



# FieryMeasure Help

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# FieryMeasure

FieryMeasure is a utility for measuring rows of printed color patches on a page using a measurement instrument. You can also print a patch page using FieryMeasure.

FieryMeasure supports several measurement instruments, including the EFI ES-2000 spectrophotometer.

FieryMeasure is started from within other applications that require color measurement data.

## Print measurement pages

Measurement pages contain patches of various colors that you measure with an instrument. You can also load measurements from a file.

- 1 If you will measure the page after you print it, connect the measurement instrument to your computer.
- 2 Select None (Save as PDF) to save the page for printing, or select a Fiery server or Fiery XF Server to connect to and print the page, and click Next.
- 3 Some or all of the following options may be available for the layout of the patch page. Select the settings that are appropriate for your task:

- **Instrument** - To measure pages, select the measurement instrument, or to load measurements from a file, select Load measurements and select the file.

Optionally, click Settings to set options for the instrument.

- **Measure** - Select the type of measurement, or to import a patch layout from a file, select Import and select the file.
- **Patch layout** - The layout affects the number, colors, and order of the patches. Different layouts are available depending on the measurement type.

Fewer patches are faster to use, but more patches generally produce higher quality results. For profiling, we recommend at least 928 patches, or 1485 patches for a high-quality profile.

Sorted patches are printed on the page in the order of their hue and saturation levels. Random patches are printed on the page in random order, to help compensate for density inconsistencies on different areas of the page. For calibration, we recommend 51 random patches. (For calibration with some measurement instruments, this is the only patch layout supported.)

- **Paper size** - Select a paper size for printing the measurement page or click Custom and specify a custom page size.

- 4 If you connected to a Fiery server, or Fiery XF Server, click Print to print the measurement page. If not, click Save to save the PDF file.

Before printing a measurement page, you can set print options and other job settings for printing the page. Do not change any color management settings.

- 5 If you saved a PDF file, print it and then click Measure.

## Measuring a measurement page

A color measurement instrument, such as a spectrophotometer, measures the reflected light from a color patch and stores the measurement as a numeric value. The procedure for measuring a page of patches depends on the instrument.

Some instruments have a self-calibration feature to check the correct functioning of the instrument. For example, the instrument may be calibrated by checking its ability to measure a known color sample accurately. If self-calibration is available, you must calibrate the instrument before proceeding to measure a page.

Handheld instruments require that you follow instructions to place the page and measure each row of patches on the page. Automatic instruments measure each row and advance to the next row without user interaction. Some instruments also position the page automatically.

### Calibrate the instrument

You must first calibrate the measurement instrument to make reliable measurements. If calibration fails, you cannot continue with the measurements.

- 1 Follow the instructions on the screen and click Next.

**Note:** With the EFI ES-2000 or EFI ES-1000 spectrophotometer, both the white tile on the cradle and the instrument aperture must be clean. With the EFI ES-2000, the white tile cover must be open.

- 2 If you cannot calibrate the instrument successfully, click Cancel.

### Measure with ES-2000 or ES-1000

You can measure color patches on a page using the EFI ES-2000 or ES-1000 spectrophotometer.

When you select the ES-2000 as your measurement method, you can set the instrument settings:

- Measurement mode - Select the type of measurement that you want. You measure each strip in one pass or in two passes.
  - M0 - One pass, UV included
  - M1 - Two passes, D50, UV included
  - M2 - Two passes, UV cut

- Use ruler - The positioning sensor on the underside of the EFI ES-2000 reads the stripes on the ruler to determine the position of the EFI ES-2000, so you must use the backup board with the ruler to guide the EFI ES-2000 along the strip. The use of the ruler is required for strip measurement in two passes.
- Large patch size - If this option is selected, larger patches are printed to allow for better measurements with a low-resolution printer. The measurement method is the same for regular and for large patches. This option is also available for the ES-1000.

When a page has been successfully measured, you can check the measurements. If any measurements are not as expected, you can remeasure the strip.

- 1 Place the patch page on a smooth, even surface.

If you have a backup board and ruler for measuring patch pages, position the patch page correctly.

**Note:** With the ES-2000, be sure to use the ruler if you selected the option to use the ruler when you printed the patch pages.

