



Fiery XF 9.0

Contents

Fiery Command WorkStation overview	11
Learning materials	11
Getting Started Assistant	12
Job Center	12
Customize the Servers list	13
Expand or collapse panes	14
Commands for managing jobs in a queue	14
Toolbar icons	15
Fiery Smart Search	15
Search for jobs	16
Job Editor	17
Server Manager	18
System maintenance	18
Fiery Account	19
Create a Fiery Account in Fiery Software Manager	19
 Configuring Command WorkStation	 20
Log on to multiple Fiery servers	20
Remove a Fiery server	20
Add more printers	20
FAST DRIVE	21
Configure a network printer	22
Configure a printer connected through USB	22
Configure for print-to-file output	22
Configure a network printer and upload file to printer	23
Configure unique ID of the printer	23
Media and workflows	24
Configure media	24
Configure workflows	25
Configure user accounts	29
Log on to Command WorkStation	30
Log off from Command WorkStation	31
Network ports	31
Set Command WorkStation preferences	31

Job import	33
Import jobs directly into Job Center	33
Process jobs automatically on import	34
Process jobs with high priority	35
Hot folders and virtual printers	35
Configure hot folders	35
Configure virtual printers	36
Fiery XF Universal Driver	36
Install Universal Driver	37
Log on to Universal Driver and print	37
Universal Driver settings	38
Import jobs using the Sign Flow Option	38
Import a job into Command WorkStation using the Sign Flow Option	40
Configure print settings	41
Start printing	41
Print next	42
Cancel job processing	42
Print separated jobs	42
PostScript and PDF jobs	44
Switch to a different print engine	44
EPS job detection	45
Set a time lapse for EPS job detection or change the input resolution	45
In-RIP separation	45
Set how Command WorkStation processes in-RIP information	46
Page box definitions	46
Specify a page box	47
Working color space	47
Apply a working color space	48
Overprinting in composite jobs	48
Simulate overprinting in composite jobs	48
Manage non-embedded fonts in PDF jobs	48
Ignore the transparency blending color space in PDF jobs	49
Load multi-page PDF jobs as single-pages	49
One-bit files	50

Create a workflow for one-bit files	50
Create custom job recognition presets	52
Defining job recognition presets	52
Change the proofing method for a one-bit job	54
Editing jobs	55
Rotate a job	55
Rotate jobs to reduce media consumption	55
Flip a job	55
Scale a job	55
Align a job on the sheet	56
Crop a job	57
Undo job edits	57
Save job settings as a workflow	57
Visual aids	58
Change the unit of measurement	58
Zoom in	58
Turn on snapping	59
Set ruler coordinates	59
Work with guides	59
Show visual aids	59
Job labels	60
Create or edit job labels	60
Realign the job label	60
Adjust the size of the job label	61
Control bars	62
Select a control bar	62
Create a dynamic wedge	62
Print job label across two rows	63
Nesting	65
Nest all jobs	65
Force nestings to print	66
Nest selected jobs	66
Add, remove, or delete nested jobs	66
Clone nested jobs	67

Rename nestings	67
Arrange nested jobs	67
Align nested jobs on the sheet	68
Edit nested jobs	68
Scale nested jobs	69
Lock nested jobs in a fixed position on the sheet	69
Add margins around nested jobs	69
Print selected pages of a nested or multi-page job	70
Add or remove nesting sheets	70
Tilings	71
Create tilings	71
Create tiles with an overlap	72
Print tiles with a glue area	72
Resize tiles	73
Rotate tiles in a tiling job	73
Lock tile edges in a fixed position	74
Merge or split tiles	74
Display and save a tiling preview	74
Split tiles for printing	75
Make last-minute edits to tiling jobs	75
Make last-minute edits to individual tiles	75
Step and repeat	77
Create a step and repeat	77
Modify a step and repeat	78
Job merge	79
Create a workflow for automatic job merge	79
Merge jobs manually	80
Variable data printing jobs	81
Calibration and profiling tools	82
Start Color Tools	82
Printer calibration	82
Standard calibration procedure	83
Advanced calibration procedure	91
Printer optimization	100

Make settings for media profile optimization	100
Create an L*a*b* optimization file	102
Select an L*a*b* optimization file	102
Profile Connector	103
Connect or edit a calibration file in Profile Connector	103
Apply a calibration file or a device link profile	104
Printer recalibration	104
Recalibrate the printer by measurement	105
Adjust the 100% ink limits to the reference calibration file	106
Complete the printer recalibration	106
Visual correction and plate compensation	107
Make visual color corrections	108
Third-party media profiles	110
Create a media profile using third-party profiling software	110
Upload third-party media profiles	110
Adjusting color properties	112
Tweak job colors	112
Force the use of 100% black ink	113
Increase color saturation	113
Convert to grayscale	114
Spot colors in Job Editor	116
Define spot colors for a loaded job	116
Select a spot color table	117
Select and edit a spot color table for a loaded job	117
Print jobs with undefined spot colors	117
Include or exclude spot colors	118
Change the ink sequence	118
Specify the search priority of spot color names	118
Set up spot color handling	119
Force Command WorkStation to use the source profile	120
Select the PANTONE PLUS spot color library	120
Delete spot color tables	121
Spot colors in Color Editor	122
Start Color Editor	122

Add a new spot color table	122
Deal with naming conflicts when importing spot colors	123
Color Editor buttons	123
Color Editor features	124
Select preferences in Color Editor	125
Add or duplicate spot colors	126
Define full-tone spot colors	127
Add color gradients to a spot color	127
Assign a spot color to a printer ink channel	128
Create a spot color alias	128
Check and improve the color accuracy of spot colors	129
Convert L*a*b* spot colors to the printer's color space	129
Check the color accuracy of L*a*b* spot colors	130
Create a spot color optimization file	130
Spot color variations	131
Create spot color variations	132
Print a swatch book	133
Search for spot colors	133
Search for and rename custom spot colors	134
Assign spot color tables to workflows	134
Color verification	135
Verification tools	135
Switch from Fiery Verify to Verifier	135
Verification workflow in Command WorkStation	135
Set up a verification workflow	136
Verify color consistency	141
Fiery Verify standalone	143
Create or edit a verification preset	143
Create or edit a tolerance set	144
Compare reference and sample colors in Fiery Verify	145
Measure single color patches	146
Verifier standalone	146
Set preferences	146
Compare reference and sample colors in Verifier	148
Verification results	149
Print verification results	152
Measure single color patches	152

Color consistency across remote sites	152
Create remote containers	153
Achieve color consistency at remote sites	154
Color verification with Fiery ColorGuard	154
Connect a Fiery XF-driven printer to the Fiery IQ cloud	156
Finishing options	157
Fiery Prep-it connectivity with Fiery XF	157
Configure crop marks and Fotoba marks	157
Configure grommet marks	159
Cut Server	160
Install Cut Server	160
Configure Cut Server	161
Configure Command WorkStation for Cut Server	161
Set up a print-and-cut device	161
Cut contours	162
Use a PDF box as a cut contour	163
Set up cut contours for loaded jobs	163
Configure cut contour presets	164
Output jobs with cut contours	167
Exclude cut contours from the output	167
Remove visible contour markings from the printout	168
Download cutter materials using the Cutter Material Database Connector	169
Improving output quality	170
Turn off RIP and print on the fly	170
Increase the RIP resolution	171
Turn off bidirectional printing	171
Adjust the length of printed jobs	171
Adjust the size of printed jobs	172
Simulate print characteristics	172
Simulate light conditions	173
Set up dynamic smoothing	173
Increasing output speed	175
Use FAST Processing or reduce the RIP resolution	175
Use FAST Processing	176

Reduce the RIP resolution	176
Select FAST RIP	176
Turn on RIP and print on the fly	176
Turn on bidirectional printing	177
Increase the number of Adobe print engines	177
Set up load balancing	177
Bidirectional communication	179
Bidirectional communication with EFI printers	179
Configure your printer in Command WorkStation for bidirectional printing	179
Enable bidirectional communication with a print MIS device	180
Managing Command WorkStation	181
Fiery Server Control	181
Display the Fiery Server Control icon	182
Software updates	182
Download and install media profiles	183
Manage licenses	183
Lock or unlock a printer	184
Configure Windows services	184
Set Fiery XF folders	185
Start Fiery Server Control with Windows	186
System backup	186
Create a system backup	186
Restore a system backup	187
Environments	187
Create an environment	187
Restore an environment	188
Tidy up job files	188
Delete job files immediately	189
Delete job files after a specified criterion has been met	189
Upload files from an external source	189
Make regional settings	190
Fiery technical support	191
Contact Fiery regional support	191

Fiery Command WorkStation overview

Fiery Command WorkStation is the print job management user interface for Fiery servers.

The user interface is specially tailored to the type of Fiery server you connect to. Each flavor of Command WorkStation provides access to a certain set of features. This documentation describes how to use Command WorkStation if you are connected to a Fiery XF server.

With Command WorkStation, you can connect to multiple Fiery servers and manage jobs from a single location.

You can use Command WorkStation to do tasks associated with production and proofing, such as:

- Scale, rotate, and flip jobs
- Print multiple jobs collectively as a nesting
- Print oversize jobs as tiles for piecing together
- Manage spot colors
- Verify the color accuracy of your printouts

You need a Fiery Account to download Command WorkStation using Fiery Software Manager. For more information, see [Fiery Account](#) on page 19.

Command WorkStation has some optional features. All are documented in this user documentation. However, optional features are only displayed in Command WorkStation if you have an appropriate license.

Furthermore, Fiery provides many other types of documentation that you can download to help you get the maximum out of your software.

Now watch the video [here](#).

Learning materials

Fiery provides many different types of learning materials in the form of videos and documentation to help you get the maximum out of your software.

- Videos

Fiery provides an extensive set of instructional and how-to videos designed to equip you with all the information that you will need to successfully operate your system. The courses start with the fundamentals and progress all the way through to expert topics. You will find direct links to many videos throughout this online help. Furthermore, a full list of all the available videos can be found at learning.fiery.com. You can use the Search feature to find videos on any chosen topic.

- Documentation

The following types of documents are available for download from the [Fiery website](#):

- User documents (Quick Start Guide, user manual, how-to articles on specific software features)
- Technical documents (release notes, system requirements, feature charts, etc.)

- Knowledge base (general how-to articles on color management, software options, workflows)
- Printer driver descriptions
- Command WorkStation Help menu

From the Help menu, you can find *Fiery Command WorkStation Help* as well as documentation for the supported Fiery XF server. Click **<server name> documentation** where <server name> is the Fiery XF server to view the documentation available for your Fiery XF server.

Getting Started Assistant

Fiery Command WorkStation Getting Started Assistant allows you to learn how to manage, preview, and control print jobs efficiently for an optimized workflow.

Discover the power of Fiery Command WorkStation to improve your print workflow with features for managing, preparing, and printing jobs efficiently.

You can search or navigate through tutorials to learn about Fiery Command WorkStation.

You can access the Getting Started Assistant from the Fiery Command WorkStation sidebar and the Help menu.

Job Center

Job Center displays all connected Fiery servers and print jobs in one single location. It allows you to prepare jobs for print, displays a job preview and a summary of job settings, and also includes a search tool.

Note: If you have just connected to your first Fiery XF server, you must start by configuring your printer. For more information, see the *Quick Start Guide*.

Job Center includes the following areas:

- Sidebar - displays button navigation for the following screens (from the top, below the Fiery logo): Home, Job Center (this window), and Apps and Resources.
 - Home - You can view a high-level status overview of your connected Fiery XF servers and a snapshot of print production statistics over the last week.
 - Job Center - You can view and manage jobs sent to the connected Fiery XF server.
 - Apps and Resources - provides access to all installed Fiery applications with a single click and displays other applications and resources for the Fiery XF server. You can also access free software trials and downloads, as supported for the selected Fiery XF server.

Note: An internet connection is required to view the list of available Apps and Resources.

- Servers - displays a list of connected servers, printers, and job queues. Click the **Add (+)** button to connect to additional Fiery XF servers. Click **Server > Server Manager** to configure printers, workflow and media, and add users.


To view the IP address of the Fiery XF server, move the pointer over its name.

- Job status - gives an overview of jobs that are currently being processed or printed.
- Search, Views, and Filters - quickly locates jobs by any criteria displayed in the job columns. The advanced search finds jobs based on multiple criteria. You can save custom search filters, and change the window view to display thumbnail images of your jobs.

- **Job list** - displays all jobs for the selected queue, custom view, or filter. Right-click a column heading to customize the displayed job information. Right-click a job to access commands for job printing, or management, or to view details of ink and media consumption. Double-click a job to open Job Editor and make job settings.
- **Job Preview** - displays the job content (thumbnail) of a selected job. The preview shows the input content only and is not updated if you make color management or layout changes in Job Editor.
- **Job Summary** - provides details of a selected job. Click the pencil icon to edit the number of copies.
- **Media Configuration** - displays the settings of the selected media. You can apply a different media to a selected job by clicking **Edit**. This setting can be very useful—for example, if you want to switch to a different output resolution at the last minute.
- **Getting Started Assistant** (assistant icon) - provides information to help you discover the power of Command WorkStation and to improve your print workflow.
- **Fiery IQ** (cloud icon) - access your Fiery Account where you can access Fiery ColorGuard features.
- **Fiery Account** (round user icon) - create a new account or log in to your existing account. A green dot on the icon signifies that you are logged in.
- **Fiery Smart Search** - provides a direct link to all content available on Fiery Communities and in the online help. Fiery Smart Search is a convenient tool to help you find information related to any part of Command WorkStation. Click the magnifying glass located in the lower-left corner of the window to start your search.

Customize the Servers list

You can customize the order of Fiery XF server entries.

- 1 To rearrange the order of Fiery XF servers that are listed in the Server pane, click the **Customize Server List** icon .
The icon is at the top of the Servers list, to the left of the + button (Add Server).
- 2 Select the name of the Fiery XF server and click **Move Up** or **Move Down** to move the Fiery XF server to the desired position.
- 3 Click **OK**.
- 4 For all Fiery XF servers, in the **Queues** tab, select the queues to display, for example, Printed, Processing, or Completed.

Note: At least one queue must be selected for each connected Fiery XF server. If you hide the All Jobs queue, the following features will not be available: locating jobs from a search of all Fiery XF servers and creating custom views.

Expand or collapse panes

You can expand or collapse the **Job Summary** and **Servers** panes. You can also collapse the individual servers in the **Servers** pane.

- Do one of the following:
 - Click the arrow icon in the title bar of the **Preview** pane to expand or collapse the preview.
 - Click the plus sign or minus sign next to a server in the **Servers** list.
 - To collapse the entire **Servers** pane to the left, click the arrow icon in the bottom-left bar.
 - To collapse the entire **Job Summary** pane to the right, click the arrow icon in the bottom-right bar.

Commands for managing jobs in a queue

You can access commands for a job that is displayed in the Held, Processing, or Printed queues in Job Center. You can display the following commands by right-clicking on a job in a queue or by clicking the **Actions** menu.

Print	Prints a selected job.
Print and Cut	Outputs a selected job to a print-and-cut device or to a cutter.
Delete	Deletes a selected job.
Print Next	Sends a selected job to the top of the Printing queue without interrupting the job that is currently printing. Has the same result as dragging the job to the top of the Printing queue.
Process and Hold	Processes a selected job from the Held or Printed lists and places them in the Held queue.
Preview	Updates the preview after you have made job changes in Job Editor
Edit	Opens Job Editor to allow you to make job settings before printing.
New Nesting	Creates a nesting from one or more selected jobs.
Copy to Printer	Copies a job to the queue of another printer of the same model. The destination printer must be pre-configured in Command WorkStation, otherwise it is not displayed in the Copy to Printer list.
Move to Printer	Moves a job to the queue of another printer of the same model. The destination printer must be pre-configured in Command WorkStation, otherwise it is not displayed in the Move to Printer list.
Job Details	Opens the Job Details window, which displays ink details, media details and printing time of jobs. Only applicable if your printer supports bidirectional communication.

Cancel	Cancels the selected jobs. Only applicable to jobs that are still showing in the Processing, or Printing queues.
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Toolbar icons

The Job Center toolbar contains icons for importing, printing and deleting jobs, and for starting additionally available options.

Import	Opens the Select Files to Import window.
New Nesting	Creates a nesting of one or more selected jobs.
Print	Prints a selected job.
Print and Cut	Outputs a selected job to a print-and-cut device or to a cutter.
Delete	Deletes a selected job.
Color Tools	Starts Color Tools, a tool for creating and editing all types of profiles.
Color Editor	Starts Color Editor, a tool for defining, measuring and editing spot colors.
Verifier	Starts Verifier, a tool for verifying color consistency by comparing measured color values with a reference.

Note: Some tools are available only if you have an appropriate license.

Fiery Smart Search

Fiery Smart Search can search for information and training resources to learn more about Command WorkStation and Fiery features.

With Fiery Smart Search, you can search the following resources in the Fiery knowledge base:

- Help documentation
 - Fiery Communities
 - How-to guides
 - Fiery product guides
- 1 In Job Center, click the Fiery Smart Search icon (magnifying glass) in the bottom-left of the Fiery sidebar.
Fiery Smart Search is always available in the bottom-left of the sidebar as long as another window is not open on top of Job Center.
 - 2 In the **Search for Fiery information** area, type the search term and press **Enter**.
The list is scrollable by using the mouse or scroll bar.
The search window displays 10 results at a time.

3 Click a search result.

The information opens in your default web browser.

Search for jobs

You can search for and locate jobs on a connected Fiery server using such parameters as file name, user, or date.

The Search function allows you to quickly locate jobs on the currently selected Fiery server. It is part of the Job Center toolbar and applies to the jobs in the current view. You can search for jobs in the All Jobs, Held, Processing, Printing, Printed, or Finished queues.

You can search for jobs by doing one of the following:

- **Simple job search** - To search all the columns in the current view, even those that are not visible on the screen (because of the scroll bar), use the **Search** field. For example, if you type **Photo**, you can find jobs that have "Photo" in their name, and also jobs that are printed on photo media.
- **Advanced job search** - To search by multiple criteria (columns) simultaneously, click the arrow next to the filters above the column headers, and specify the search criteria.

Simple job search

You can use the **Search** field in any view to find jobs. When you switch from one view to another, the previous search criteria are cleared.

- 1 Type your search criteria in the **Search** field located under the Job Center toolbar icons.
- 2 Press **Enter**, or click the magnifying glass icon (Search icon) to locate the jobs that meet the specified search criteria.

The search word is not case-sensitive.

The search for the specified value is conducted across all the columns in the current view, even if the columns are not visible on screen (because of the scroll bar).

After you have executed a search, you can clear the current search criteria by clicking **Clear**, or by switching to another view. This allows you to search by different criteria.

Search across all Fiery servers

You can locate jobs by searching across all connected Fiery servers in Command WorkStation.

To search across all Fiery servers, Command WorkStation must be connected to more than one Fiery server.

Search all Fiery servers selected from a simple search location in Command WorkStation Job Center.

When you use the Search all Fiery servers feature, you can also see all jobs submitted by a particular user to all servers.

- 1 Type your search criteria in the **Search** field located under the Job Center toolbar.

- Click the **Search all Fiery servers** link under the **Search** field.

When jobs are selected through the simple search function, they are found by these criteria: job title, job status, date and time, user name, job size, and server name.

- In the **Search all Fiery servers** window, you can further refine the search by typing more detailed search information into the **Search** field.
- Double-click a job from the search results or select a job and click **Locate job**.

The **Search all Fiery servers** window closes, and the selected job is automatically highlighted on the relevant Fiery server.

Alternatively, if you select a job in the list and click **Show search on Fiery server**, you are taken to that search result on the Fiery server. All jobs that match the simple search criteria are shown in the **All Jobs** view.

After you have executed a search, you can clear the current search criteria by clicking **Clear**. This allows you to search by different criteria across all connected Fiery servers.

Advanced job search

You can use the **Advanced Search** function to search by multiple criteria (columns) simultaneously in the current view.

- Select a view in the list of servers on the left side.

To view all the jobs in all queues on the selected Fiery XF server, select the **All Jobs** view.

- Click the arrow next to the filter above the column headers (for example, Job Status).
- Select the search criteria and click **Apply**.

You can make multiple selections within one column.

Ranges can be selected for some columns.

To revert to a view of all the jobs in all queues on the selected Fiery server, select the **All Jobs** view.

- For the columns that display date information, you can select one of the following:

- Today** - Search jobs for the current day.
- Exact Date** - Search jobs for a specific date.
Select **Before** or **After** to search jobs that print before or after a specific date.
- From, To** - Search for jobs within a consecutive date range.

- To search by more columns, click the arrow next to the **More** filter and select the columns to add.
- After you have executed a search, you can clear the current search criteria by clicking **Clear** or switching to another view. This allows you to search by different criteria.

Job Editor

In Job Editor, you can override any default setting from the workflow, including color management, scaling, cropping, print settings, job rotation, and job realignment.

You can open Job Editor by double-clicking a job in Job Center.

