EFI ColorGuard

EFI ColorGuard makes it easy to check for and maintain consistent accurate color on your Fiery Driven devices.

With EFI ColorGuard, you create color verification or calibration schedules that automatically prompt operators when it is time to verify or calibrate specific systems. Operators can quickly and easily verify color, and the results are automatically uploaded for review by the production manager. Operators can be notified when to calibrate. You can review the details of individual verifications, comparisons of multiple devices, and verification trends over time and schedule calibrations as needed to ensure your Fiery Driven devices provide consistent color quality.

For each device, you schedule verification, or calibration, of color output in the EFI ColorGuard cloud application. The EFI ColorGuard desktop application will then notify the device operator when a verification is pending, and allow the operator to verify, or calibrate, color output through the desktop application workflow.

In the verification workflow, the desktop application opens FieryMeasure, which the operator uses to measure the color output. Next, Fiery Verify receives the measurements from FieryMeasure and displays a summary of the results. The desktop application uploads the verification results to the cloud application where they can be reviewed and analyzed.

In the calibration workflow, the desktop application opens Fiery Calibrator, which the operator uses to recalibrate the color output of the Fiery Driven device. Calibrator uses FieryMeasure as part of the calibration workflow.

EFI ColorGuard consists of the following:

- EFI ColorGuard cloud application at https://colorguard.efi.com - Schedules verifications and calibrations to be completed on the EFI ColorGuard desktop application, and tracks the verification results.
- EFI ColorGuard desktop application - Notifies device operators when to verify or calibrate color output, prints and measures the color output using FieryMeasure, displays the results in Fiery Verify, and uploads the verification results to the EFI ColorGuard cloud application.

Supported browsers and operating systems

The EFI ColorGuard cloud application supports the browsers listed below. The EFI ColorGuard desktop application supports the operating systems listed below.

Browsers

- Google Chrome
- Microsoft Edge
- Mozilla Firefox
- Safari 11, or later

5 March 2020

Operating systems

Note: The EFI ColorGuard desktop application supports x64-bit operating systems only.

- Mac OS X 10.13, or later
- Microsoft Windows 7, 8.1, 10

EFI ColorGuard supported measurement instruments

EFI ColorGuard requires a measurement instrument to measure printed output for color verification. EFI ColorGuard supports the measurement instruments listed below.

Supported measurement instruments

- EFI ES-3000
- EFI ES-2000
- EFI ES-6000
- EFI ES-1000
- X-Rite i1iSis
- X-Rite i1iSis XL
- X-Rite i1iSis 2
- X-Rite i1iSis 2 XL
- X-Rite i1Pro
- X-Rite i1Pro 2
- X-Rite i1iO
- X-Rite i1iO 2
- Barbieri Spectropad (with USB connection only)
- Barbieri Spectro LFP
- Barbieri Spectro LFP qb
- Barbieri Spectro Swing
- Konica Minolta FD-5BT
- Konica Minolta FD-9
- The following inline measurement instruments:
  - Canon iPRC10000VP Series Inline
  - Xerox iGen Inline Spectrophotometer
  - Konica Minolta IQ-501

Sign up for EFI ColorGuard

A valid email address is required to verify a new EFI IQ account.

EFI IQ is a cloud platform that includes a range of cloud applications, such as EFI ColorGuard, for print service providers.

1 Open https://colorguard.efi.com.

2 Click Sign Up.

3 Type your information into the text boxes.

Note: Text boxes marked with an asterisk* are required.

4 Click Sign Up.
EFI IQ will send a verification email to the email you entered in Step 3.

5 To verify your email address, open the verification email and follow the instructions.

Note: If you did not receive a verification email, check your spam and/or junk folders.

6 Click Manage Your Account.

7 Click Start Adding Devices

8 Download EFI Cloud Connector for Mac or Windows.

9 Install EFI Cloud Connector.

10 Use EFI Cloud Connector to connect your print systems.

EFI Cloud Connector

EFI Cloud Connector connects your print devices to EFI IQ services.

