

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 6.1 and CHROMiX / HutchColor Curve3 version 3.1 along with X-Rite i1 Profiler version 1.6.3. 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, CHROMiX / HutchColor Curve3, and X-Rite i1 Profiler.

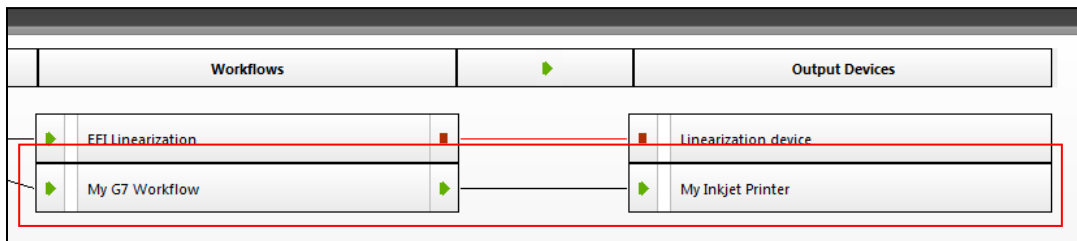
Introducing a G7 type curve into Fiery XF or Fiery proServer using the Curve3 program from CHROMiX / HutchColor is a fairly straightforward procedure. This document illustrates the process, but it is recommended that you refer to additional documentation available from the IDEAlliance (<http://www.idealliance.org/specifications/g7>) for information on the G7 process itself. The P2P target package is available for download from http://hutchcolor.com/Images_and_targets.html.

Step 1

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

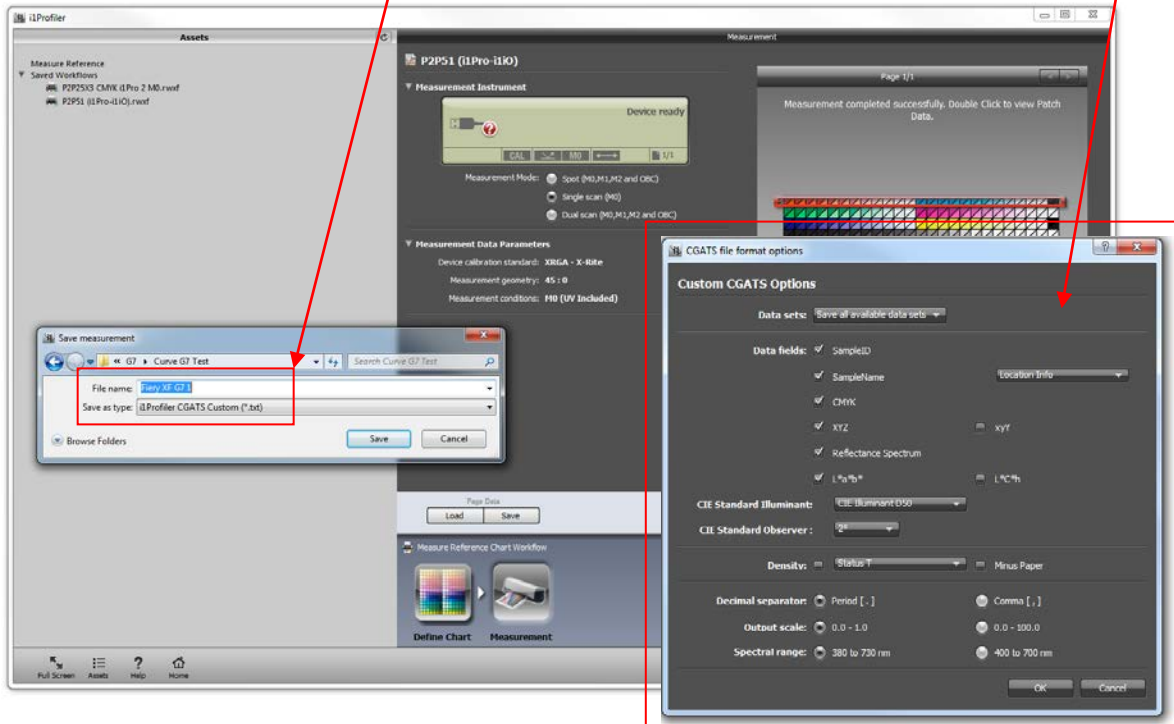
Step 2

Create an Output Device for your printer, selecting your newly created .epf file. Next create a Workflow connected to this Output Device.



