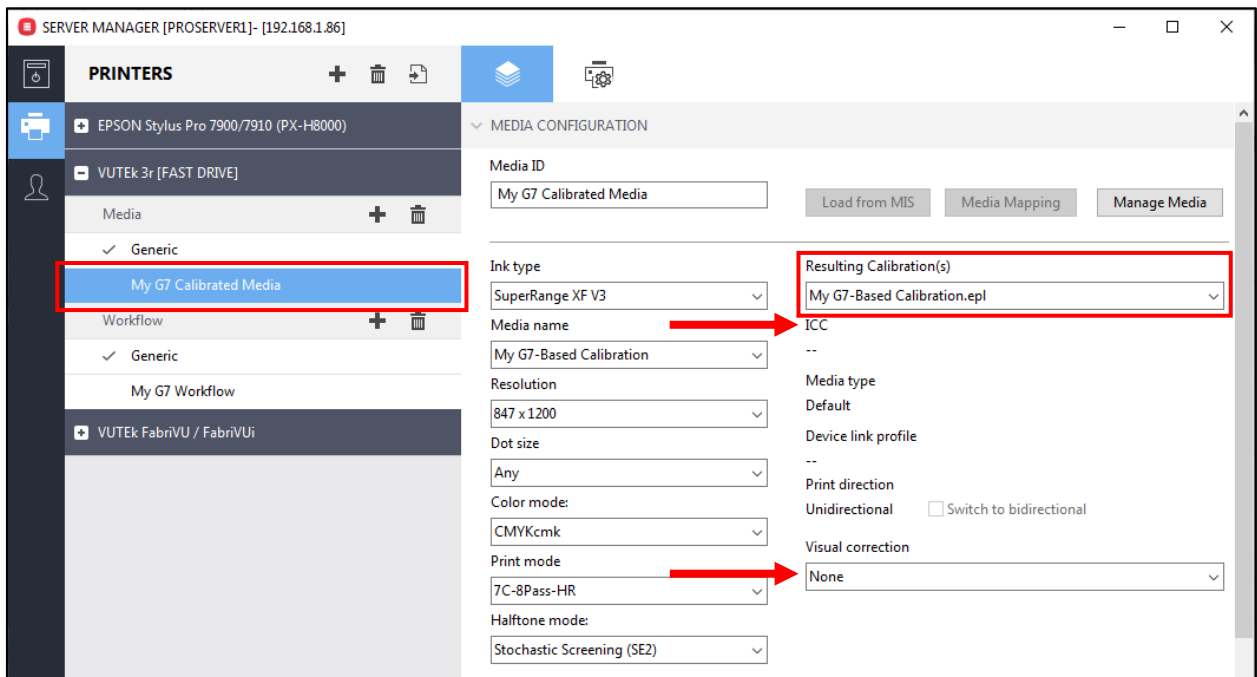
### Step 3

Add a new Media entry and Workflow entry to use for your G7-based work.



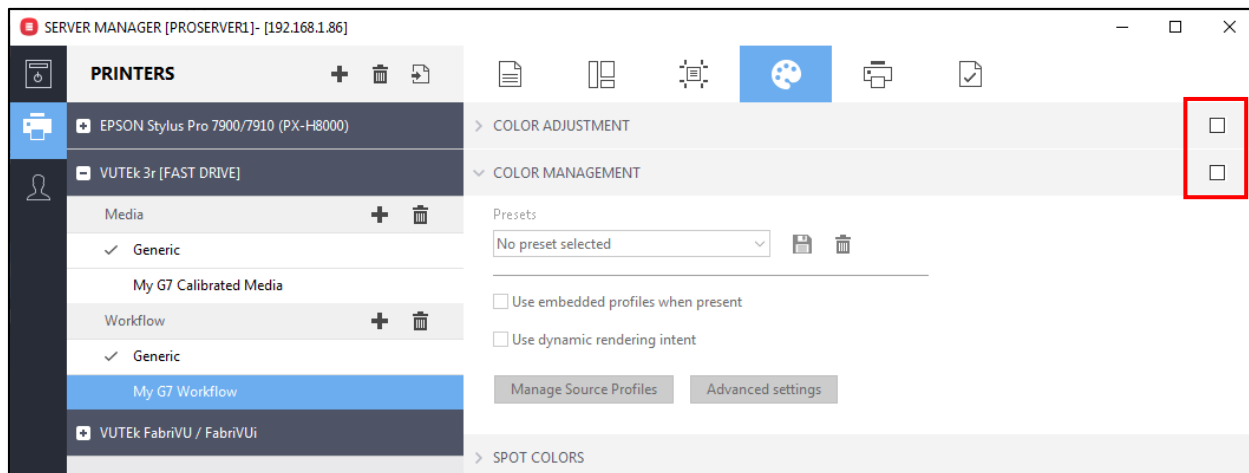
### Step 4

Select your new G7 Media entry and, on the Media Configuration pane, select the calibration file that you created in step 1 above. You will see that no ICC media profile is currently selected. Also, ensure that no Visual correction file is selected. Save your changes.



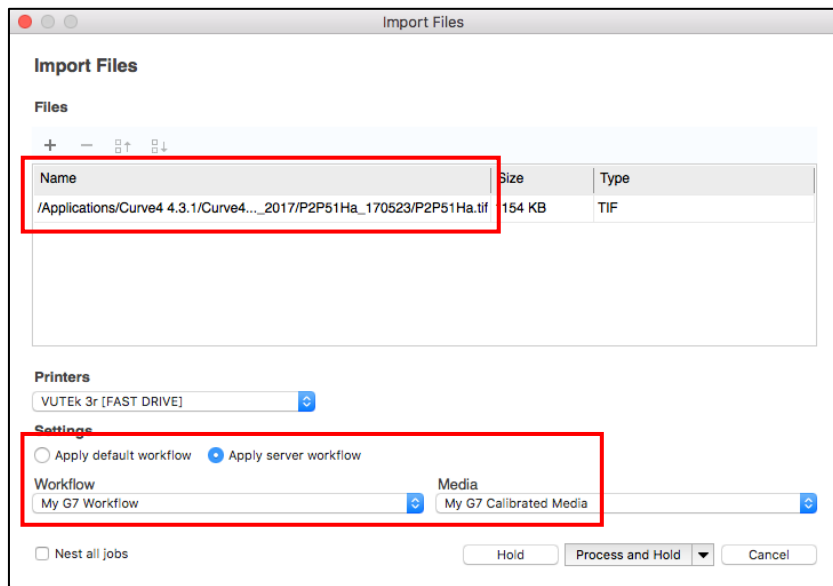
## Step 5

Select your new G7 Workflow entry and, on the Color Panel, ensure that the Color Management and Color Adjustment checkboxes are disabled. Save your changes.



