

TotalFlow Print Server R60/R60A

Calibration Guide

This document describes how to perform calibration or manage colors on this product.

Performing Calibration

To print colors as expected when color printing is enabled, perform calibration on the machine you are using.

Perform calibration for each calibration type. When performing calibration using the paper the manufacturer does not recommend or using a halftone screen to print a calibration sheet, register a new calibration type first.

In this document, a spectrophotometer i1Pro (non-UV cut filter) or i1Pro2 of X-Rite, a test chart the manufacturer provides and an associated software application i1Profiler are used to explain how to perform calibration.

Note

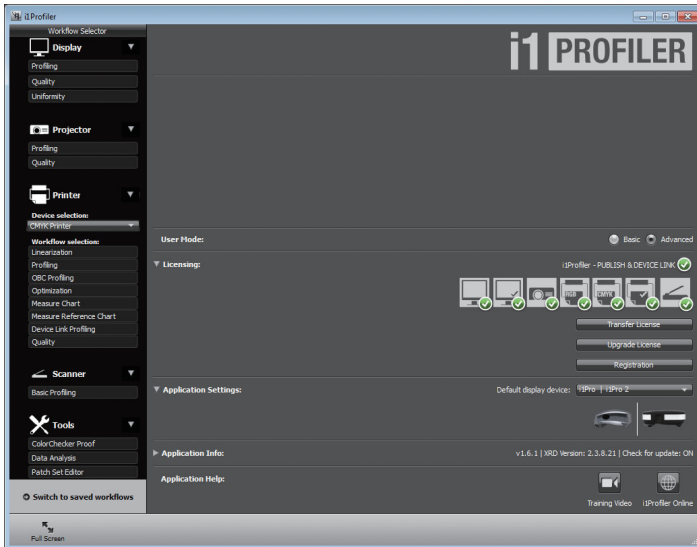
- i1Pro2 and i1Profiler are supplied with an option i1Publish Pro 2. For details about this option, ask your service representative.

Preparing for Calibration <Register a Test Chart to i1Profiler>

Important

- When performing calibration, first configure a spectrophotometer and register i1Profiler to the client computer. Install i1Profiler as instructed by the installer.

1. Launch i1Profiler.

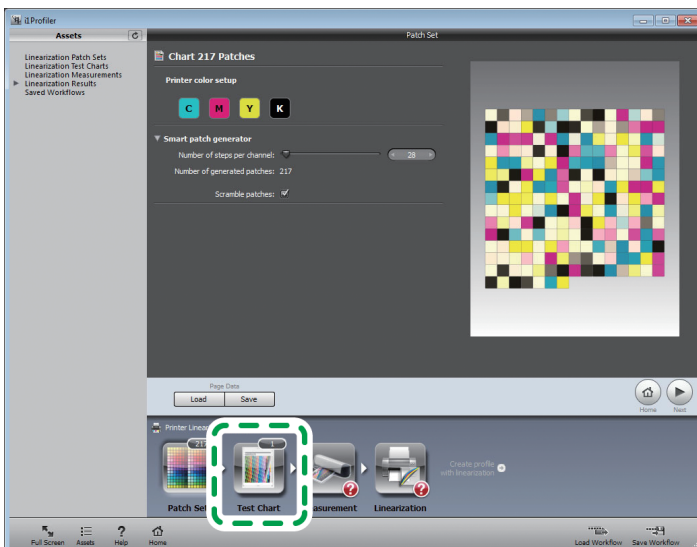


2. Select [Advanced] in [User Mode].

3. Select [CMYK Printer] from the [Device selection] dropdown list on [Printer].

4. In [Workflow selection] in [Printer], click [Linearization].

5. Click [Test Chart] in [Printer Linearization Workflow] below the screen.



6. Click [Load].

7. Specify the folder where the text chart is stored, and select a standard accuracy test chart for the spectrophotometer you are using.

“txf” is the extension for a test chart.

Below are the test charts provided.