- **Sidebar:** displays button navigation for the following tabs: **File, Layout, Finishing, Color, Printer, Verify**. Each tab is divided into panels, which you can expand to show the content, or collapse to hide the content.
- **Panels:** display job settings. Some panels have a check box in the panel header bar, which you must select to make the settings available.
- **Preview window:** Displays the work area for job editing.
- **Toolbar:** contains tools and settings for editing a selected job, nesting, step and repeat, or tiling.
- **Scrollbar:** allows you to scroll a page at a time through multipage jobs.
- **Zoom:** scales the job preview in relation to the preview window.

Now watch the video [here](#).

Server Manager

Server Manager is where you perform system maintenance, configure printers, and add users.

- **Sidebar:** displays button navigation for the following screens: **Server, Printers, Users**.
- **Server:** provides system maintenance settings.
- **Printers:** adds and configures printers, creates workflows, and selects media. The workflow settings you configure in Server Manager are saved as server workflows. You can apply a server workflow when you import a job.
- **Users:** adds users, and assigns privileges to allow access to specific areas of the software.

Now watch the video [here](#).

System maintenance

The **Server** tab contains settings concerned with organizing your Fiery system.

Server Info & Configuration	Provides general settings for Adobe print engines, PANTONE PLUS color definitions, update notifications, FAST RIP, and bidirectional communication. Allows you to select preview resolution settings, and a monitor profile. If your Fiery XF server supports the Enable print preview setting, select it to view the preview based on the media profile selected. Also shows the number of processing threads, and the amount of free hard disk space.
Backup & Restore	Creates a system backup of the selected items.
Maintenance	Deletes output, preview, and temporary files created during job processing.
Server File Paths	Moves profiles and program files from their default install location to a different partition.

File Uploader	Uploads color files and media profiles from an external data storage medium or from the desktop directly into the correct program folder.
License & Contract	Displays license details, and activates or deactivates licenses. Also displays the status of your Software Maintenance and Support Agreement (SMSA).

Fiery Account

With a Fiery Account, you can download the latest versions of Command WorkStation.

Create a Fiery Account in Fiery Software Manager

You are required to make a Fiery Account to download Command WorkStation and other Fiery applications using Fiery Software Manager.

A valid email address is required to create a new Fiery Account.

- 1 In Fiery Software Manager, click **Upgrade** next to Fiery Command WorkStation Package.
- 2 Click **Create an Account**.
- 3 Follow the on-screen instructions to create a Fiery Account and verify your email.

For more information about accessing Fiery IQ with your Fiery Account, see [Fiery IQ for Fiery XF-driven printers](#).

Configuring Command WorkStation

You can tailor your Command WorkStation system to your work processes, by connecting to additional Fiery servers, adding and customizing workflows and media, and configuring user accounts.

To download Command WorkStation, you need a Fiery Account. For more information, see [Fiery Account](#) on page 19.

For more information on logging on and configuring Command WorkStation immediately after installation, see the *Quick Start Guide*.

Log on to multiple Fiery servers

After you have logged on to your first Fiery XF server, you can manage jobs anywhere in your network, by connecting to other compatible Fiery servers.

All Fiery servers to which you are connected are listed in Job Center. You can switch easily between them to manage your jobs and printers.

Note: If the connection to the Fiery XF server is disconnected, Command WorkStation attempts to reconnect automatically. To use the autoreconnect feature, open Command WorkStation **Preferences** window, on the **General** tab under **Auto reconnect**, and select **Enable Auto reconnect** to automatically reconnect to disconnected servers with saved passwords.

- 1 In Job Center: Next to **Servers**, click the **Add (+)** button.
- 2 Select any Fiery server from the list, or type a server name or IP address. Then, click **Add**.

The **Model** column indicates that you are connecting to a Fiery XF inkjet server. Cut-sheet servers and high-speed inkjet servers are shown as different models.

Alternatively, click **Advanced Search** to search for a Fiery XF server within a specific IP address range, within a specific subnet range, or to search for a keyword. Limit the search range of IP addresses as far as possible to avoid unnecessary network traffic.

- 3 Select your user name, and type your password. Then, click **Login**.

Remove a Fiery server

You can disconnect from a Fiery server.

- In Job Center: Right-click the Fiery server, and then click **Remove Fiery Server**.

You can reconnect at any time.

Add more printers

Your license determines which printers are available for selection in the software.

Before you begin: Download media profiles for the printers you want to add.

Each printer must have its own unique connection information. For example, two printers of the same model must have their own IP address, or save print files to a separate export folder.

- 1 In Server Manager: On the sidebar, click **Printers**, and click the **Add (+)** button.

The **New Printer** dialog box opens.

- 2 Select a printer manufacturer.

- 3 Select a printer type.

You can type in the **Search** field to filter the list of devices.

If available, it is recommended that you always select a printer type with FAST DRIVE in its name. For more information, see [FAST DRIVE](#) on page 21.

- 4 Type a name for your printer (optional).

This is the name that is displayed in the software. By default, Command WorkStation displays the printer type. You can overwrite the default name.

- 5 Add a description (optional).

For example, you can enter the printer location, or the type of media inserted in the printer.

- 6 Click **Next**.

- 7 Configure the printer connection. Do one of the following:

The printer must be switched on. Otherwise it cannot be detected.

- [Configure a network printer](#) on page 22
- [Configure a printer connected through USB](#) on page 22
- [Configure for print-to-file output](#) on page 22
- [Configure a network printer and upload file to printer](#) on page 23

- 8 Click **Finish**.

Now watch the video [here](#).

FAST DRIVE

Some printer models support FAST DRIVE. FAST DRIVE accelerates the job processing speed by using the GPU (graphics processing unit) instead of the CPU (central processing unit). It is available on some later versions of Fiery proServer Premium and requires a special license.

Command WorkStation provides both FAST DRIVE and non-FAST DRIVE printer drivers. If available, it is recommended that you always select a printer type with FAST DRIVE in its name. The older printer drivers are available to ensure compatibility and color consistency with calibration files created in earlier versions of Command WorkStation.

FAST DRIVE is supported only for base linearization files that were created in Fiery XF 6.5 or later. Calibration files that were created in Fiery XF 6.4 or earlier cannot be used with the FAST DRIVE printer driver.

In Job Editor, you can see in the **Source File Information** panel of the **File** tab whether your job has been accelerated using the FAST DRIVE printer driver.

Configure a network printer

You can connect to a printer through its IP address.

- 1 Under **Connection type**, select **Print via IP network**, and type the printer's IP address.
- 2 Select the type of TCP/IP protocol that your printer uses for data transfer.

Most printers support the RAW protocol and print to port 9100. The LPR protocol is normally reserved for Unix systems or print servers with multiple interfaces. In most cases, you can leave the box blank. Refer to your printer manual or ask your system administrator if you are unsure.

Note: EFI VUTEk printers communicate through port 8013.

Configure a printer connected through USB

You can print to a local printer that is connected to the server computer through USB.

- 1 Under **Connection type**, select **Print via port**.
- 2 Under **Port**, select the port.

Configure for print-to-file output

You can define a naming format and select an export folder in which to save print files for EFI wide-format printers.

Print files from EFI VUTEk printers are saved in RTL or TIFF formats to the specified **Export** folder. The Bitmap, GIF, or PNG files are used to display a preview of the job on the VUTEk User Interface. You can open Bitmap, GIF, or PNG files in any conventional graphics program.

Note: GIF files are created by default. You can turn off the setting in the printer's **Special Settings** panel of Server Manager, if required.

Print files from EFI Matan, EFI superwide roll-to-roll, and Reggiani printers are saved as separated TIFF files to the specified **Export** folder. If you select an **Export** folder that resides in the network, you must type access rights to the folder.

- 1 Under **Connection type**, select **File output**.
- 2 Define the export path (optional).
Use the default export path, or click **Choose** and browse to a different folder.
- 3 Select a naming format for the print files.

The default naming format is *job order_job name_job ID_tile number_page number_Date*. You can define a custom naming format that may also contain custom text, and any of the following variables:

Variable	Description
%count	Counter
%jobid	Job ID
%t	Tile number
%p	Page number
%out	Printer
%cm	Color mode
%job	Job name/nesting name
%res	Resolution
%work	Workflow
%date	Date
%order	Job order

Note: File names are easier to read if you add a separator, such as an underline or a hyphen, between two variables.

Configure a network printer and upload file to printer

You can connect a EFI VUTEk XT or EFI VUTEk MCORR printer through its IP address and upload print data to a folder on the printer.

- 1 Under **Connection type**, select **Print via IP network**, and type the IP address of the printer that supports network printing.
- 2 For the JDF **Export path** field, specify the shared folder, /vutek/Integration, on the VUTEk printer.
- 3 Type the user name and password credentials to access the shared folder on the VUTEk printer.

Note: Set both the **Username** field as **xfjdfintegration** and the **Password** field as **Fiery.1**.

Configure unique ID of the printer

You can modify the unique identifier of your printer.

When you create a printer in Server Manager in the **Printer Information** tab, there is a unique ID shown for each printer (unique for each Fiery XF server). This ID represents the identifier for setting up Fiery IQ with Fiery XF.

You can use the created identifier or enter your own unique identifier for your device like the serial number for connection purposes.

Media and workflows

You can automate your work processes by configuring a media set for each of your media, and by configuring a workflow for each of your job processes.

- The media defines ink type, media (type, source, size), plus any printer-specific settings, such as auto-cut mode, or white ink printing.
- The workflow defines basic color management and job settings.

Configure media

You can create a new media, by creating a copy of an existing media, such as the generic media. You can also edit and rename media.

1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media.

2 Do one of the following:

- To create a new media: Click the **Add (+)** button next to **Media**. Then, type a unique name, and click **Save**.
- To edit an existing media: Click the media.
- To copy a media to a different printer of the same type: Right-click the media, click **Copy to Printer**, and then click a printer.

Note: You can copy media to a different printer model. However, make sure that you select a media configuration that is compatible.

- To duplicate a media for use on the same printer: Right-click the media, and then click **Duplicate**.
- To rename a media: Right-click the media, and click **Rename**. Then, type a unique name, and click **Save**.

3 Adjust the settings (optional).

4 Right-click the media, and click **Set as Default** (optional).

The default media is pre-selected for all jobs that you import.

For more information on configuring the media, see the *Quick Start Guide*.

Configure workflows

You can create new workflows by selecting a template, or by creating a copy of an existing workflow, such as the generic workflow. You can also edit and rename workflows.

Command WorkStation provides the following default templates:

- **PRODUCTION**—Provides access to settings that are typically used in different production environments, but hides those settings that are specifically aimed at a proofing environment.
- **PROOF**—Provides access to settings that are typically used in different proofing environments, but hides those settings that are specifically aimed at a production environment.
- **PHOTO**—Provides access to settings that are typically used in different photo environments.
- **CUSTOM**—Provides access to the full range of licensed features.

Command WorkStation preselects source profiles, simulation (reference) profiles and rendering intents for each default workflow. You can greatly improve color reproduction by selecting profiles and rendering intents that are specific to your workflow (see [Select profiles and rendering intents](#) on page 26).

1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow.

2 Do one of the following:

- To create a new workflow: Click the **Add (+)** button next to **Workflow**. Then, select the type of workflow and the template that best matches your needs, and click **Load**.
- To edit an existing workflow: Click the workflow.
- To copy a workflow to a different printer: Right-click the workflow, click **Copy to Printer**, and then select a printer.
- To move a workflow to a different printer: Right-click the workflow, click **Move to Printer**, and then select a printer.
- To duplicate a workflow: Right-click the workflow, and then click **Duplicate**.
- To rename a workflow: Right-click the workflow, and click **Rename**. Then, type a unique name, and click **Save**.

3 Adjust the settings (optional).

You can customize the available settings of any workflow template.

4 Right-click the workflow, and click **Set as Default** (optional).

The default workflow is pre-selected for all jobs that you import.

You can customize your workflows using the settings on the **File**, **Layout**, **Finishing**, **Color**, **Printer**, and **Verify** tabs.

Select profiles and rendering intents

Command WorkStation uses source profiles, simulation (reference) profiles and rendering intents to control color reproduction. You can greatly improve color reproduction by selecting profiles and rendering intents that are specific to your workflow.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.

2 Select a default color management preset (optional).

Command WorkStation provides color management presets for production, photo, proofing, business graphics, and grayscale output. They contain preselected source profiles, simulation profiles, and rendering intents suitable for standard workflows.

3 Select **Use embedded profiles when present** (optional).

This setting is applied to JPEG, TIFF, and PSD jobs with an embedded source profile. Applying an embedded source profile ensures that the color properties of the input device are taken into account during job processing.

4 Select **Use dynamic rendering intent** (optional).

This setting analyzes the colors of the job and applies the most appropriate rendering intent (see also [Dynamic rendering intent](#) on page 29).

5 Click **Manage Source Profiles**.

6 Under **Source profiles**, select an appropriate RGB, CMYK and grayscale profile.

A commonly used source profile is preselected for each color space. You can also use a source profile that was supplied with your input device. To select a custom source profile, you must copy it to the ProgramData\Fiery XF\Server\Profiles\Reference folder.

Command WorkStation does not provide multicolor source profiles, but you can implement custom multicolor profiles.

7 Select an appropriate rendering intent for each source profile.

A commonly used rendering intent is preselected for each color space. Which rendering intent is most suitable depends on the type of job.

8 Under **Simulation profile**, select **Use PDF output intent when present** (optional).

This setting is applied to PDF/X jobs with an embedded output intent. It takes the selected working color space into account. Embedded output intents override the simulation profile that is selected on this panel.

9 Under **Simulation profile**, select a simulation (reference) profile.

You can select a simulation profile provided with Command WorkStation or one supplied, for example, by a printing house.

Fiery provides additional customized profiles. You can find them in subfolders of the ProgramData\Fiery\Fiery XF\Server\Profiles\Reference\Reference Additional folder. To use one of these, or a custom simulation profile, you must copy it to the ProgramData\Fiery\Fiery XF\Server\Profiles\Reference folder.

10 Select an appropriate rendering intent for the simulation (reference) profile.

11 Click **OK**.

12 Click **Save**.

Now watch the video [here](#).

Source profiles

The source profile describes the color characteristics defined in the graphics program or by the input device. Source profiles provide a reliable way to predict the color results of a production run on a traditional printer.

RGB source profiles ensure high-quality output in vivid colors. They do this by maintaining the larger RGB color gamut during job processing.

Multicolor source profiles

Command WorkStation can implement custom multicolor profiles for five, six, or seven colors.

Command WorkStation analyzes the color space of each incoming PostScript and TIFF job and applies the selected CMYK or multicolor source profile, based on the number of detected colors. Although Command WorkStation can process multicolor PostScript and TIFF jobs, it is recommended that you use PostScript format, whenever possible.

Command WorkStation processes PostScript and TIFF jobs differently.

- PostScript jobs

You can apply a multicolor source profile if the job and the profile were created for the same ink channels. If a job contains ink channels that are missing from the source profile, Command WorkStation treats those colors as spot colors.

The following table shows how Command WorkStation applies a multicolor source profile to PostScript jobs:

Color space of job	Selected multicolor source profile	Applied source profile
CMYK	None	CMYK
CMYKOG	CMYKOG	CMYKOG
CMYKOGB	CMYKOG	CMYKOG Define B as a spot color.
CMYKRGB	CMYKOG	CMYK Define RGB as spot colors.

CMYKRGB	CMYKRGB	CMYKRGB
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- TIFF jobs

Command WorkStation reads the color information from the file header, if available. In this case, Command WorkStation applies the source profiles as it does for PostScript jobs.

If Command WorkStation cannot read the color information from the file header, only the number of color channels is important, not the colors themselves. To process a job with seven ink channels, you can use any multicolor source profile with seven colors. Command WorkStation always processes the job using the colors of the multicolor profile.

You can override the default setting and force Command WorkStation to apply a CMYK or multicolor source profile.

Simulation (reference) profiles

Simulation (reference) profiles describe the color reproduction properties of the printing machine that you want to simulate on your inkjet printer.

Command WorkStation provides a set of generic simulation (reference) profiles in the C:\Program Files (x86)\Fiery\Components\Fiery XF\Reference Profiles folder.

Rendering intents

Rendering intents describe how to adjust out-of-gamut colors to fit the destination color gamut.

The color gamut of the source color space often exceeds the printer's destination color space, so saturated colors can become clipped (inaccurately represented). This is the reason why digital photographs that appear in vivid, saturated colors when viewed in the RGB color space of a digital camera or a computer monitor look dull in comparison when they are printed out using the smaller color space of a CMYK printer.

The following table shows which rendering intent is most suitable for which type of job:

Rendering intent	Suitable for printing ...
Absolute colorimetric (paper white)	Proofs with paper white simulation
Perceptual	Photographs
Saturated	Business graphics in bright, saturated colors
Perceptual-absolute	Photographs that need to be converted from a large source color space (RGB) to a smaller destination color space (CMYK)
Relative colorimetric (no paper white)	Proofs with no paper white simulation
Absolute colorimetric with BPC	Proofs with paper white simulation and with black point compensation

Relative colorimetric with BPC/ Relative colorimetric with BPC (superior)/	Proofs or production files with no paper white simulation but with black point compensation Relative colorimetric with BPC ensures color consistency with the color reproduction of legacy versions of Fiery XF. Relative colorimetric with BPC (superior) produces improved results.
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Dynamic rendering intent

Command WorkStation analyzes the job's colors and determines whether they can be accurately reproduced on the selected printer.

Based on the analysis, Command WorkStation applies the most appropriate rendering intent for the job.

Result of job analysis	Applied rendering intent	Description
All colors are within the printer's reproducible gamut	Relative colorimetric	This rendering intent reproduces the exact colors of the job and no gamut compression is necessary.
Some colors are outside the reproducible gamut of the output device	Perceptual	This rendering intent compresses the colors of the job so that all colors can be printed without gamut clipping.

The simulation profile takes precedence over the source profile. If a simulation profile is selected, Command WorkStation applies the dynamic rendering intent for the simulation profile. Otherwise, Command WorkStation applies the rendering intent for the appropriate source profile.

Save a custom workflow as a template

You can save a workflow as a template and select it for the next job.

- 1 Right-click the workflow, and click **Save as Template**.
- 2 Type a unique name.
- 3 Add a description (optional).
- 4 Click **Save**.

Configure user accounts

A user account determines which features of Command WorkStation each user can access. To create or edit user accounts you must have administrator rights.

The software is installed with one default administrator and one default operator.

- 1 In Server Manager: On the sidebar, click **Users**.

- 2 Do one of the following:
 - To create a new user: Click the **Add (+)** button.
 - To edit an existing user: Click the user name.
- 3 On the **Information** panel, enter a user name. Then, define a password, and confirm it by re-typing the name in the appropriate box.
- 4 Select a user role: Administrator or operator.

Administrators can access Server Manager to configure the system, and they can also edit and print jobs. Operators can only edit and print jobs.
- 5 Click **Printer & Workflow Settings**, and do the following:
 - a) Select one or more printers.

Each user must have access to at least one printer. Only selected printers are visible to the user when importing jobs. You can grant access to all printers by selecting **Printer Access**.
 - b) For each selected printer, select one or more workflows.

Workflows define the settings that Command WorkStation applies to each job. The software is shipped with one generic workflow for each printer. If custom workflows have previously been set up, these are also available for selection. Only selected workflows are visible to the user when importing jobs.
 - c) Click **OK**.
- 6 Click **Tab & Pane Settings**, and do the following:
 - a) Select which parts of the software the user will see (optional).

By default, new users have access to all software features. If the user should only be permitted to use certain parts of the software, you can hide tabs and options by clearing the appropriate check boxes.
 - b) Click **OK**.

Now watch the video [here](#).

Log on to Command WorkStation

If multiple users use the same computer, you can log on to Command WorkStation with your own login credentials. The previous user must be logged off before you can log on.

- 1 Click **Connect**.

The **Login** dialog box opens.
- 2 Type your user name and password. Then, click **Login**.

Command WorkStation starts. The user interface displays those areas of the software (printers and workspace) defined in your user account.

Log off from Command WorkStation

By default, Command WorkStation logs on with the login credentials of the last user. If multiple users use the same computer, you can log off from Command WorkStation to prevent the next user accessing your printers, workspaces and jobs.

- In Job Center: Click **Server > Logout**.

The name of the currently logged-on user is displayed in quotation marks.

Network ports

When checking the availability of the network or installing anti-virus software, make sure that the following network ports are not blocked as they are needed for specific features of Command WorkStation.

Ports	Used for
443	Communication between Fiery XF server and FlexNet
4108	Epson Spectroproofer
8010, 8013	Bi-directional communication service
8020, 8022, 8030, 8032	Integration and connectivity between Fiery XF server and EFI printers
8051, 8052, 8053, 8054, 8061, 8062, 8063, 8064	Communication between Fiery XF server and Adobe PDF Print Engine processes (up to four instances)
8085, 8086, 9100	HP Latex driver SDK
20020 to 20021 (UDP only)	Fiery XF server discovery
26502, 27000 to 27009	License management
50005 to 50026	General communication between the Fiery XF server and Command WorkStation

Set Command WorkStation preferences

You can set preferences globally for Command WorkStation—for example, to reset the application settings to their original defaults.

- 1 To open the **Preferences** window:

- On a Windows computer, click **Edit > Preferences**.
- On a Mac OS computer, click **Command WorkStation > Preferences**.