- 2 When the screen indicates that the ES-2000/ES-1000 is measuring, place the ES-2000/ES-1000 in the white space above or below the strip specified on the screen.
- 3 Hold down the button and slide the ES-2000/ES-1000 along the strip of patches slowly and at an even pace.
- 4 Release the button when the ES-2000/ES-1000 reaches the white space at the end.
- 5 After you successfully measure one strip of patches, move the ES-2000/ES-1000 to the white space at the beginning of the next strip.
- 6 Continue to measure the remaining strips in the same manner until you have measured all patches on the page.
- 7 Continue to measure the remaining patch pages (if any) in the same manner until you have measured all patch pages.
- 8 After you measure the last page, click Next.

## Measure with FD-5BT

You can measure color patches on a page using the Konica Minolta FD-5BT spectrodensitometer.

- Connect the FD-5BT to your computer and turn on the FD-5BT.
- To learn about the FD-5BT, see the documentation that accompanies the instrument.

When you select the FD-5BT as your measurement method, you can set the instrument settings.

Measurement mode - Select the type of measurement that you want. You measure each strip in one pass or in two passes.

- M0 - Standard illumination (incandescent), no UV filter
- M1 - Supplemented illumination (D50), no UV filter
- M2 - Standard illumination (incandescent), UV filter (or UV cut)

**Note:** M0, M1, and M2 are standard measurement conditions described in ISO 13655.

When a page has been successfully measured, you can check the measurements. If any measurements are not as expected, you can remeasure the strip.

- 1 Place the patch page on a smooth, even surface.  
For more accurate measurement, place several sheets of plain white paper beneath the page.
- 2 Place the strip guide over the first row and position the FD-5BT on the strip guide.  
For help with placing the instrument, click Show me how.
- 3 When the screen indicates that the FD-5BT is measuring, place the tip of the sample aperture on the instrument over the white space at either end of the strip specified on the screen.
- 4 Hold down the button on the side of the FD-5BT and slide the instrument along the strip of patches slowly and at an even pace.
- 5 Release the button when the FD-5BT reaches the white space at the end.
- 6 After you successfully measure one strip of patches, move the strip guide and the FD-5BT to the next strip specified on the screen.
- 7 Continue to measure the remaining strips in the same manner until you have measured all patches on the page.
- 8 Continue to measure the remaining patch pages (if any) in the same manner until you have measured all patch pages.
- 9 After you measure the last page, click Next.

## Measure with Spectropad

You can measure color patches on a page using the Barbieri Spectropad cordless spectrophotometer.

- Connect the Spectropad to your computer and turn on the Spectropad.
- Calibrate the Spectropad if instructed to do so.
- To learn about the Spectropad, see the documentation that accompanies the instrument.

When a page has been successfully measured, you can check the measurements. If any measurements are not as expected, you can remeasure a row.

- 1 Place the patch page on a smooth, even surface.
- 2 Place Spectropad on the page and use the red lasers to align the measuring head in the center of the first row.  
Rows are measured beginning from the bottom row and proceeding up.
- 3 Slide the measuring head to the white space at either end of the row.
- 4 Slide the measuring head along the row of patches at an acceptable speed as shown by the speed indicator on the Spectropad screen.  
The Spectropad beeps and displays a message when the row has been measured.
- 5 After you successfully measure one row of patches, move the Spectropad to the next row indicated on the Spectropad screen.
- 6 Continue to measure the remaining rows in the same manner until you have measured all patches on the page.
- 7 Continue to measure the remaining patch pages (if any) in the same manner until you have measured all patch pages.



- 8 After you measure the last page, click Next.

## Measure with i1iO 2 or i1iO

The i1iO 2/i1iO automatically moves the ES-2000/ES-1000 over each row of patches to measure them. The on-screen image highlights each row as it is measured.

Before measuring patch pages, you must calibrate the ES-2000 or ES-1000 that is connected to the i1iO 2 or i1iO. The ES-2000/ES-1000 is calibrated to the white tile on the i1iO 2/i1iO. Calibration may fail if the white tile is covered or is not clean.

When you have successfully measured a page, you can check the measurements.

- 1 Place the first patch page on the i1iO 2/i1iO, and then click Next.  
Position the page with the top edge closest to the i1iO 2/i1iO arm.
- 2 Following the on-screen instructions, position the crosshairs over the patch marked A and press the button on the ES-2000/ES-1000. Repeat for the patches marked B and C.  
The on-screen image helps you locate the patches A, B, and C.
- 3 Click Next.
- 4 When i1iO 2/i1iO finishes measuring the page, click Next.
- 5 Measure the remaining patch pages (if any) in the same manner as the first, starting with the placement of the page and the registration of patches A, B, and C.
- 6 After you measure the last page, click Next.