For i1Pro2

Cal_Target_Standard_i1Pro2.txf for standard accuracy calibration

Cal_Target_High_i1Pro2.txf for high accuracy calibration

For i1Pro

Cal_Target_Standard_i1Pro.txf for standard accuracy calibration

Cal_Target_High_i1Pro.txf for high accuracy calibration

8. When a confirmation screen for copying appears, select [No].

9. Click [Save] and save the test chart.

Test charts are stored in the following folders unless otherwise specified

Windows: C:\ProgramData\X-Rite\i1Profiler\ColorSpaceCMYK\LinearizationTestCharts

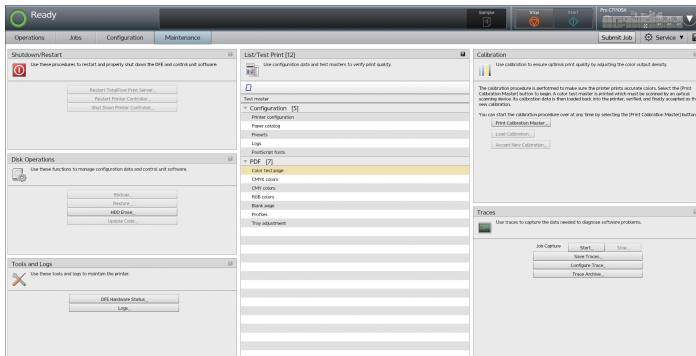
Macintosh: /Library/Application Support/X-Rite/i1Profiler/ColorSpaceCMYK/LinearizationTestCharts

10. Next, repeat Steps 6 to 9, select a high accuracy test chart and save it.

11. Click , the close icon to quit i1Profiler.

Printing a Calibration Sheet

1. Launch TotalFlow Print Server, and open the [Maintenance] hub.



2. Click [Print Calibration Master].

3. On the [Print Calibration] screen, configure the following:

- 1) Select the paper tray to print a calibration sheet.
- 2) Specify in [Number of copies] the number of the calibration sheet you want to print.

We recommend printing the calibration sheet several times to ensure correct calibration and using for calibration one print from all the prints except the first print.

3) In [Accuracy], select a calibration accuracy.

When a bypass tray for SRA3, A3 paper or Ledger is used, you can select [High] or [Standard]. When a bypass tray for A4 or letter-sized paper is used, you can select [Standard] only.

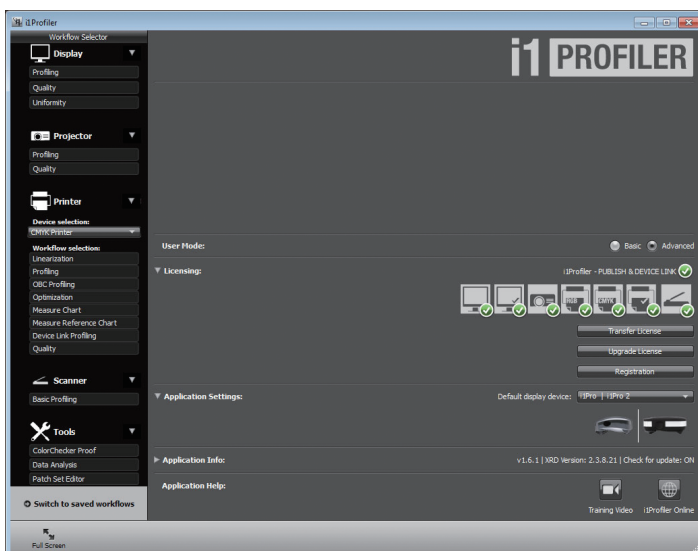
4. Click [OK].

5. Check that there are sufficient margins on the left and right sides of the calibration sheet that is printed.

Installing a Calibration Sheet and a Spectrophotometer

1. Attach a spectrophotometer on the client computer.

2. Launch i1Profiler.



3. Click [Advanced] in [User Mode].

4. Select [CMYK Printer] from the [Device selection] dropdown list on [Printer].

5. Click [Linearization] in [Workflow selection] on [Printer].

6. Click [Test Chart] in [Printer Linearization Workflow].

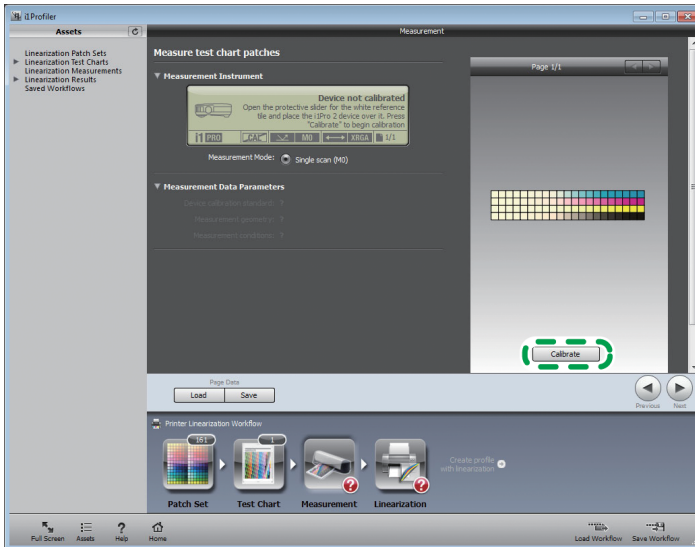
7. Click [Load].