2 Under **General**, specify any of these general setting preferences:

- **Appearance** - On a Mac computer, select whether to use dark mode or light mode, or select **System** to use the local operating system setting. The change will be implemented the next time you start Command WorkStation.
- **Auto reconnect** - Select **Enable Auto reconnect** to automatically reconnect to disconnected servers with saved passwords.
- **Updates** - Click **Check now** to open the Fiery Software Manager to check for a more recent version of Command WorkStation software and the Fiery workflow applications online.
- **Reset settings** - Click **Reset** to restore application settings to their original defaults.

Note: Fiery XF servers that have been added will be retained in the Servers list, along with their passwords.

- **Clear data** - Click **Clear data** to clear saved passwords, for all users and all servers that Command WorkStation has saved passwords.
- **Improvement program** - To help Fiery improve the quality, reliability, and performance of the software by sending anonymous usage data but not your name, address, or any other personally identifiable information, click the relevant check box.

3 Under **Region**, specify any of these regional setting preferences:

- **Language** - Select the language you want to display Command WorkStation. By default, Command WorkStation uses the local operating system language, if the language is supported. If the language is not supported, Command WorkStation defaults to English.

Note: Changing the language of Command WorkStation will also apply to hot folders, and vice versa, if installed on the same client.

- **Measurement units** - Specify the units of measurement used to display attributes, such as page sizes and custom sizes. This setting does not affect predefined page-size values.

4 Under **Workspace**, you can share settings with another Command WorkStation client.

- **Import** - Click **Import** to import Command WorkStation settings from another computer.
- **Export** - Click **Export** to export Command WorkStation settings to a zip file, which can be used to set up other Command WorkStation clients.

5 Click **OK** to save and close the **Preferences** window.

Job import

Command WorkStation supports many different file formats which you can import in a variety of ways.

Command WorkStation supports the following file formats:

- PostScript, EPS
- PDF
- TIFF
- JPEG, JPEG2000
- RAW
- DCS1/DCS2
- RTL
- RPF
- PSD
- PSB
- One-bit files. See [One-bit files](#) on page 50 for the supported file formats.
- FFP. These files are created in Fiery FreeForm Create.

Files in all other formats may be imported, but cannot be processed.

You can import jobs as follows:

- Directly in the Job Center window
- Through a hot folder
- By configuring a virtual printer
- Through Fiery XF Universal Driver

Now watch the video [here](#).

Import jobs directly into Job Center

You can import individual jobs, or you can select multiple jobs and import them as a nesting.

- 1 In Job Center, in the toolbar, click **Import**.
- 2 Browse to your job, and click **Open**.

The **Import Files** dialog box opens.

- 3 Click the **Add (+)** button to import more than one job (optional).

If you import multiple jobs, you can sort the order in which they are listed, by selecting a job and then clicking the up/down arrows.

- 4 Select a printer.

- 5 Select any of the available workflows or media for the specified printer.

- **Workflow**—Processes jobs using the settings of either the **Generic (Default)** workflow or another selected workflow.
- **Media**—Processes jobs using the settings of either the **Generic (Default)** media or another selected media.

- 6 Select **Nest all jobs** (optional).

This setting imports all the listed jobs as a nesting. Alternatively, you can create a nesting later in Job Center from individually imported jobs.

- 7 Select an import method.

- **Hold**—Allows you to edit held jobs before printing. Imported jobs receive the status "Spooled". You will need to take action on the job, such as selecting **Print** manually.
- **Process and Hold**—Processes jobs on import, but does not print them. Imported jobs receive the status "Processed". You can start printing manually.
- **Print**—Imports, processes, and prints jobs automatically. Imported jobs receive the status "Printed". If you need to edit jobs, you must cancel job processing first.

Jobs are imported into Command WorkStation and listed in Job Center.

Process jobs automatically on import

By default, jobs are imported as "hold" jobs to allow you to edit them before printing. You can configure the workflow to process jobs automatically on import.

You will need to take action on a "Spooled" job, such as selecting **Print** manually in one of the following scenarios:

- If you drag and drop a job to the All Jobs queue in Command WorkStation when the **Put all incoming jobs on hold** check box is not selected in the workflow.
 - If you import a job, the settings specified in the **Import Files** window will override the settings in the workflow. For example, if **Process and Hold** or **Hold** is selected.
- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow.
 - 2 On the **File** tab, expand the **Job Detection** panel.
 - 3 Clear the **Put all incoming jobs on hold** check box.
 - 4 Click **OK**.

Process jobs with high priority

You can set up a high priority workflow to allow imported jobs to be processed with a high priority. By default, the Fiery XF server processes jobs in the order they are imported, either manually or via a hot folder.

- 1 In Server Manager: On the sidebar, click **Printers** and select a printer.
- 2 In the printer's tree view, select a workflow.
- 3 On the **File** tab, expand the **Job Detection** panel.
- 4 Select the **High priority workflow** check box.

Note: It does not make sense to set up multiple high-priority workflows connected to one printer. This setting is only available in Server Manager. To print a single job with high priority, refer to [Print next](#) on page 42.

Hot folders and virtual printers

Hot folders and virtual printers enable multiple users to print to Command WorkStation, even if they do not have Command WorkStation installed on their computer.

You can print jobs through a hot folder as follows:

- You can copy jobs manually into a hot folder.
- You can configure a virtual printer to make Fiery XF selectable in the print menu of the graphics program. Jobs sent through a virtual printer are imported into Command WorkStation through a hot folder.

Normally, each hot folder is configured to be monitored by just one workflow. Command WorkStation imports jobs from the hot folder and processes them according to the workflow settings. However, you can also configure a hot folder to be monitored by multiple workflows or printers, by applying load balancing. In this case, jobs in the hot folder are diverted automatically to the first idle workflow or printer that becomes available.

Now watch the video [here](#).

Configure hot folders

A hot folder enables users to copy print jobs to a centrally available folder for printing. Network access rights are required to print through a hot folder.

A hot folder can be located on the same computer as the Fiery XF server or accessed through the network. On a local hard disk, it is recommended that you make your hot folder a subfolder of a folder at root level—for example, C:\folder\hotfolder.

Note the following:

- To avoid unnecessary read/write access problems, do not create a hot folder on the desktop.
 - Do not select a folder that has been mapped as an internal link.
- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **Job Detection** panel.
 - 2 Under **Name**, click **Choose** and browse to the folder that you want to use as a hot folder.

3 Clear **Put all incoming jobs on hold** (optional).

By default, imported jobs are imported as "hold" jobs to allow you to edit them before printing. Clear this check box if you want to print jobs automatically on import.

4 Click **OK**.

You must now do the following:

- Make sure the hot folder is configured for printer sharing in the operating system. Otherwise, the hot folder cannot be detected in the network.
- If the hot folder and the Fiery XF server are installed on different computers, make sure that all Windows computers are configured with the same login credentials, and that all users have administrator rights. You may need to create a new user on both computers.

For more information, see the operating system's online help, or ask your system administrator.

Configure virtual printers

A virtual printer enables you to print to Command WorkStation through the print command of the graphics program.

Before you begin:

- Make sure that you have already configured a hot folder.
- Make sure that Command WorkStation is started. Otherwise, the printer is not listed in the print dialog box of the graphics program.

Settings you make in the print dialog box, such as the number of printed copies, overwrite the equivalent setting in Command WorkStation.

1 In Server Manager: On the sidebar, click **Printers**, and select the printer. In the printer's tree view, select the workflow for which you previously configured a hot folder. On the **File** tab, expand the **Job Detection** panel.

2 Select **Create virtual printer**.

3 Type a printer name.

This is the name that appears in the print dialog box of the graphics program. You can use the default printer name, or you can type a custom printer name. If you type a custom printer name, it is recommended that you do not use a name that contains special characters.

You must now do the following:

- Make sure the virtual printer is configured for printer sharing in the operating system. Otherwise, the virtual printer cannot be detected in the network.
- If the Fiery XF server and the graphics program are installed on different computers, add the virtual printer as a new printer.

For more information, see the operating system's online help, or ask your system administrator.

Fiery XF Universal Driver

Universal Driver is a special printer driver that was developed by Fiery. Like a virtual printer, Universal Driver enables you to print directly to a Command WorkStation from any graphics program. Universal Driver opens when you select it as the printer in your graphics program.

You can install Universal Driver on an unlimited number of computers.

Now watch the video [here](#).

Install Universal Driver

The Fiery XF Universal Driver is provided as an online update. Universal Driver is not installed by default.

- 1 Download the Fiery XF Universal Driver to the computer on which the graphics program is installed.
- 2 Do one of the following:
 - Windows: Double-click **Fiery XF Universal Driver.exe**.
 - Mac: Double-click **Fiery Universal Driver.pkg** or **Fiery Universal Driver.tgz**, and then double-click **Install Fiery XF Universal Driver**.

To install the Fiery XF Universal Driver, you must have administrator privileges. Consult your system administrator if you require further assistance.

- 3 Follow the on-screen instructions to complete the installation.

You must now configure Universal Driver as a printer in the operating system. For more information, see the operating system's online help, or ask your system administrator.

Note: Universal Driver is automatically configured and selected as the default printer if you installed it on the same computer as the Fiery XF server.

Log on to Universal Driver and print

Universal Driver opens when you select it as the printer in your graphics program. You must log on to the Fiery XF server before you can print.

Before you begin:

- Make sure that Universal Driver is already configured as a printer in the operating system.
 - Make sure that the Fiery server is started. Otherwise, the printer driver cannot detect it.
- 1 In the graphics program: Select the print command, select **Fiery XF Universal Driver** as the printer, and then click **Properties** (or similar, depending on your graphics program).
 - 2 Click the **Fiery XF Universal Driver** tab, and then click **Change Settings**.

The **Login** window opens.

- 3 Select or type the server name or IP address. Then type your Command WorkStation user name and password, and click **OK**.

The printer driver window opens.

- 4 Make your required settings, and click **OK**.

Universal Driver settings

In Universal Driver, you can apply custom job and media settings. Settings in Universal Driver override the workflow and media settings from Command WorkStation.

Universal Driver provides the following settings:

- **Printer** - Selects a different printer.
- **Workflow** - Selects an available workflow preset.
- **Media** - Selects an available media preset.
- **Measurement units** - Selects the units of measurement.
- **Change server** - Logs on to a different Fiery XF server.
- **Customize workflow** - Customizes the job settings of the selected workflow preset. Select **Use local settings** to apply. Clear the check box to reapply the default settings from the preset.
- **Customize media** - Switches to a different media and customizes the printer settings of the selected media preset. Select **Use local settings** to apply. Clear the check box to reapply the default settings from the preset.

Import jobs using the Sign Flow Option

You can import jobs and specify the number of copies as well as the print order for each job using the Sign Flow Option feature.

Keep in mind the following:

- Nesting, and Step and Repeat are not supported.
- Ordering of jobs when printing is allowed. The Sign Flow Option supports ordered printing for RTL file format, single-sided PDF files, and pages of a multipage PDF file, only if the workflow is set to split a multipage PDF file into single jobs and these job types are imported in parallel with a Sign Flow Option .txt file.
- Only supported together with EFI VUTEk printers such as HS125, h3/h5, and VUTEK XT, or EFI VUTEk MCORR printer. The Sign Flow Option allows sending jobs to a specific workspace of the VUTEk printer when the printer is connected using an IP address. For information about configuring a network printer, see [Configure a network printer](#) on page 22 and [Configure a network printer and upload file to printer](#) on page 23.

Create a .txt file

- 1 Open an Microsoft Excel (.xlsx) sheet.

2 Provide the workspace details in the first row in either of below formats:

- JOB # <WORKSPACENAME>
- WorkSpaceName: <WORKSPACENAME>

3 Provide a file name and copy count separated by a semicolon in subsequent rows in separate columns.

Examples of the formats shown in step 2 are shown.

JOB # D15430, PART 1		
baby - Copy	;	10
Fruit_Another	;	-1
Fruit_New	;	
Another_Job	;	10000
One_More_Job		

WorkSpaceName: D15430, PART 1		
baby - Copy	;	10
Fruit_Another	;	-1
Fruit_New	;	
Another_Job	;	10000
One_More_Job		

Items to note in the example images:

- A semicolon (;) after the file name denotes that the copy count should be used from the .txt file. A .txt file must be provided with the job.
- You should provide a semicolon (;) after the file name only if the copy count is provided in the .txt file, otherwise do not provide a semicolon (;).

Explanation of different formats shown in the example images:

- Row 1, JOB # or WorkSpace Name, notifies the WorkSpace name (if available or to be created on the printer side) to which the job should be submitted.
- Row 2 states that file name is **baby – Copy** (without extension) and it is imported with a copy count set to 10. The job is imported with a copy count set to 10.
- Row 3 states that file name is **Fruit_Another** (without extension) and it is imported with a copy count set to -1. The provided copy count is invalid, therefore, the job is imported with a copy count set to 1.

- Row 4 states that file name is **Fruit_New** (without extension) and it is imported with a copy count in the .txt file but the value is not provided. Therefore, the job is imported with a copy count set to 1.
- Row 5 states that file name is **Another_Job** (without extension) and it is imported with a copy count set to 10,000. The provided copy count is more than 9999, therefore, the job is imported with a copy count set to 9999.
- Row 6 states that file name is **One_More_Job** (without extension) and it is imported without a copy count from the .txt file. In this case, the job is imported and a copy count set in the workflow.

- 4 Save the Microsoft Excel (.xlsx) sheet as **Text (Tab delimited) (*.txt)**.

Import a job into Command WorkStation using the Sign Flow Option

You can print a job with Command WorkStation connected to a Fiery XF server using the Sign Flow Option.

- 1 Start Command WorkStation and connect to a Fiery XF server.
- 2 Create a printer, for example, VUTEk HS125 Pro printer in Server Manager.
- 3 Import the .txt file into Command WorkStation.
- 4 Import all jobs which are mentioned in the .txt file.

The jobs are submitted to the VUTEk printer in the order given by the .txt file.

Note: The .txt file does not define the import order, spooling, or processing of jobs. It will make sure that the jobs are printed and submitted in the designated order.

The number of copies should be reflected in Command WorkStation Job Summary, Job Column, and Job Editor as specified in the .txt file.

- 5 Print all the jobs.
- 6 Check the respective job ticket and JDF file. The number of copies should be reflected, and it should be the same value as specified in .txt file. The job copies should match with the printed outputs.

Configure print settings

You can select the number of copies and the order in which they are printed. You can also define a criterion for processing jobs that are too big to fit on the media.

In the **Job Summary** area of Job Center you can edit the number of copies and make media settings. Server Manager and Job Editor provide additional settings for sorting the print order.

You can also output job separations. For more information, see [Print separated jobs](#) on page 42.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Printer** tab, expand the **Print Settings** panel.
- In Job Editor: On the **Printer** tab, expand the **Print Settings** panel.

2 Select a number of copies between 1 and 9999.

One copy means one copy of the whole job (single-page, multi-page or nesting). If you print more than one copy, you can select a sort order.

Note:

You can also specify the number of print copies in the **Job Summary** area of Job Center.

3 Under **Pages**, select whether you want to print all the pages of the job, or even or odd pages only.

4 Select **Sort copies** (optional).

The default order for printing three copies of a three-page job is 1, 1, 1, 2, 2, 2, 3, 3, 3. Sorted copies are printed in the order 1, 2, 3, 1, 2, 3, 1, 2, 3.

5 Select **Reverse order** (optional).

The default order for printing three copies of non-sorted three-page job in reverse order is 3, 3, 3, 2, 2, 2, 1, 1, 1. Sorted copies are printed in the order 3, 2, 1, 3, 2, 1, 3, 2, 1.

6 Select **Print jobs that exceed the printable area** (optional).

By default, Command WorkStation prints jobs in their original size, and cancels job processing if the job is too big to fit fully on the media. If you select this check box, oversized jobs are printed, but the image is clipped in the output. To print without clipping, scale the job, or select a larger media size for the printer.

7 Click **Save**.

Start printing

You must start the print process manually for jobs imported as "Hold" jobs, or those imported through a hot folder, virtual printer or Universal Driver.

Before you begin, make sure that media is loaded in the printer and the printer is switched on.

- Do one of the following:
 - In Job Center: Select the job. Then, in the toolbar, click **Print**.
 - In Job Editor: Click **File > Print**.

Print next

You can send a job to the top of the Printing queue without interrupting the job that is currently printing. This is a form of priority print if you have multiple print jobs already pending.

- Do one of the following:
 - In Job Center: Right-click the job. Click **Print Next**.
 - In Job Editor: Click **File > Print Next**.

Cancel job processing

You can cancel job processing—for example, if you need to make job edits before printing. Afterwards, you must start the print process manually.

- In Job Center: Right-click the job, and click **Cancel**.

Print separated jobs

You can print each ink color as a separate job. For example, a job composed of CMYK inks will print four pages. Each separation will print only those areas that contain the particular ink color.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Printer** tab, expand the **Print Settings** panel.
For more information, see [Server Manager](#) on page 18.
- 2 Click **Advanced Settings**.

3 Under **Separations**, select an item:

- **Merge separations** - Prints jobs as traditional full-color output. This is the default setting.
- **Color separations** - Forces jobs to be printed one color at a time. When printed on transparent media, the individual sheets can be placed one on top of the other to create a traditional proof.
- **Grayed separations** - Prints each ink channel separately, but as grayscale output.

4 Click **OK**.

PostScript and PDF jobs

The Fiery server uses the Adobe PostScript Engine (also known as Configurable PostScript Interpreter or CPSI) and the Adobe PDF Print Engine to process PostScript and PDF jobs.

CPSI does the following:

- It processes PostScript level jobs and PDF jobs with up to 127 separations. During job processing, PDF jobs are converted to PostScript format.
- It supports PDF jobs with cut contours.
- It does not support native ICC profiles and ICC profile tagging in PDF objects.

Adobe PDF Print Engine does the following:

- It processes PDF jobs with up to 127 separations.
- It supports PDF jobs with cut contours. The Adobe PostScript 3 Engine is used to extract the cut contour(s), but the job itself is interpreted with the Adobe PDF Print Engine.
- It supports native ICC profiles and ICC profile tagging in PDF objects.
- It processes composite jobs quicker than CPSI.

You can speed up job processing by increasing the number of Adobe print engines that are used.

Now watch the video [here](#).

Switch to a different print engine

You can switch to a different PDF or image EPS/PDF print engine. The image EPS/PDF print engine determines whether jobs are output with the internal Fiery module or with CPSI.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
- In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.

2 Under **PDF print engine**, select **Adobe PostScript 3 Engine** or **Adobe PDF Print Engine**.

3 Under **Image EPS/PDF print engine**, select an item.

- **Native** - Outputs a single EPS image, but not the surrounding PDF frame. This provides quicker processing and better output quality since, if the image is an RGB image, Command WorkStation applies the selected source profiles. This feature is mainly for users who print directly from Photoshop.
- **Adobe PostScript 3 Engine** - Outputs a job with the surrounding PDF frame. Command WorkStation applies this setting automatically if the job contains more than one EPS image.

- 4 Click **Save**.

EPS job detection

Special settings are available to ensure that your EPS jobs are output correctly.

You can change the following:

- The length of time that Command WorkStation waits to receive all job separations
By default, when you load a separated job, Command WorkStation waits five seconds before assuming that the job is complete. However, large-volume, separated EPS jobs may require more time to process all color separations as one job. Conversely, composite jobs require less time.
- The default input resolution
Occasionally, Command WorkStation has difficulty correctly extracting and interpreting the resolution of incoming PS and PDF files. Rounding down errors may cause a white edge along the right and bottom edges of images because of missing pixels. The problem occurs only in step-and-repeats, where a thin white line may be visible between images, even though no spacing is defined. Changing the default input resolution corrects the problem.

Set a time lapse for EPS job detection or change the input resolution

You can specify how long Command WorkStation waits to receive all job separations. You can also change the default input resolution to correct a rendering error that may cause a thin white line to appear between step-and-repeat images.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
 - In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.
- 2 Do one of the following:
 - Under **Waiting time for job completion**, type the number of seconds that Command WorkStation waits to receive color separations for each job.
 - Under **Default resolution**, type an input resolution value of between 1 dpi and 720 dpi.
- 3 Click **Save**.

In-RIP separation

In-RIP separations are spot colors that have been defined in an external RIP or in a graphics program and saved as a single job.

PostScript files with in-RIP separations normally require a special PostScript command to interpret the in-RIP information correctly. PostScript Level 3 printers support in-RIP separations, but PostScript level 2 printers do not.

By default, jobs with in-RIP separations are output as follows:

- PostScript jobs created for a PostScript level 3 printer are output separated if the printer support in-RIP separation. If the printer does not support in-RIP separation, the job is output composite.
- PostScript jobs created for a PostScript level 2 printer are always output composite, because spot color separations cannot be correctly interpreted.

Forcing in-RIP separation makes sure that the in-RIP information from the graphics program is processed, even if the special PostScript command is missing, and regardless of the type of PostScript printer that created the file.

Set how Command WorkStation processes in-RIP information

You can output in-RIP information as separated files, or convert in-RIP information to the color space of the output device and print it as a composite job.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
- In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.

2 Under **In-RIP separation**, select an item.

Note: In the case when FAST RIP is used, the **In-RIP separation** selection is disabled for the selected workflow. This is because FAST RIP cannot handle disabled in-RIP separations.