## Measure with Spectro LFP

The Barbieri Spectro LFP automatically positions the page under its measurement aperture and moves the page to measure each row of patches. The on-screen image highlights each row as it is measured.

- Connect the Spectro LFP to your computer and turn on the Spectro LFP.
- Calibrate the Spectro LFP.
- To learn about the Spectro LFP, see the documentation that accompanies the instrument.

When you have successfully measured a page, you can check the measurements.

- 1 Place the first patch page on the sample holder, insert the sample holder in the Spectro LFP, and then click Next.  
Position the page as shown on the screen.
- 2 Following the on-screen instructions, position the cross hairs over the patch marked A and click Next or press the Enter key. Repeat for the patches marked B and C.  
The on-screen image helps you locate the patches A, B, and C.
- 3 Click Next.
- 4 When Spectro LFP finishes measuring the page, click Next.

- 5 Measure the remaining patch pages (if any) in the same manner as the first, starting with the placement of the page and the registration of patches A, B, and C.
- 6 After you measure the last page, click Next.

## Measure with i1iSis

Measurement using i1iSis is automatic. When you have successfully measured a page, you can check the measurements if desired.

Before you measure pages, be sure that the measurement instrument is connected properly.

- 1 Place the first measurement page in the instrument in the direction indicated on the page, and press the button.
- 2 Continue to measure the remaining measurement pages (if any) in the same manner as the first until you have measured all pages.
- 3 After the last page has been measured, click Next.

## Measure with i1Pro 3 Plus

You can measure color patches on a page using the X-Rite i1Pro 3 Plus (large aperture, 8mm) spectrophotometer. It supports transparent and textile materials.

When you select the i1Pro 3 Plus as your measurement method, you can set the instrument settings:

- **Measurement mode** - Select the type of measurement that you want. You measure each strip in one pass.
  - M0 - One pass, UV included
  - M1 - One pass, D50 UV included
  - M2 - One pass, UV cut
  - M3 - Polarization filter applied only
- **Note:** The M3 option is available when the polarization filter (hardware) is mounted on the measurement instrument. If the filter is not mounted, then you can choose between the M0, M1, and M2 options.
- **Use ruler** - The positioning sensor on the underside of the i1Pro 3 Plus reads the stripes on the ruler to determine the position of the i1Pro 3 Plus, so you must use the backup board with the ruler to guide the i1Pro 3 Plus along the strip. The use of the ruler is required for strip measurement in two passes.
- **Large patch size** - If this option is selected, larger patches are printed to allow for better measurements with a low-resolution printer. The measurement method is the same for regular and for large patches.

When a page has been successfully measured, you can check the measurements. If any measurements are not as expected, you can remeasure the strip.

- 1 Place the patch page on a smooth, even surface.  
If you have a backup board and ruler for measuring patch pages, position the patch page correctly.
- 2 When the screen indicates that the i1Pro 3 Plus is measuring, place the i1Pro 3 Plus in the white space above or below the strip specified on the screen.

- 3 Hold down the button and slide the i1Pro 3 Plus along the strip of patches slowly and at an even pace.
- 4 Release the button when the i1Pro 3 Plus reaches the white space at the end.
- 5 After you successfully measure one strip of patches, move the i1Pro 3 Plus to the white space at the beginning of the next strip.
- 6 Continue to measure the remaining strips in the same manner until you have measured all patches on the page.
- 7 Continue to measure the remaining patch pages (if any) in the same manner until you have measured all patch pages.
- 8 After you measure the last page, click Next.

## Measure with ES-6000

The ES-6000 spectrophotometer is an X-Rite i1 iSis-compliant instrument that can read pages automatically and can connect to your computer through a local area network.

Before you measure pages, be sure that the ES-6000 and your computer are both connected to the same subnet of your local area network. Contact your network administrator if you are unsure.

The ES-6000 is similar to the X-Rite i1 iSis, but the ES-6000 is connected to your computer through your local area network rather than through a USB connection. The ES-6000 can be used to measure pages for multiple computers on the network. A unique ID printed on the page enables the ES-6000 to send measurements to the correct computer.

When you have successfully measured a page, you can check the measurements if desired.

- 1 Press the button on the instrument before inserting patch page.
- 2 When the light starts blinking, place the first measurement page in the instrument in the direction indicated on the page.
- 3 Continue to measure the remaining measurement pages (if any) in the same manner as the first until you have measured all pages.
- 4 After the last page has been measured, click Next.

## Measure with FD-9

Measurement using the Konica Minolta FD-9 is automatic. When you have successfully measured a page, you can check the measurements if desired.