## Step 6

Import the G7 P2P target for your measurement device into your newly created G7 Workflow using your newly created G7 Media.

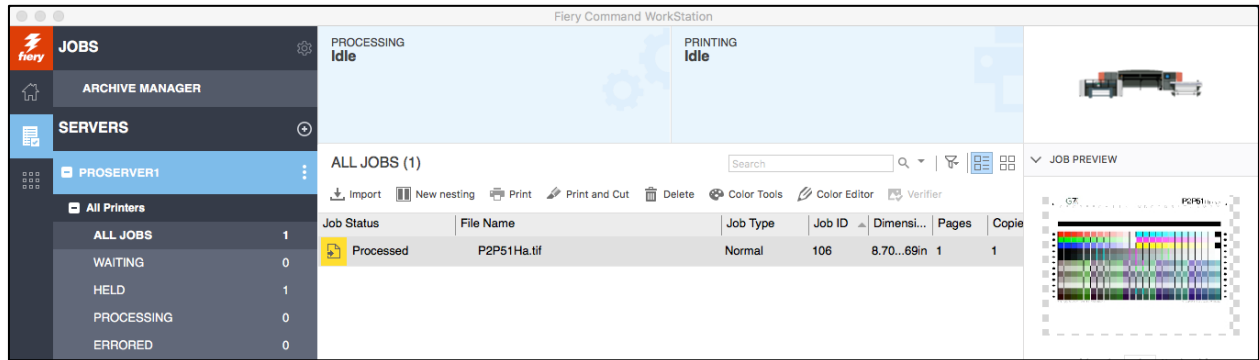


## Step 7

It is recommended that you open this file in Job Editor and ensure that:

1. Color Management is disabled
2. The correct .epl calibration file is selected
3. No .vcc Visual correction file is currently selected

Save any changes to the file and print it.



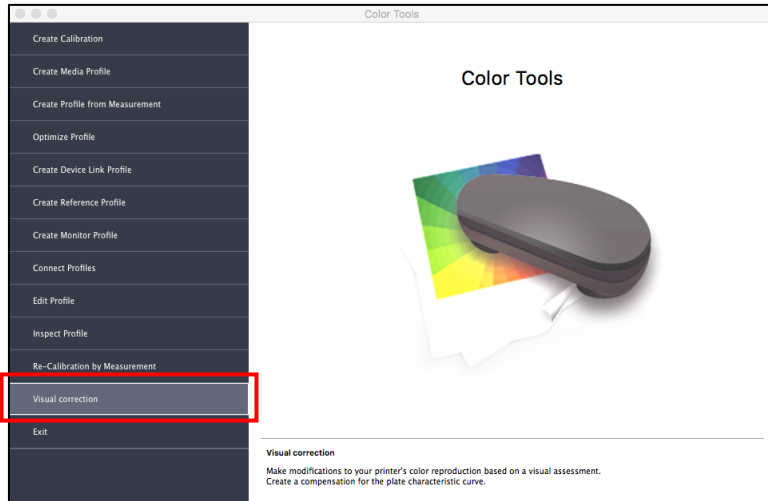
## Step 8

Use your preferred G7 curve software program or the information contained in the Idealliance G7 How-to-guide to measure the P2P target and build your G7 curve.

Control Points: "wanted" values				
Entry	C	M	Y	K
0.0	0.00	0.00	0.00	0.00
5.0	8.00	10.48	8.56	4.58
10.0	13.91	19.45	15.40	8.38
20.0	25.63	32.97	28.91	16.40
30.0	38.20	42.47	42.09	24.01
40.0	48.66	48.00	51.77	32.09
50.0	57.02	54.33	59.14	40.80
60.0	63.06	60.02	63.97	49.67
70.0	69.92	66.35	67.40	58.69
80.0	77.31	73.31	72.47	69.75
90.0	83.60	79.83	78.27	82.81
95.0	87.88	87.30	86.82	90.70
100.0	100.00	100.00	100.00	100.00

## Step 9

Launch the Color Tools program from within Fiery Command WorkStation and then launch the "Visual correction" tool.



## Step 10

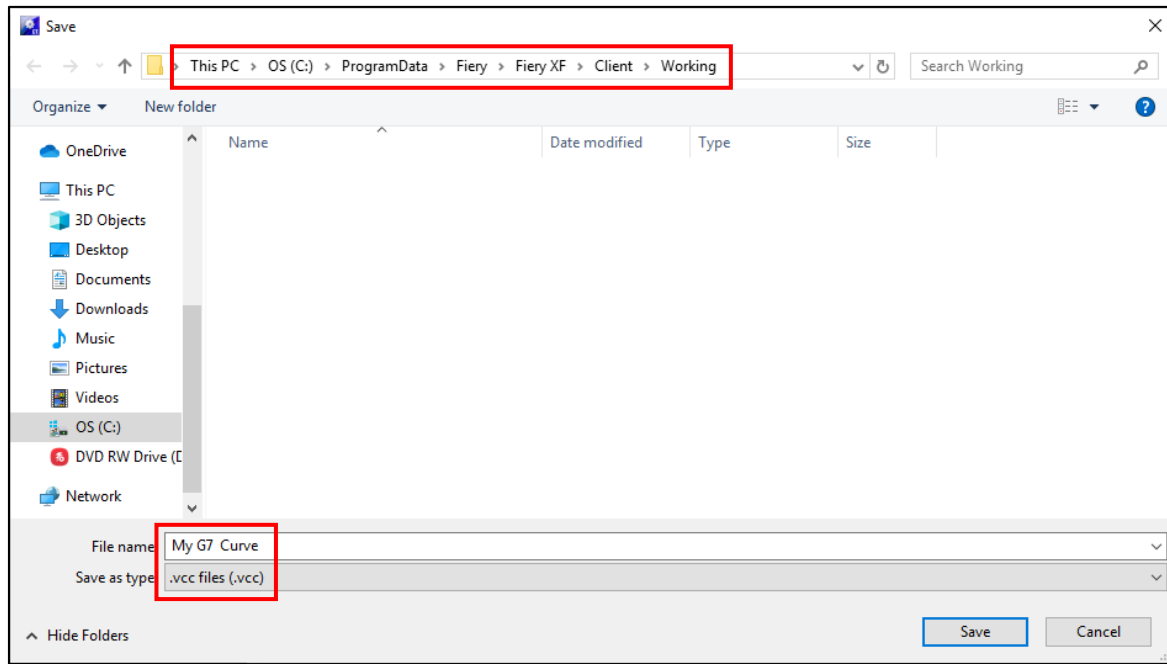
Ensure that the "Re-calibration" option is selected and manually transfer the curve values from your G7 curve software package into the "Visual correction" tool, rounding each entry to the nearest tenth of a percent.