- **Enable**—Prints PDF jobs with in-RIP separations as separated files (C, M, Y, K, plus spot colors). Jobs with no in-RIP information are printed composite (CMYK).
- **Disable**—Ignores in-RIP information. PDF jobs are printed composite (CMYK). Pre-separated files are always printed separated, even though they do not contain in-RIP information.
- **Force**—Applies in-RIP information to PostScript level 3 and PostScript level 2 jobs, as well as to PDFs created with older versions of Adobe Acrobat.

Note: In the case when **Force** in-RIP separation is needed (for example, EPS files with spot colors), you need to do the following:

- Clear the **FAST RIP** check box in the **General Settings** of the **Server Info & Configuration** tab and click **Save**.
- Set the **In-RIP separation** setting to **Force** in the selected workflow and click **Save**.
- Re-select the **FAST RIP** check box in the **General Settings** of the **Server Info & Configuration** tab and click **Save**.

The **In-RIP separation** setting in the selected workflow will show **Enabled**.

3 Click **Save**.

Page box definitions

Command WorkStation defines PDF page size by the media box, bleed box, trim box, crop box, and art box. For PostScript jobs, Command WorkStation can retrieve and process bounding box information.

A PDF can have up to five different descriptions relating to page size:

- **Media box**—Prints PDF jobs with in-RIP separations as separated files (CMYK, plus spot colors). Jobs with no in-RIP information are simply printed composite (CMYK).
- **Bleed box**—Defines the area to which the contents of the page must be clipped when output in a production environment.
- **Trim box**—Defines the intended dimensions of the finished page after trimming. Imposition applications use this type of box for arranging the order of pages.
- **Crop box**—Defines the area to which page contents must be clipped when displayed or printed.
- **Art box**—Defines an area on a page that is of special interest.

For PostScript jobs, the bounding box information is not always exact, due to rounding up or down errors that can occur when printing from some graphics programs. Such inaccuracies can result in image distortion in the printout. Command WorkStation can ignore the page size information of such jobs and calculate the page size internally.

Specify a page box

You can specify which page size information Command WorkStation reads out of PDF jobs. You can also instruct Command WorkStation to override the bounding box information of PostScript jobs, which can be inaccurate.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
- In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.

2 Under **Size definition**, select an item:

- For PDF jobs: Select an appropriate page size definition.
- For PostScript jobs: Select **Calculate page size**.

This process is slower than extracting the bounding box information from the job, but the result is more accurate.

3 Click **Save**.

Working color space

The working color space determines which source profile is applied to a PDF job.

For PDF jobs that contain mainly RGB images, applying the RGB color space ensures that you achieve the best possible color quality. You must use CMYK as the working color space in proofing workflows.

Apply a working color space

You can improve color quality by applying a working color space that is appropriate for the image content of your PDF jobs.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
 - In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.
- 2 Under **Working color space**, select **CMYK** or **RGB**.
- 3 Click **Save**.

Overprinting in composite jobs

Intentionally printing one layer of ink on top of another is known as overprinting. Overprinting is sometimes used to avoid the need for trapping and to prevent gaps from appearing between colors.

A printing press prints each ink color one at a time—each printing plate is made up of components of one color only. Color-separated files are created in Cyan, Magenta, Yellow, Black, plus any spot colors.

It is not possible to print overlapping colors from a composite job because overlapping colors will not print on top of each other. However, Command WorkStation can simulate the effect of overprinting.

Simulate overprinting in composite jobs

You can simulate overprinting in composite jobs. Command WorkStation cannot simulate overprinting in separated jobs.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
 - In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.
- 2 Select **Simulate overprinting in composite jobs**.
- 3 Click **Save**.

Manage non-embedded fonts in PDF jobs

You can force Command WorkStation to stop job processing when it detects non-embedded fonts to allow you to embed missing fonts.

By default, Command WorkStation prints jobs that contain non-embedded fonts, but replaces the missing fonts with Courier. Non-embedded fonts are listed on the **Warning/Error** panel of the **File** tab.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
 - In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.
- 2 Select **Stop job processing if font is missing**.
- 3 Click **Save**.

After embedding missing fonts, you must reload the job before printing.

Ignore the transparency blending color space in PDF jobs

The transparency blending color space is used to display flattened artwork. If your transparency jobs display artifacts in the printout, this may be caused by an unsuitable transparency blending color space selected in the graphics program. You can often resolve the problem by forcing Command WorkStation to ignore the transparency blending color space.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
 - In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.
- 2 Select **Ignore transparency blending color space from file**.
- 3 Click **Save**.
- 4 Reprint the job.

When **Ignore transparency blending color space from file** is selected, Adobe PostScript Print Engine uses its own transparency blending color space, based on the source profile selected in Command WorkStation.

Load multi-page PDF jobs as single-pages

You can load a multi-page PDF job as single pages and make individual job settings to each page. If you do not load multi-page PDF jobs as single pages, job settings are applied uniformly to all pages.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
 - In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.
- 2 Select **Divide multi-page PDF files into single page jobs**.
- 3 Click **Save**.

One-bit files

With a license for the OneBit Option, you can process one-bit files produced by an imagesetter, a platesetter, or another prepress industry digital print solution.

Imagesetters, platesetters, and other prepress industry digital print solutions have an integrated RIP that converts PostScript and PDF files to screen dots. The screen dot information is saved as one-bit TIFF files, one file for each color separation.

Since an external RIP has already processed the one-bit TIFF files, the integrated RIP of Fiery XF is not applied during processing. Fiery XF extracts the necessary screening information, including screen ruling and screen dot shape and size, from the one-bit file when you print the digital proof.

Digital proofs printed using the OneBit Option are color-accurate and give an accurate screen representation of the final print run, making the OneBit Option an ideal tool for checking for moiré patterns or rosettes.

The OneBit Option supports the following file formats:

- TIFF G4
- TIFF G3
- PackBit
- LZW compressed TIFF
- Uncompressed TIFF
- Presstek
- Huffman
- PCX
- LEN
- Harlequin
- Pagebuffer
- Founder
- DSC1 and DSC2 (copy dot format)

You can modify the plate characteristics applied to one-bit files. Plate characteristics control the size of screen dots when output on the platesetter.

Create a workflow for one-bit files

You can create a workflow to use to process one-bit files sent to the Fiery XF server.

- 1 In Command WorkStation, right-click the Fiery XF server and select **Server Manager**.

2 On the **Printers** tab, click the **Plus** icon next to a printer and select the workflow to modify.

3 On the **File** tab, click the arrow next to **One-bit** to expand the pane.

4 Do one of the following:

- Type the number of seconds to wait before job completion.

This setting determines how long the Fiery XF server waits for incoming one-bit files that belong to the same job. When the time has elapsed, the Fiery XF server starts printing the job.

- Select the **Number of one-bit files in a job** check box and type a number.

This setting defines the number of one-bit files in each job. The Fiery XF server starts printing as soon as it receives the defined number of one-bit files, allowing you to prevent unnecessary idle time.

This setting overrides the **Waiting time for job completion** setting and prevents jobs from being automatically printed when the specified time has elapsed.

5 (Optional) Select the **Sub-directory for each job** check box to have the Fiery XF server create a subdirectory for each job.

You must select this setting if your one-bit files were created by a RIP that automatically generates subdirectories for one-bit files.

6 In the job recognition preset field, select or type a character sequence that matches the naming convention of your one-bit files.

This setting defines how the Fiery XF server recognizes the job name and all the one-bit files in each job. The defined generic character sequence must match all the files that you process.

For more information, see [Defining job recognition presets](#) on page 52.

7 (Optional) Select the **Extract color separation from file header** check box for the Fiery XF server to extract the color information from the file header in the one-bit file instead of the file name.

Select this option if the individual color separations cannot be identified in the names of the one-bit files. Some RIP devices do not save the color separations as part of the file name.

8 Under **Proofing method**, select one of the following:

Proofing method	Description
Imposition proof	Select this option to create an imposition proof before submitting the job to the press. Note: Imposition proofs are not color-accurate and should be used only to check the content and completeness of the printing copy.
Contract proof	Select this option to create a color-accurate screen proof to manage color for the job. Contract proofs are considered a binding color contract between the customer and the printing house. A contract proof is usually the final proof created before going to the press.
Contract proof with sharp dots	Select this option to create a quick, color-accurate screen proof. The print quality of a contract proof with sharp dots is slightly lower than a standard contract proof.

9 Click **Save**.

Create custom job recognition presets

You can create and save a custom job recognition preset that can be used for any workflow on the Fiery XF server.

- 1 In Command WorkStation, right-click the Fiery XF server and select **Server Manager**.
- 2 On the **Printers** tab, click the **Plus** icon next to a printer and select the workflow to modify.
- 3 On the **File** tab, click the arrow next to **One-bit** to expand the pane.
- 4 Click the **Add** icon next to the job recognition preset field.
- 5 Type a character sequence that matches the naming convention of your one-bit files.
For more information, see [Defining job recognition presets](#) on page 52.
- 6 Click **Save**.

You can delete custom job recognition presets by clicking the **Delete** icon next to the job recognition preset field, selecting a preset in the **Delete Preset** window, and clicking **Delete**.

Defining job recognition presets

When creating a workflow for one-bit files, you must define a job recognition preset, which is a character sequence that matches the naming convention of your one-bit files.

For more information about creating workflows for one-bit files, see [Create a workflow for one-bit files](#) on page 50.

The Fiery XF server recognizes the following variables in a job recognition preset:

Variable	Description
%j	Represents the job name.
%c	Represents the name of the color separation of the one-bit file.
%f	Represents "ignore." This variable is often used to instruct the Fiery XF server to ignore consecutive numbers, such as file numbers, that some RIP solutions automatically add to the file name. Insert a number to define how many characters should be ignored. For example, %4f instructs the Fiery XF server to ignore four characters.

The following example illustrates how you can define a job recognition preset for a sample group of one-bit files:

One-bit file names	Job recognition preset character sequence	Description
01_fieryflyer_(cyan).tif 02_fieryflyer_(magenta).tif 03_fieryflyer_(yellow).tif 04_fieryflyer_(black).tif	%f_%j_(%c).tif	The Fiery XF server processes files that use an underscore as the separator and have color separations in parentheses. The Fiery XF server ignores all characters in the file names before the first underscore, reading from right to left.

Note: By default, the Fiery XF server analyzes file names from right to left, ignoring the file extension. You can select the **Analyze file name from left to right** check box to instruct the Fiery XF server to analyze files names from left to right.

The following example illustrates a job recognition preset designed for the Fiery XF server to analyze from left to right:

One-bit file names	Job recognition preset character sequence	Description
fieryflyer-(cyan)-00157.tif fieryflyer-(magenta)-00158.tif fieryflyer-(yellow)-00159.tif fieryflyer-(black)-00160.tif fieryflyer-(cyan)-01-00.tif fieryflyer-(magenta)-02-00.tif fieryflyer-(yellow)-03-00.tif fieryflyer-(black)-04-00.tif	%j-(%c)-%5f.tif	The Fiery XF server processes files that use a dash as the separator and have color separations in parentheses. The Fiery XF server ignores all characters in the file names after the second dash, reading from left to right.

Change the proofing method for a one-bit job

Settings for one-bit jobs are made at the workflow level. In Job Editor, you can change only the proofing method, which affects print quality and speed.

- 1** In Command WorkStation Job Center, double-click a job to open Job Editor.
- 2** On the **File** tab, click the arrow next to **One-bit** to expand the pane.
- 3** Under **Proofing method**, select a proofing method.

For more information about proofing methods, see [Create a workflow for one-bit files](#) on page 50.

- 4** Click **Save**.

For more information, see [Make visual color corrections](#) on page 108.

Editing jobs

In Job Editor, you can scale, crop, rotate, flip, and realign jobs. You can save your job edits as a new workflow.

Visual aids are available in the preview window to help you position jobs exactly.

Note: All job edits, including color management settings, print settings, and spot color definitions, override the default settings from the workflow.

Rotate a job

You can rotate jobs by 90, 180, or 270 degrees.

- 1 On the toolbar, select the **Transform Job** tool.
- 2 Do one of the following:
 - On the toolbar, under **Rotate & Flip**, select an angle of rotation.
 - Rest the pointer near, but not directly on, a page corner until the pointer changes into an arrowed circle. Then, drag in the direction you want to rotate. The job snaps to the nearest angle of rotation that is a multiple of 90.

Rotate jobs to reduce media consumption

Command WorkStation can rotate single jobs automatically if doing so will reduce media wastage.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Layout Options** panel.
- 2 Under **Rotate job**, select **Minimal media consumption**.

Flip a job

You can flip a job along its horizontal or vertical axis.

- 1 On the toolbar, select the **Transform Job** tool.
- 2 On the toolbar, under **Rotate & Flip**, click **Flip Horizontally** or **Flip Vertically**.

Scale a job

You can scale jobs by a percentage, by typing new dimensions, or by dragging. You can also scale jobs to the media width or height.

Jobs that do not fit on the media are indicated by a red border. To print oversize jobs, you must either scale them down, or print them as tilings.

By default, scaled jobs retain their original proportions. You can deactivate proportional scaling by clicking the **Scale Proportionally** button in the toolbar.

- 1 On the toolbar, select the **Transform Job** tool.
- 2 Do one of the following:
 - Scale freely: Rest the pointer on a corner of the job. The pointer changes into a double-headed arrow. Drag the job to the required size.
 - Scale by entering dimensions: In the toolbar, under **Scale**, type a width and height.
 - Scale by a percentage: In the toolbar, under **Scale**, click the % button, and type a percentage in the width or height box.
 - Scale nested jobs uniformly: On the sidebar, click **Layout**, and open the **Nesting** panel. Then, select **Uniform scaling**, type a width and height, and click **Apply**.
 - Scale to media size: Right-click the job, click **Scale**, click **Fit to**, and click an item. You can scale a job to the sheet width, the sheet height (not available for roll media), or to the page size. When you scale to page size, the job is scaled to the printable width or height of the media, whichever is reached first.

You can return a job to its original size by right-clicking the job, and then clicking **Reset Page**.

Align a job on the sheet

You can align a job to the sheet edge, or you can reposition a job by adding margins, by typing x/y coordinates, or by dragging.

By default, the job is positioned in the top, left-hand corner of the sheet, while taking the printer margins into account.

- 1 On the toolbar, select the **Transform Job** tool.
- 2 Do one of the following:
 - On the toolbar, under **Position**, type x/y coordinates for the top, left-hand corner of the page.
By default, Job Editor displays the x/y coordinates of the printer's non-printable left and top margins. You can make Job Editor ignore the printer margins by typing x/y values of "0".
 - On the toolbar, under **Align**, click a horizontal and vertical alignment type.
Bottom alignment is not available for roll media.
 - On the toolbar, under **Margin**, type a top, bottom, left, or right margin width.
You can apply identical margins to all four sides by clicking the appropriate button, and defining a top margin only.

Crop a job

You can enhance the focal point of an image, by removing distracting background elements around it.

If the job has crop marks, Command WorkStation reapplies them to the smaller, newly cropped area.

- 1 On the toolbar, select the **Crop Job** tool.
- 2 In the preview, drag the pointer to select the section that you want to crop.
You can cancel the selected cropped area by pressing ESC.
- 3 Fine-tune the selected section (optional), by doing any of the following:
 - Reposition the crop box: Hold down ALT, and drag the pointer from the center of the crop box.
 - Resize the crop box: Drag the edge of the crop box.
 - Adjust the size of the cropped area: In the toolbar, type new values in the **Scale** boxes.
 - Adjust the margin widths between the edge of the job and the crop box: In the toolbar, type new values in the **Margin (offset)** boxes.
- 4 Press ENTER.
You can return a cropped job to its original state by clicking the **Reset Crop** button in the toolbar.

Undo job edits

You can discard all the job edits that you have made since the last time you saved your work.

- Do one of the following:
 - Click **Edit > Discard**.
 - Right-click the job, and then click **Reset Page**.

Save job settings as a workflow

Saving your current job settings as a workflow can save you considerable time if you need to apply the same group of settings to multiple jobs.

For example, if you have received a customer order consisting of multiple jobs that all require the same extensive editing, you can save the final settings of the first job as a new workflow. Then, when you import subsequent jobs into Command WorkStation, you can quickly and easily apply the same settings by selecting that workflow.

- 1 In Job Editor: Click **Save**.

Note:

Unsaved job settings are discarded when you create a workflow.

- 2 Click **File > Save as Workflow**.

3 Type a workflow name, and click **Save**.

The saved workflow is automatically associated with the currently selected media. It is available for selection when you load a new job.

Visual aids

Visual aids are available in Job Editor to help with job alignment on the sheet.

Visual aids are visible only in the preview window. They are not printed with the job. The following visual aids are available:

- **Rulers**—Displays rulers along the top and left edges of the preview.
- **Guides**—Are non-printable lines. You can activate snapping for guides and lock them at their current position.
- **Grid**—Displays horizontal and vertical lines that do not print. The grid spacing is fixed, but adapts automatically according to the selected zoom factor. Activating snapping causes nearby jobs to snap to the grid.
- **Marks**—Hides crop marks or cut marks. The job's position on the sheet does not change.
- **Page frame**—Displays a black border around each job. This helps you to see whether a job has white space around it that is overlapping other jobs in a nesting.
- **Overlaps**—Display jobs that are overlapping the sheet border or overlapping other jobs. Overlapping jobs appear with a red border.
- **Sheet margins**—Displays the non-printable margins as defined by the printer's firmware. By ensuring that jobs are within the non-printable margins, you can avoid unwanted cropping in the printout.

Change the unit of measurement

You can temporarily change the unit of measurement displayed in Job Editor. When you close the window, Job Editor goes back to the unit of measurement that is selected for Command WorkStation.

- Do one of the following:
 - Click **Edit > Measurement Unit**, and click an item.
 - Right-click anywhere on the ruler, and click an item.

Zoom in

Increasing the size of a previewed job can help you make more accurate changes.

Each time you zoom in, the size of the preview increases by 100%.

- Do one of the following:
 - On the toolbar, select the **Zoom Job** tool, and click the area of the job that you want to enlarge.
 - Click **View > Zoom in**.
 - On the lower toolbar, type a zoom factor in the edit box, or move the slide bar. These zoom settings scale the job preview in relation to the preview window.

Turn on snapping

You can give some visual aids a magnetic property, which causes jobs in their proximity to snap to them. You can turn snapping on or off for grids or guides. In nestings, you can also make objects snap to each other.

- Click **View > Snap to**, and then click an item.

Set ruler coordinates

By default, the ruler's 0, 0 coordinates are located at the upper left corner of the sheet. You can move the 0, 0 coordinates—for example, to the corner of a job.

- Drag the pointer from the top left corner of the ruler area to the required position.

You can reset the 0, 0 coordinates by double-clicking the ruler intersection area.

Work with guides

Guides are non-printable lines that help you to position jobs at exact coordinates on the sheet. You can lock guides at their current position.

- Do any of the following:
 - Create a guide: Drag the pointer from the horizontal or vertical ruler.
 - Move a guide: Drag the guide to a new position.
 - Remove a guide: Drag horizontal guides to the horizontal ruler and vertical guides to the vertical ruler.

Show visual aids

You can show or hide visual aids in the preview window.

- Click **View > Visual Aids**, and then click an item.

Job labels

You can use a job label to verify color accuracy between two printouts, or to record job-specific information.

A job label contains selectable information about the job, such as document name, printer name, and used profiles, and can also include up to two control bars.

Now watch the video [here](#).

Create or edit job labels

A job label can include an image and up to six lines of job-specific information. You can select what information to display in the job label. You can also replace the default Fiery logo with any JPEG or TIFF image.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.

2 Do one of the following:

- Single jobs: Select **Page**.
- Jobs with multiple pages (nesting, step & repeat): Select **Collection** to create one job label for the whole job, or select **Page** to create a job label for each page. Jobs consisting of multiple pages can have both types of job label.

3 Click **Edit** (optional).

Job Label Editor allows you to review or edit the default job label settings (see the following steps).

4 Click **Upload** and browse to an image file. If you do not want to include an image, select **None**.

The maximum image size is 5 x 5 cm (2.54 x 2.54 inches). If the image exceeds these dimensions, Command WorkStation scales it proportionally so that either the width or the height is reduced to 5 cm. Images smaller than 5 x 5 cm appear in their original size. If color management is selected for the job, it is applied to job label images too.

5 Select the required check boxes to specify the content of lines 1 to 6.

Line 6 has room for custom text.

6 Click **OK**.

Realign the job label

You can change the vertical distance between job label and the bottom edge of the job or nesting.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.
 - In Job Editor: On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.
- 2 On the **Page** or **Collection** tab, type a vertical distance.

Adjust the size of the job label

You can change the dimensions and font size of the job-specific information displayed in the job label.

The job label has the following default properties:

- Width—Page width, minus the width of control bars, if selected
- Height—Max. 5 cm (2.54 inches). If job-specific information can be displayed in less than 5 cm, you can reduce the height to prevent unwanted white space between job-specific information and a control bar below it.
- Font size—6 pt. You can select any font size between 6 pt and 72 pt.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.
 - In Job Editor: On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.
- 2 Type a maximum width and height for the job label.
- 3 Type a font size.

Control bars

A control bar comprises rows of color patches. You can measure the colors of a printout against a reference (for example, Fogra MK 11) to verify ISO 12647-7-compliance.

