G7 Calibration with Media Manager & Curve3

G7 Calibration with Curve3 and Media Manager Basics:

Curve3 is a software program designed for calculating G7 gray balance calibration curves using CMYK processing colors. Since Media Manager does not natively calculate the G7 calibration curves, Curve3 is an important part of a complete G7 certified workflow. (NOTE: These instructions also generally apply to the older Curve2 software)

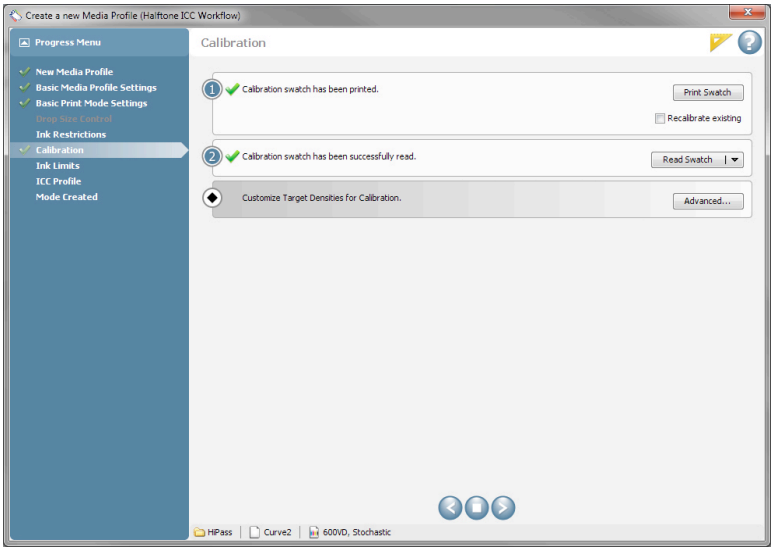
In Media Manager, you print and read in a G7 P2P swatch and export the readings. You import those readings into Curve3. Curve3 calculates calibration curves, which you then export. You then import the curves into Media Manager. To verify if you are within G7 tolerances, you can print a new P2P swatch and have Curve3 evaluate the output.

For best results, it is important that the media you are calibrating uses the Coated or Uncoated ink restriction preset, so little or no ink limiting is needed. After you have calibrated, moderate to excessive ink limiting can alter the G7 gray balance and cause your output to not be within tolerance.

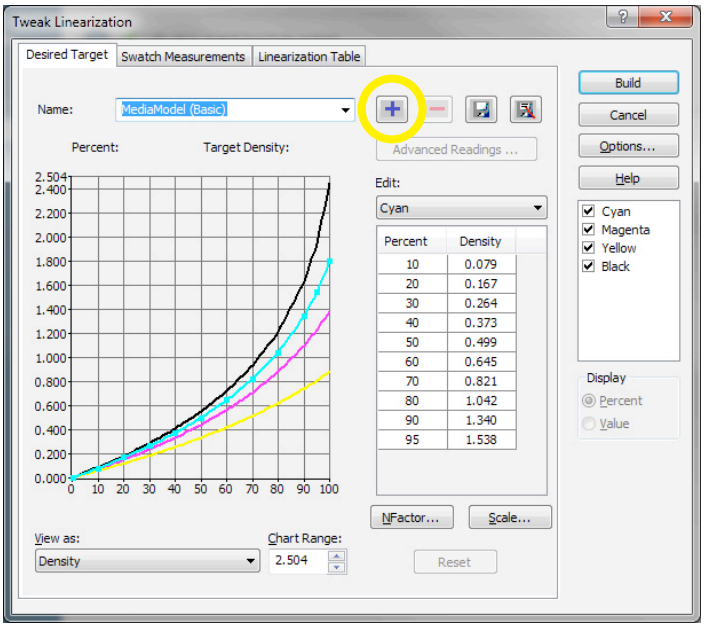
This document assumes users have their own copy of the Curve3 software, as well as a basic working knowledge of it.