Step 6

Measure your printed P2P target and save the measurement as per the instructions in the Read Me file included in the P2P package. Illustrated here is the P2P51 target being measured in X-Rite i1 Profiler with the measurement file being saved as an "i1 Profiler CGATS custom" text file using the CGATS file format options specified by the IDEAlliance. These specifications are detailed in the P2P target package documentation.



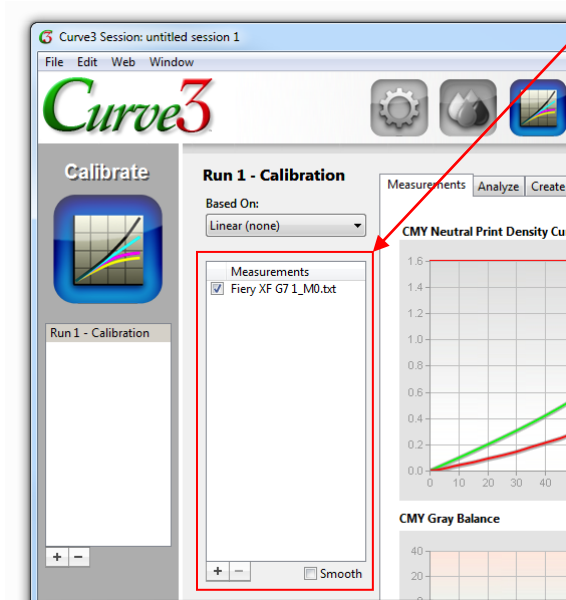
Step 7

Launch the Curve3 program and, if necessary, begin a new session. Select the "Calibrate" button.



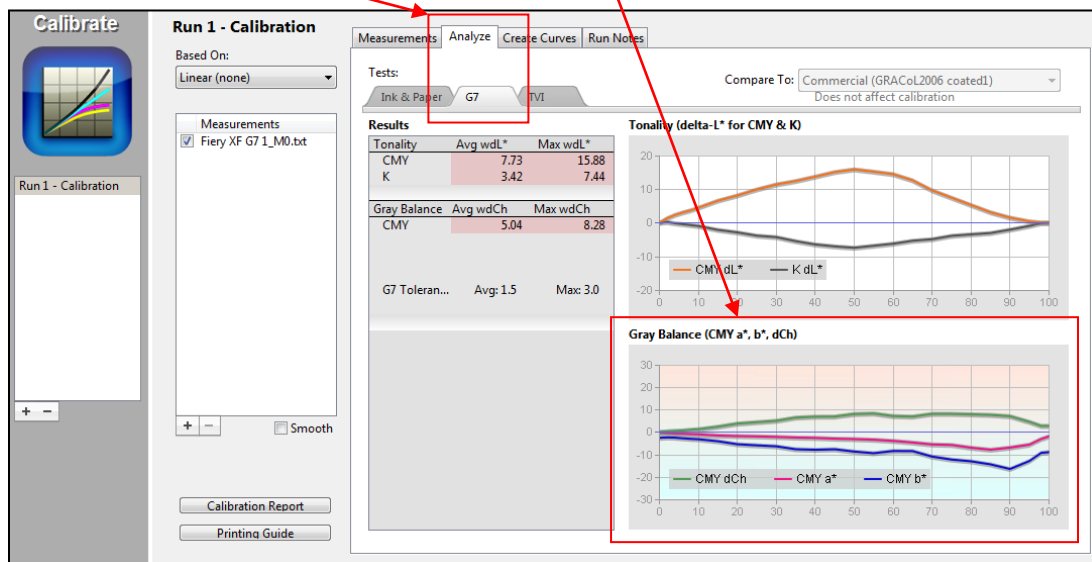
Step 8

Drag-and-drop your measurement file from step 6 into the "Measurements" panel.



