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Creating custom output profiles for the Fiery print controller using Fiery Color Profiler Suite: System 9R2

This document describes the process of creating a custom output profile for a Fiery print controller with Fiery Color Profiler Suite. The process may also include creating a custom calibration setting and other tasks performed in Command WorkStation.

The information in this document is valid for Fiery Color Profiler Suite v4.0 and later.

The Fiery print controller has one or more factory-supplied output profiles. You may obtain acceptable color quality with the factory-supplied output profiles and their associated calibration settings when you print with the recommended papers and print settings. However, to print with different type of paper or to get the best results for your particular printer, it is the best practice to create a custom calibration setting and output profile. This document describes how to create a custom calibration set (if your Fiery print controller supports this feature) and a custom output profile.

Calibration on the Fiery print controller requires that each output profile is associated with a calibration target (goal) and calibration setting. The Fiery print controller uses the calibration target with the measurements from the calibration setting to determine the adjustments needed for printing consistent color. For more information about calibration on the Fiery print controller, see *Color Printing*, which is part of the documentation that accompanies the Fiery print controller.

Fiery print controller system software

The method for creating a custom calibration setting and output profile depends on the system software version of the Fiery print controller. For versions earlier than System 10, the calibration target is included in the output profile, and thus you must ensure that the custom output profile has an appropriate calibration target. For Fiery print controllers with System 10 software and later, you create the calibration target separately from the output profile, in Command WorkStation.

Use the procedures in this document for a Fiery print controller with software version System 9R2.

Before you start

Make sure that the printer has been properly serviced.

Calibrate the printer, if printer calibration is supported. For information about performing printer calibration, see the documentation that accompanies the printer.

Perform any other recommended procedures for preparing the printer, such as shading correction and gradation adjustment.

On your computer, make sure that Command WorkStation and Color Profiler Suite are installed and are up-to-date.

Have an adequate amount of the paper that you will profile, at least 100 sheets. For best results, use a paper size that is A3, Tabloid, or larger.

Load the paper in the printer. If your normal printing workflow includes selecting the paper through Paper Catalog, configure a Paper Catalog entry for the paper.

Create profile for Fiery print controller

For a Fiery print controller with System 9R2 software, there are two methods to create a custom output profile. Use the method that is recommended for your model.

Depending on the model of your Fiery print controller, you can either:

• Create an output profile that contains an appropriate calibration target using Fiery Color Profiler Suite, or

• Create an output profile without a calibration target using Fiery Color Profiler Suite, and add the calibration target in Command WorkStation when you import the profile to the Fiery print controller.

Find the recommended method

Use Color Profiler Suite to determine the recommended method for creating a custom calibration set and custom output profile for your Fiery print controller.

TO DETERMINE THE RECOMMENDED METHOD FOR CREATING A CUSTOM OUTPUT PROFILE

1 In Color Profiler Suite, click Printer to start Printer Profiler, and then click Print Patches.

2 In the Welcome screen, click Select Fiery Server and choose your Fiery print controller and click Next.

The Fiery print controller must be connected to your network.

3 In the Calibration setup screen, check the Calibration setting.

The default setting is based on the model of your Fiery print controller.

Default setting	Recommended method
Optimize calibration	Continue to the next section, "Create profile using Optimize Calibration option" on page 3.
Use current calibration	Skip to "Create profile using Use Current Calibration option" on page 5.

4 Click Cancel, and then click Cancel again to exit Printer Profiler.

Create profile using Optimize Calibration option

Custom calibration set

First, create a custom calibration set, if your Fiery print controller supports custom calibration sets.

NOTE: You must have Administrator privileges in Command WorkStation to create a custom calibration set.

TO CREATE A CUSTOM CALIBRATION SET ON THE FIERY PRINT CONTROLLER

1 Warm up the printer using the paper that you will profile.

A good way to warm up the printer is to print at least 20 copies of a job that requires substantial amounts of all toners.

2 In Command WorkStation, choose Server > Calibrate.

Calibrator starts in a separate window.

