Roland VersaWorks
Color Calibrating a Print Mode
Linearizing your printer
Color Calibrating a Print Mode
To increase color accuracy on a Roland Printer or Print/Cut device, color calibration, or sometimes referred to as linearization, of the print mode being used is recommended. Use these steps to color calibrate a Roland printer or Print/Cut device with Roland VersaWorks.

Setting the General Preferences
To begin, make the correct settings for the spectrophotometer being used. This is found in the General Preferences of VersaWorks.

A. Navigate to the [Edit] menu and select [Preferences].
   Tech Tip: Double clicking on the computer icon will also open the preferences window.

B. Select the [Measure Instrument] tab.

C. Under [Hardware Settings (for Media Explorer)], select the [Model] pull down menu and select the device that will be used.
   Supported types of hardware are the GretagMacbeth Spectroscan, X-Rite DTP41, GretagMacbeth EyeOne, X-Rite DTP20 and the X-Rite EyeOneIO.
   When using the GretagMacbeth Spectroscan or the X-Rite DTP41, select the correct port and speed in the connection area.

E. Select [OK]

Preparing Queue A for the calibration process
In the coming steps, Queue A will be used for processing files for calibration. It is important to make the following settings in the Queue A properties before continuing.

A. Navigate to the [Edit] menu select [Queue A Setting(A)]
   Tech Tip: Double clicking on the [A] folder icon will also open the settings window.

B. Select the [layout] button.
   In this area, select [Get Media Width] for the material loaded in the printer.
   Tech Tip: For some specialty media like heat transfer material, selecting the [Mirror] item in the [Print Properties] area is necessary for the transfer process.
C. Select the [Quality] button and in the [Color Management] area, select the preset [Density Control Only].

D. Select [Mark], place a check mark next to [Print Job Properties], then, [Quality Settings] and [Date/Time].

This is helpful when performing the calibration process for multiple types of media and print resolutions. This will add notations to the linearization charts to make it easy to determine which charts need to be read later.

**Tech Tip:** If calibrating adhesive back material, select [Cut Controls] and make sure [Cut Image Boundaries] is NOT checked. Cutting the image boundaries could cause issues when reading the charts later.

E. Select [OK] to save the Queue A Properties.

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Media Explorer - Copying media to be calibrated

A. Navigate to the [Media] menu and select [Media Explorer].

B. On the left side of the Media Explorer window is the Media List. Find the media to be calibrated and highlight it.

C. On the top of the media list, select [Copy Media].

D. In the Copy Media window, rename the media and select [OK].

**Tech Tip:** Adding a prefix to the original name instead of a suffix will minimize confusion in production. In this example "calibrated" was added to the beginning of the name.
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Printing the calibration chart

A. Select the new media created in the list. The new media will be at the bottom. Once selected, the right side of the window shows the mode settings for the media. Choose the mode to be calibrated and select the [Print Quality Settings] button.

Tech Tip: Turning off the [Eye] on the left for all other modes will hide the modes not being calibrated in the job and queue properties. This will minimize confusion in production, allowing the user only to select the calibrated modes when complete.

B. Select [Print Chart] in the category area.

C. Select the [Print] button.

D. A window will open showing the chart to be printed. Select [OK].

E. Another window will appear confirming the chart was sent successfully. Select [OK].

The calibration chart is sent to Queue A and is automatically ripped and printed.
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Measuring the Chart

Once the chart has been printed and is fully dry, remove it from the printer and prepare it for scanning.

A. Select [Measure Chart] in the category list on the left.

B. Select [Calibrate]

This will calibrate the device being used for reading the chart. The calibration status window will appear and automatically close when complete.

C. When the calibration process is complete, select the [Measure] button. The [Start Measurement] window will appear and the [Media Explorer] window will be flashing the first row to be measured.

D. Proceed to scan the entire calibration chart.

Tech Tip: On some USB devices like the EyeOne, if two applications are open at the same time utilizing the device, multiple clicking of the read button is necessary. It is recommended to close all other applications that may be using this device as a resource before measuring.
**Fine Tune and Apply**

This step assures that the curves generated by the calibration process are smooth. Occasionally in the scanning process, false readings happen and need to be edited to make the curve smooth. If this is not done, inconsistent color will result when processing jobs.

A. Select [Fine Tune and Apply]

B. This window shows the curves generated by the calibration process, and associated values for each color patch read. Select [Channel] to select one of the four (CMYK) channels.

C. The curves should have a smooth appearance, without any sharp changes. If any sharp changes in the curve exist, they will need to be edited.

Find the value on the right associated with the anchor that needs to be moved. When you select an input value on the right, the corresponding anchor will highlight on the curve. Using the arrows, move the value up or down until a smooth curve is achieved. Do this for all CMYK channels.

D. Select [OK] to save the new calibration settings.

E. Select [OK] to exit out of the [Media Explorer]. A window will appear to confirm or discard the settings. Select [Yes].

**Using the new calibration**

Before the calibration can be used, the Queue A Properties must be set back to the desired settings.

A. Open the [Queue A Settings]

B. In the [Quality] area, change the [Color Management] back to the desired settings.