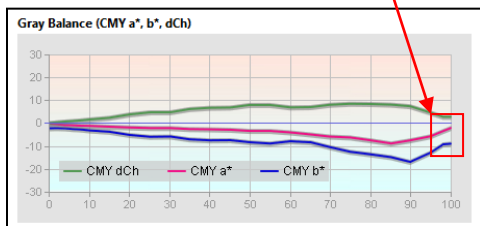
Step 9

Select the "Analyze > G7" tab and examine the "Gray Balance" window.

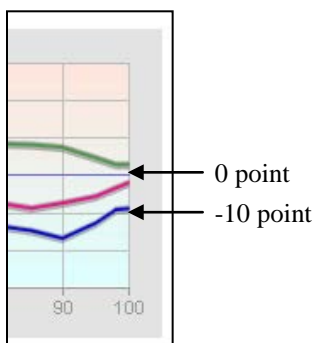


Step 10

Examine the 100% point of the a* and b* curves.



Determine if the 100% a* and b* values are close to the "0" point. In this example, the a* value is approximately -2 while the b* value is almost -10.



Step 11

Now switch to the "Create Curves" tab.

The screenshot shows the 'Create Curves' tab in a software interface. It includes a graph of color curves, a table of control points, and printing aims settings.

Entry	C	M	Y	K
0.0	0.00	0.00	0.00	0.00
10.0	17.81	24.11	24.02	8.39
20.0	32.97	40.93	39.65	16.44
30.0	44.47	53.23	51.24	24.29
40.0	54.08	61.73	62.06	32.32
50.0	63.49	68.83	70.27	40.47
60.0	71.55	75.20	77.06	50.32
70.0	78.48	81.50	82.71	61.39
80.0	85.10	87.62	88.33	73.20
90.0	92.09	93.46	94.15	84.53
100.0	100.00	100.00	100.00	100.00

%	Paper Included		Paper Excluded	
	CMY	K	CMY	K
25	0.32	0.30	0.25	0.22
50	0.62	0.57	0.55	0.50
75	1.03	1.00	0.96	0.93

Step 12

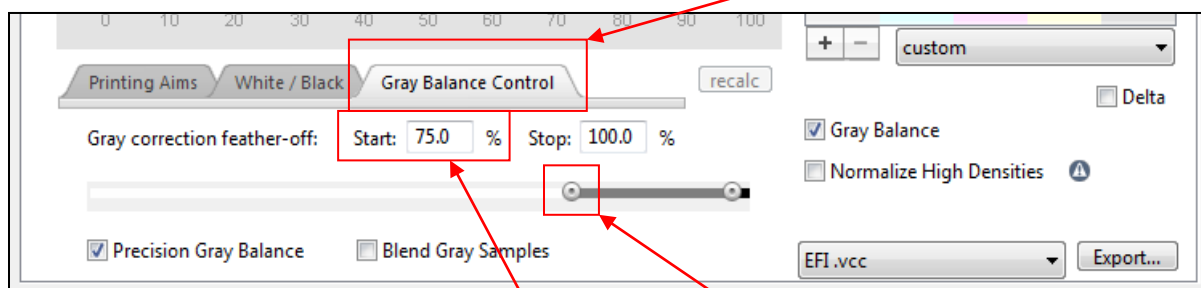
In the "Control Points" area, click on the drop-down list and select the 10% option.