The screenshot shows the 'Visual correction' tool interface. The 'Correction type' is set to 'Re-calibration'. Under 'Color mode', 'Black' is selected. A table of 'In%' and 'Out%' values is displayed, with a red box around it. A callout box shows a table of 'Control Points: "wanted" values'.

Entry	C	M	Y	K
0.0	0.00	0.00	0.00	0.00
5.0	8.00	10.48	8.56	4.58
10.0	13.91	19.45	15.40	8.38
20.0	25.63	32.97	28.91	16.40
30.0	38.20	42.47	42.09	24.01
40.0	48.66	48.00	51.77	32.09
50.0	57.02	54.33	59.14	40.80
60.0	63.06	60.02	63.97	49.67
70.0	69.92	66.35	67.40	58.69
80.0	77.31	73.31	72.47	69.75
90.0	83.60	79.83	78.27	82.81
95.0	87.88	87.30	86.82	90.70
100.0	100.00	100.00	100.00	100.00

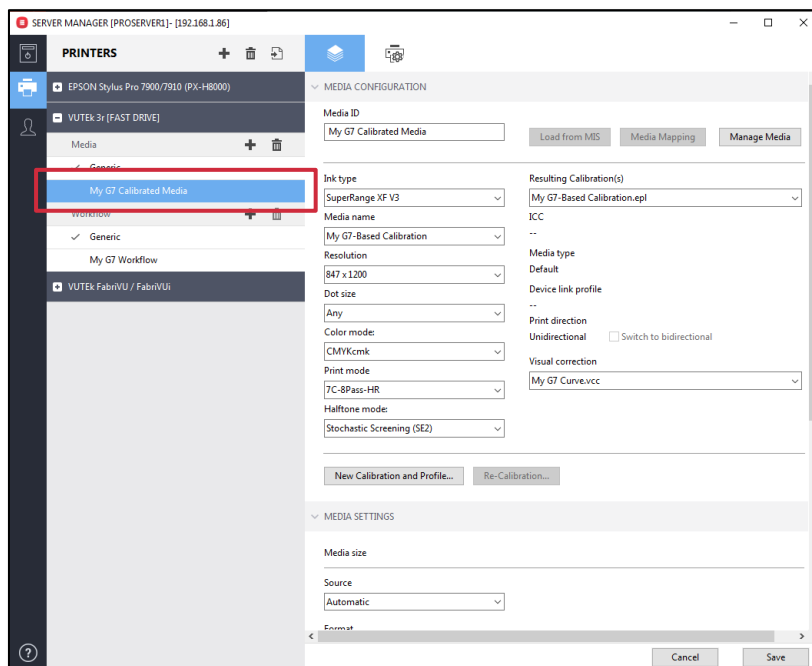
## Step 11

Name your visual correction curve (.vcc) and save it in the default location on your system.



## Step 12

In Fiery Command WorkStation, launch Server Manager and select the G7 Media entry that you created in Step 3 above.

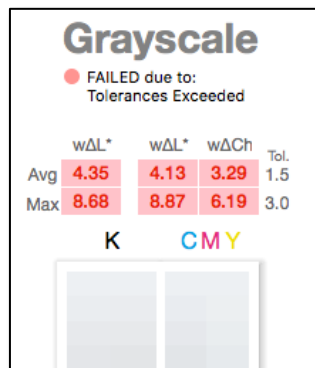


### Step 13

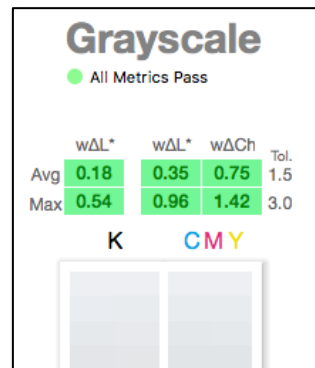
Ensure that your G7 based calibration file is selected, and then select the G7 curve that you saved in Step 16 from the "Visual correction" drop-down menu and save the changes. Note that there is no ICC media profile available for use.

You now have a completed G7 gray balanced Workflow.

Note the gray balance examples shown here, created on a system before and after the application of the G7 .vcc curve:



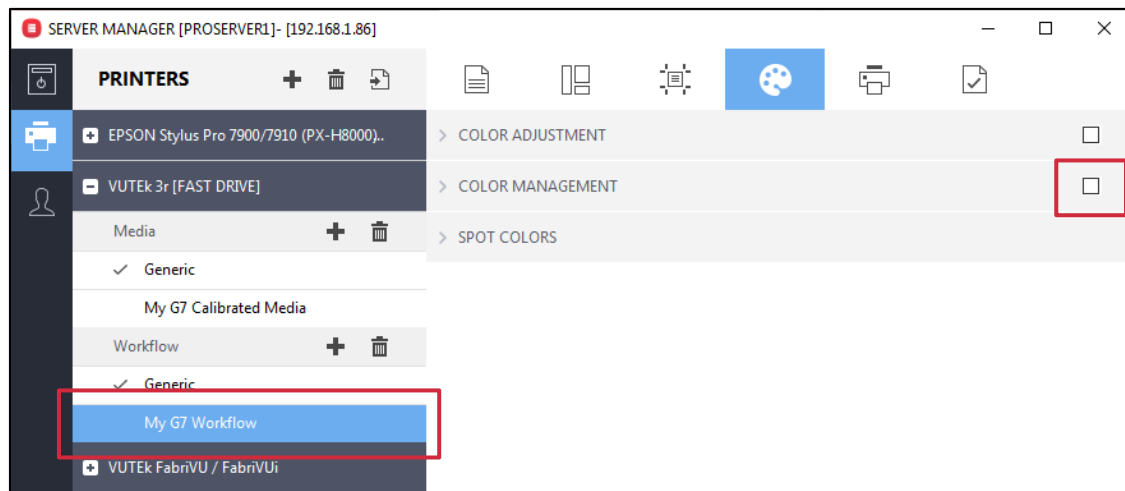
No G7 .vcc curve applied



G7 .vcc curve applied



If you are only processing jobs containing CMYK data, simply select your G7 workflow and disable Color Management.



Your jobs will print on your gray-balanced system using your G7 .vcc curve while utilizing the entire printer gamut.