Before you measure pages, connect the FD-9 to your computer and turn on the FD-9. To learn about the FD-9, see the documentation that accompanies the instrument.

- 1 Set the paper guides on the instrument to the width of the measurement page.
- 2 Place the leading edge of the page into the FD-9 until the page is pulled in.

If the FD-9 instrument is connected with the optional sheetfeeder unit, select OK button on the instrument to start measurement.

- 3 Continue to measure the remaining measurement pages (if any) in the same manner as the first until you have measured all pages.
- 4 After the last page has been measured, click Next.

## Measure with Spectro Swing

Measurement using the Barbieri Spectro Swing is automatic. When you have successfully measured a page, you can check the measurements if desired.

Before you measure pages, be sure that the Spectro Swing is connected properly.

- 1 Place the first measurement page in the instrument.
- 2 Continue to measure the remaining measurement pages (if any) in the same manner as the first until you have measured all pages.
- 3 After the last page has been measured, click Next.

## Measure with inline measurement instrument

Measurement using the inline measurement instrument installed on the printer is automatic. When you have successfully measured a page, you can check the measurements, if desired.

Before you measure pages, the inline measurement instrument must be installed in the printer. To learn about the inline measurement instrument, see the documentation that accompanies the measurement instrument.

## Measure pages (any instrument)

Before measuring measurement pages, be sure that the measurement instrument is connected properly. Calibrate the instrument if instructed to do so.

**Note:** Patches may be bordered by rows of yellow patches or black patches that allow the instrument to measure in either direction. The yellow patches and black patches are not included in the measurement data.

- 1 Place the first measurement page in or on the instrument.
- 2 If page registration is required, follow the on-screen instructions to register the page location.
- 3 If the instrument requires you to scan the patches manually, follow the on-screen instructions to scan each strip.
- 4 After you successfully measure a page, you can check the measurements.  
If any measurements are not as expected, you can remeasure the strip if your instrument supports manual scanning.
- 5 Continue to measure any remaining pages.
- 6 After you measure the last page, click Next.

## Measurement errors

When you measure color patches, the measurements are validated against a set of rules that are designed to detect errors in measurement values and to enable you to scan strips in either direction.

If an invalid measurement is detected, you can repeat the measurement.

Incorrect measurements can result from these causes:

- You measure the wrong strip, even though it is on the correct page.
- You measure the wrong page.
- The page has printing defects that produce incorrect colors.
- The printer or the media has a condition that causes unexpected colors.

## Check measurements after you measure a page

You can check a page's measurements before continuing. On the screen, there is a magnified view of the selected strip and the one next to it. Measurement values appear when you move the mouse pointer over a patch.

- 1 In the patch layout shown on the screen, click the strip that you want to check.
- 2 In the magnified view, move the mouse pointer over the patch that you want to check.

## Remeasure a strip

With handheld measurement instruments, you can remeasure a strip. A magnified view on the screen displays the selected strip and the one next to it.

- 1 In the patch layout on the screen, click the strip that you want to remeasure.
- 2 In the magnified view, click the number or the letter of the strip that you want to measure.
- 3 When prompted, measure the strip as before.
- 4 Click Next to go to the next page, or continue with the procedure.

## Print and measure G7 targets

The G7 specification defines standard grayscale curves that can be used to match the output of different printers. G7 calibration adjusts the color output of a printer to the G7 specification, using measurement data from a specific G7 target (patch page). Color Profiler Suite supports printing and measuring P2P25Xa and P2P51Xa targets that are used for G7 calibration. You can measure with any supported measurement instrument.

P2P25Xa and P2P51Xa targets are printed and measured using FieryMeasure, a module of Color Profiler Suite. The resulting measurement data can be used with IDEAlliance Curve or other G7 calibration software.

- 1** To start FieryMeasure, do one of the following:
  - Windows - Go to the Program Files\Fiery\Applications3\FieryMeasure folder and run the FieryMeasure application.
  - Mac OS - Go to the Applications/Fiery/FieryMeasure folder and run the FieryMeasure application.
- 2** Select the Fiery server or Fiery XF Server and click Next.
- 3** Select the settings for the layout of the patch page and click Print.  
For Measure, select G7, and then select the patch set, either P2P25Xa, P2P51, P2P51 Randomized, or P2P51 Randomized 2-up.
- 4** Select any job settings for printing the patch page and click OK.  
Do not change any color management settings.
- 5** Retrieve the page from the printer, and follow the on-screen instructions to measure the page.
- 6** Save the measurements file (.it8) to your computer.