EFI IQ is a cloud platform that includes a range of cloud applications for print service providers.

With EFI Cloud Connector, you can manage, register, and track your print devices and connections to EFI IQ services and web applications.

Supported Devices

For a list of currently supported print devices, go to http://resources.efi.com/IQ/supported-devices.

Proxy setup configuration

Configure your proxy settings to connect to EFI IQ through a firewall with EFI Cloud Connector.

The EFI Cloud Connector and the Fiery server must be in the same proxy network.

1 Launch the EFI Cloud Connector from one of the following locations:

- Windows: Start > Fiery > EFI Cloud Connector
- Mac OS: Go > Applications > Fiery > EFI Cloud Connector

Note: You can access EFI Cloud Connector in a browser from http://localhost:11214.

2 Click Configure proxy settings.

3 In the Proxy Settings window, select Use Proxy.

4 Select Auto for Proxy Security Method.

5 Specify the following information in the text fields:

- Proxy server name
- Port
- Proxy username
- Proxy password

6 Click Test.
If the proxy configuration test passes, a message will appear in the Proxy Settings window.

7 Click Save.

Register a Fiery server

Connect a Fiery server to EFI IQ with EFI Cloud Connector.

Each Fiery server must be online.

EFI Cloud Connector should be installed on a system that is running at the same time as the connected Fiery servers.

If the system hosting EFI Cloud Connector is turned off, the Fiery servers connected through EFI Cloud Connector will appear offline.

1 Launch the EFI Cloud Connector from one of the following locations:

- Windows: Start > Fiery > EFI Cloud Connector
- Mac OS: Go > Applications > Fiery > EFI Cloud Connector

Note: You can access EFI Cloud Connector in a browser from http://localhost:11214.

2 Select the Fiery server you want to register, or click Add Server and type the device name or IP address.

3 Type the Fiery Admin password for the device, and then click Register.

4 Type your EFI IQ account information and password.

5 Click Sign In.

Deactivate EFI Cloud Connector

Deactivate EFI Cloud Connector to disconnect the listed devices from EFI IQ.

Note: Disconnected devices are still registered with EFI IQ.

1 Launch the EFI Cloud Connector from one of the following locations:

- Windows: Start > Fiery > EFI Cloud Connector
- Windows: EFI Cloud Connector desktop icon
- Mac OS: Go > Applications > Fiery > EFI Cloud Connector

2 Click on your User name.

Note: Your User name will be the email address attached to your EFI IQ account.

3 Click Deactivate ECC.
EFI Cloud Connector will restart.

4 Close the EFI Cloud Connector window.

License Devices

EFI ColorGuard requires each device to have a license.

EFI ColorGuard provides a free 30-day trial license for your account. The trial license allows you to connect all your supported devices for the duration of the trial.

Each device must be individually licensed once your 30-day trial period ends.

Contact your EFI dealer to purchase EFI ColorGuard licenses or license renewals.

Add a license

Add an EFI ColorGuard license to each connected device for full access to features.

1 Open https://colorguard.efi.com.

2 Sign into ColorGuard using your EFI IQ credentials.

3 Click  .

4 Place your cursor over the listing for the device you want to license to make  appear.

5 Click  .

6 Enter the 20-digit License Activation Code (LAC), or click Activate trial license to add a device to your 30-day trial.

Note: A trial license can be upgraded to a full license by adding a LAC to a device running a trial license.

⚠WARNING Once activated, a full license cannot be removed from a device. Double check to ensure that you are licensing the correct device.

7 Click Next.

8 Click Done.
The License Status for the device will change to Licensed.

Check for renewal

Update EFI ColorGuard license status for devices showing an expired license status when the license has been renewed.

1. Open https://colorguard.efi.com.
2. Sign into EFI ColorGuard using your EFI IQ credentials.
3. Click  .
4. Place your cursor over the listing for the device you want to check for renewal to make  appear.
5. Click  .