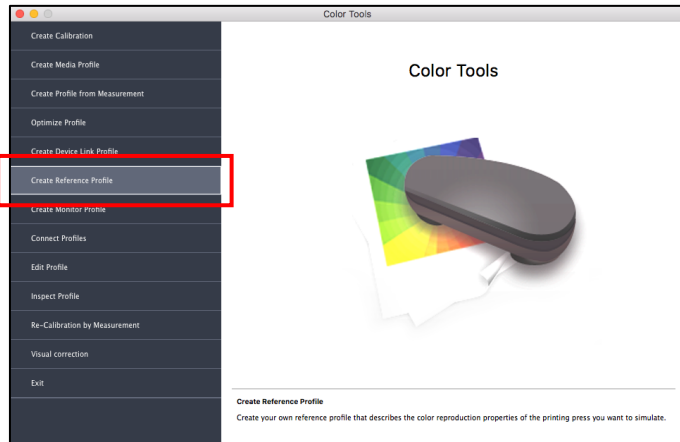
As the color output from your printer drifts, you can recalibrate, build a new calibration file, or simply update or build a new G7 .vcc curve which often takes less time than building or updating your calibration file.

Also, remember that colorspace verification will not be an option here, as you are producing expanded gamut printing and will not be printing to an industry specification such as GRACoL 2013 or Fogra 51. Although this setup will work fine for processing CMYK files, if you wish to print containing RGB or L\*a\*b\* data you will need to create an ICC media profile, a process covered in the following steps.

## Step 14

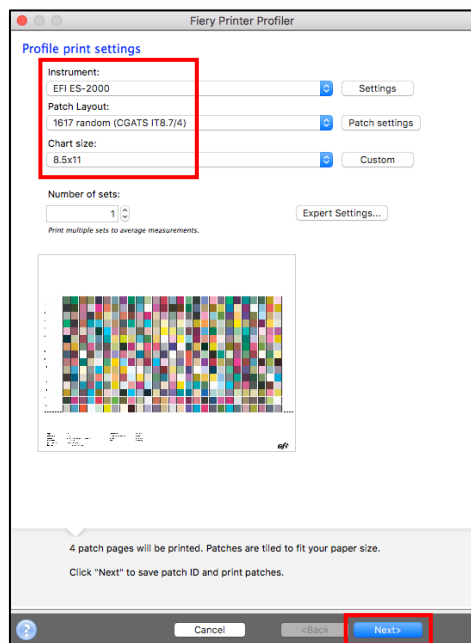
Return to the Color Tools program and select the “Create Reference Profile” option.

*NOTE: The following is a change from the procedure used prior to the release of Fiery proServer and Fiery XF 7.x.*



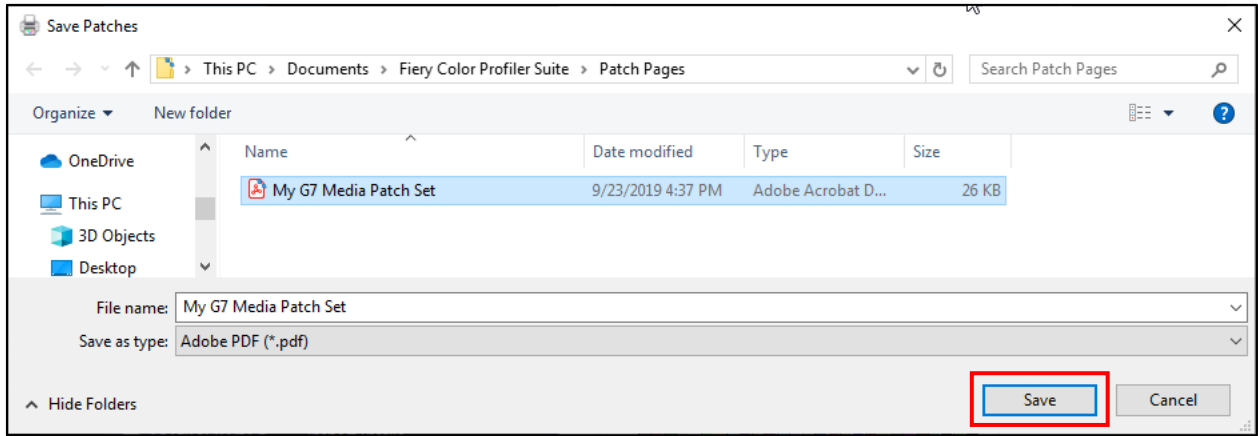
## Step 15

Select your Instrument, Patch Layout, and Chart size. For the Patch Layout, the IT8.7/4 is the most common selection. The available chart sizes may not display the media sized available on your printer but you only need to select a size appropriate for use with your selected instrument. Make a note of these settings. You will need them in Step 28 below.



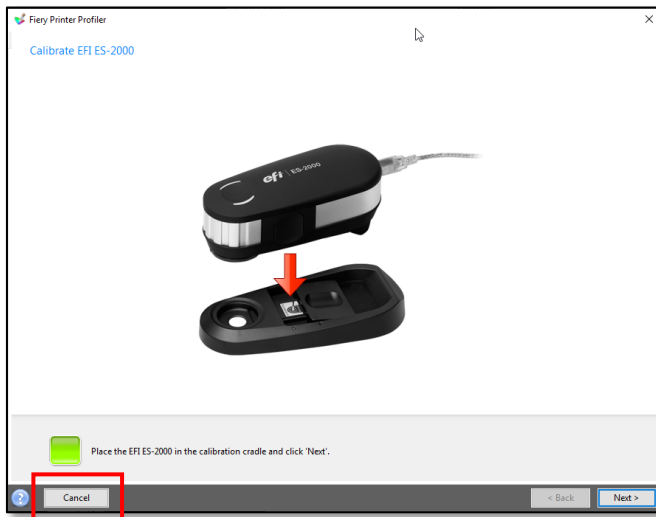
## Step 16

Click Next and then Save your patch file.



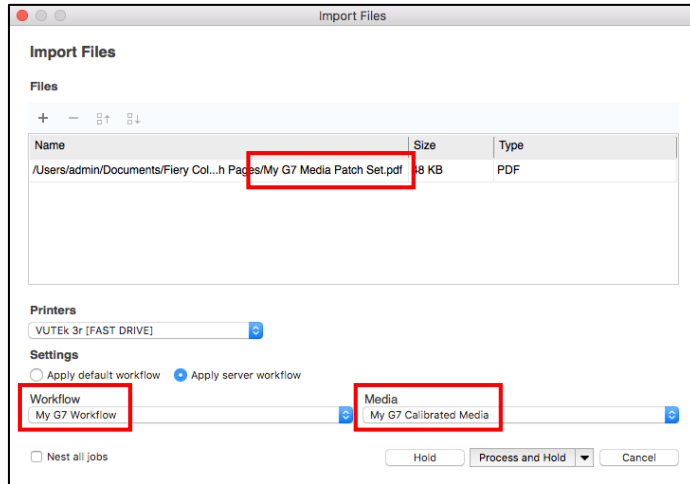
## Step 17

On the next panel, instead of measuring your file, click Cancel.