Command WorkStation supports the following control bars:

- Any control bar that is installed with Command WorkStation
- Your own control bar—Custom control bar files must reside in the ControlStrip folder. Command WorkStation can process all supported file formats except separated files. There is no size restriction.
- A dynamic wedge—A dynamic wedge is made up of the job's most prominent colors. Each dynamic wedge is, therefore, unique to that job.

Select a control bar

You can print a control bar for each job. For nestings, you can select two control bars—one for the nesting, and one for each nested page.

If you apply color management to the control bar, Command WorkStation compresses the color patches into the color gamut of the selected reference profile. If you do not apply color management, Command WorkStation prints the control bar using the full color gamut of the printer.

Note: Some printers with an embedded measuring device can measure only one control bar per job.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Verify** tab, expand the **Control Bars** panel.
 - In Job Editor: On the **Verify** tab, expand the **Control Bars** panel.
- 2 Under **Control bar 1**, select a control bar or media wedge.
Make sure that you select a control bar that is compatible with your measuring device.
- 3 Do one of the following:
 - Select **Print with color management** to check the accuracy of the media profile.
 - Clear **Print with color management** to check the color accuracy of two printers with each other.
- 4 Select **Use on nesting sheet instead of job sheet** to print a control bar for the nesting (optional).
- 5 Repeat the above steps for control bar 2 (optional).

Now watch the video [here](#).

Create a dynamic wedge

You can print a control bar that is composed of the job's most prominent colors.

The colors that are extracted from the job are visible in the printout and on the **Control Bars** panel.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Verify**, and select a printer. In the printer's tree view, select a workflow. On the **Verify** tab, expand the **Control Bars** panel.
- In Job Editor: On the **Verify** tab, expand the **Control Bars** panel.

2 Under **Control bar 1**, select **DynamicWedge**.

You cannot create a dynamic wedge for nestings.

3 Select the measuring device that you will use to measure the dynamic wedge.

Device-specific settings are available for some measuring devices. For example, you can select a measurement condition (M0, M1 or M2). For more information, see [Measuring device settings](#) on page 86.

Note: Measurement mode settings are available when using Color Profiler Suite v5.3.1 or later.

4 Select the maximum number of color patches for the dynamic wedge.

Command WorkStation prints fewer patches if it can represent all the job's key colors using fewer patches.

5 Select whether you want to create a dynamic wedge that consists of process colors (CMYK), spot colors, or a mixture of both.

6 Select **In-gamut colors only** (optional).

This setting maps out-of-gamut colors to the outer edge of the printer gamut to ensure that the dynamic wedge consists only of colors that the printer can realistically reproduce. Do not select this setting if you want to make sure that the printout is color consistent with the original job.

Now watch the video [here](#).

Print job label across two rows

You can force Command WorkStation to print the control bar on a separate row. This can be desirable if you have narrow jobs.

Control bars are always printed on a separate row for:

- Nested jobs
- Job sheets that are not wide enough to print the job label on one row

Note: When Color Profiler Suite v5.3.1 and later, and Fiery Verify are turned on, the measurement mode for each control bar can be chosen separately. When Verifier is used, this setting is not available, as the measurement mode can be specified in Verifier itself.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.
 - In Job Editor: On the **Layout** tab, expand the **Job Label** panel. In the panel header bar, select the check box to activate the settings.
- 2 On the **Page** or **Collection** tab, select **Must not exceed page size**.

Nesting

The nesting feature outputs multiple jobs collectively as a single job. Command WorkStation arranges nested pages in a space-saving manner to reduce media waste.

You can:

- Configure Command WorkStation so that all jobs are automatically imported into a nesting. Command WorkStation applies uniform orientation and scaling settings to all nested pages, and prints the nesting when a defined criterion has been met.
- Create a nesting from selected jobs that are already loaded in Job Center. Manual nestings allow you to make job settings to each nested job, such as scaling, and cropping, or to apply color adjustments before printing.

Nestings can be difficult to manage if the printer is configured for oversize media or roll media. If this is the case, consider defining a custom media format for nestings. For more information, see the *Quick Start Guide*.

Nest all jobs

You can configure a workflow to create a nesting automatically when a specified criterion has been met. When one nesting has been created, all subsequent jobs become part of the next nesting.

Command WorkStation can create a nesting:

- When sufficient jobs have been loaded to fill a certain percentage of the sheet or line.

Note:

You can define a custom media format that is smaller than the media format inserted in the printer. This can be useful if you are printing on roll media and want to create a nesting when a certain percentage of the sheet is full. For more information, see the *Quick Start Guide*.

- When a specified period of time has elapsed since the last job was loaded.

Note: Workflow settings override job settings. For example, if you configure the workflow for uniform page scaling, you cannot apply a different scaling factor to an individual nested job.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Nesting** panel. In the panel header bar, select the check box to activate the settings.
- 2 Define the criterion for creating a nesting.

Command WorkStation always creates and processes the nesting after a specified time period has elapsed, even if the minimum percentage of sheet or line cannot be filled.

3 Under **Optimization** and **Orientation**, define how jobs are arranged on the sheet.

You can arrange nested jobs to take up as little space as possible on the sheet, or you can arrange them so that, after printing, they can be cut out using as few straight horizontal or vertical cuts as possible.

You can further reduce media wastage by allowing jobs to be rotated to make better use of the available space on the sheet. Alternatively, you can nest all jobs in their original orientation, or apply portrait or landscape format to all.

4 Under **Uniform scaling**, select the check box, and then type a width and height to scale all pages to the same size (optional).

5 Under **Spacing**, type a horizontal and vertical distance between pages (optional).

This setting takes job labels into account.

6 Under **Space around jobs (picture mount)**, type a border width for each edge (optional).

This setting takes non-printable margins into account.

Force nestings to print

Command WorkStation places nesting jobs in the state **Waiting to Nest** until a specified time period has elapsed, or until the minimum percentage of sheet or line can be filled. You can force jobs in this state to be printed before the specified criterion has been reached.

- In Job Center: Right-click a job that is in the state **Waiting to Nest**, and click **Force Nesting**. The nesting is created.

Nest selected jobs

You can create a nesting from jobs that are already loaded in Job Center.

You can nest multiple copies of a job (clones) by selecting the number of print copies in the job summary area before you create the nesting.

1 In Job Center: Select one or more jobs. In the toolbar, click **New Nesting**.

2 Double-click the nesting to make job-specific settings to a nested job (optional).

In Job Editor, you can scale, rotate, flip or crop nested jobs using the toolbar buttons. You can also align jobs in relation to each other, define margins, or lock a job in an exact position on the sheet by entering coordinates.

Note:

Command WorkStation cannot process nestings that contain jobs that cause an error message—for example, jobs with unknown spot colors. You must resolve the problem, or remove the jobs from the nesting.

Now watch the video [here](#).

Add, remove, or delete nested jobs

When you have created a nesting, you can modify the content by adding, removing, or deleting jobs.

- In Job Center, do one of the following:
 - Add a job: Right-click the nesting, click **Add Job to nesting**, and browse to the job. Alternatively, drag a job from the job list onto the nesting.
In Job Editor, you can also click **Edit > Add Jobs to Nesting** or right-click the nesting sheet and click **Add Jobs to Nesting**.
 - Remove a job: Right-click the nested job, and click **Remove Job from nesting**.
The job remains in the job list, but is no longer part of the nesting.
 - Delete a job: Right-click the nested job, and click **Delete**.

Clone nested jobs

You can create multiple copies (clones) of a nested job.

You can apply individual job settings to each clone. However, if you remove the original job from the nesting, the clones are removed also.

Note:

If you only want to create one clone, you can use copy and paste.

- 1 In Job Editor: Right-click the job, and click **Clone**.
You can display a list of all nested jobs to help you locate a job more easily. On the **Nesting** panel, click **Child Jobs**.
- 2 Type the number of clones you want to create, and click **Clone**.
- 3 On the **Nesting** panel, click **Apply** to arrange the cloned jobs in the preview.

Now watch the video [here](#).

Rename nestings

New nestings are created with the default name “Nesting”. You can change the default name.

- 1 In Job Center: Right-click the nesting, and click **Rename**.
- 2 Overwrite the default name with a new name, and then click **OK**.

Arrange nested jobs

By default, jobs are arranged in the most space-saving manner. By overriding the default setting, you can prevent job rotation, and arrange jobs to facilitate cutting out after printing.

- 1 In Job Editor: On the **Layout** tab, expand the **Nesting** panel.
- 2 Under **Optimization** and **Orientation**, select how jobs are arranged on the sheet.
You can arrange jobs so that, after printing, they can be cut out using as few straight horizontal or vertical cuts as possible. You can also keep the jobs' original orientation, or apply portrait or landscape format to all.
- 3 Under **Spacing**, define a horizontal and vertical distance between jobs.
This setting takes job labels into account.

Align nested jobs on the sheet

You can align all nested jobs horizontally and vertically on the sheet, or you can center all jobs on the sheet. You can also align selected jobs relative to each other.

- 1 Open the nesting job in Job Editor.
- 2 Do one of the following:
 - Align all jobs on the sheet: Make sure no job is selected. On the toolbar, click a horizontal and vertical alignment type. Then, on the **Nesting** panel, click **Apply** to rearrange the jobs.
Note: Bottom alignment is not available for roll media.
 - Align selected jobs in relation to each other: Select two or more jobs. Click the right mouse button, point to **Align**, and then click a horizontal and vertical alignment type. Afterwards, lock the jobs in their current position on the sheet.
Note: If you do not lock the jobs in their current position, the alignment will be undone when you click **Apply** on the **Nesting** panel.

Edit nested jobs

If your nesting consists of many different jobs, you can display a list of all nested jobs to make it easier to select the job you want to edit. You can edit nesting children just like any single job. For example, you can apply different scaling, or rotation settings to each job. Furthermore, you can lock each nested job at set coordinates, and define job-specific margins. You can also make color management and cut-contour settings on a job basis.

- 1 In Job Center: Double-click the nesting.
- 2 In Job Editor: Select the job you want to edit.
If your nesting contains multiple nested jobs, click **Child Jobs** to display a full list.
- 3 Edit the job, as required.

- 4 Click **Apply**.
The nested jobs are rearranged, and the preview is updated.

Scale nested jobs

You can scale each job individually, or you can scale all jobs to the same size.

You cannot rescale jobs that are imported into a workflow configured for uniform scaling.

To scale individual jobs, see [Scale a job](#) on page 56.

- 1 In Job Editor: On the **Layout** tab, expand the **Nesting** panel.
- 2 Select **Uniform scaling**, and type the required job dimensions.
- 3 Click **Apply**.
The nested jobs are rearranged, and the preview is updated.

Lock nested jobs in a fixed position on the sheet

You can drag a job to a required position, or you can enter x/y coordinates. If you position jobs manually, you must lock them in place to ensure that Command WorkStation does not rearrange them when you update the preview.

Visual aids are available to help you with job alignment.

- 1 In Job Editor: Select a nested job, and then do one of the following:
 - In the toolbar, enter x/y coordinates for the top left corner of the job.
 - Drag the job to the required position
- 2 Do one of the following:
 - Right-click the job, and then click **Locked**.
 - Select the job. In the toolbar, and click the padlock button.
- 3 Click **Apply**.

The nested jobs are rearranged, and the preview is updated. Non-locked pages are rearranged around locked pages.

Add margins around nested jobs

You can use margins to increase the space between nested pages. You can add different margin widths around each job.

- 1 In Job Editor: Select one or more nested jobs.
- 2 On the toolbar, under **Margin**, type a top, bottom, left, or right margin width.

You can apply identical margins to all four sides by clicking the appropriate button, and defining a top margin only.

- 3 Click **Apply**.
The nested jobs are rearranged, and the preview is updated.

Print selected pages of a nested or multi-page job

You can print selected pages of a nested, cloned, or multi-page job. For example, in a 100-page job, you can choose to print only pages 17, 77, and 98, or if you cloned a TIFF file 10 times, you can choose to print 10 copies of only one of the clones.

- 1 In Job Editor: On the **Layout** tab, expand the **Nesting** panel.
- 2 Click **Child Jobs**.
- 3 In the **Placed** column, select the pages or jobs to print, and click **OK**.
- 4 Close the **Child Jobs** window.
- 5 On the **Nesting** panel, click **Apply** to update the preview.

Add or remove nesting sheets

You can create a new sheet or delete an existing sheet in nestings created using sheet media.

- In Job Editor, right-click on the nesting sheet and click **Add Sheet** to create an additional sheet or click **Delete Sheet** to delete an existing sheet.

Tilings

A tiling is a job printed out as a collection of smaller jobs (tiles), which you join together afterwards to produce a building wrap, a huge banner, or other over-dimensional print.

You can create a tiling to:

- Print large images that exceed your printer's maximum print size
- Print out custom-sized areas of an image as separate jobs—for example, to create a wall covering that includes a door-sized tile.

Now watch the video [here](#).

Create tilings

You can define the number of tiles or specify a tile size. You can also print tile-specific information with each tile.

Most tilings are job-specific. For this reason, you will usually create your tilings in Job Editor. However, you can also configure a tiling workflow in Server Manager and apply it to all imported jobs.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Tiling** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Layout** tab, expand the **Tiling** panel. In the panel header bar, select the check box to activate the settings.

2 Select a tiling type.

The standard tile size is equal to the media size that is selected for the printer. Alternatively, you can set up a custom tile size by typing in tile dimensions, or by defining the number of vertical and horizontal tiles to place on the page.

Note: You can resize individual tiles later.

3 Set up a tile label (optional).

You can print tiles with an extra margin that contains tile-specific information, such as the tile number, or custom text. Tile numbers help you to join the tiles together in the right order. The tile label is not visible in the preview.

4 Click **Save**.

Multiple settings are available for customizing tiles:

- You can resize tiles (see [Resize tiles](#) on page 73).
- You can lock tile edges in a fixed position (see [Lock tile edges in a fixed position](#) on page 74).

- You can merge or split tiles (see [Merge or split tiles](#) on page 74).
- You can rotate tiles (see [Rotate tiles in a tiling job](#) on page 73 and [Make last-minute edits to individual tiles](#) on page 75).

Additional settings are also available to help you join tiles together after printing:

- You can print tiles with an overlap, by repeating a strip of the image along two edges of adjacent tiles (see [Create tiles with an overlap](#) on page 72).
- You can print tiles with a glue area (see [Print tiles with a glue area](#) on page 72).

Create tiles with an overlap

An overlap margin repeats a strip of the image along two edges of adjacent tiles. It helps you piece tiles together more accurately and also ensures that no white gaps appear at the join if there is a slight misalignment.

Before you begin: Create a basic tiling.

- 1 Do one of the following:

- In Server Manager: On the **Tiling** panel, click **Overlap/Glue**.
- In Job Editor: On the toolbar, click **Overlap/Glue**.

- 2 Under **Overlapping**, type a top, bottom, left, or right margin width.

You can apply identical margins to all four sides by clicking the appropriate button, and defining a top margin only.

- 3 Set up overlapping marks (optional).

Overlapping marks provide an additional alignment aid. They are activated automatically when you define an overlapping margin. You can specify the length, the thickness, and the color.

Standard marks are printed at each end of the overlap area, whereas the dashed line is printed along the length of the overlap area. The dashed line is recommended for large overlap areas, which would otherwise be difficult to align using standard marks that are too far apart.

If you do not want to print overlapping marks, you can omit them from the printout by setting the line thickness and length to 0.

- 4 Click **OK**.

Now watch the video [here](#).

Print tiles with a glue area

The glue area is an unprinted strip that provides room for gluing. It is not visible in the preview. By default, the glue area is added on to the overlap margin, but overlaps the tile label.

Before you begin: Create a basic tiling.

1 Do one of the following:

- In Server Manager: On the **Tiling** panel, click **Overlap/Glue**.
- In Job Editor: On the toolbar, click **Overlap/Glue**.

2 Under **Glue area**, type a top, bottom, left, or right margin.

You can apply identical margins to all four sides by clicking the appropriate button, and defining a top margin only.

3 Clear **Apply glue area to overlapping only** (optional).

By clearing the check box, you can apply a glue area to tiles that do not have an overlap margin. In this case, the glue area provides an additional non-printed border. The border can help protect the edges of tiles that are printed on delicate media from damage.

4 Click **OK**.

Now watch the video [here](#).

Resize tiles

You can resize rows of tiles, columns of tiles, or single tiles. By resizing tiles, you can avoid awkward joins in your job, such as down the middle of a face. You can also adjust tile sizes to fit the background on which the image will be mounted, such as around a window.

Before you begin: Create a basic tiling.

Changing the size of one row or column causes the adjacent row or column to stretch or shrink accordingly. You cannot create tiles that exceed the size of the selected media.

- In Job Editor: Do one of the following:
 - Resize a row or column: Click a tile edge and type in x/y coordinates on the toolbar. Alternatively, drag a tile edge to a new position.
 - Resize an individual tile: Hold down <Alt>, and click a tile edge. Then, release <Alt>, and type in x/y coordinates on the toolbar. Alternatively, hold down <Alt>, and drag a tile edge to a new position.

Rotate tiles in a tiling job

You can rotate selected tiles by 180 degrees.

Before you begin: Create a basic tiling.

Inconsistencies in color density can occur when using grande-format printers with UV ink. Rotating tiles by 180 degrees can help lessen the effect of color deviances in large areas of single color (for example, blue sky), by creating an invisible seam when you join the tiles together.

To rotate tiles by 90, 180, or 270 degrees, see [Make last-minute edits to individual tiles](#) on page 75.

- In Job Editor: Open the tiling job, right-click a tile, and then click **Rotate tile by 180°**.

Right-clicking a rotated tile displays the menu item **Do not rotate**, with which you can undo the action, if required.

Lock tile edges in a fixed position

By locking tile edges, you can avoid joins in awkward places, such as down the middle of a face.

Before you begin: Create a basic tiling.

- In Job Editor: Do one of the following:
 - Click a tile edge. On the toolbar, click the padlock button.
 - Right-click a tile edge, and click **Lock Tile Edge**.

Right-clicking a locked tile edge displays the menu item **Unlock Tile Edge**, with which you can undo the action, if required.

Merge or split tiles

You can merge selected tiles, or you can split a selected tile into multiple smaller tiles.

Before you begin: Create a basic tiling.

- In Job Editor: do one of the following:
 - Merge tiles: Select adjacent tiles. Then, click the right mouse button, and click **Merge Tiles**.
Be aware that you cannot merge tiles whose combined size would exceed that of the selected media.
 - Split tiles: Right-click a tile, and click **Split Tile**. Then, type the number of horizontal and vertical tiles you want to create.

The smallest possible tile size is 1x1inches (2.54 x 2.54 centimeters).

Display and save a tiling preview

You can display a WYSIWYG preview of a tiling or of a single tile and save it as a PDF file. The preview displays the tile numbers which help you to join the tiles together in the right order after printing.

Before you begin: Create a basic tiling.

The **Tiling Preview** window is divided into two tabs. You can preview all tiles simultaneously, or you can preview a single tile.

In the **Tiling Preview** window, you can:

- Scroll through tiles to preview each tile one at a time
- Scroll through the pages of a multi-page job
- Zoom in or out of a previewed area

Note:

You cannot edit tiles in the **Tiling Preview** window.

- 1 In Job Editor: On the toolbar, click **Tiling Preview**.
- 2 Do one of the following:
 - Select **Save Selected Tile**.
 - Select **Save All Tiles**.
- 3 Click **Save** to create a PDF.

Now watch the video [here](#).

Split tiles for printing

You must transfer tiling jobs from Job Editor to Job Center to start printing. You can print all tiles or select individual tiles to print. Printing only the tiles you require not only saves media, but also reduces processing time.

- 1 In Job Editor: On the **Layout** tab, expand the **Tiling** panel. In the panel header bar, select the check box to activate the settings.
- 2 Create a tiling, and click **Save**.
- 3 Click **Split**.

The tiling and each tile are transferred as separate jobs to Job Center. You can make further changes to the tiling job or to individual tiles before printing, if required.
- 4 In Job Center: Select one or more tiles. Then, in the toolbar, click **Print**.

You cannot print the tiling job itself.

Make last-minute edits to tiling jobs

You can reopen a tiling job in Job Editor and make further changes before printing.

When you split the job for printing, a new set of print jobs (tiles) is added. For identification purposes, the new tiles have a consecutive number in their name.

- 1 In Job Center: Double-click the tiling job.
- 2 Make your required settings.
- 3 Click **Save**, and then click **Split**.

Make last-minute edits to individual tiles

You can open an individual tile in Job Editor and make changes before printing.

You can change the tile's position or alignment on the media, rotate the tile, or apply color adjustments. When you save your edits, the original tile is overwritten.

- 1 In Job Center: Double-click an individual tile.

- 2** Make your required settings.
- 3** Click **Save**.
You can print a tile directly from Job Editor by clicking File > Print.
- 4** Close Job Editor.

Step and repeat

A step and repeat consists of an original job and multiple copies (clones) arranged on one sheet to create repetitive and interesting designs.

You can create a step and repeat from single or multi-page jobs. If the job has multiple pages, each page forms one page of the step and repeat. Command WorkStation applies the same settings to all pages. Thus, you can print a double-sided step and repeat on a duplex printer.