Entry	C	M	Y	K
0.0	0.00	0.00	0.00	0.00
10.0	17.81	24.11	24.02	8.39
20.0	32.97	40.93	39.65	16.44
30.0	44.47	53.23	51.24	24.29
40.0	54.08	61.73	62.06	32.32
50.0	63.49	68.83	70.27	40.47
60.0	71.55	75.20	77.06	50.32
70.0	78.48	81.50	82.71	61.39
80.0	85.10	87.62	88.33	73.20
90.0	92.09	93.46	94.15	84.53
100.0	100.00	100.00	100.00	100.00
95				

Next, click on the "+" sign and add in a 5% and a 95% Control Point.

Step 13

Now look at the lower portion of the "Create Curves" panel and select the "Gray Balance Control" tab.



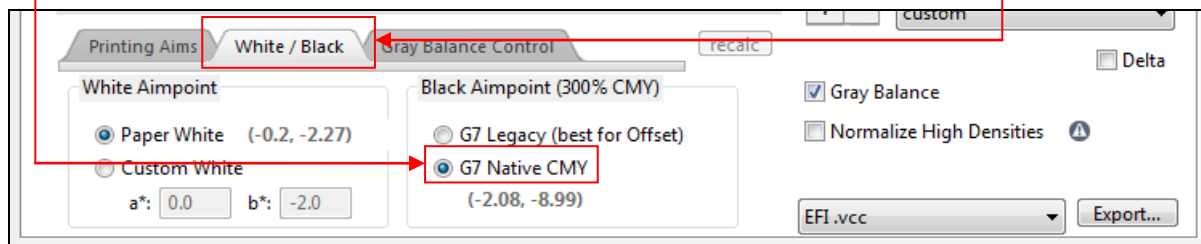
You will adjust the Gray correction feather-off "Start" point based upon your analysis of the 100% a* and b* values in step 10 above.

If the a* and b* values at the 100% mark were both **close to zero** you can move the slider to max (98%) or enter this value into the "start" window.

If either of the a* or b* values at the 100% mark were **far from neutral**, a safer setting might be 75 or even 50.



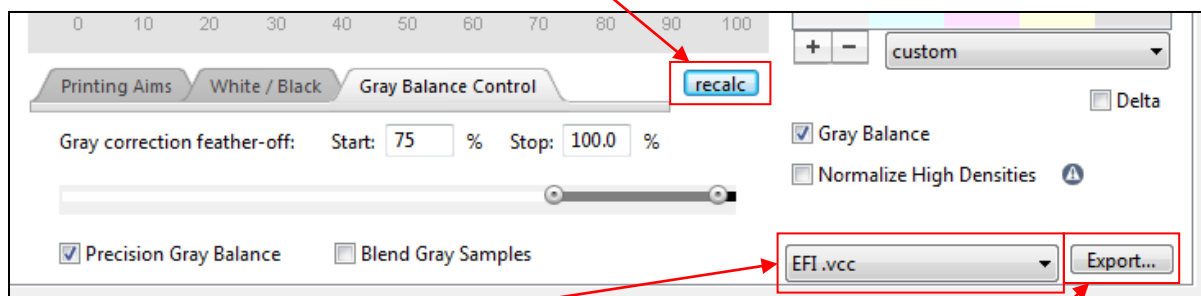
In extremely non-neutral cases, it's often wise to switch the "Black Aimpoint" on the "White/Black tab to "Native CMY", at which point you can set the gray balance slider back to 98.



Please refer to the Curve3 User Guide for additional details regarding proper determination of Gray Balance settings.

