G7 Grayscale Correction and Verification in Media Manager
The G7 Grayscale Correction and Verification tool is designed for calculating G7 gray balance calibration curves using CMYK process colors. This tool adds two more sections in the profiling process to allow for G7 correction and verification. This document will explain how to set up and use the G7 grayscale tool.

**Workflow Setup in Media Manager**

G7 Grayscale Correction and Verification is part of the profiling process. The steps for G7 must be added to a Workflow. In Media Manager go to Reports and Tools and choose Customize Workflow. Add or edit a Workflow. Under Workflow Features enable G7 Grayscale Correction and G7 Grayscale Verification steps. Click the right arrow button to save the settings and close the Workflow Editor.

Create or edit a media profile and select the Workflow that contains the G7 Grayscale steps. The steps will appear with the other profiling steps on the left side.

**G7 Grayscale Correction**

The G7 Grayscale Correction step creates the correction curves to conform with G7 Grayscale specifications.

Start by clicking the **Print Swatch** button. In the print dialog there is an option **Use “G7 Native CMY”**. There are situations where printers cannot be neutral at 300% CMY. Using the option **Use “G7 Native CMY”** can be used to bypass this requirement. Using this will not change how the swatches are printed, but will change how G7 curves are created and G7 verification is done. This is enabled by default.

The **P2P Swatch Selection** option determines the amount of ink used for the printed swatches. By default the **Standard P2PS1 Swatch (default)** is used. Some printers, specifically solvent printers, have strong cyan inks. The selection **Less Cyan (better for solvent printers)** prints the swatch with less cyan to help correctly calculate the G7 Grayscale curves.

Select the **Read Swatch** button and read in the swatches. The G7 Grayscale curves are built automatically.

Below the **Read Swatch** button is an optional step to import curves from external G7 Grayscale Calibration programs. The supported file type this step uses is CGATS with a .txt extension. The imported curves are set as default for the media profile. Click the right arrow button to continue to the **G7 Grayscale Verification** step.
G7 Grayscale Verification

The next step verifies that the grayscale correction adjustments are within G7 Grayscale tolerances. Click the Print Swatch button. If the option Use “G7 Native CMY” was enabled in the G7 Correction step, that must also be enabled in the Print Swatch dialog in the G7 Verification step.

After the swatch has printed, click Read Swatch and follow the instructions provided. After the swatches have been read, a chart appears indicating what G7 tolerances have been met.

The Iterate button appears below the chart. This can be used to make further corrections if the print mode does not pass. After clicking the Iterate button, a message indicates that the verification swatch must be re-printed and re-read again. Click the Print Swatch button at the top.

The chart automatically updates the new results. The iteration step can be repeated multiple times, but usually once is sufficient. If, after several iterations, the profile is still unable to be within tolerance, the print mode may not be capable of passing G7 Grayscale, or the print mode may need to be adjusted. Areas to consider are a high cyan ink restriction, or ink limits that are too low. This means a new print mode should be created.

Important: Before Using the Iterate Option

When the Iterate button is clicked, the previous curves are replaced by the iteration curves. This means the profile cannot go back to the previous set of curves. It is highly recommended that you make a backup of the media profile or print mode before iterating the curves. This is done in the Media Library section of Media Manager. Select the media or mode that should be backed up and click Make a Copy. Give the backup a different name and then resume the profiling process and click Iterate.