When you create a step and repeat, a padlock icon appears in the top right-hand corner of the original job. It indicates that you cannot modify the job.

You can save a preset of your step and repeat settings. Presets provide a quick and easy way to apply step and repeat designs to other jobs.

Now watch the video [here](#).

Create a step and repeat

You can create multiple copies (clones) of a job and use the flip, offset, and rotate settings to create interesting patterns. You can also design seamless rapports that have an offset/drop, such as is required in the textile and wallpaper industries.

Before you begin: Make all job settings and color adjustments before you create a step and repeat. You cannot modify the original job after you have created a step and repeat without deleting all the copies first.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Layout** tab, expand the **Step and Repeat** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Layout** tab, expand the **Step and Repeat** panel. In the panel header bar, select the check box to activate the settings.

2 Do one of the following:

- Select **Copies**, and type the required number of copies. The original job is included in the total number. Select **Fill last row** (optional) to ensure that the last row is completed. This may mean that more than the defined number of copies is printed.
- Select **Fill media** to create as many copies as will fit on the media.
- Select **Pattern** to print seamless repeats of a design. Your pattern can consist of a required number of horizontal and vertical copies, or you can fill the whole media, or a user-defined area of the media.

Select **Offset/Drop** (optional) to define the amount of horizontal or vertical shift. You can type any percentage, or select the amount of drop as a fraction of the image width or height—1/1 equals no shift, 1/2 equals a 50% shift, and 1/4 equals a 25% shift. You can also define a custom shift in either direction.

- 3 Under **Space around jobs (picture mount)**, type a border width to simulate a picture mount (optional) (Server Manager only).

This setting takes into account the printer's non-printable margins.

- 4 Under **Flip/Rotate**, flip or rotate by 180° alternate rows or columns (optional).
- 5 Under **Space between jobs**, type a horizontal and vertical distance between copies (optional).
- 6 Do one of the following:
 - In Server Manager: Click **Save**.
 - In Job Editor: Click **Apply**.

Now watch the video [here](#).

Modify a step and repeat

To modify a step and repeat, you must first delete all the copies (clones).

Save your current settings as a preset to avoid having to set up the step and repeat again later.

- 1 In Job Editor: On the **Layout** tab, expand the **Step and Repeat** panel. In the panel header bar, clear the check box to deactivate the settings.
- 2 Make your required changes to the original image.
- 3 In the panel header bar, reselect the check box to activate the settings.
- 4 Click **Apply** to update the step and repeat.

Job merge

The job merge feature superimposes one job on top of another. One master job provides the background image for multiple content jobs.

The page size, background color, and file extension of master and content jobs must meet the following requirements:

- Master and content jobs must have the same page size within 0.1 inches (2.54 mm).
- The background color of the content job must be 100% transparent.
- Master and content jobs must have the same file extension.

Note:

- If the content job is a multi-page document, Command WorkStation applies the master job to all the document's pages.
- If the content job has layout settings (rotation, scaling, etc.) or crop marks, Command WorkStation transfers them to the merged job. Color management settings are not transferred.

Now watch the video [here](#).

Create a workflow for automatic job merge

You can configure a workflow to automatically superimpose multiple content jobs on one master job.

The following requirements must be met:

- You must load master and content jobs together.
- The job names must contain a keyword that is common to both master and content jobs.

The following table gives some examples of job names:

File names for master and content jobs	Common keywords	Master file identified by:	Content file identified by:
Master_Customer.pdf Content_Customer.pdf Fiery_Master.pdf Fiery_Content.pdf	Customer Fiery	Master	Content

File names for master and content jobs	Common keywords	Master file identified by:	Content file identified by:
2020_Fiery.pdf 2020_Exhibition.pdf Fiery_January_2020.pdf Exhibition_January_2020.pdf	2020 January_2020	Fiery	Exhibition

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **Job Merge** panel. In the panel header bar, select the check box to activate the settings.
- 2 Type the file names of your master (background) job and content jobs.
- 3 Click **Save**.

In Job Center, the jobs are merged, and the master job is removed from the job list.

Merge jobs manually

You can apply one master job to multiple content jobs. Master and content jobs do not have to follow a specific naming convention.

- 1 In Job Center: Double-click the master (background) job.
- 2 In Job Editor: On the **File** tab, expand the **Job Merge** panel. In the panel header bar, select the check box to activate the settings.
- 3 Select **Master job**, and save your changes.
- 4 In Job Center: Double-click the job you want to superimpose on the master job.
- 5 In Job Editor: On the **File** tab, expand the **Job Merge** panel. In the panel header bar, select the check box to activate the settings.
- 6 Select **Content job**.
- 7 From the drop-down list box, select the master job you want to use as the background, and save your changes.

In Job Center, the jobs are merged. The master job remains in the job list.

Variable data printing jobs

With Fiery FreeForm Create, you can create customized print jobs by merging a master document with variable elements.

Fiery FreeForm Create is built on Fiery FreeForm variable data printing (VDP) technology and offers a user-friendly interface that simplifies the creation of VDP jobs.

VDP jobs combine a set of master elements that are common across copies of a document with a set of variable elements that change for each copy.

FreeForm Create uses two different workflows that allow you to easily customize VDP jobs and create .ffp files to be processed by Fiery XF.

In the file merge workflow, you combine a master document with a variable document to create customized print jobs using an intuitive, graphic-based interface.

In the variable data document workflow, you combine a master document with variables directly from a data source spreadsheet to create customized print jobs without first creating a separate variable document and without needing a separate variable data creation application.

For more information, see *Fiery FreeForm Create Help*.

Calibration and profiling tools

You can use Color Tools to create calibration files, optimize existing media profiles and to integrate third-party media profiles.

Fiery Color Profiling Suite provides additional options for creating and editing media profiles, reference profiles, and device link profiles, as well as for creating G7 calibrations. You can start Color Profiler Suite from Color Tools. You require the Color Profiler Option for Color Profiler Suite.

Start Color Tools

You can use Color Tools to create calibration files, optimize existing media profiles and to integrate third-party media profiles.

Many of the tools require you to print out and measure color charts, so make sure that you have a measuring device (spectrophotometer) available. The measuring devices of many different manufacturers, including embedded measuring devices, are supported.

By default, charts are imported into Job Center as "hold" jobs, which means you must start the print process manually. To print charts automatically on import, clear the workflow setting **Put all incoming jobs on hold** on the **Job Detection** panel.

- Do one of the following:
 - In Job Center: In the toolbar, click **Color Tools** to open the Color Tools start screen. Click a button to start the required tool.
 - In Server Manager: On the **Printer** tab, select the printer's media profile. On the **Media** tab, expand the **Media Configuration** pane, and click **New Calibration and Profile**, or **Re-Calibration** to start the appropriate tool.

Each tool has a context-sensitive help system to guide you through the necessary steps. Click the **Help** button in the bottom left-hand corner of each window.

Printer calibration

All media profiles used in Command WorkStation have a calibration file connected to them. The calibration file was created for a specific printer.

However, no two printers are the same, and even mass-produced printers of the same model display slightly different color properties. Your printer will undoubtedly have different color properties from the printer for which the media profile was created.

You can improve the color reproduction of your printer as follows:

- Create a new calibration file and media profile for your specific printer. This method is the most precise and achieves overall better color results.
- Modify an existing calibration file, by redefining the ink limits. This method is less precise, but ensures that the color reproduction of the printer matches that of the reference printer for which the media profile was originally created.

Now watch the video [here](#).

Standard calibration procedure

Command WorkStation automatically selects the correct calibration procedure for your printer model. The standard calibration procedure consists of six steps.

The standard printer calibration consists of the following steps:

- Selecting the printer, media, ink, and output settings
- Limiting the ink for each channel
- Creating a calibration, based on the reduced ink limits per channel
- Reducing the total ink limit
- Performing a quality check by comparing printed L*a*b* data for solid colors
- Completing the calibration

Now watch the video [here](#).

Define the basis for your calibration file

The first step towards calibrating your printer is to make printer, media, ink and output settings. You can calibrate many different ink channels.

Before you begin, connect your measuring device to the computer.

It is not possible to calibrate the Clear ink channel, but you can control the amount of clear ink by setting an ink limit in a later step.

Note:

Fiery provides a separate document that explains how to create and implement G7 calibration files. For more information, visit the [Fiery knowledge base](#).

Note:

You can save any step of the calibration procedure, by selecting **File > Save Calibration**. The calibration file is saved to the Working folder. You can load the calibration file from this folder later to continue with your calibration. The printer calibration tool opens at the step that was last edited.

You can also load a finished calibration file. In this case, the printer calibration tool opens at the **Summary** window to enable you to view the print conditions under which the calibration file was created.

1 Select your printer, printer type and ink type.

By default, Color Tools creates a generic white calibration for printers that support white ink. It is applied automatically when you select the printer's white ink settings in Server Manager. The generic white calibration usually makes it unnecessary to calibrate the white channel. To create a calibration with a generic white calibration, select a printer type that does not contain white ink in the name. However, if you notice too much dot gain when printing white gradations, you can create a custom white calibration, by selecting a printer with "White" in its name.

It is not possible to calibrate the white channel of all printers. In this case, you can improve the output quality by applying a visual correction file

Some printer models support more than one ink type. Make sure that you select the correct ink type.

2 Select your measuring device.

Device-specific settings are available for some measuring devices.

If your printer has an embedded measuring device, select the appropriate check boxes if you want Color Tools to create a calibration file and go on to create a media profile automatically.

3 Select a calibration intent (standard calibration only).

- **Proof** - Automatically calculates the ink limitation, based on the offset color gamut (coated paper).
- **Photo or production** - Automatically calculates the best saturation value for the largest possible color gamut by adding light ink earlier and in greater amounts in the full-tone areas.

4 Type a name for the calibration file (optional).

The default name is generated from the printer model, the resolution, the date, and the time. You can type a custom name by clearing the check box **Generate name from settings**.

5 Under **Media Settings**, do the following:

- a)** Select the media type that best matches the media in the printer.
- b)** Select a media name or type in a custom name. This is the name that you select later in Server Manager.
- c)** Type the actual values to adjust the media feed to the target (optional).

Command WorkStation helps you resolve horizontal banding, by adjusting the output size of your printouts. If you have previously printed and measured the Lineal_01.ps file provided with the software, you can incorporate the result into the calibration file.

6 Under Output Settings, do the following:

a) Resolution - Select the targeted resolution. Higher resolutions lead to improved output quality, but affect processing and printing performance.

If you want to incorporate a screening file, make sure that you select the same resolution here.

b) Print mode - The print mode defines the quality of the output. Print modes are printer-specific and are also dependent on the selected resolution.

c) Print direction - Bidirectional printing is faster than uni-directional printing, as the print head prints in both directions. However, uni-directional printing achieves more accurate results. Not all printers support bi-directional printing.

d) Halftoning - For contone printers, the halftoning method of the printer manufacturer is selected by default.

For non-contone printers, select **Error diffusion (SE1)** for maximum quality, or select **Stochastic halftoning (SE2)** for a faster processing speed, or for a variable dot size.

e) Color mode - Make sure that the number of inks and the ink colors are correct for your printer.

f) Dot size - Some printers support two dot sizes: **Fixed** means that each dot is one ink droplet in size. **Grayscale** means the ink droplets have variable sizes.

g) Screening - If you have previously created a screening file using a legacy version of Fiery XF, you can incorporate it into the calibration file. The screening file must be located in the Screening folder at C:\ProgramData\Fiery\Fiery XF\Server. Select **Screening** as the halftoning method, and then select the screening file.

7 Select Include 'Gray Balance' step for neutral grays even without color management (optional) (advanced calibration only).

This setting balances the C, M and Y curves to produce neutral grays even before the media profile is created.

8 Select Include 'Quality Control' step for gamut comparisons (optional) (advanced calibration only).

This setting creates L*a*b* data for solid colors, and allows you to evaluate the gamut of the calibration file and compare it to a reference profile, such as GRACoL or ISOcoated_v2, or to a custom profile before creating a media profile.

9 Click Advanced (optional) (standard calibration only).

In the **Advanced** window, you can define the percentage of light inks in the solid colors.

10 Click Next.

Now watch the videos:

For advanced calibrations, click [here](#).

For CT printer driver calibrations, click [here](#).

For HT printer driver calibrations, click [here](#).

For RGB printer driver calibrations, click [here](#).

For more information, see the *Advanced Calibration & Profiling Guide* at <https://help.fiery.com/fieryxf/>.

Measuring device settings

Device-specific settings are available for some measuring devices. Selecting the right setting ensures that you achieve reliable color measurements.

In Command WorkStation, you need a measuring device for the following purposes:

- In Color Tools - To define ink limits
- In Verifier - To measure color consistency
- In Color Editor - To measure a printed spot color

The measurement condition defines the UV content of the incident illumination. Some measuring devices support M0, M1, and M2 measurement conditions, as defined by ISO 13655. In Europe, non-UV color values are usually used for proofing purposes.

- M0 — The UV content of the incident illumination is not defined. Supports single-pass measurements, and any media without optical brighteners.
- M1 — The UV content of the incident illumination is defined as D50. Support dual-pass measurements, and any media. For ISO verification, use the M1 measurement condition.
- M2 — The UV content is ignored. M2 requires the spectral power distribution of the incident illumination to be in the wavelength range of 420 nm to 700 nm, with no substantial radiation power in wavelengths below 400 nm. Supports dual-pass measurements, and any media.

Measuring device	Comments
<ul style="list-style-type: none"> • ES-2000 • ES-3000 • X-Rite i1Pro 2 • X-Rite i1Pro3 • X-Rite i1Pro3 Plus • X-Rite i1iO3 • X-Rite i1iO3+ • Konica Minolta MYIRO-1 • Konica Minolta FD-9 	<p>In Color Tools: If your printer produces large picoliter ink droplets, generate calibration charts with lower-resolution wider patches. Wider patches ensure more measurements per patch, thus increasing measurement accuracy.</p>
<ul style="list-style-type: none"> • ES-6000 • X-Rite iSis 	<ul style="list-style-type: none"> • Automated measurement • Cannot be used to measure thick materials or textiles

Measuring device	Comments
<ul style="list-style-type: none"> Barbieri Spectro LFP Barbieri Swing 	<p>In Color Tools:</p> <ul style="list-style-type: none"> For dark, opaque substrates, set the measuring device to reflection measurement mode. For transparent/translucent substrates, set the measuring device to transmission measurement mode. It is recommended that you create a generic white linearization for transparent/translucent substrates. If a generic white linearization is not adequate for your needs, contact Fiery Support for assistance.

Add/subtract light ink

In the advanced settings, you can increase the gamut and create a more uniform output by adding light ink to 100% solid colors. You can subtract light ink from 100% solid colors to resolve over-inking.

Your printer must support light inks.

If you are using a special print media which does not absorb ink well, such as newsprint, it can be beneficial to reduce the amount of light ink. However, it is normally not necessary to change the default values.

- 1 Select a radio button, and type a percentage value.
It is recommended that you use the same percentage value for all light inks.
- 2 Click **OK**.

Reduce the ink limit per channel

In this step, you limit the ink at the point the printer achieves its maximum color density. The amount of ink affects not only the gamut size of the calibration, but also ink consumption.

In many cases, the maximum color density is achieved at approximately 50%. Limiting the ink for each channel provides a better basis for the calibration.

- 1 Click **Print**.
- 2 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart.
- 3 Click **Show patches** (optional).

By moving the pointer over a patch, you can view its L*a*b* value. Each patch is divided along the diagonal. The top left area shows the expected color, the bottom right area shows the measured color.

You can view the color patches for all steps of the calibration procedure that require you to measure printed charts.

- 4 Click **Advanced** (optional).

In the **Advanced** window, you can select a simulation (reference) profile, and adjust the ink limits.

5 Click **Next.**

Now watch the video [here](#).

Select a reference profile

In the advanced settings, you select a reference profile, and ensure that the recommended ink limits are within the optimum range.

1 Select a reference profile (optional).

Selecting a reference profile limits the available color gamut because the L*a*b* target values are extracted from the profile. Media profiles created from such calibration files are a better match for the reference profile.

If you do not select a reference profile, an appropriate industry standard is applied instead.

2 Ensure that the displayed ink limits are within the optimum range.

The optimum range is represented by the blue area. Move the slide bars, as required.

3 Click **OK.**

Create a calibration file

In this step, you create a calibration file that is based on the calculated ink limits per channel.

1 Click **Print.**

2 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart.

3 Click **Advanced (optional).**

In the **Advanced** window, you can check the starting point for norm ink, the tonal value increase, and the dot gain.

4 Click **Next.**

Now watch the video [here](#).

Check the start point for norm inks and select a TVI setting

In the advanced settings, you can adjust the relationship of light to norm inks, and select a tone value increase (TVI).

Normally, the default values achieve good results, as Color Tools applies a special algorithm. Change the default values only if absolutely necessary.

1 Check the start point for normal inks.

The best start point for normal inks depends on the combination of media, ink, and resolution.

For newsprint, keep the percentage of light ink to a minimum to prevent too much ink from being applied to the media. However, be aware that using too little light ink can lead to a grainy effect in the printout, as the printer prints heavy dots in highlight areas.

When printing on photographic or proofing media, apply a higher proportion of light ink in order to create a smooth impression.

2 Check the TVI.

The TVI represents the difference between the tonal value (input data) and the corresponding tonal value on the printed page.

In Europe the TVI is defined as being 40% input along the gradation curve. In the United States and the Pacific region, the TVI is defined at 50%.

3 Click OK.

Reduce the total ink limit (TIL)

In this step, you can reduce ink consumption, which also helps to prevent cockling and bleed.

Note:

If you know the exact TIL definition to use, you do not have to print and measure the chart in this step. Enter the required percentage in the **Numerical TIL definition** edit box at the bottom of this window.

1 Click Print.

The chart is printed with the initial TIL applied. The initial TIL equals the sum of the values that you defined for the ink limits per channel. It is the maximum permitted value. Normally, the glossier the media, the higher the TIL.

2 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart.

3 Visually assess the printed chart, and check for undesirable cockling or bleed. Then, select one of the following:

- **Automatic TIL definition by measurement**—Applies the TIL calculated by Color Tools. Select this setting if you are satisfied with the amount of ink on the printout.
- **Visual TIL definition**—Select the number of the column with the best TIL. The automatic TIL may not always be the best choice, as measuring devices cannot take cockling or bleed into account.

Now watch the video [here](#).

Perform a quality check

In this step, you capture the color foundation of your calibration by creating L*a*b* data for solid colors. You can use this data to evaluate the gamut of your calibration against a standard reference before creating the calibration file.

This is the final step before you create your calibration file. You can go back and repeat any of the previous steps of the calibration procedure if you are not satisfied with the results of your quality check.

- 1 Click **Print**.
- 2 Do the following:
 - a) Check the gray balance: Ideally, the black stripe and the CMY stripe should be identical. However, be aware that it is not possible to achieve pure black from mixing CMY inks.
 - b) Check the TIL: The edges of the individual color patches must be clearly defined, the ink must be evenly distributed on the media and show no signs of bleed, and the media must display no signs of cockling.
 - c) Check the transition of light to norm inks: Examine the stripes of the primary colors and make sure that there is a smooth transition of light to normal inks. Smooth transitions are important when printing skin tones. If normal inks are added too soon, it can create a peppering effect.
- 3 Follow the on-screen instructions to measure the chart.
- 4 Click **Next**.

Now watch the video [here](#).

Complete the printer calibration

In this step, you can create a report of the calibration settings. If you have the Color Profiler Option, you can check if the calibration's color gamut fits into a reference, before you go on to create a media profile.

- 1 Type a new media name (optional).

By defining a new media name, you ensure that each calibration file is associated with only one media.

- 2 Click **Compare in Profile Inspector** (optional).

If you have a license for Color Profiler Suite, you can compare the color gamut of the calibration file with ISOcoated_v2_eci.icc, GRACoL2006_Coated1v2.icc, or any custom profile.

Color Profiler Suite displays a 3D view of the color gamuts. By viewing the 3D model from all sides, you can see which color values do not fit into the color gamut of the reference.

- 3 Under **Finalize or continue profiling**, select one of the following:

- **Create ICC profile in Color Profiler Suite.**
- **Save calibration (EPL) without ICC profile**

- 4 Click **Create Report** (optional).

The HTML report provides an easy way to archive or print details of the calibration. The report contains details of the calibration settings, ink limits, and color gamut.

- 5 Click **Finish**.

Now watch the video on inspecting a calibration file [here](#), and on saving your calibration file [here](#).

You can use the calibration file for the following purposes:

- You can connect it to an existing media profile.
- You can use it to print jobs without color management. For example, you need to print charts without color management if you want to create a media profile using a third-party software.
- If you have a license for Color Profiler Suite, you can go on to create a media profile. Additional licenses for ink saving, one for EFI printers and one for non-EFI printers, are also available that allow you to incorporate ink saving into the profiles you create in Color Profiler Suite. Ink saving ensures that as little ink as possible is used, without compromising on color quality.

After you have created a media profile, you must select it in Command WorkStation. For more information, see [Implement a custom media profile](#) on page 91.

Implement a custom media profile

If you have created a custom media profile for your particular print environment, you must select it in Command WorkStation before you can apply it to your jobs.