8. From the list, select a test chart for the spectrophotometer you are using. The accuracy of this test chart must be the same with the one of the calibration sheet already printed.

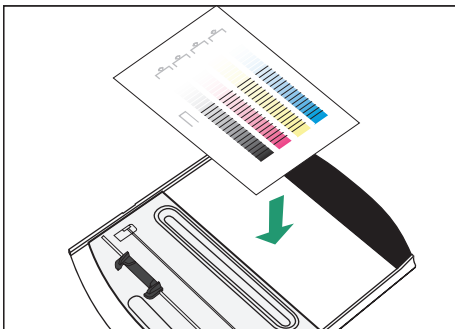
You can also select a test chart from [Linearization Test Charts] in the [Assets] menu.

9. Click [Measurement].

10. Place the spectrophotometer on the calibration plate, and click [Calibrate].

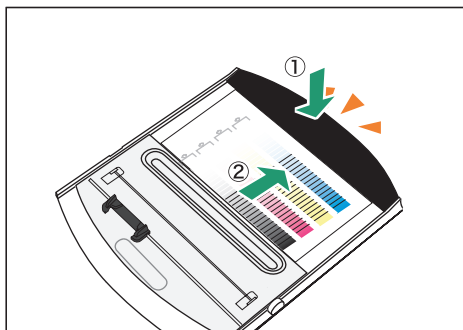


11. On the backup board, place unprinted sheets of the same type of paper used for the calibration sheet already printed so that the backup board cannot be seen from above, and then, place one of the calibration prints on the unprinted sheets of paper.



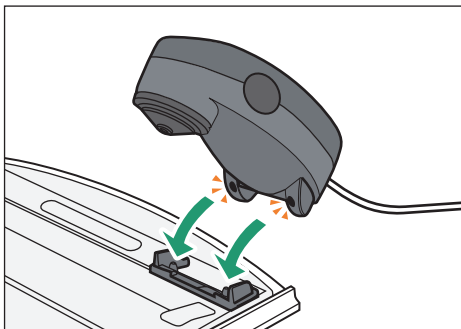
CSA111

12. Open the backup board clip (①), insert the calibration sheet (②) and fix it.



CSA112

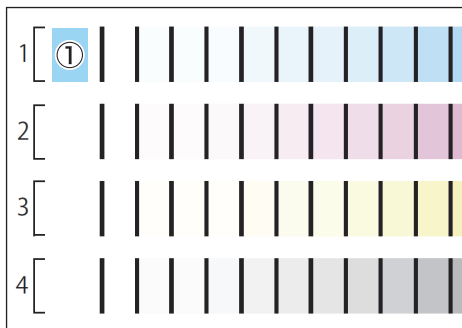
13. Position the spectrophotometer on the ruler.



BWJ002

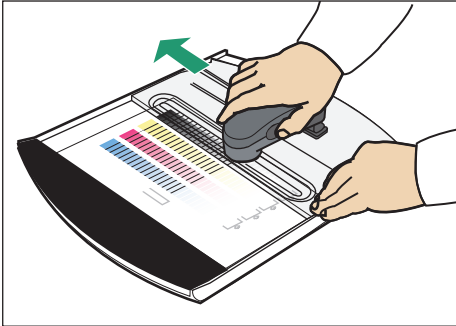
Scanning a Calibration Sheet

1. After positioning the spectrophotometer on the ruler, move the scanning head of the spectrophotometer to the blank area (①) that is next to the color gradation band [1] and on the left edge of the calibration sheet.



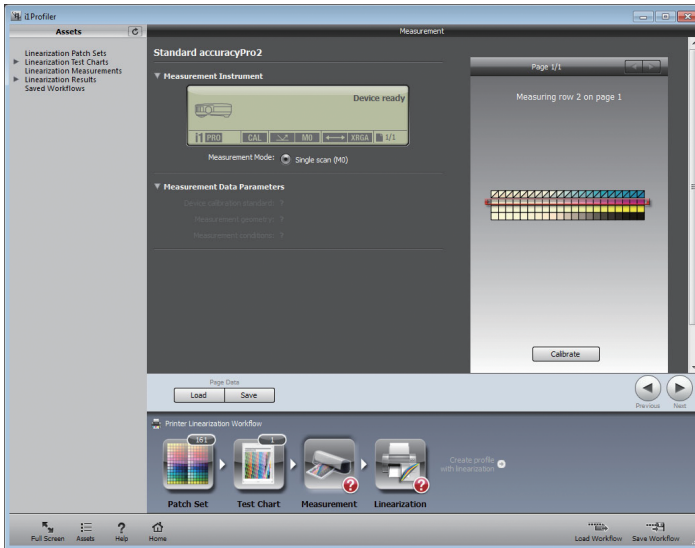
DQF111

2. Keep pressing the button on the left side of the spectrophotometer.
3. In about on second, when the computer makes a beep, slide the spectrophotometer to the right edge slowly at a regular speed.