   Note: This does not renew an expired EFI ColorGuard license.

   The License Status of the device will change to Licensed if a renewal has been purchased.

Remove a trial license from a device

Only Trial Licenses can be removed from a device.

Full licenses are permanently attached to a device.

1. Open https://colorguard.efi.com.
2. Sign into EFI ColorGuard using your EFI IQ credentials.
3. Click  .
4. Place your cursor over the listing for the device you want to remove a trial license from to make  appear.
5. Click  .

   The license status of the device will change to Unlicensed.

Create a verification preset

Create a verification preset to specify the Color Reference, Tolerance Set, and Patch Set used for a scheduled color verification.

You should know:

- Color Reference contains the targeted colors that sample measurements are compared to.

  Note: Industry standard color spaces, such as GRACoL2013 and FOGRA51, comprise most of the color reference selections.

- Tolerance Set defines the criteria used for comparison between a color reference and a sample measurement.
- Patch Set contains the color patches printed to use as a measurement sample.

  Note: Industry standard patch sets, such as Idealliance Control Wedge 2013, Fogra Media Wedge V3, and IT8.7/4, comprise most of the patch set selections.

A verification preset is required to create a verification schedule.

1. Open https://colorguard.efi.com.
2. Sign into EFI ColorGuard using your EFI IQ credentials.
3. Click on  .
4. Create a new preset or duplicate an existing preset.
   - Click Create New Verification Preset to create a new preset, or
   - Place your cursor over the listing for an existing Verification preset and click  to duplicate an existing preset.
5. Under Verification preset, type a name for the new preset.
6. Select a Color reference appropriate for the color production workflow you want to verify.

   Note: Your selection should ideally match the source color profile you use for printing the job where color is being verified.
7. Select a Tolerance set appropriate for the color production workflow you want to verify.
   - Click  to create a new tolerance set.
8. Select a Patch set appropriate for the color production workflow you want to verify.
9. Click Save.

Edit a verification preset

Modify a verification preset in EFI ColorGuard.

1. Open https://colorguard.efi.com.
2. Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Verification Presets tab, place your cursor over the listing for an existing verification preset.

5 Click  .

6 From the Verification Preset window, type your preferred name in the Verification preset field.

7 Select a Color reference appropriate for the color production workflow you want to verify.

Note: Your selection should ideally match the source color profile you use for printing the job where color is being verified.

8 Select a Tolerance set appropriate for the color production workflow you want to verify.

- Click  to create a new tolerance set.

9 Select a Patch set appropriate for the color production workflow you want to verify.

10 Click Save.

Delete a verification preset

Delete a verification preset from EFI ColorGuard.

Note: If a verification preset is currently used in a verification schedule, you will not be able to delete the verification preset from the Verification Presets tab. You must remove your verification presets from verification schedules.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Verification Presets tab, place your cursor over the listing for an existing verification preset.

5 Click  to delete an existing verification preset.

6 In the Delete Preset dialog box, click Yes.

Create or edit a tolerance set

A tolerance set defines the criteria used when you compare measurements to the color reference. You can choose if a verification result that exceeds the limit will be indicated by a warning or a failure.

Know the acceptable variation limits for your color workflow including:

- ΔE formula
- General ΔE limits
- Primary color ΔE limits

- Hue difference ΔH limits
- Tone value difference tolerance limits
- Chromaticness difference ΔCh limits
- NPDC ΔL limits
- Spot color ΔE limits

Note: Limits define the acceptable tolerance ranges that are calculated for each criterion.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click  .

4 In the Toleance Sets tab, place your cursor over the listing for an existing tolerance set.

5 Click  .

6 Optional: Edit the name of the Tolerance Set.

7 Select a ΔE formula.

8 Use the check boxes to select the Tolerance criteria you want.

9 Enter a Limit for each criterion selected.

10 For each criterion chosen, select either Warn or Fail to indicate when a measurement exceeds the limit you specify.

Note:

- Warn is informative only and will still allow the verification to pass.
- Fail will cause the entire verification to fail.