Step 14

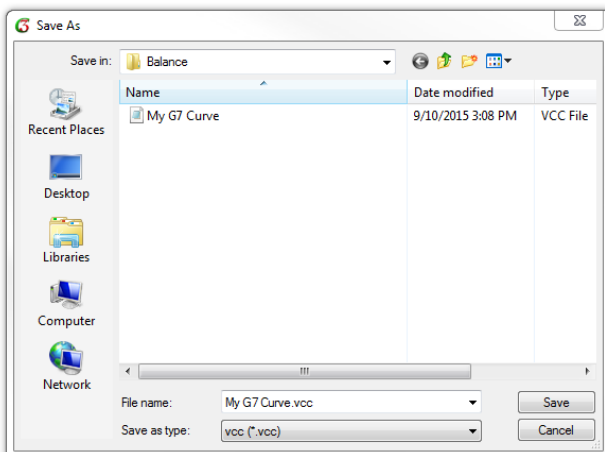
After making any changes to this panel, click the "recalc" button.



Next, select the "EFI.vcc" option from the file format drop-down menu and then click the "Export" button.

Step 15

Save your visual correction curve (.vcc) into the default Balance folder location listed below.



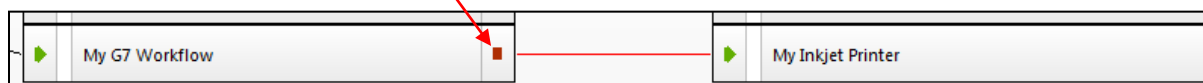
Default .vcc file location:

Windows = Hard Drive/Program Data/EFI/EFI XF/Server/Profiles/Balance

Macintosh = Hard Drive>Library>Application Support>EFI>EFI XF>Server>Profiles>Balance

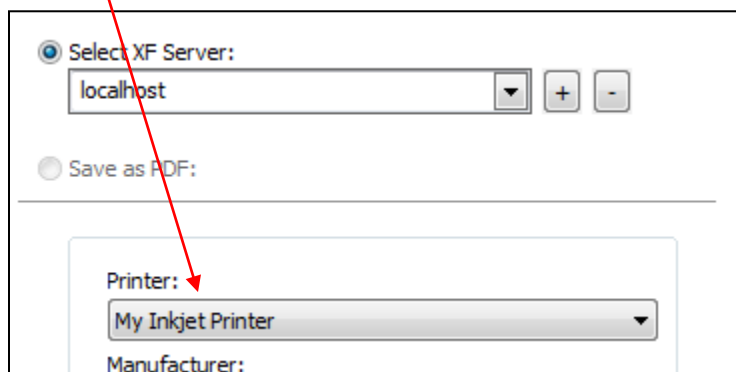
Step 16

Disable the output side of your Workflow.



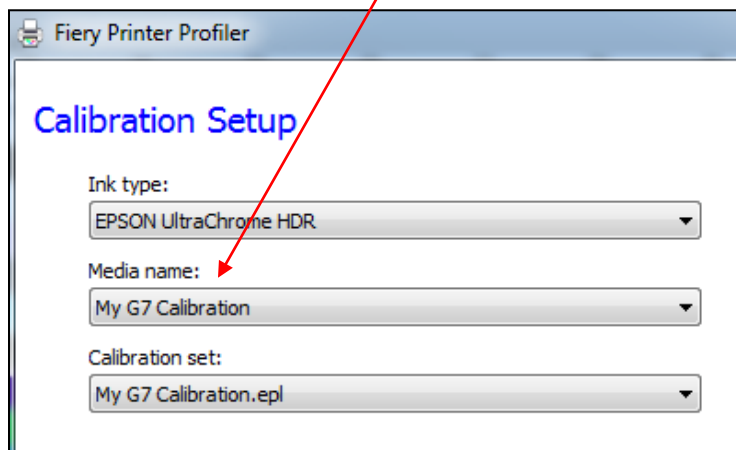
Step 17

Return to the Color Tools program and select the "Create Media Profile" option. In the first panel, select the Output Device that you have been working with.