Creating a G7 Media Model

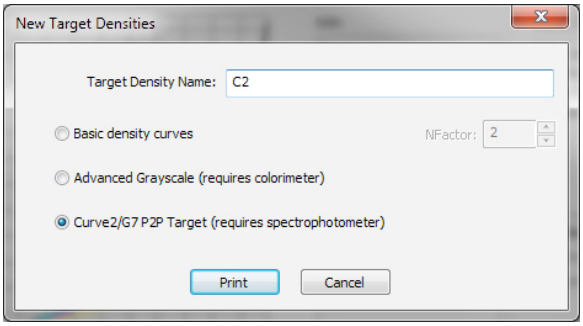
1- Create or edit an existing media. At the calibration step, click the “Advanced…” button.



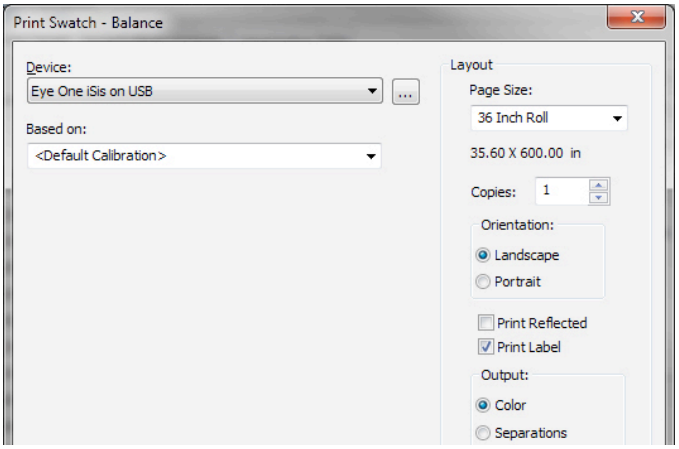
2- In the Tweak Linearization window, click the blue plus button.



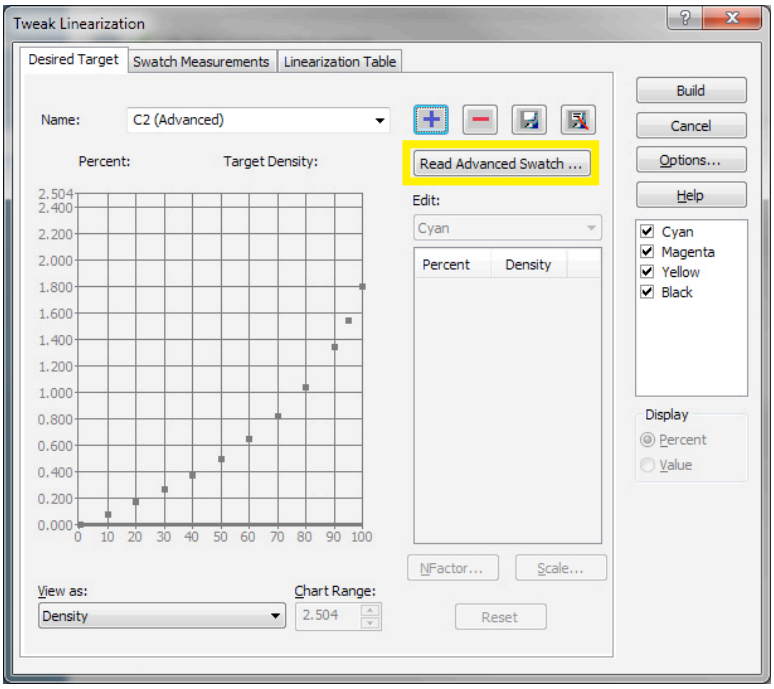
3- Enter a name for the new media model. Select "Curve2/G7 P2P Target" selection and click Print.