11 Click Save.

Rename a tolerance set

Modify a tolerance set name in EFI ColorGuard.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Tolerance Sets tab, place your cursor over the listing for an existing tolerance set.

5 Click  .

6 From the Rename Tolerance Set window, type your preferred name in the New name field.

7 Click OK.

Delete a tolerance set

Delete a tolerance set from EFI ColorGuard.

Note: If a custom tolerance set is currently used in a verification preset, you will not be able to delete the tolerance set from the Tolerance Sets tab. You must remove your custom tolerance sets from verification presets.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Tolerance Sets tab, place your cursor over the listing for an existing tolerance set.

5 Click  to delete an existing tolerance set.

6 In the Delete Tolerance Set dialog box, click OK.

Rename a color reference

Modify a color reference name in EFI ColorGuard.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Color References tab, place your cursor over the listing for an existing color reference.

5 Click  .

6 From the Rename Color Reference window, type your preferred name in the New name field.

7 Click OK.

Delete a color reference

Delete a custom color reference from EFI ColorGuard.

Note: If a custom color reference is currently used in a verification preset, you will not be able to delete the color reference from the Color References tab. You must remove your custom color references from verification presets.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Color References tab, place your cursor over the listing for an existing color reference.

5 Click  to delete an existing color reference.

6 In the Delete Color Reference dialog box, click OK.

Rename a patch set

Modify a patch set name in EFI ColorGuard.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Patch Sets tab, place your cursor over the listing for an existing patch set.

5 Click  .

6 From the Rename Patch Set window, type your preferred name in the New name field.

7 Click OK.

Delete a patch set

Delete a patch set from EFI ColorGuard.

Note: If a custom patch set is currently used in a verification preset, you will not be able to delete the patch set from the Patch Sets tab. You must remove your custom patch sets from verification presets.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click on  .

4 In the Patch Set tab, place your cursor over the listing for an existing Patch Set.

5 Click  to delete an existing patch set.

6 In the Delete Patch Set dialog box, click OK.

Create a verification schedule

Schedule a verification to notify press operators when to conduct color verification from the EFI ColorGuard desktop application.

You should know:

- The Verification preset you want to use.

  Verification presets specify the reference color space and the tolerances for the verification test. Select the preset for your preferred CMYK reference (such as FOGRA or GRACoL) and the tolerance setting.

- The Job Properties Preset of the device you want to use.

  Job properties presets specify the group of job properties that will be used for the scheduled verifications. Select the preset that matches the job properties of the production workflow you want to verify.

1. Open https://colorguard.efi.com.
2. Sign into EFI ColorGuard using your EFI IQ credentials.
3. Click  .
4. Click Create New Schedule.
5. Select Verify and click Next.
6. In the Name box type a name for the new schedule.
7. Select the Device to be included in the verification schedule.
8. Choose the Job properties appropriate for the verification schedule.
9. Select a Verification Preset.
10. Click Next.
11. Select the time and days for the color verification to occur.
12. Optional: Under Notifications, click Add Recipient to send email notifications for verification events, such as passing or failing verification.

    Note: Any email address can receive notifications.

13. Click Done.

Create a calibration schedule

Schedule calibration to notify press operators when to conduct color calibration from the EFI ColorGuard desktop application.

You should know:

The Job Properties Preset of the device you want to use.

Job properties presets specify the group of job properties that will be used for the scheduled calibration. Select the preset that matches the job properties of the production workflow you want to calibrate for.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click  .

4 Click Create New Schedule.

5 Select Recalibration.

6 In the Name box type a name for the new schedule.

7 Select the Device to be included in the calibration schedule.

8 Choose the Calibration set appropriate for the calibration schedule.

9 Click Next.

10 Schedule the time and days for the color calibration to occur.

11 Optional: Under Notifications, click Add Recipient to send email notifications for calibration events.

Note: Any email address can receive notifications.