## Step 18

Return to Fiery Command Workstation and import the patch set pages you created in step 21. Select your G7 Workflow and G7 Media when importing your file.

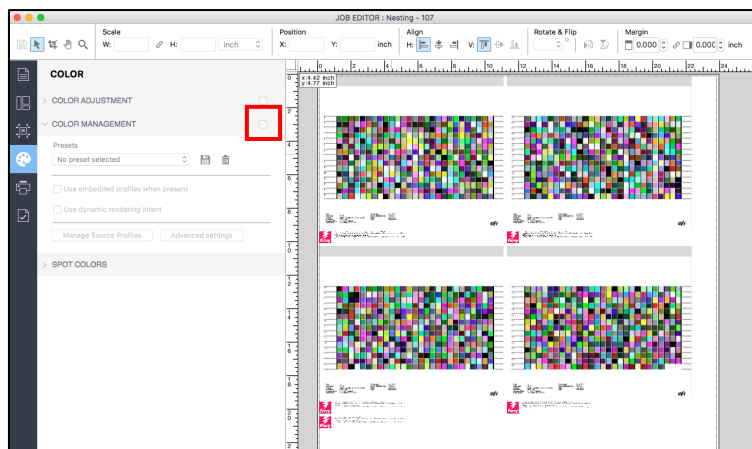


## Step 19

It is recommended that you open this file in Job Editor and ensure that:

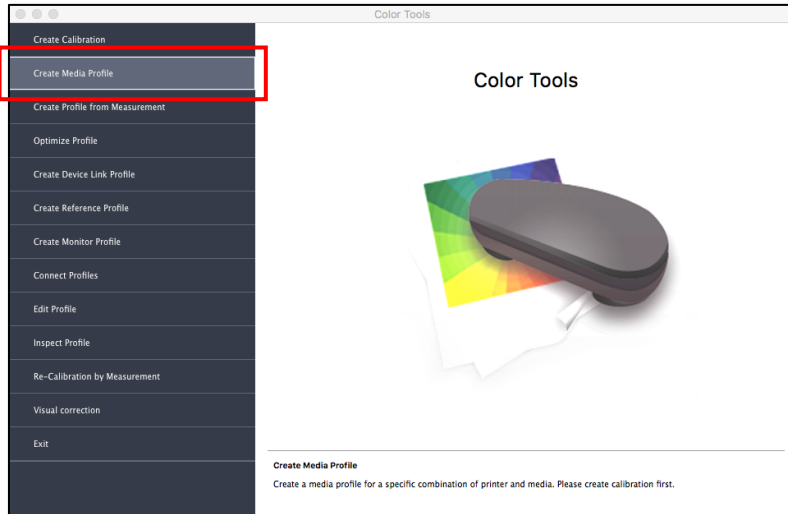
- Color Management is disabled
- Your G7 calibration file is selected
- No ICC media profile is being used
- Your G7 Visual Correction file is selected

If desired, you can nest the multiple chart pages together, but ensure that the above settings are still in place. Print your file.



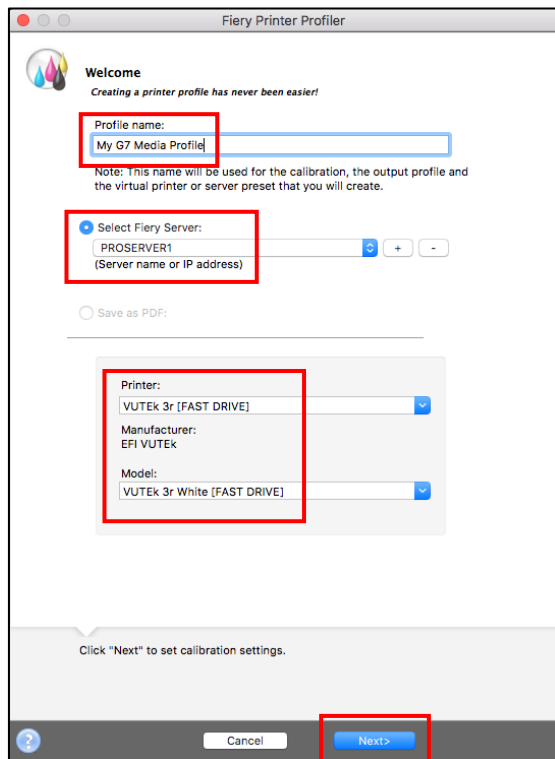
## Step 20

Launch Color Tools and select the Create Media Profile option.



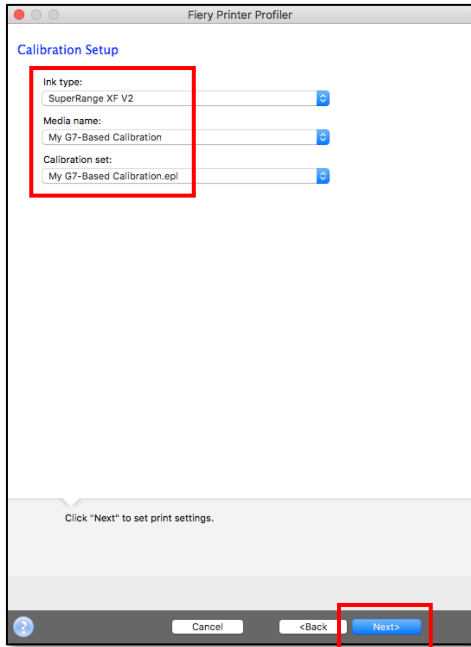
## Step 21

Enter a name for your media profile, select your server and printer, and click Next.