Step 18

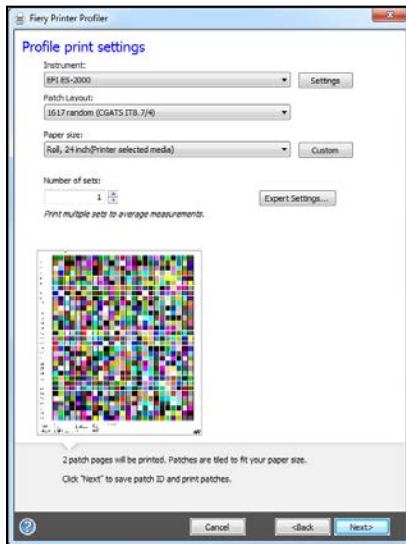
In the next panel, select the "Media name" representing the calibration file (.ep1) you finished in Step #1 above.



Step 19

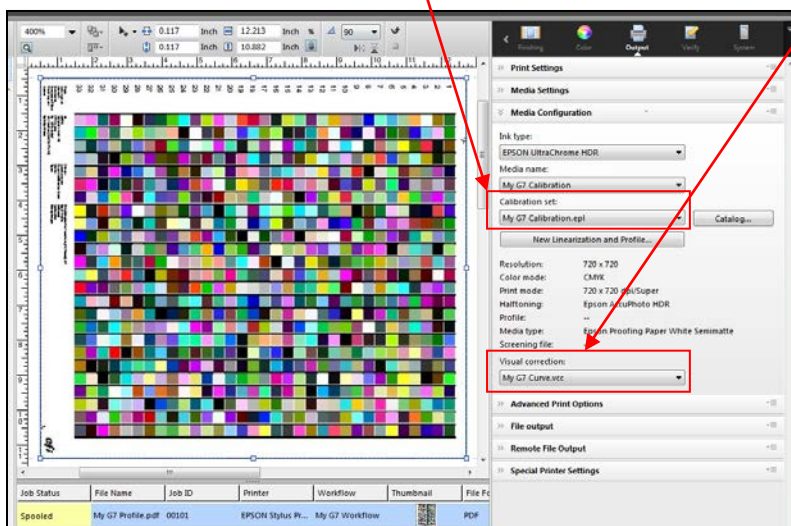
On the next panel, select your measurement device and desired patch layout. For a proofing workflow the IT8.7/4 layout is recommended while a smaller patch count layout could be considered for use in a production workflow.

Click "Next".



Step 20

Navigate to the Job Explorer window in the main Fiery XF or Fiery proServer interface and select your profiling target job. Ensure that your calibration file is selected, and then select your G7 curve created in Step 14 above. Save the changes and print the job.

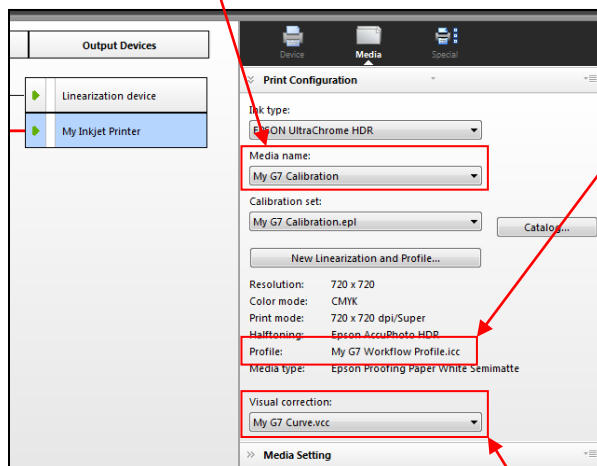


Step 21

After the target has been printed and allowed to dry (if necessary), measure and build your ICC Media profile. The "Create Media Profile" program will automatically link your ICC Profile with your linearization (.epi) file.

Step 22

Return to the System Manager and select your Output Device. Your Media ICC Profile should now be displayed when your "G7" Media name is selected. You may need to deselect and reselect your Media name in order for the ICC Media Profile to load.



Finally, select your G7 curve from the "Visual correction" drop-down menu and save the changes. You now have a completed G7 gray balanced Workflow.