3 For Measurement Method, choose ES-1000.

With this selection, you can use an ES-1000 or an ES-2000 spectrophotometer.

4 For Calibration Set, select Manage.

If the Manage option is not available, your Fiery print controller does not support custom calibration sets. In this case, calibrate the Fiery print controller using the factory-supplied calibration set for the paper that is the most similar to your paper, and then skip to the next section (Custom output profile) to create a custom output profile.

NOTE: If the Manage option is not available and your Fiery print controller offers only one calibration set for one type of paper, calibrate using that calibration set and then skip to the next section (Custom output profile) to create a custom output profile.

5 Choose a calibration set from the list.

Choose the calibration set that is the most similar to your paper. For example, the calibration set might be for the same brand of paper but a different weight.

6 Type a new Recommended Paper description, choose settings for any other print options that appear, and click Save.

For Recommended Paper, copy the description from the paper package. Set any other print settings that are shown, such as Screen.

The screen and other print settings are specific to this calibration setting. For best results, use a different calibration setting for each combination of print settings that you will use.

7 Type a name for the custom calibration set and select an output profile to associate it with.

The name should indicate the paper type and print settings, such as resolution and screen.

Select any output profile for now. You will change this association to your custom output profile after you create the profile.

8 Click OK.

A copy of the selected output profile is created and associated with the new calibration set. The copy has the name of the calibration set appended to it. You will delete this copied profile after you create a new custom output profile.

Custom output profile

Next, create a custom output profile using Color Profiler Suite.

TO CREATE A CUSTOM OUTPUT PROFILE IN COLOR PROFILER SUITE

1 In Color Profiler Suite, click Printer to start Printer Profiler, and then click Print Patches.

2 In the Welcome screen, click Select Fiery Server and choose the Fiery print controller.

The Fiery print controller must be connected to your network.

NOTE: Check that Color Space is set to CMYK (the default setting).

3 When you print the measurement page(s), select the media settings that are appropriate for your paper and select the same print settings (such as halftone screen) that you selected for creating a custom calibration set.

If you did not create a custom calibration set, choose the same print settings that you use when you calibrate using the factory-supplied calibration set.

4 Measure the measurement page(s) and process the measurements.

5 In the Apply Settings screen, for Settings, choose the existing output profile for the paper that is most like the paper you are profiling.

For example, choose an output profile for a coated paper if the paper that you are profiling is a coated paper. The settings from the selected profile are used for the settings of the profile you are creating.

6 (Optional) To increase GCR, click Edit Black Controls and increase Black Width.

Increasing GCR reduces metamerism but may increase graininess.

7 In the Save Profile screen, click Install on Fiery Server and make sure that the Fiery print controller is selected.

8 In the Profile Settings window that appears when you save the profile, under Calibration, choose the custom calibration set that you created and click OK.

If you did not create a custom calibration set, choose the factory-supplied calibration set for the paper that is the most similar your paper.

The custom output profile is installed on the Fiery print controller and associated with the specified calibration set.

9 Click Done to exit Printer Profiler.

If you did not create a custom calibration set, you can stop here (skip the next procedure).

If you created a custom calibration set, you can delete the copy of the output profile that was initially associated with the custom calibration set. This profile is no longer needed.

TO DELETE THE COPY OF THE OUTPUT PROFILE

1 **In Command WorkStation, in Device Center, go to Resources > Profiles.**

2 **Select the copy of the output profile (it has the name of your custom calibration set appended to its name) and click Delete.**

3 **Click Yes.**

This completes the process of creating a custom output profile with a calibration target created in Color Profiler Suite.

Before you print using the new output profile, make sure you calibrate the Fiery print controller using the calibration set associated with the new output profile.

Create profile using Use Current Calibration option

The procedures in this section describe how to make sure that an appropriate calibration target is added to your custom output profile when you import it to the Fiery print controller and associate it with a calibration set.

Before creating a custom output profile:

• See the information in "Before you start" on page 1.