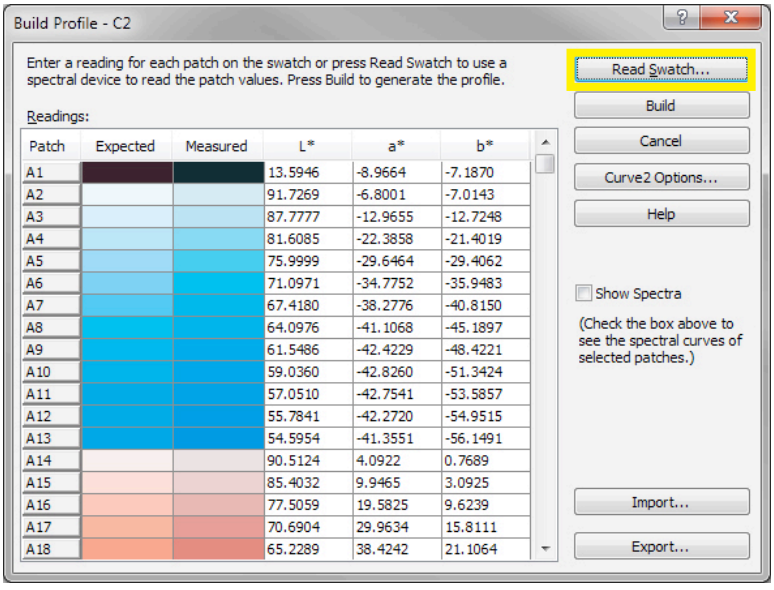
4- Select your desired color device. The "Based on:" setting should be set to <Default Calibration>. Click Print.



5- The Tweak Linearization window will now show blank curves. Click on the "Read Advanced Swatch…" button when the P2P swatch is printed and ready.



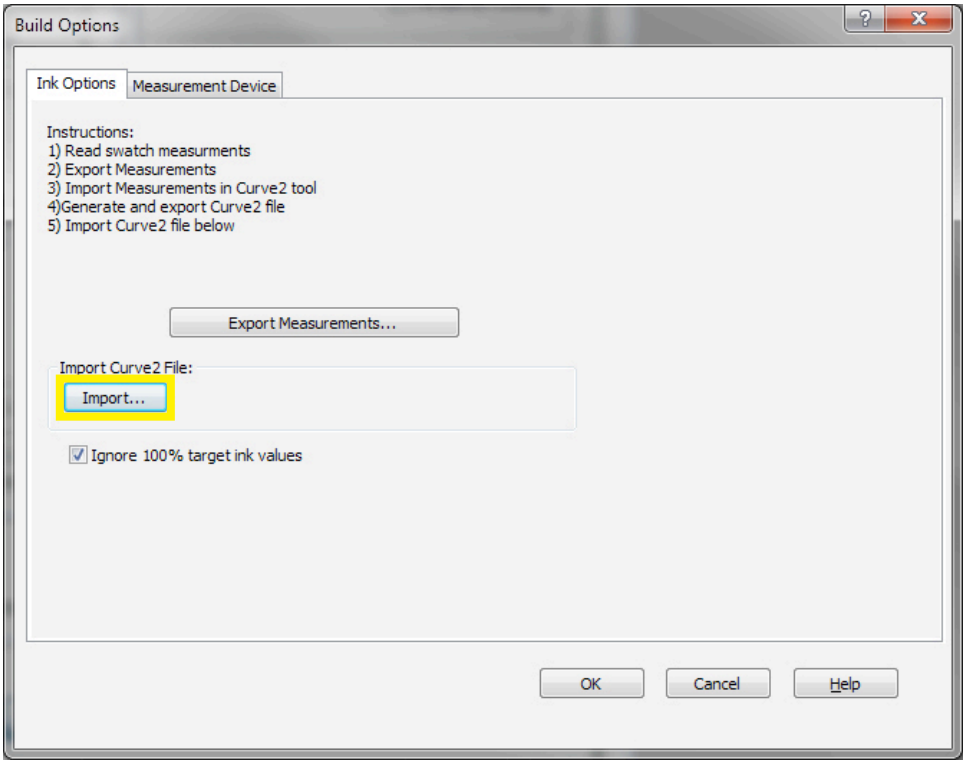
6- You will see a screen like below. Click "Read Swatch…" to use your color device to read in the swatch. Then click on the "Curve2 Options…" button. (Do NOT click the Build button)