12 Click Done.

Edit a schedule

At least one verification or calibration must already be scheduled.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click  .

4 Place your cursor over the schedule you want to edit and click  .

5 Update the Name, Device, Job properties, or Verification Preset as desired.

6 Click Next.

7 Update the time and days as desired.

8 Optional: Under Notifications, click Add Recipient to send email notifications for scheduled events, such as passing verification or calibration.

Note: Any email address can receive notifications.

9 Click Done.

Request verification now

Send an immediate request for verification of a scheduled verification .

At least one verification must already be scheduled.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click  .

4 Place your cursor over the scheduled verification you want to request and click  .

Request calibration now

Send an immediate request to perform a scheduled calibration .

At least one calibration must already be scheduled.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click  .

4 Place your cursor over the scheduled calibration you want to request and click  .

View verification history

Check the status and results of completed verifications from the EFI ColorGuard cloud application. View detailed results of completed verifications.

1 Open https://colorguard.efi.com.

2 Sign into EFI ColorGuard using your EFI IQ credentials.

3 Click  .

4 Optional: Click  to change the range of the verification results displayed.

5 Place your cursor over an individual verification result and click  to view detailed verification results.

Save measurement as a reference

Save a verification to use as a comparison benchmark for future verifications.

1. Open https://colorguard.efi.com.
2. Sign into EFI ColorGuard using your EFI IQ credentials.
3. Click  .
4. Click  .
5. Enter a Color Reference Description and click Next.
   A message will inform you if the measurement was saved.
6. Click Done.

EFI ColorGuard desktop application

The EFI ColorGuard desktop application allows operators to quickly verify color, automatically report verification results to the cloud, and view recent verification history.

The EFI ColorGuard desktop application workflow consists of the following programs.

- EFI ColorGuard desktop application - Notifies device operators when to verify color output, and uploads the results to the EFI ColorGuard cloud application.
- FieryMeasure - measures the color output.
- Fiery Verify - displays verification results.

The EFI ColorGuard desktop application is available from https://colorguard.efi.com.

Installation

Download and install the EFI ColorGuard desktop application

An active internet connection is required.

1. Open https://colorguard.efi.com.
2. Sign into EFI ColorGuard using your EFI IQ credentials.
3. Click  .
4. Click either Mac or Windows to download the version appropriate for your system.
5. Open and run the EFI ColorGuard desktop application installer.
6. Open the EFI ColorGuard desktop application.
7. Sign into your EFI ColorGuard account using your EFI IQ email and password.

Uninstall the EFI ColorGuard desktop application on Mac OS

Uninstall the EFI ColorGuard desktop application to remove it from systems you no longer want to use EFI ColorGuard on.

1. In Programs open the Fiery Software Uninstaller.
2. Select EFI ColorGuard.

5 March 2020

3 Click Uninstall.

4 Follow the on-screen instructions.

Uninstall the EFI ColorGuard desktop application on Windows

Uninstall the EFI ColorGuard desktop application to remove it from systems on which you no longer want to perform color verifications.

1 Open the Windows Control Panel.

2 Click Uninstall a program.

3 Select EFI ColorGuard

4 Click Uninstall.

5 Follow the on-screen instructions.

Verify color output

Verify the color output of a device as scheduled from the EFI ColorGuard desktop application.

An active internet connection is required.

A supported measurement instrument is required.

Include the device in a verification schedule.

1 Open the EFI ColorGuard desktop application.

2 Click  .

3 Click Verify.

The EFI ColorGuard desktop application uses FieryMeasure to print and measure for verification.

4 From the Instrument list, select your measurement instrument.

Click Settings to the right of the instrument selection to configure settings such as Measurement mode and Large patch size.

5 In the Chart size list, select the chart size that corresponds to the paper specified by the Job properties preset on page 12.

6 Optional: Specify warmup pages.

Note: Warmup pages are beneficial if the printer has not been used for a period of time.