• In addition, make sure that the Fiery print controller is calibrated. For more information, see Command WorkStation Help.

Follow the procedures in this section to create a custom calibration set and a custom output profile on the Fiery print controller.

NOTE: You must have Administrator privileges in Command WorkStation to create a custom calibration set.

TO CREATE A CUSTOM CALIBRATION SET (IF SUPPORTED) AND TEMPORARY DEFAULT OUTPUT PROFILE

1 **Warm up the printer using the paper that you will profile.**

A good way to warm up the printer is to print at least 20 copies of a job that requires substantial amounts of all toners.

2 **In Command WorkStation, choose Server > Calibrate.**

Calibrator starts in a separate window.

3 **For Measurement Method, choose ES-1000.**

With this selection, you can use an ES-1000 or an ES-2000 spectrophotometer.

4 **For Calibration Set, select Manage.**

If the Manage option is not available, your Fiery print controller does not support custom calibration sets. In this case, calibrate the Fiery print controller using the factory-supplied calibration set for the paper that is the most similar to your paper, and then skip to step 9.

NOTE: If the Manage option is not available and your Fiery print controller offers only one calibration set for one type of paper, calibrate using that calibration set and then skip to step 9.

5 Choose a calibration set from the list.

Choose the calibration set that is the most similar to your paper. For example, the calibration set might be for the same brand of paper but a different weight.

6 Type a new Recommended Paper description, choose settings for any other print options that appear, and click Save.

For Recommended Paper, copy the description from the paper package. Set any other print settings that are shown, such as Screen.

The screen and other print settings are specific to this calibration setting. For best results, use a different calibration setting for each combination of print settings that you will use.

7 Type a name for the custom calibration set and select an output profile to associate it with.

The name should indicate the paper type and print settings, such as resolution and screen.

Select any output profile for now. You will change this association to your custom output profile after you create the profile.

8 Click OK, and then proceed to the next section, To print and measure the calibration page.

A copy of the selected output profile is created and associated with the new calibration set. The copy has the name of the calibration set appended to it. You will delete this copied profile after you create a new custom output profile. You will not use the copied profile to print.

9 If you did not create a custom calibration set, create a copy of any existing output profile in Command WorkStation Profile Manager.

You can copy an existing output profile by exporting the profile in Command WorkStation and importing it with a new name. When importing, leave the profile setting Label in Driver as Unassigned and do not select any Media Type settings. For instructions, see Command WorkStation Help.

TO PRINT AND MEASURE THE CALIBRATION PAGE

1 In Calibrator, select your custom calibration set.

If you did not create a custom calibration set, select the factory-supplied calibration set for the paper that is the most similar to your paper.

Or, if you did not create a custom calibration set and your Fiery print controller offers only one calibration set for one type of paper, select that calibration set.

2 Print and measure the calibration page.

For instructions, see Command WorkStation Help.

When printing the patch page, set the patch layout to 34 sorted patches if your paper size is A3, Tabloid, or larger. Select the paper tray containing your paper.

If available, set the number of copies to 15. Measure only the next-to-last page printed. The extra copies will warm up the printer further.

3 Click Apply to save the measurements.

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1 In Calibrator, select Expert mode.

2 Make sure your custom calibration set is selected.

If you did not create a custom calibration set, select the factory-supplied calibration set for the paper that is the most similar to your paper.

Or, if you did not create a custom calibration set and your Fiery print controller offers only one calibration set for one type of paper, select that calibration set.

3 Choose Measurements vs. Target under View Measurements (Optional) and click View.

4 Make a note of the measured D-Max values for C, M, Y, and K, and then click Done twice to exit Calibrator.

Be sure to note the measured (Meas) values, not the target (Targ) values.

5 In Command WorkStation, in Device Center, go to Resources > Profiles.

6 Select the copy of the output profile (it has the name of your custom calibration set appended to its name) and click Edit. If selections for Color Editor and Fiery Profile Editor appear, choose Color Editor.