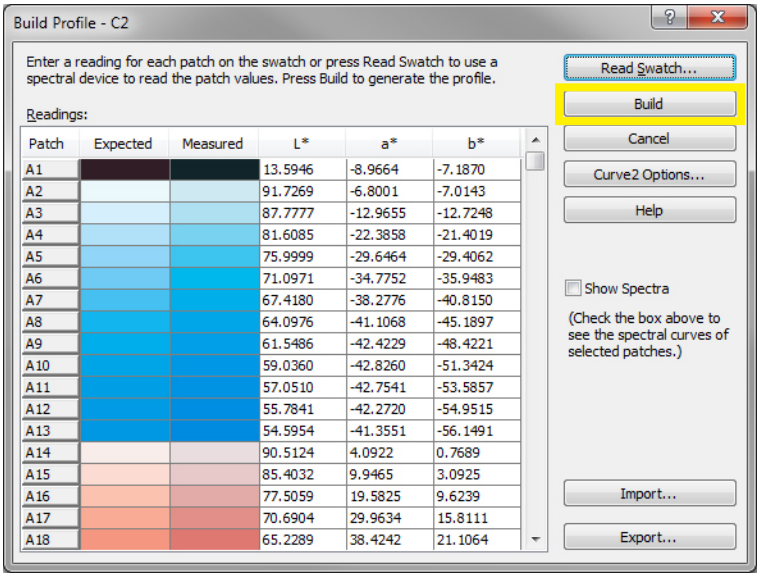
Patch	Expected	Measured	L*	a*	b*
A1			13.5946	-8.9664	-7.1870
A2			91.7269	-6.8001	-7.0143
A3			87.7777	-12.9655	-12.7248
A4			81.6085	-22.3858	-21.4019
A5			75.9999	-29.6464	-29.4062
A6			71.0971	-34.7752	-35.9483
A7			67.4180	-38.2776	-40.8150
A8			64.0976	-41.1068	-45.1897
A9			61.5486	-42.4229	-48.4221
A10			59.0360	-42.8260	-51.3424
A11			57.0510	-42.7541	-53.5857
A12			55.7841	-42.2720	-54.9515
A13			54.5954	-41.3551	-56.1491
A14			90.5124	4.0922	0.7689
A15			85.4032	9.9465	3.0925
A16			77.5059	19.5825	9.6239
A17			70.6904	29.9634	15.8111
A18			65.2289	38.4242	21.1064

7- Click the "Export Measurements..." button to export a .txt file that will be imported into Curve3. Leave this window open while you use Curve3. See page 9 for some basic Curve3 instructions.

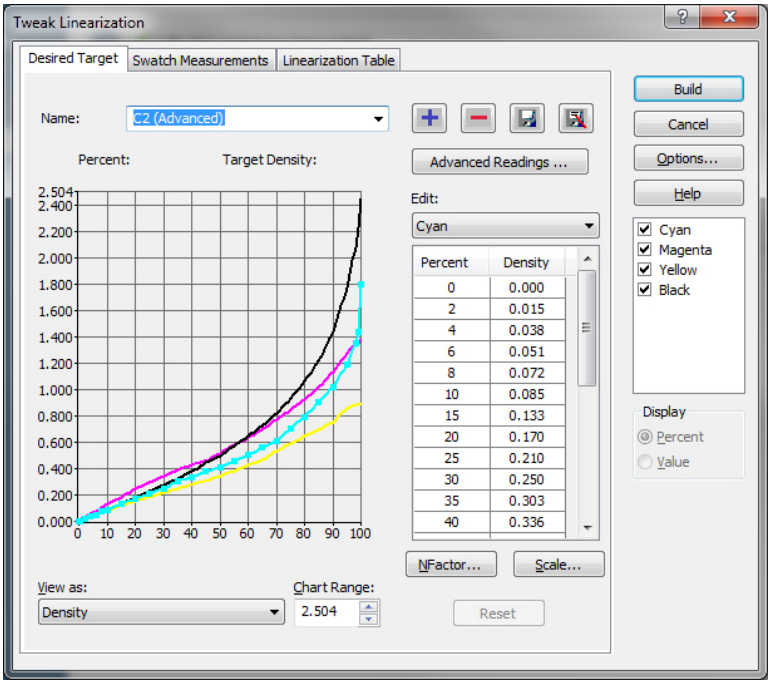
After the curves file from Curve3 have been exported, click the "Import…" button to select that .txt file. Leave the "Ignore 100% target ink values" box checked. Then click OK.