Before you begin: Make sure that the custom profile and its associated calibration file are located at C:\ProgramData\Fiery\Fiery Media Profiles\My Profiles. For more information on creating a calibration file and media profile, see [Printer calibration](#) on page 82.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select the printer. In the printer's tree view, select the media, On the **Media** tab, expand the **Media Configuration** panel.
- In Job Editor: On the **Printer** tab, expand the **Media Configuration** panel.
- In Job Center: Under **Media Configuration**, click **Edit**.

2 Select an ink type, a media name, and other media settings.

If your media profile incorporates ink saving, select the profile type **Ink Save**.

3 Under **Resulting calibrations(s)**, select a calibration file.

Command WorkStation displays only those calibration files and ICC profiles that are compatible with the selected combination of media settings.

Note: You can select an ink saving media profile even if you do not have an appropriate license. However, an error message is displayed when you try and process jobs.

4 Click **Save**.

Advanced calibration procedure

Command WorkStation automatically selects the correct calibration procedure for your printer model. The advanced calibration procedure consists of four steps, plus two optional steps for a more precise calibration.

The advanced printer calibration consists of the following steps:

- Selecting the printer, media, ink, and output settings
- Limiting the ink for each channel

- Reducing the total ink limit, plus calibration
- Optimizing the gray balance (optional)
- Performing a quality check by comparing printed L*a*b* data for solid colors (optional)
- Completing the calibration

Define the basis for your calibration file

The first step towards calibrating your printer is to make printer, media, ink and output settings. You can calibrate many different ink channels.

Before you begin, connect your measuring device to the computer.

It is not possible to calibrate the Clear ink channel, but you can control the amount of clear ink by setting an ink limit in a later step.

Note:

Fiery provides a separate document that explains how to create and implement G7 calibration files. For more information, visit the [Fiery knowledge base](#).

Note:

You can save any step of the calibration procedure, by selecting **File > Save Calibration**. The calibration file is saved to the Working folder. You can load the calibration file from this folder later to continue with your calibration. The printer calibration tool opens at the step that was last edited.

You can also load a finished calibration file. In this case, the printer calibration tool opens at the **Summary** window to enable you to view the print conditions under which the calibration file was created.

1 Select your printer, printer type and ink type.

By default, Color Tools creates a generic white calibration for printers that support white ink. It is applied automatically when you select the printer's white ink settings in Server Manager. The generic white calibration usually makes it unnecessary to calibrate the white channel. To create a calibration with a generic white calibration, select a printer type that does not contain white ink in the name. However, if you notice too much dot gain when printing white gradations, you can create a custom white calibration, by selecting a printer with "White" in its name.

It is not possible to calibrate the white channel of all printers. In this case, you can improve the output quality by applying a visual correction file

Some printer models support more than one ink type. Make sure that you select the correct ink type.

2 Select your measuring device.

Device-specific settings are available for some measuring devices.

If your printer has an embedded measuring device, select the appropriate check boxes if you want Color Tools to create a calibration file and go on to create a media profile automatically.

3 Select a calibration intent (standard calibration only).

- **Proof** - Automatically calculates the ink limitation, based on the offset color gamut (coated paper).
- **Photo or production** - Automatically calculates the best saturation value for the largest possible color gamut by adding light ink earlier and in greater amounts in the full-tone areas.

4 Type a name for the calibration file (optional).

The default name is generated from the printer model, the resolution, the date, and the time. You can type a custom name by clearing the check box **Generate name from settings**.

5 Under **Media Settings**, do the following:

- a)** Select the media type that best matches the media in the printer.
- b)** Select a media name or type in a custom name. This is the name that you select later in Server Manager.
- c)** Type the actual values to adjust the media feed to the target (optional).

Command WorkStation helps you resolve horizontal banding, by adjusting the output size of your printouts. If you have previously printed and measured the Lineal_01.ps file provided with the software, you can incorporate the result into the calibration file.

6 Under **Output Settings**, do the following:

- a) Resolution** - Select the targeted resolution. Higher resolutions lead to improved output quality, but affect processing and printing performance.

If you want to incorporate a screening file, make sure that you select the same resolution here.

- b) Print mode** - The print mode defines the quality of the output. Print modes are printer-specific and are also dependent on the selected resolution.

- c) Print direction** - Bidirectional printing is faster than uni-directional printing, as the print head prints in both directions. However, uni-directional printing achieves more accurate results. Not all printers support bi-directional printing.

- d) Halftoning** - For contone printers, the halftoning method of the printer manufacturer is selected by default.

For non-contone printers, select **Error diffusion (SE1)** for maximum quality, or select **Stochastic halftoning (SE2)** for a faster processing speed, or for a variable dot size.

- e) Color mode** - Make sure that the number of inks and the ink colors are correct for your printer.

- f) Dot size** - Some printers support two dot sizes: **Fixed** means that each dot is one ink droplet in size. **Grayscale** means the ink droplets have variable sizes.

- g) Screening** - If you have previously created a screening file using a legacy version of Fiery XF, you can incorporate it into the calibration file. The screening file must be located in the Screening folder at C:\ProgramData\Fiery\Fiery XF\Server. Select **Screening** as the halftoning method, and then select the screening file.

7 Select **Include 'Gray Balance' step for neutral grays even without color management** (optional) (advanced calibration only).

This setting balances the C, M and Y curves to produce neutral grays even before the media profile is created.

8 Select **Include 'Quality Control' step for gamut comparisons** (optional) (advanced calibration only).

This setting creates L*a*b* data for solid colors, and allows you to evaluate the gamut of the calibration file and compare it to a reference profile, such as GRACoL or ISOcoated_v2, or to a custom profile before creating a media profile.

9 Click **Advanced** (optional) (standard calibration only).

In the **Advanced** window, you can define the percentage of light inks in the solid colors.

10 Click **Next**.

Now watch the videos:

For advanced calibrations, click [here](#).

For CT printer driver calibrations, click [here](#).

For HT printer driver calibrations, click [here](#).

For RGB printer driver calibrations, click [here](#).

For more information, see the *Advanced Calibration & Profiling Guide* at <https://help.fiery.com/fieryxf/>.

Reduce the ink limit per channel, and create a calibration file

In this step, you can limit the ink at the point the printer achieves its maximum color density, and create a calibration file. The amount of ink affects the gamut size of the calibration.

If you know that over-inking is a problem, you can manually reduce the ink limits before printing the chart to prevent potential bleed issues, and cockling, and to ensure that the chart can be successfully measured. Select **Print with pre-ink limits per channel**, and click **Pre-ink Limits**. However, if in doubt, it is recommended that you do not apply pre-ink limits before printing, as it can noticeably reduce the achievable gamut.

Note: For certain printers and resolution, pre-ink limits have been applied to all 1000 dpi resolutions so that the default gamut at 1000 dpi is almost the same as the gamut at 600 dpi. This allows you to align easily the color of both resolutions. However, if you want to use the full gamut capabilities of the 1000 dpi mode (e.g. for backlit media), reset all pre-ink limits for the 1000 dpi resolution to 100%.

1 Click **Print**.

Color Tools creates print files in the specified export folder.

2 Load the print files on the printer.

To calibrate the white channel for printing on black or transparent media, you must set up layered printing for each job at the print station before printing the charts.

See the operations guide for your printer for details on how to print multilayer jobs. For EFI VUTEk 3r+/5r+, 32r+, and D3R/D5R, refer to the *Profiling Multi-layers with Fiery XF*. These documents are available at <https://inkjet.support.efi.com>.

3 Print the charts.

VUTEk printers only: Use the print options of each multi-layer job to set the smoothing level, and margins, etc.

Use the double strike setting to increase the ink density, if required. As this setting has a high impact on the color output, it is recommended that you include "double strike" in the name of the calibration file.

4 Follow the on-screen instructions to measure the chart.

5 Click **Show patches** (optional).

By moving the pointer over a patch, you can view its L*a*b* value. Each patch is divided along the diagonal. The top left area shows the expected color, the bottom right area shows the measured color.

You can view the color patches for all steps of the calibration procedure that require you to measure printed charts.

6 Review the light/norm ink setup.

Based on the values for **Norm ink**, **Norm ink start**, **Light ink in full tone**, and **Dot gain at 50%**, Color Tools calculates the maximum achievable chroma (*C) for the CMY inks and the minimum possible L* value (0) for Black.

By clearing the **Auto** check boxes, you can experiment with the light/norm settings to find the combination that achieves the best balance between chroma and ink consumption, while still maintaining smooth gradations. The chroma and ink consumption values are updated automatically when you press <Enter>.

7 Click **Print Visual Reference** (optional), and check the primary color gradations.

- Make sure that there is a smooth transition at the norm ink start point.
- Check the total ink coverage in the full tone areas.

8 Click **Next**.

Now watch the video [here](#).

Set up layered printing at the VUTEk print station

To calibrate the white channel for printing on black or transparent media, you must set up layered printing at the VUTEk print station before printing the charts.

- 1 Right-click each job and create a multi-layer job.
- 2 For all charts except the one with "Ink Limit and Linearization_W" in its name, do the following:
 - a) For the top layer, clear **White**.
 - b) For the bottom layer, select **White Flood**.

You can improve the ink coverage, by selecting three layers on the Multilayer panel and adding a second white layer. Select **White Flood** for the middle and bottom layers.

- 3 For the white calibration chart (Ink Limit and Linearization_W), do the following:
 - a) For the bottom layer, select **White From Image**.
 - b) For the top layer, clear **White**.

You can improve the ink coverage, by selecting three layers on the Multilayer panel. Then, for the middle layer, click **Select Image**, and browse to the job that was used to create the multi-layer job. When the file has been loaded, clear all the colors for the middle layer, except White.

Balancing chroma and ink consumption

You can experiment with the light/norm settings to find the best compromise between chroma and ink consumption.

After measuring the ink limit per channel chart, Color Tools displays the following values for each ink channel:

- **Norm ink**—The norm ink limit in the full tone. Color Tools tries to achieve the best possible chroma (C*) for the CMY inks, and the minimum possible L* value (0) for Black.
- **Norm ink start**—The absolute starting point of the norm ink curve, which also adjusts the use of the light inks. This setting influences the transition of light ink to norm ink.

- **Light ink in full tone**—The absolute percentage of light ink in the full tone.
- **Light ink end point**—The end point for light ink. By setting the light ink end point lower than 100%, you can incorporate ink saving into your media profile. Ink saving ensures that as little ink as possible is used, without compromising on color quality.
- **Dot gain at 50%**—The dot gain relative to 50%. A value of -5% transforms 50% input values into 45% output values.

Color Tools evaluates the maximum possible color gamut, and the ink consumption required to reproduce a gradient from 0% to 100% of the selected ink channel, taking the light and norm inks, and the pre-ink limits into account.

The following tips will help you to find the best combination:

- Do not reduce the percentage of norm and light ink too much. A slight reduction often has little effect on the overall chroma. However, if you use too little ink, spots of uncovered media can appear in the printout. You can check the total ink coverage and print quality by printing the visual reference chart.
- Use a similar percentage of light ink across all channels that support light ink. It is not recommended to mix light ink end point and light ink in full tone in the same calibration.
- You can reduce ink consumption by introducing norm ink earlier. However, be careful that you do not set the norm ink to start too soon, as it can cause graininess. The recommended norm ink start is between 20% and 40%. Make sure also that the ink curves do not flatten off towards the top end of the scale.
- The dot gain affects both norm and light inks. Be aware that this setting affects the printer's native gray balance. Therefore, change it only in special circumstances.
- The light ink end point always keeps a distance to the norm ink start point of 35% to ensure a smooth transition.

Set the total ink limit (TIL)

In this step, you can set the total ink limit. The TIL prevents over-inking and optimizes the dynamic range of the printer.

It is recommended that you start by printing the chart with the predefined total ink limit. The predefined total ink limit is based on the sum of the full-tone ink limits, and also takes the pre-ink limits for each ink channel into account. The predefined value is the maximum possible percentage of ink. Be aware that for a printer with eight ink channels, the maximum TIL value is 800%.

Change the predefined value only if you are sure of the TIL for the specific combination of printer, media, ink type, resolution, and color mode. For example, you can load an existing calibration file to adjust the norm ink start, or to set a different target dot gain. As long as you do not change the norm ink or light in full tone limits, you can modify an existing calibration file, without having to create a new media profile.

1 Click **Configuration**.

The **Chart configuration** window is concerned with TIL chart layout and patch size. Make settings that are appropriate for your printer, media size, and measuring device.

Note: It is recommended that you use the predefined values to start with.

2 Click **Print**.

The default printed chart consists of rectangular patches with a hexagon in the middle and a bleed mark in the top right-hand corner.

3 Review the printed chart to determine the best TIL value.

Choose viewing conditions that ensure a minimum of surface reflection. For example, hang the chart at eye height inside a light booth or on a wall, and view the chart straight on.

- a) Identify the row in which the most hexagons are visible. In most cases, this will be the CMYK row or the CMY row.
- b) Scan the row from left to right, and identify the first patch in which the color of the hexagon is the same as the background color. For printing systems that are likely to cause printing artifacts due to over-inking, such as textile printers or printers with solvent inks, check the column of patches at each TIL to find the optimal value. Identify the first column of patches that is free of artifacts.

The optimal TIL is approximately that of the selected patch, or column of patches.

For patches printed in larger step sizes (increments of between 15% and 20%), the optimal TIL lies somewhere between the TIL of the selected patch and the TIL of the previous patch.

4 Review the printed chart for sharp bleed marks.

The bleed marks should not show fuzziness or flooding.

5 Review the printed chart for even background color of patches.

The background color should not show intercolor bleed, mottling, fringing, or speckling.

Now watch the video for EFI VUTEk, EFI superwide roll-to-roll, and EFI Matan printers [here](#).

TIL chart configuration

The **Chart configuration** window is concerned with chart layout and patch size. You can make settings that are appropriate for your printer, media size, and measuring device.

- **Range start**—Sets the TIL percentage for the first patch.
- **Range end**—Sets the TIL percentage for the last patch.
- **Step size**—Sets the incremental percentage of ink between patches.
- **Patch size**—Provides multiple patch sizes for selection.
- **Spacing between rows**—Defines the gap between two adjacent rows.
- **All black combinations**—Prints all overprint combinations with black ink. By default, only the upper section of the TIL chart prints overprints with black ink.
- **CMYK only**—Ignores gamut-extending inks, such as Orange and Violet. Charts printed with gamut-extending inks contain more rows.
- **Bleeding mark**—Defines the size of the bleed marks. Select **None** to print patches without bleed marks.
- **Hexagon**—Defines the size of the hexagon within each patch. Select **None** to print uni-color patches.

Note:

If you know the approximate optimal TIL, you can achieve a more exact result by narrowing the range (240% to 340%) and setting smaller step sizes of 5%.

Align the CMY gradation curves to a neutral gray

In this step, you can perform multiple iterations to reduce a high chroma value and achieve a stable gray balance.

This step is available only if you selected it in the **Settings** window.

- 1 Click **Print**.
- 2 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart. Color Tools displays an average delta C value. This value stands for the average difference in chroma for the entire gray balance. The higher the value, the stronger the color shifts within the gray balance. An arrow indicates whether further optimization is possible. An average delta C of 2 or less is good.
- 3 Repeat the printing and measuring process until no further optimization is possible.
- 4 Select the delta C iteration that yields the lowest result.
- 5 Click **Next**.

Now watch the video [here](#).

Perform a quality check

In this step, you capture the color foundation of your calibration by creating L*a*b* data for solid colors. You can use this data to evaluate the gamut of your calibration against a standard reference before creating the calibration file.

This is the final step before you create your calibration file. You can go back and repeat any of the previous steps of the calibration procedure if you are not satisfied with the results of your quality check.

- 1 Click **Print**.
- 2 Do the following:
 - a) Check the gray balance: Ideally, the black stripe and the CMY stripe should be identical. However, be aware that it is not possible to achieve pure black from mixing CMY inks.
 - b) Check the TIL: The edges of the individual color patches must be clearly defined, the ink must be evenly distributed on the media and show no signs of bleed, and the media must display no signs of cockling.
 - c) Check the transition of light to norm inks: Examine the stripes of the primary colors and make sure that there is a smooth transition of light to normal inks. Smooth transitions are important when printing skin tones. If normal inks are added too soon, it can create a peppering effect.
- 3 Follow the on-screen instructions to measure the chart.
- 4 Click **Next**.

Now watch the video [here](#).

Complete the printer calibration

In this step, you can create a report of the calibration settings. If you have the Color Profiler Option, you can check if the calibration's color gamut fits into a reference, before you go on to create a media profile.

1 Type a new media name (optional).

By defining a new media name, you ensure that each calibration file is associated with only one media.

2 Click **Compare in Profile Inspector** (optional).

If you have a license for Color Profiler Suite, you can compare the color gamut of the calibration file with ISOcoated_v2_eci.icc, GRACoL2006_Coated1v2.icc, or any custom profile.

Color Profiler Suite displays a 3D view of the color gamuts. By viewing the 3D model from all sides, you can see which color values do not fit into the color gamut of the reference.

3 Under **Finalize or continue profiling**, select one of the following:

- **Create ICC profile in Color Profiler Suite.**
- **Save calibration (EPL) without ICC profile**

4 Click **Create Report** (optional).

The HTML report provides an easy way to archive or print details of the calibration. The report contains details of the calibration settings, ink limits, and color gamut.

5 Click **Finish**.

Now watch the video on inspecting a calibration file [here](#), and on saving your calibration file [here](#).

You can use the calibration file for the following purposes:

- You can connect it to an existing media profile.
- You can use it to print jobs without color management. For example, you need to print charts without color management if you want to create a media profile using a third-party software.
- If you have a license for Color Profiler Suite, you can go on to create a media profile. Additional licenses for ink saving, one for EFI printers and one for non-EFI printers, are also available that allow you to incorporate ink saving into the profiles you create in Color Profiler Suite. Ink saving ensures that as little ink as possible is used, without compromising on color quality.

After you have created a media profile, you must select it in Command WorkStation. For more information, see [Implement a custom media profile](#) on page 91.

Implement a custom media profile

If you have created a custom media profile for your particular print environment, you must select it in Command WorkStation before you can apply it to your jobs.

Before you begin: Make sure that the custom profile and its associated calibration file are located at C:\ProgramData\Fiery\Fiery Media Profiles\My Profiles. For more information on creating a calibration file and media profile, see [Printer calibration](#) on page 82.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select the printer. In the printer's tree view, select the media, On the **Media** tab, expand the **Media Configuration** panel.
 - In Job Editor: On the **Printer** tab, expand the **Media Configuration** panel.
 - In Job Center: Under **Media Configuration**, click **Edit**.
- 2 Select an ink type, a media name, and other media settings.
If your media profile incorporates ink saving, select the profile type **Ink Save**.
- 3 Under **Resulting calibrations(s)**, select a calibration file.
Command WorkStation displays only those calibration files and ICC profiles that are compatible with the selected combination of media settings.

Note: You can select an ink saving media profile even if you do not have an appropriate license. However, an error message is displayed when you try and process jobs.
- 4 Click **Save**.

Printer optimization

An L*a*b* optimization provides a better match for the color gamut of the simulation (reference) profile.

You can greatly improve color accuracy by applying an L*a*b* optimization to a media profile.

Now watch the video [here](#).

Make settings for media profile optimization

You can greatly improve color accuracy by applying an L*a*b* optimization file to the media profile.

Before you begin:

- Check the print quality to ensure that an optimization is really necessary.
 - Connect your measuring device to the computer.
- 1 Under **Profiles**, select a workflow.
The media profile and the simulation (reference) profile associated with the workflow are retrieved. The simulation (reference) profile represents the target colors that you want to achieve when you optimize the media profile.
 - 2 Under **Measuring device**, select your measuring device.
Device-specific settings are available for some measuring devices.
 - 3 Under **Optimization chart**, select a chart.
It is recommended that you use the same chart that was used to create the media profile.
 - 4 Select **Use optional additional characterization data** (optional).
If you do not have the original measurement data, leave the check box cleared.

You can load original IT8 characterization data from:

- A simulation (reference) profile—Make sure that the characterization data set matches the selected profile.
- A different media profile—By selecting IT8 characterization data from a different media profile, you can adjust the print quality of one printer to another.

5 Under **Optimization method**, select one of the following:

- **Optimize media profile**—Ensures that the optimized results are applied directly to the media profile.
- **Create new L*a*b* correction profile**—Improves color accuracy by reducing delta E values.
- **Optimize existing L*a*b* correction profile**—Achieves optimum results in fewer steps. If you have not previously created an L*a*b* optimization file, you can load and optimize the neutral.3cc file, which resides in the C:\ProgramData\Fiery\Fiery XF\Server\Profiles\Balance folder.

6 Under **Paper white settings**, select one of the following:

- **Default - Absolute colorimetric**—Applies the absolute colorimetric rendering intent from the simulation (reference) profile.
- **Suppress paper white**—Applies the absolute colorimetric rendering intent without paper white simulation.
- **Keep current paper white (no change)**—Excludes paper white from the optimization.

7 If you are using an embedded measuring device, select the criteria for optimization control (optional).

You can repeat the optimization procedure for a defined number of cycles, or until the defined delta E average is reached.