You will use this profile as a temporary profile to set the D-Max values of your custom output profile.

7 Change the D-Max values to the values you recorded in step 4.

NOTE: Depending on your version of Command WorkStation, the D-Max values might appear in a separate '% Density" tab.

8 Click Save, leave the current name, and click Save again to save the edited profile.

9 Click Close to exit Color Editor.

10 In Command WorkStation, in Device Center, go to Color Setup > Color Management and click Expert Settings.

11 Click the Output tab and make a note of the settings.

You will restore the current settings after you are finished.

12 For Default output profile, select the profile that you just edited, disable the "Use media defined profiles if available" option, and click OK.

13 Check that the calibration set shown on the right side of the screen is your custom calibration set.

14 Click Apply to save the setting.

The custom profile becomes the default output profile.

TO CREATE A CUSTOM OUTPUT PROFILE AND IMPORT IT TO THE FIERY PRINT CONTROLLER

1 **In Color Profiler Suite, click Printer to start Printer Profiler, and then click Print Patches.**

2 **In the Welcome screen, click Select Fiery Server, select the Fiery print controller, and click Next.**

The Fiery print controller must be connected to your network.

3 **In the Calibration Setup screen, make sure that Use Current Calibration is selected and click Next.**

4 **In the Print Settings screen, choose a patch layout of at least 928 patches, set the number of sets to 15, and click Next.**

The extra copies will warm up the printer further. You will measure only one or two of the sets of pages.

5 **Select the media settings that are appropriate for your paper, select the same print settings (such as halftone screen) that you selected for creating a custom calibration set, and click Print.**

If you did not create a custom calibration set, choose the same print settings that you use when you calibrate using the factory-supplied calibration set.

6 **Measure the measurement page(s) and save the measurements.**

For best results, measure the last set of pages printed and one that was printed several sets before it (for example, the twelfth and the fifteenth sets).

7 **In the Average Measurements screen, click Next.**

The Average Measurements screen appears only if you measured more than one set of pages.

8 **In the Summary screen, check the Average Measured Variations and the Maximum Measured Variations, and click Next.**

The average should be no more than 5 dE. The maximum should be no more than 8 dE.

If these values are too high:

• Click Back, delete one of the measurement sets, and then click Next. Check the values again.

• Consider re-measuring. You can quit Printer Profiler and start again with Measure Profiling Patches.

9 **In the Apply Settings screen, for Settings, choose the existing output profile for the paper that is most like the paper you are profiling.**

For example, choose an output profile for a coated paper if the paper that you are profiling is a coated paper. The settings from the selected profile are used for the settings of the profile you are creating.

10 **(Optional) To increase GCR, click Edit Black Controls and increase Black Width.**

Increasing GCR reduces metamerism but may increase graininess.

11 **In the Save Profile screen, click Install on Fiery Server and make sure that the Fiery print controller is selected.**

12 In the Profile Settings window that appears when you save the profile, under Calibration, make sure that the custom calibration set that you created is selected and click OK.

If you did not create a custom calibration set, choose the factory-supplied calibration set for the paper that is the most similar your paper.

The custom output profile is installed on the Fiery print controller and associated with the specified calibration set.

13 Click Done to exit Printer Profiler.

When the custom output profile is imported to the Fiery print controller, the calibration target from the default output profile is associated with the custom output profile.

Your custom output profile now has the correct calibration target and is associated with your custom calibration set. You no longer need the temporary default output profile and can delete it from the Fiery print controller.

TO DELETE THE TEMPORARY DEFAULT OUTPUT PROFILE

1 In Command WorkStation, in Device Center, go to Color Setup > Color Management and click Expert Settings.

2 Click the Output tab, set the Default output profile and the "Use media defined profiles if available" option to their original settings, and click OK.

3 In Device Center, go to Resources > Profiles.

4 Select the temporary output profile and click Delete.

5 Click Yes.

This completes the process of creating a custom output profile without a calibration target and adding the calibration target when importing the profile to the Fiery print controller.