8- In the Build Profile window, click "Build".



9- The new targets from Curve3 will show up in the Tweak Linearization window. (Note the values will not match, since ONYX displays the control points as target densities)



10- Click Build to close the Tweak Linearization dialog and complete the calibration process. (Remember the warning about ink limiting)

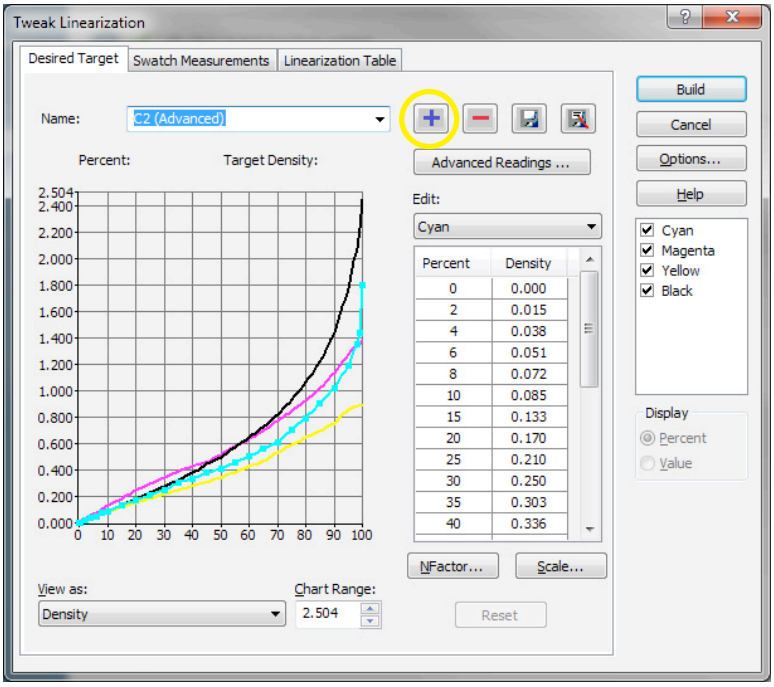
To verify if your new G7 calibration is within tolerance, see the next section.

Verifying a G7 Media Model in Curve3

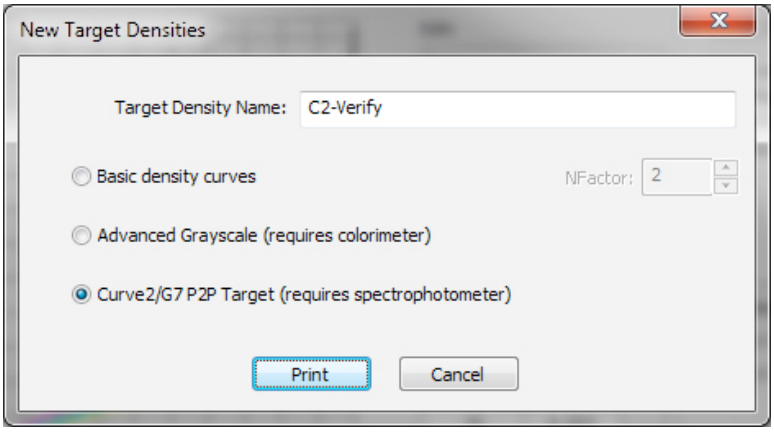
11- To verify your new G7 calibration, you need to create a new temporary media model to print a P2P swatch with the your new G7 calibration settings applied to it.