7 Click Print.

8 Retrieve the pages from the device. (Discard any warmup pages.)

9 Follow the on-screen instructions to measure the page.

10 Optional: Click  to view detailed verification results in Fiery Verify.

11 Optional: Click  to save the verification results as a PDF.

12 Optional: Click  to create a label of the verification results as a PDF.

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.

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 ES-6000

The ES-6000 spectrophotometer is an XRGA-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 instrument

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

EFI ColorGuard supports the following inline measurement instruments.

- Canon iPRC10000VP Series Inline
- Xerox iGen 150 Inline Spectrophotometer
- Konica Minolta IQ-501

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

Recalibrate color output

Recalibrate the color output of a device as scheduled from the EFI ColorGuard desktop application.

An active internet connection is required.

A supported measurement instrument is required.

Include the device in a calibration schedule.

1 Open the EFI ColorGuard desktop application.

2 Click  .

3 Click Calibrate.

The EFI ColorGuard desktop application uses Calibrator and FieryMeasure to print and measure for calibration.

4 Select the Calibration name and click Next.

5 From the Measurement method list, select your measurement instrument.

Click Settings to the right of the method selection to configure settings such as Measurement mode and Large patch size.

6 Select a Patch set.

7 Select the Paper source that corresponds to your calibration and click Next.
The selected patch set will print.

8 Retrieve the pages from the device. (Discard any warmup pages.)

9 Follow the on-screen instructions to measure the patch set.

10 Click Next

11 Optional: Click Test page to check recalibration results.

12 Click Apply and Close.

Fiery Verify for EFI ColorGuard

Fiery Verify displays the verification results from the EFI ColorGuard desktop application.

Results are calculated from the verification preset associated with a verification scheduled in EFI ColorGuard.

Verification presets specify the color reference, tolerance set, and patch set used for a scheduled color verification.

Fiery Verify allows you to edit verification presets and tolerance sets for the purpose of comparison.

Note: Verification presets and tolerance sets edited in Fiery Verify are not uploaded to EFI ColorGuard.

Fiery Verify requires a EFI ColorGuard license or Fiery Color Profiler Suite license.

Fiery Verify supports the following handheld measurement instruments:

- EFI ES-2000
- X-Rite i1Pro 2

Save sample measurements

Save the measurement sample made as part of the verification process as a .it8 file.

1 In Fiery Verify, click Comparison > Save Sample.

2 Navigate to the location where you want to save the file.

3 Type a file name, and click Save.

Save sample as reference

Save a measurement sample for use as a color reference in the verification preset editor.

1 In Fiery Verify, click Comparison > Save Sample as Reference.

2 Type a file name, and click Save.

Load reference

Load a reference file into Fiery Verify to compare it to a measurement sample.

Note: Fiery Verify supports .icc, .txt, and .it8 file extensions.

Note: The reference file must contain valid CGATS data.

Note: If you use .icc files a default patch set of IT8.7/4 is used.

1 In Fiery Verify, click Comparison > Load Reference.

2 Select a file, and then click Open.

Load sample

Load a sample file into Fiery Verify to compare it to a reference.

Note: Fiery Verify supports .icc, .txt, and .it8 file extensions.

Note: The sample file must contain valid CGATS data.

Note: If you use .icc files a default patch set of IT8.7/4 is used.

1 In Fiery Verify, click Comparison > Load Sample.

2 Select a file, and then click Open.

Patch measurement

Perform measurements to quickly compare printed color patches.

Check to make sure your supported handheld measurement instrument is connected.

1. Optional: Click File > New comparison to start a new comparison.
2. Optional: If you want, load a reference or a sample file.
3. Click Comparison > Start patch measurement.
4. Follow the onscreen calibration instructions to calibrate your measurement instrument and click Calibrate.
5. Click under the Reference or Sample to select where you want the color measurement to appear.
6. Place the measurement instrument over the color patch you want to measure.
7. Scan the color patch with the measurement instrument.
   Fiery Verify will automatically compare the new measurement to what is located in the Reference or Sample columns and display the results.
8. Click Stop measurement when all desired patches have been measured

Measure reference

Measure a patch page to use as a reference in Fiery Verify.