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4. Release the button on the left side of the spectrophotometer.
5. Check the scan result using the [Measurement] screen of i1Profiler.



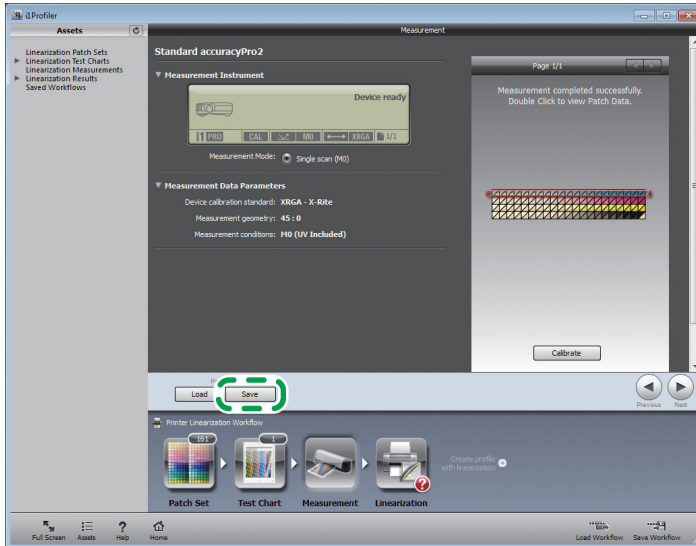
When an error message appears or the scan result and the color gradation do not match, perform scanning again.

6. Move the scanning head of the spectrophotometer to the blank area next to another color gradation band, and repeat Steps 2 to 5 for scanning.

Scan all color gradation bands: four bands for standard accuracy calibration and eight bands for high accuracy calibration.

Saving Scanned Data

1. Click [Save] on the [Measurement] tab of i1Profiler.



2. Select [i1Profiler CGATS Custom (*.txt)] from [Save as type].

3. Specify the folder to save scanned data, and name the folder.

4. Click [Save].

5. Configure a file in CGATS format as follows, and then click [OK].

If the configuration is wrong, an error occurs when you load the file to this product.

- Data sets: Save all available data sets
- Data fields: Select the check box of the following items.
 - SampleID
 - SampleName
 - CMYK
 - Reflectance Spectrum
 - L*a*b*
- CIE Standard Illuminant: CIE illuminant D50
- CIE Standard Observer: 2°
- Decimal separator: Period [.]
- Output scale: 0.0-1.0
- Spectral range: 380-730 nm

Note

- Do not select the check box of [Density] and [Minus Paper].

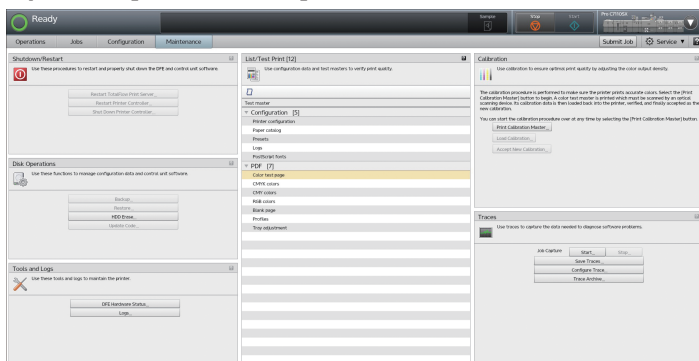
6. Click , the close icon to quit i1Profiler.

Loading Calibration Data

When loading calibration data from this product directly, copy the saved calibration data to a USB memory device and install it to the USB port of this product.

When loading calibration data from a client computer, log in from a Web browser to this product as an administrator.

1. Open the [Maintenance] hub.



2. Click [Load Calibration].

3. Click [File Upload].

4. Specify the folder where calibration data is stored, and select the calibration data.

5. Click [Open].

6. Click [Print Verification] or [Apply Without Verification].

When clicking [Apply Without Verification], proceed to Step 9.

7. When clicking [Print Verification] in Step 6 above, you will have two prints of the confirmation page.

The first print contains the previous calibration result while the second print contains the current calibration result.

Unless the previous calibration result is available, the first print contains the default setting the manufacturer provides.

8. Click [Accept New Calibration].

9. Click [Accept New Calibration] or [Discard New Calibration].

When clicking [Accept New Calibration], you will have the current calibration result applied to the calibration type specified on the sheets of paper where a calibration chart is printed.