Once verification is complete, the new temporary media model can be deleted.

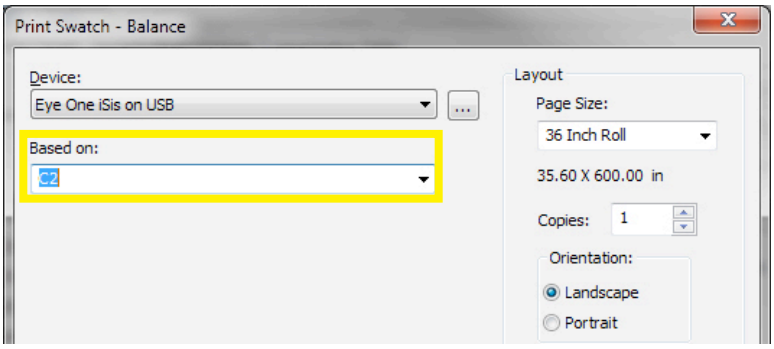
As before, click "Advanced..." to open the Tweak Linearization dialog, then click on the blue plus button.



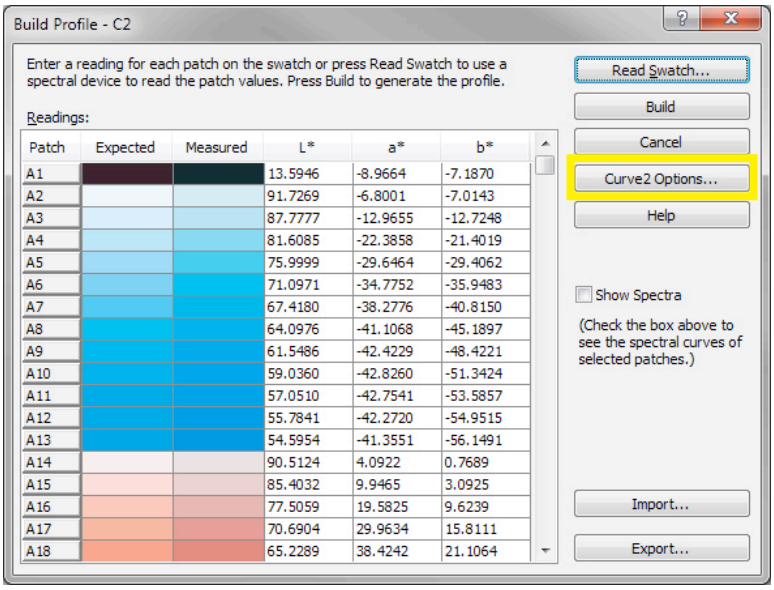
12- Enter a name for the temporary media model and select "Curve2/G7 P2P Target" and click Print.



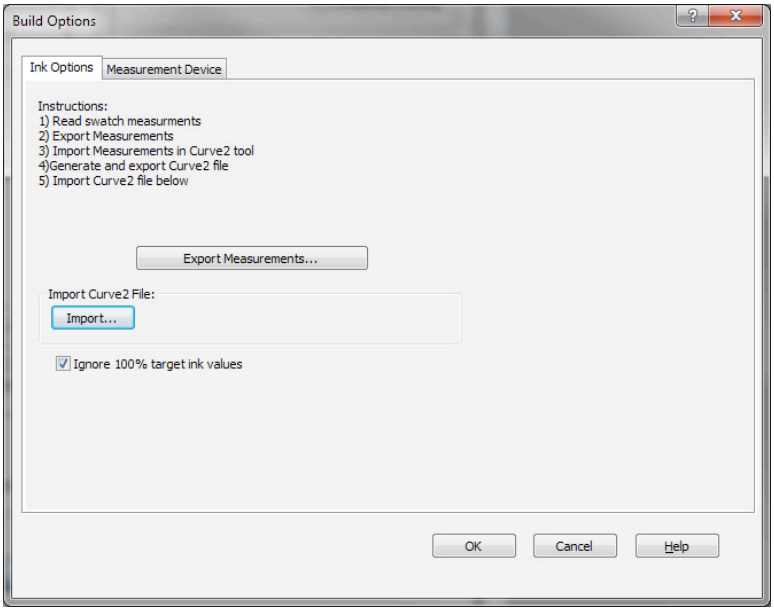
13- IMPORTANT: Select your previously created G7 media model from the “Based on:” menu. (Do NOT leave selection at <Default Calibration> this time) Click the Print button.