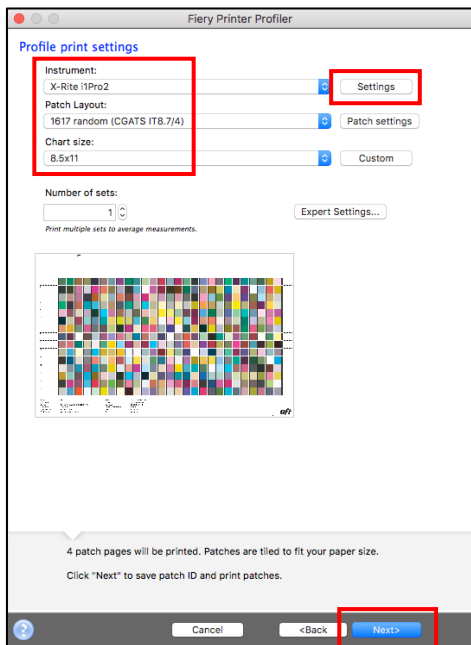
## Step 22

Select your Ink type, Media name, and G7 calibration file and click Next.



## Step 23

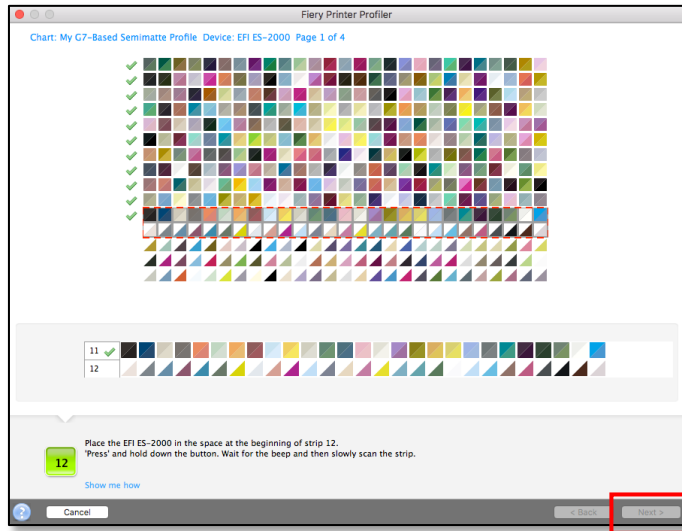
Select the same Instrument, Patch Layout, and Chart size that you selected in Step 20 above. Also, if appropriate, click on the Settings button and configure the options for your specific instrument. When you finished configuring these settings, click Next.



## Step 24

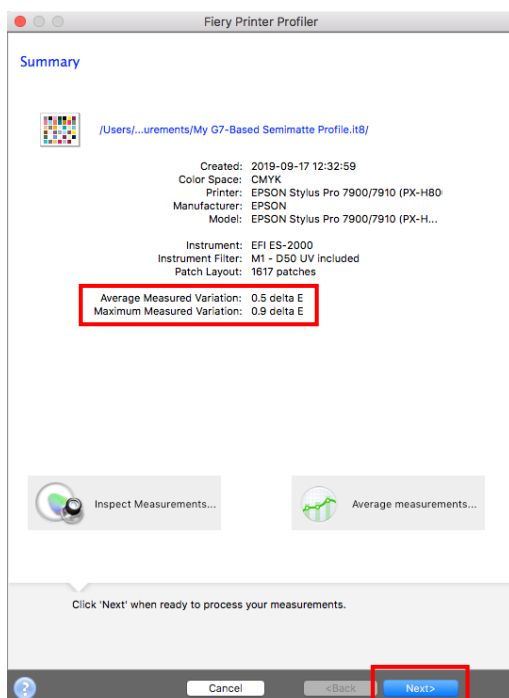
You will now be prompted to measure the chart(s) that you just printed. INSTEAD, measure the chart(s) that you printed in Step 24 above. This is the file that you printed using your G7-based calibration file, no ICC media profile, and your G7 .epl Visual Correction file.

Measure your chart and click Next.



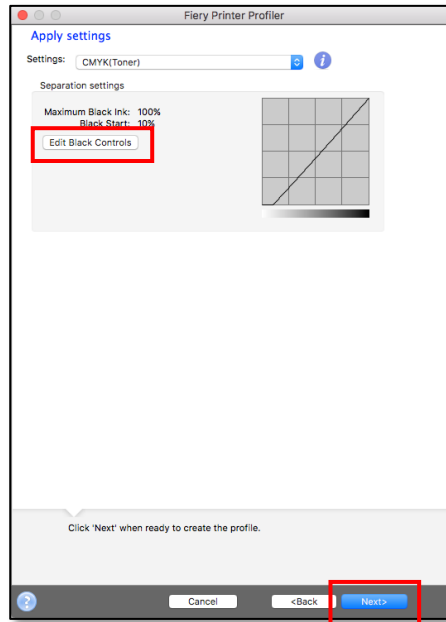
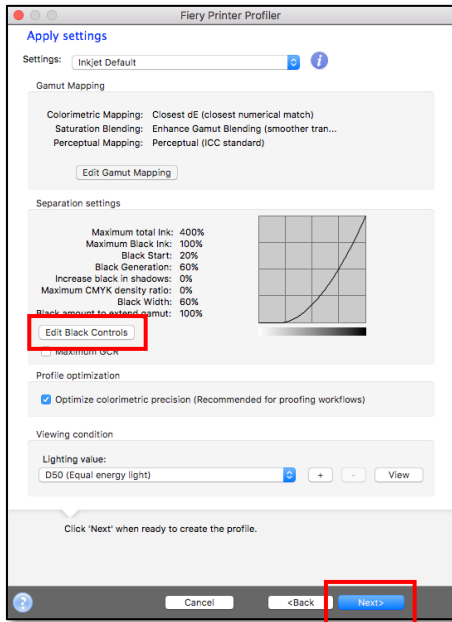
## Step 25

Examine the Summary panel and, if you do not see any issues with your measurements, click Next.



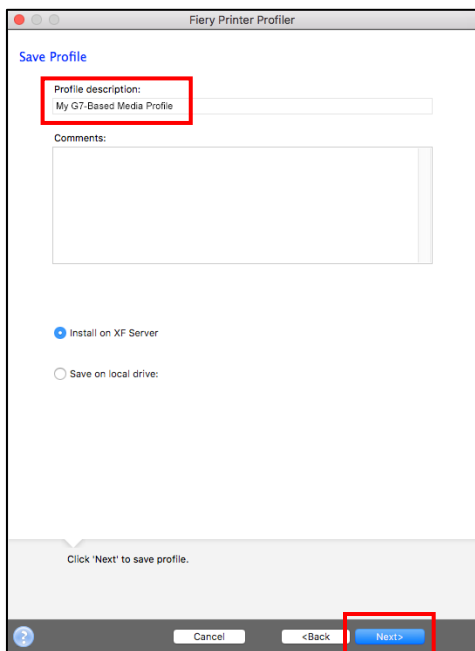
## Step 26

Depending upon which printer you are building an ICC media profile for, you will see one of these two Apply settings panels. Configure these settings as you normally would for your printer/media/ink, especially the black generation settings available when you click the Edit Black Controls button. When you finish, click Next.