A pre-printed patch page is required.

Note: Fiery Verify saves the measurement as an .it8 file.

1. In Fiery Verify, click Comparison > Measure reference.

   Fiery Verify uses FieryMeasure to measure a sample.
2. From the Instrument list, select your measurement instrument.

   Click Settings to the right of the instrument selection to configure settings such as Measurement mode and Large patch size.
3. From the Measure list, select the use for your measurement.
4. From the Patch set list, select an appropriate patch set for your measurement.
5. In the Chart size list, select the chart size that corresponds to paper appropriate for your workflow which is loaded in your print device.
6. Click Measure.
7. Follow the on-screen instructions to calibrate your measurement device.
8. Follow the on-screen instructions to measure the page.

Measure sample

Measure a patch page to use as a sample file in Fiery Verify.

A pre-printed patch page is required.

Note: Fiery Verify saves the measurement as an .it8 file.

1. In Fiery Verify, click Comparison > Measure Sample.

   Fiery Verify uses FieryMeasure to measure a sample.

2. From the Instrument list, select your measurement instrument.

   Click Settings to the right of the instrument selection to configure settings such as Measurement mode and Large patch size.

3. From the Measure list, select the use for your measurement.
4. From the Patch set list, select an appropriate patch set for your measurement.
5. In the Chart size list, select the chart size that corresponds to paper appropriate for your workflow which is loaded in your print device.
6. Click Measure.
7. Follow the on-screen instructions to calibrate your measurement device.
8. Follow the on-screen instructions to measure the page.

Save Report

Save the details of the verification comparison as a PDF file.

1. In Fiery Verify,
   - click File > Export to PDF > Report, or
   - click  .
2. Navigate to the location where you want to save the report.
3. Click Save.

Create a verification label

Save the details of a verification comparison as a label in a PDF file.

1. After completing a verification in Fiery Verify , click  .
   A label will be created in a PDF and opened in your default PDF viewer.
2. Print or save the PDF file as desired.

View recent verification history

Check the status and results of recently completed verifications in the EFI ColorGuard desktop application. View, or download, a detailed report of the results of recently completed verifications.

1 Open the ColorGuard desktop application.

2 Click  .

3 For the verification result you would like to view, click  .
The result, printer preset, verification preset, and tolerance set, will display in a new window.

4 Optional: Click  to view the verification result details in Fiery Verify.

5 Optional: Click  to download a PDF of the verification result details.

6 Optional: Click  to create a label of the verification result details.

7 Optional: Click  to recalibrate.

Reverify

Reverify color after recalibrating your Fiery Driven device.

An active internet connection is required.

A supported measurement instrument is required.

Recalibrate your device.

1 Open the EFI ColorGuard desktop application.

2 Click  .

3 For the verification result you would like to reverify, click  .

4 In the Instrument list, select your measurement instrument.

Click Settings to configure instrument settings such as Measurement mode and Large patch size.

5 In the Chart size list, select the chart size that corresponds to the paper specified by the Job properties preset on page 12.

6 Optional: Specify warmup pages.

Note: Warmup pages are beneficial if the printer has not been used for a period of time.

7 Click Print.

8 Retrieve the pages from the device. (Discard any warmup pages.)

9 Follow the on-screen instructions to measure the page.

10 Optional: Click  to view detailed verification results in Fiery Verify.

11 Optional: Click  to download detailed verification results as a PDF.

12 Optional: Click  to create a label of the verification result details.

13 Optional: Click  to recalibrate.

Failed Verifications

Things to do if a device fails a verification.

- Recalibrate the device.
- Ensure that the correct paper was loaded.
- Use the ink/toner specified by the device manufacturer.
- Create an output profile specific to the color reference and tolerance settings.
- Ensure that environmental factors in your print shop such as temperature and humidity are within the ranges specified by the device manufacturer.
- Service your device.