14- Read in the swatch as before and click on the “Curve2 Options… button”.

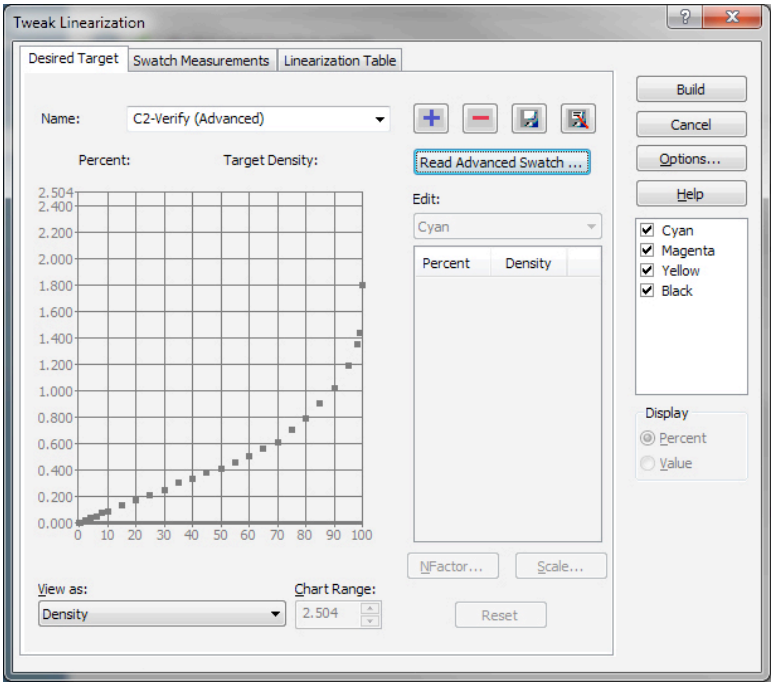


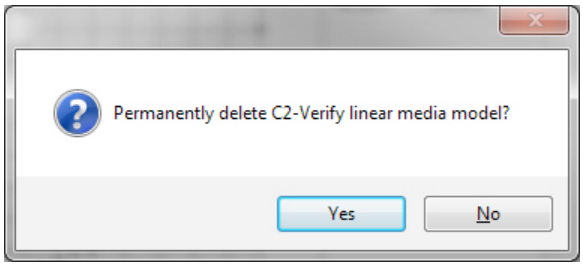
15- Export the new .txt file with a unique name. Import this file into Curve3 to see if the calibration is within G7 tolerances. (See Curve3 documentation on how to do this). In Media Manager, click Cancel twice.



16- Make sure the temporary media model is selected in the drop down.

Click the red minus button to delete it. Click Yes for the warning. Select the original G7 media model and click Build.





Basic Curve3 Instructions

• See the Curve3 documentation of how to set up Runs and import measurements. Once you have imported the P2P measurements from ONYX, go to the Create Curves tab to view the adjustment curves.

• The default settings in Curve3 should normally give you acceptable results. It is recommended, however, to use the "highlight & shadow weighted" selection for the control points. See the Curve3 documentaion for further explanation of the other settings.

• To export the curves, in the bottom right of the window select CGATS and then click the "Export..." button. This exported .txt file is what is imported in step 7 above.