## Step 27

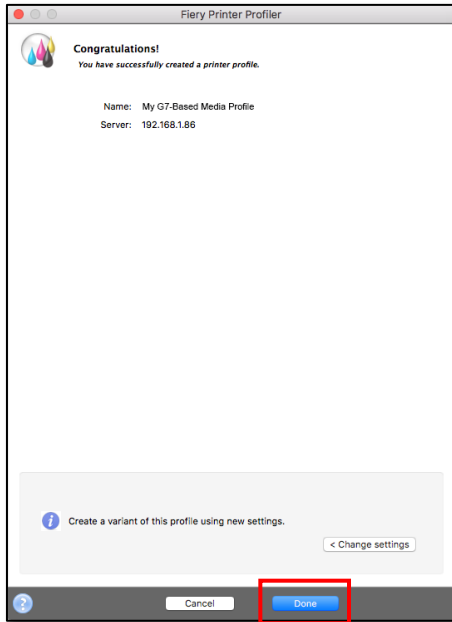
Confirm the name for your ICC media profile and click Next.





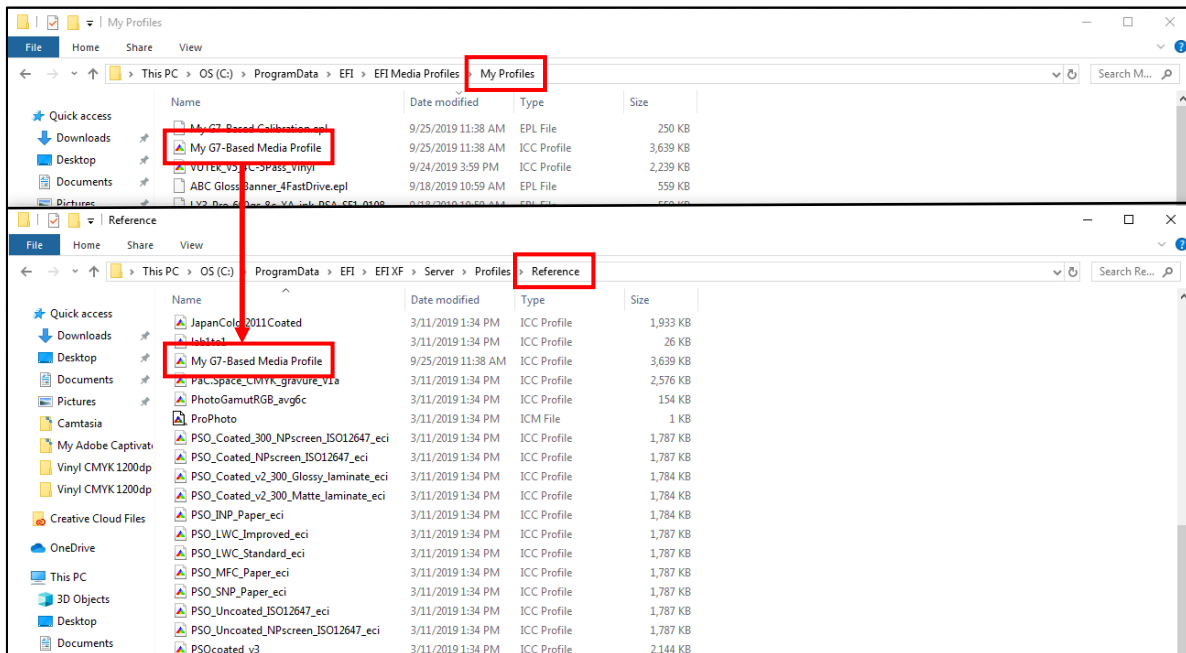
## Step 28

On the confirmation panel that appears, click Done to complete creation of your G7-based calibration set.



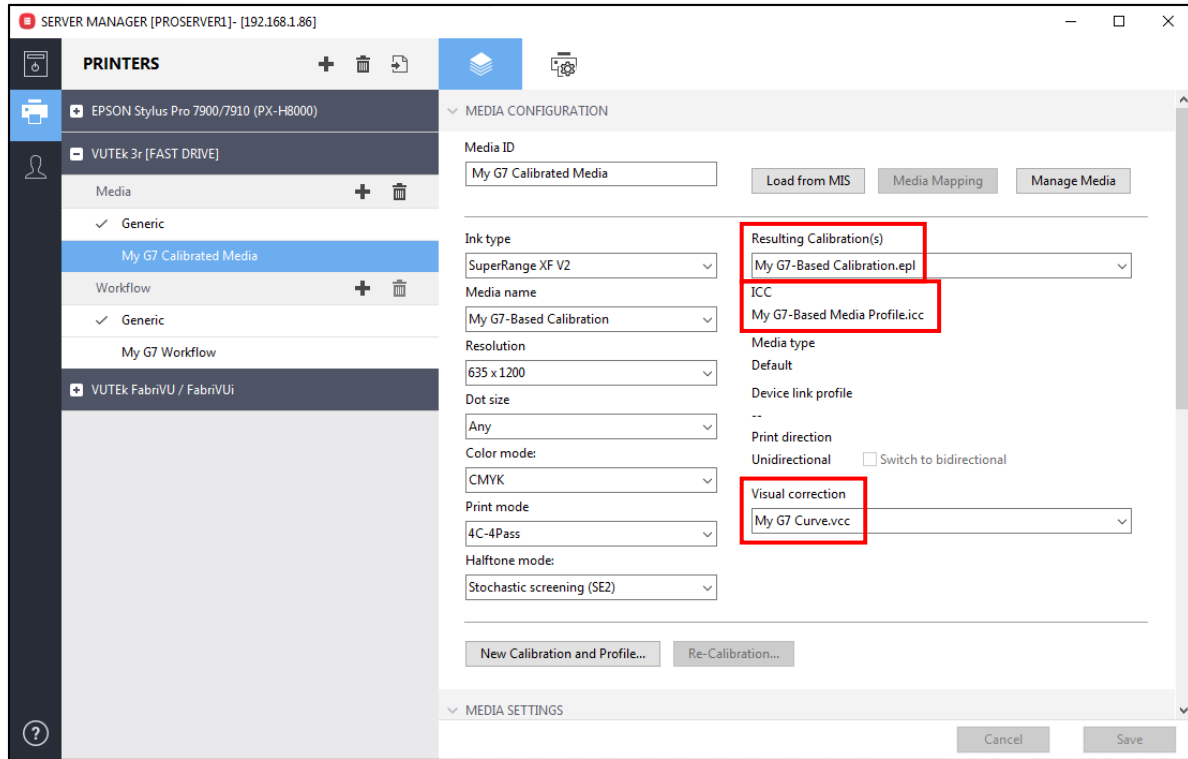
## Step 29

Navigate to your My Profiles folder, locate your new G7 media ICC profile, and then copy and paste it into the Reference profiles folder on your Fiery computer.



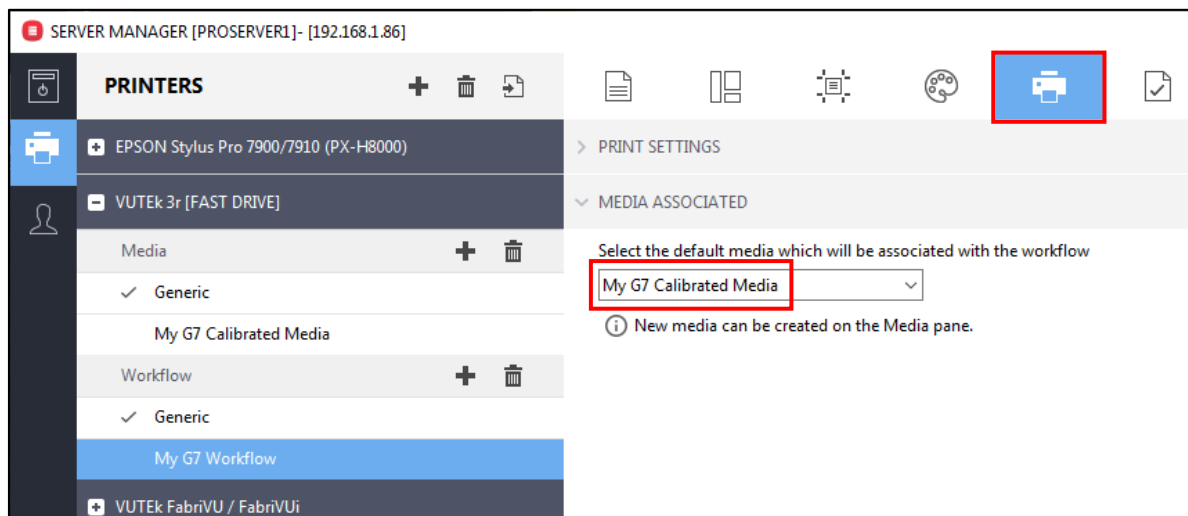
### Step 30

Launch Server manager, select your G7 media entry, and confirm that your G7 calibration file, your just-completed G7 ICC media profile, and your G7 Visual correction file are all selected.



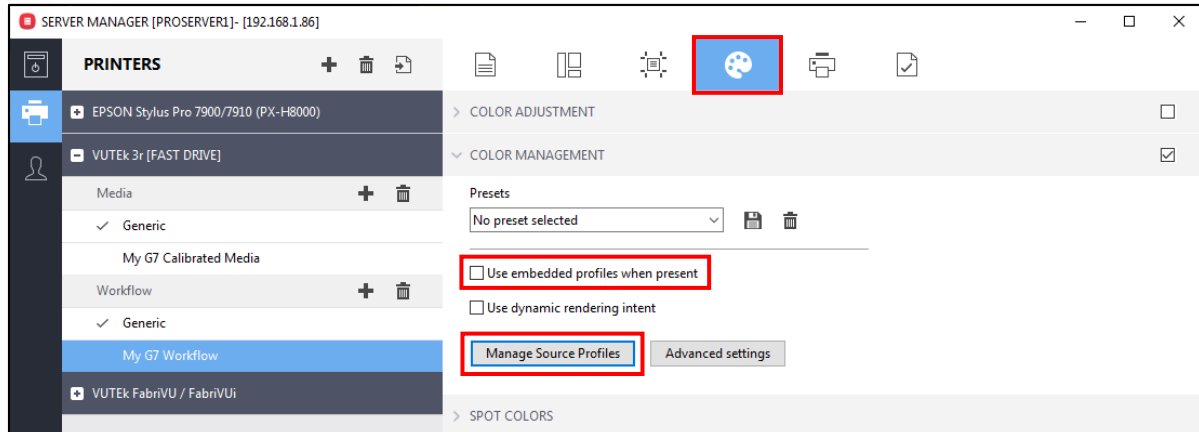
### Step 31

Next select your G7 workflow entry and, on the Printer Tab, select your G7 media entry as the default media entry for the workflow.



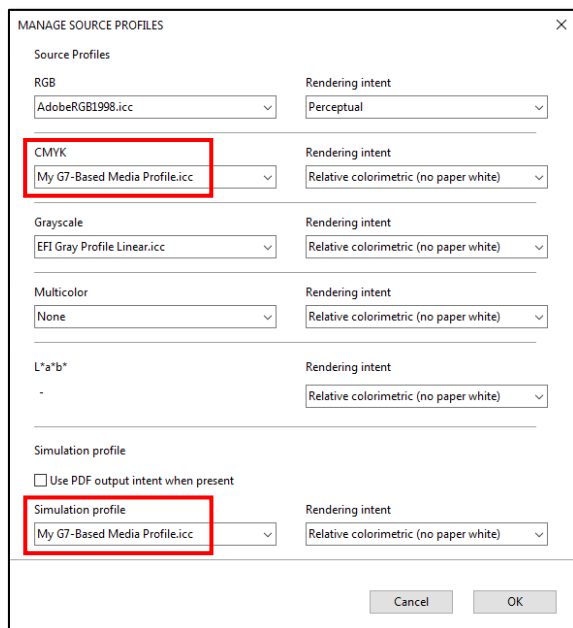
## Step 32

Switch to the Color Panel and, on the Color Management pane, enable Color Management, ensure that "Use embedded profiles when present" is disabled, and then click on the Manage Source Profiles button.



## Step 33

Set the CMYK and Simulation profile entries to use your ICC media profile along with the Relative colorimetric rendering intent, with or without BPC. Test to see which results you prefer. Set your preferred RGB, Grayscale, and Multicolor source profiles and rendering intents. Once your selections have been made, click OK and then save your workflow changes.



With this configuration, all CMYK files will have your media profile assigned to them, while RGB, grayscale, multicolor, and L\*a\*b\* files will be converted directly to your media profile without first being converted to a smaller gamut colorspace such as GRACoL or Fogra 51. All of your files will then be output on your printer using your calibration file and G7 curve, ensuring that neutrals remain neutral.