If you select both check boxes, the number of cycles is reduced if the optimal delta E value is achieved before the defined number of cycles has been completed. Otherwise, the optimization procedure stops after the defined number of cycles, even if the defined delta E average has not been achieved.

8 Click **Next**.

Now watch the video [here](#).

Optimization charts

Different chart layouts are available. It is recommended that you print and measure the same chart that you used to create the media profile.

- 46—A simple control bar with 46 color patches. It is small enough to fit on every printout.
- 234—Prints 234 color patches.
- 928 (IT8 7/3)—Prints 928 color patches.
- 1485 (ECI 2002)—Prints 1485 color-sorted patches. Using this chart creates a better quality of media profile, due to the higher number of patches. Select this chart to optimize to the ISO standard.
- 1485 random (ECI 2002)—Prints 1485 randomly positioned color patches. Using this chart creates a better quality of media profile, due to the higher number of patches. Select this chart to optimize to the ISO standard.
- 1617 (CGATS IT8.7/4)—Prints 1617 color-sorted patches. It forms the basis for the DIN ISO norm 12647-7. A chart with 1617 color patches is needed for Fogra certification or G7 processes. This chart is used at Fiery to create media profiles for inkjet printers.

- 1617 random (CGATS IT8.7/4)—Prints 1617 randomly positioned color patches. It forms the basis for the DIN ISO norm 12647-7. A chart with 1617 color patches is needed for Fogra certification or G7 processes.
- 1617 (CGATS IT8.7/5)—Prints 1617 color-sorted patches. The 1617 target is a CMYK printer characterization target combining the unique patch values in the standard IT8.7/4 target with all the patch values in columns 4 and 5 of the P2P51 target.
- 4028—Prints 4028 color patches. It is used at Fiery to create media profiles for Fiery toner printers.

Create an L*a*b* optimization file

You can repeat the optimization procedure as often as required and select which L*a*b* optimization file to apply. After each optimization, Color Tools displays the achieved average dE, peak dE, paper white and the percentage of colors that are within the target gamut.

1 Click **Print**.

- 2 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart. The first measurement forms the basis for the optimization.

3 Click **Optimize**.

This step is not necessary if you selected an embedded measuring device and used the criteria for optimization control.

A green arrow pointing upwards indicates that the profile can be optimized further. A Stop sign indicates that no further optimization is possible.

- 4 Repeat the previous steps until no further optimization is possible.

It is useful to perform a visual check on the final printed chart to make sure that the color gradations have not been negatively affected by over-optimization.

- 5 In the optimization table, click the best set of results, and then click **Finish**.

- 6 Click **Yes** to confirm that you want to save the selected iteration as the new profile.

- 7 Type a name for the L*a*b* optimization file, and then click **Save**.

- 8 Do one of the following:

- Click **Yes** to select the L*a*b* optimization file for the workflow.
- Click **No** to save the L*a*b* optimization file to the C:\ProgramData\Fiery\Fiery XF\Server\Profiles\Balance folder. You can select it later in Command WorkStation.

Now watch the video on printing and measuring your optimization targets [here](#). Watch the video on how to evaluate your optimization [here](#).

Select an L*a*b* optimization file

You can apply an L*a*b* optimization file that you previously created in Color Tools.

Before you begin: Make sure that you have copied the L*a*b* optimization to C:\ProgramData\Fiery\Fiery XF\Server\Profiles\Balance.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
 - In Job Editor: On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
- 2 Click **Advanced Settings**.
- 3 Under **L*a*b* optimization**, select the L*a*b optimization file.
- 4 Click **OK**.
- 5 Click **Save**.

Now watch the video [here](#).

Profile Connector

You can use Profile Connector to connect a calibration file to a profile, or to make quick edits to an existing calibration file.

Profile Connector enables you to:

- Connect an existing calibration file to any media profile (output profile), including media profiles from third-party manufacturers.
- Connect a new calibration file to an existing media profile. By creating and connecting a new calibration file, you can improve the output quality of the printer without creating a new media profile.
- Make quick edits to an existing calibration file, without having to create a new one.

Connect or edit a calibration file in Profile Connector

To use a media profile (output profile) or device link profile in Command WorkStation, you must connect it to a calibration file.

- 1 Under **Calibration**, click **Select** and browse to the calibration file.
- 2 Under **Media name**, type the name of the media. This is the name that will appear in Command WorkStation. It is recommended that you type a new media name. If you use an existing media name, the media profile will have more than one calibration file connected to it, and you will have to select which one to apply in Command WorkStation.
- 3 Do any of the following (optional):
 - Under **Media feed adjustment**, enter an actual media length and a target media length.
You can correct any inconsistency in the output length of jobs. Inconsistencies can occur as a result of a particular combination of printer and media.
 - Select **Print unidirectional**.
Unidirectional printing achieves more accurate results than bidirectional printing, but is slower.

4 Under **Connect to profiles**, select the media or device link profile. Do one or both of the following:

- Select **Media profile ICC**, click **Select**, and browse to the media profile.
- Select **Device Link**, click **Select**, and browse to the device link profile.

5 Click **OK**.

The calibration file is saved to the C:\ProgramData\Fiery\Fiery Media Profiles folder.

You can now select the calibration file or device link profile in Command WorkStation.

Device link profiles

A device link profile combines a source color space (simulation (reference) profile) and a destination color space (media profile) into one profile. Device link profiles tend to produce more accurate results than when two separate profiles are applied.

The source profile determines whether the media profile or the device link profile is applied during job processing. For jobs with an embedded CMYK source profile, the device link profile is applied. For jobs with an embedded RGB source profile, the media profile is applied.

Apply a calibration file or a device link profile

You can apply a calibration file or a device link profile that you previously created in Color Tools.

The calibration file or the device link profile must be saved to the correct subfolder of C:\ProgramData\Fiery\Fiery Media Profiles.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select the printer. In the printer's tree view, select the media. On the **Media** tab, expand the **Media Configuration** panel.
- In Job Center (calibration file only): Under **Media Configuration**, click **Edit**.

The lists of available calibration files and device link profiles are filtered to display only those that match the selected combination of media settings.

2 Select a calibration file or a device link profile.

3 Click **Save**.

Printer recalibration

A recalibration ensures that the printer's color reproduction properties remain constant.

It is recommended that you recalibrate the printer in the following circumstances:

- If you are using a media profile that was not created on your exact printer—for example, the media profiles that are provided with Command WorkStation
- After changing the print head
- If you notice that your proofs no longer match earlier proof results—for example, if the ink smudges or is not evenly distributed on the media, or if cockling occurs as a result of too much ink on the media

Recalibrate the printer by measurement

You can compensate for deviances in color by adjusting the ink densities to those of the reference printer on which the media profile was created.

Before you begin, connect your measuring device to the computer.

This feature is not available for EFI VUTEk, EFI Matan, EFI superwide roll-to-roll, or EFI Reggiani printers.

1 Under **Printer**, select your printer.

2 Under **Media**, select the name of the media.

3 Select your measuring device.

Device-specific settings are available for some measuring devices.

4 If you are using an embedded measuring device, select the criteria for recalibration control (optional).

You can repeat the optimization procedure for a defined number of cycles, or until the defined delta E average is reached.

If you select both check boxes, the number of cycles is reduced if the optimal delta E value is achieved before the defined number of cycles has been completed. Otherwise, the optimization procedure stops after the defined number of cycles, even if the defined delta E average has not been achieved.

5 Click **Print**.

6 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart.

The measured ink limits are compared with the ink limits from the calibration file. After measuring, the delta E result is displayed, together with a recommendation on how to proceed.

7 Click **Advanced** (optional).

The **Advanced** window displays the delta E achieved for each ink channel.

8 Do one of the following:

- If the measured delta E is within an acceptable tolerance, click **Recalibration**.
- If the measured delta E is too high and improvements are possible, click **Adjust Ink Limits & Recalibrate**.

Ink channel comparison

Color Tools compares the color measurements from the printed chart with those of the reference calibration file.

The **Advanced** window displays the following:

- The ink limit per channel
- The L*a*b* color values from the measured chart, and the L*a*b* color values extracted from the reference calibration file
- The calculated delta E, delta C and delta H of the 100% full tone
- The average delta E achieved for each ink channel (calculated from the 100% full tone and all color gradations)

Adjust the 100% ink limits to the reference calibration file

In this step, Color Tools adjusts the 100% ink limits to those of the reference calibration file. You can reduce a high delta E by redefining the 100% ink limits.

- 1 Click **Print**.
- 2 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart.
- 3 Click **Advanced**, and assess the 100% ink limits per channel.
- 4 Click **Next**.

Reduce the 100% ink limits per channel

In the advanced settings, you can reduce a high delta E, by reducing the 100% ink limits per channel.

The **Advanced** window displays the following:

- The 100% ink limit per channel. The optimum range is depicted by the thicker black lines in the calibration diagrams.
- The L*a*b* color values from the measured chart, and the L*a*b* color values extracted from the reference calibration file.
- The calculated delta E, delta C and delta H of the 100% full tone.

- 1 Set the 100% ink limit for each channel to the lower end of the optimum range.
- 2 Click **OK**.

Complete the printer recalibration

In this step, Color Tools adjusts the intermediate ink limits (20%, 40%, etc.) to those of the reference calibration file. You can optimize the result and select the measurement with the best delta E.

- 1 Click **Print**.

- 2 Wait for the ink to dry. Then, follow the on-screen instructions to measure the chart. The delta E result is displayed.
 - 3 Click **Optimize & Print** (optional).
You can perform multiple iterations. The best result is highlighted in green in the table.
 - 4 Select the result that you want to use.
 - 5 Click **Advanced** (optional).
The **Advanced** window displays the delta E achieved for each ink channel.
 - 6 Click **Create Report** (optional).
The HTML report provides an easy way to archive or print details of the calibration. It contains details of the calibration settings, ink limits, and color gamut.
 - 7 Click **Finish**.
You can overwrite the current calibration file, or create a new one.
- You can now select the new calibration file in Command WorkStation.

Ink channel comparison

Color Tools compares the color measurements from the printed chart with those of the reference calibration file.

The **Advanced** window displays the following:

- The ink limit per channel
- The L*a*b* color values from the measured chart, and the L*a*b* color values extracted from the reference calibration file
- The calculated delta E, delta C and delta H of the 100% full tone
- The average delta E achieved for each ink channel (calculated from the 100% full tone and all color gradations)

Visual correction and plate compensation

Color Tools has a feature that allows you to tweak individual color channels to modify your printer's color reproduction properties. Color corrections are based on a visual assessment.

You can create:

- A visual correction file, which is a modified calibration file.
- A plate compensation file, which compensates for varying dot gain on different media. Plate characteristics control the size of screen dots when they are output on the platesetter.

Make visual color corrections

You can use the visual correction tool to modify the ink curve of individual ink channels, or to modify the plate characteristics to resolve dot gain issues.

A visual correction is based purely on manual adjustments and should only be performed as an emergency measure by experienced users.

1 Under **Correction type**, do one of the following:

- Select **Re-calibration** to edit the ink curve of individual ink channels. This type of visual correction is applied after color management in Command WorkStation.
- Select **Plate compensation** to modify the input data for any supported file format. This type of visual correction is applied before color management in Command WorkStation.

As color management normally relies on receiving linear input data to apply color management properly, there is a need to compensate non-linear plate characteristics for color-accurate output.

Note:

There is no fixed formula for editing plate characteristics. However, in the case of contone file formats, a simple formula is applied, so that a 5% increase for the 50% patch will yield 55%.

2 Under **Color mode**, select your printer's ink colors.

You can apply a global change to a set of ink colors, or you can modify each ink curve individually.

3 Add or subtract color anywhere along the ink curve.

For example, you can correct a green tint by reducing the amount of yellow and cyan. To change output ink percentages, enter input and output values in the table, or drag a point along the curve to a new position.

4 Modify the gamma setting or the linear setting (optional).

The gamma setting affects the lightness or all colors, but mainly the mid-color tones. The linear setting affects the lightness of all colors equally.

5 Click **OK**.

The visual correction file is saved to the C:\ProgramData\Fiery\Fiery XF\Client\Working folder. You can load a visual correction file from this folder to make further edits later.

Now watch the video [here](#).

You can now select the correction file in Command WorkStation.

Apply a visual correction file

You can improve your jobs' color reproduction by applying a visual correction file that you created in Color Tools.

Make sure that the file is located in the C:\ProgramData\Fiery\Fiery XF\Server\Profiles\Balance folder. You may need to copy it manually to this folder if the file was originally saved to a different destination.

- 1** Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media. On the **Media** tab, expand the **Media Configuration** panel.
 - In Job Editor: On the **Printer** tab, expand the **Media Configuration** panel.
 - In Job Center: Under **Media Configuration**, click **Edit**.
- 2** Under **Visual correction**, select the visual correction file.

Apply a plate compensation file

You can resolve dot gain issues that can occur on some types of media by applying a plate compensation file that you created in Color Tools.

Make sure that the file is located in the C:\ProgramData\Fiery\Fiery XF\Server\Profiles\Balance folder. You may need to copy it manually to this folder if the file was originally saved to a different destination.

- 1** Do one of the following:
 - In Server Manager: Under **Printers**, select the workflow. On the **Color** tab, expand the **Color Management** panel, and click **Advanced Settings**.
 - In Job Editor: On the **Color** tab, expand the **Color Management** panel, and click **Advanced Settings**.
- 2** Under **Plate compensation**, select the plate compensation file.

Third-party media profiles

You can use third-party media profiles in Command WorkStation. You can also use any third-party profiling software to create your own media profiles for use in Command WorkStation.

The following steps are required to use third-party media profiles:

- Uploading the media profile and a suitable calibration file to the ProgramData\Fiery\Fiery Media Profiles\My Profiles folder
- Connecting the media profile to the calibration file

Create a media profile using third-party profiling software

You can use Color Profiler Suite or any third-party profiling software to create a media profile.

- 1 In Job Center: In the toolbar, click **Color Tools**. In the **Color Tools** start screen, click **Create Calibration**.
- 2 Click the **Help** button, and follow the on-screen instructions to create a calibration file.
- 3 Move the calibration file from the ProgramData\Fiery\Fiery XF\Client\Working folder to the ProgramData\Fiery\Fiery Media Profiles\My Profiles folder.
- 4 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media preset. On the **Media** tab, expand the **Media Configuration** panel.
 - In Job Editor: On the **Printer** tab, expand **Media Configuration** panel.
- 5 Select the following:
 - The type of ink that you used to create the calibration file
 - The name of the media that you defined when you created the base linearization file
 - The calibration file
- 6 In Job Center: Import the profiling chart from the third-party software, and print the chart.
- 7 In the third-party software, measure the printed chart, and go on to create a media profile.

You must now do the following:

- Upload the media profile and the calibration file to the ProgramData\Fiery\Fiery Media Profiles\My Profiles folder.
- Connect the calibration file to the third-party media profile.

Upload third-party media profiles

To use third-party media profiles, you must upload the media profile and a suitable calibration file to the ProgramData\Fiery\Fiery Media Profiles\My Profiles folder.

- 1** In Server Manager: On the sidebar, click **Server**, and then click **File Uploader**.
- 2** Click **Media Profiles**.
- 3** Under **Media profile**, click **Choose**, and browse to the third-party media profile.
- 4** Select the file and click **Open**.
- 5** Under **Printer calibration (EPL)**, click **Choose** and browse to the **Fiery Media Profiles** folder.
- 6** Open the folder for your printer, and then open the subfolder for the media type and resolution that most closely matches the properties of the third-party media profile.
- 7** Select the calibration file, and click **Open**.
- 8** Click **Upload**.

The media profile and the calibration file are copied to the ProgramData\Fiery\Fiery Media Profiles\My Profiles folder. You must now connect the media profile to the calibration file.

Adjusting color properties

Command WorkStation provides some quick-to-apply color settings that are not controlled by profiles and rendering intents.

The following color adjustment features are available:

- You can tweak colors by adding or subtracting ink in CMYK and RGB jobs. You can also change the level of brightness, contrast, saturation and sharpness.
- You can ensure that 100% black ink is used to print elements that were defined as 100% black in the graphics program, by preventing small amounts of CMY inks from being involuntarily added during the conversion to the printer's color space.
- You can increase color saturation by forcing Command WorkStation to clean process and secondary colors of color impurities.
- You can convert color jobs to grayscale.

You can save a preset of your color adjustment settings. Presets provide a quick and easy way to apply color adjustments to other jobs.

Now watch the video [here](#).

Tweak job colors

You can tweak the appearance of CMYK and RGB jobs by adding or subtracting color, or by changing the brightness, contrast, saturation and sharpness.

You cannot make color adjustments to multi-color jobs, jobs that contain spot colors, or grayscale jobs.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Color Adjustment** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Color** tab, expand the **Color Adjustment** panel. In the panel header bar, select the check box to activate the settings.

2 Select **Apply color corrections to static wedge** (optional).

In a proofing environment, color consistency must be measurable. By applying the changes to the control bar, you can check that the color adjustments have been applied to all jobs.

This setting is available for CMYK jobs with a static media wedge only. You cannot apply color corrections to a dynamic wedge.

3 Add or subtract color for each color channel, as required.

Command WorkStation detects automatically the color space of each job.

- 4 Increase or decrease the brightness, contrast and saturation settings, as required.
- 5 Increase or decrease the blur/sharpen setting, as required.
- 6 Under **Presets**, click **Save** to create a preset of the current settings (optional).

In Job Editor, you can compare the effect of your color adjustments with the original by alternately clearing and reselecting the check box in the tab header bar.

Force the use of 100% black ink

You can force Command WorkStation to use black ink only to reproduce text and line diagrams that were defined as 100% black in the graphics program.

When pure black is converted to the CMYK color space of the printer, small amounts of CMY inks can involuntarily be added, which produces a “dirty” looking black.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
 - In Job Editor: On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
- 2 Click **Advanced Settings**.
- 3 Under **Color optimization**, select **Black as inkjet black**.
- 4 Click **OK**.
- 5 Click **Save**.
- 6 Under **Presets**, click **Save** to create a preset of the current settings (optional).

Increase color saturation

You can increase color saturation by forcing Command WorkStation to clean process and secondary colors of impurities.

Color impurities can be introduced during the conversion from the RGB to the CMYK color space when the printer tries to reproduce color as defined by the simulation (reference) profile. For example, 100% yellow is sometimes defined with a greenish tint. To achieve this tint, cyan ink is added to yellow ink. You can achieve a more saturated yellow by making Command WorkStation ignore the percentage of impure color and use pure yellow ink instead.

This setting can be applied most successfully to banners and posters. It ensures that jobs are printed in vivid and saturated colors, without affecting critical color areas such as grays, skin tones and spot colors.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Color Management** panel. In panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.

2 Click **Advanced Settings**.

3 Under **Color optimization**, select one of the following:

Setting	Description
Clean colors	Cleans process colors (excluding black) and secondary colors of impurities.
Clean colors and black text as inkjet black Clean colors + black text and images as inkjet black	Cleans process colors (including black) and secondary colors of impurities. These settings are a combination of Clean colors and Black as inkjet black .
Intensify and clean colors + black text and images as inkjet black	Cleans process colors (including black) and secondary colors of impurities. This setting will intensify the cleaned colors by increasing its cleaned values up to 10%.

4 Under **Threshold**, select **Automatic cleaning** or **Manual cleaning (%)**.

In automatic cleaning mode, Command WorkStation provides optimal values for the selected printer, media and profiles. In manual cleaning mode, you can define the percentage at which Command WorkStation removes impure color. Automatic cleaning is recommended.

5 Click **OK**.

6 Click **Save**.

7 Under **Presets**, click **Save** to create a preset of the current settings (optional).

Convert to grayscale

You can convert color jobs to grayscale. Five different tints are available, from a yellowish tint (warm gray) to a bluish tint (cold gray).

- 1** Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
 - In Job Editor: On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
- 2** Click **Advanced Settings**.
- 3** Under **Grayscale settings**, select **Convert to grayscale**, and move the slide bar to select a gray tint.
- 4** Click **OK**.
- 5** Click **Save**.
- 6** Under **Presets**, click **Save** to create a preset of the current settings (optional).

Spot colors in Job Editor

Job Editor provides a quick and easy way to define spot colors for a job that is already loaded in Job Center.

Command WorkStation has an internal spot color library which automatically manages the spot colors of all major spot color manufacturers. If you load a job that contains a spot color that is not known to Command WorkStation, you must define it before you can output the job correctly.

Now watch the video [here](#).

Define spot colors for a loaded job

If a job contains undefined spot colors, an error message appears in the **Job Summary** area of Job Center. Jobs with unknown spot colors cannot be printed correctly. You can define unknown spot colors in Job Editor.

- 1 In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.
- 2 In the table's **Source** column, click the down arrow next to an unknown spot color, and do one of the following:
 - To map the spot color to a color from the internal spot color library, select a spot color manufacturer.
 - To enter color values, select a color space such as **CMYK** or **L*a*b***.
 - To create an alias to another spot color in the spot color table, select **Alias**.

An alias creates a fixed link to an existing spot color. It ensures that two spot colors use the same color values, even if they have different names. Use this setting to tweak colors, or as an alternative to renaming a color in the graphics program. If you make changes to the original color, they are applied to the alias color also.

- To assign a spot color to an additional printer ink channel, such as one that contains a spot color, white ink, clear ink, or metallic ink, select **PRINTER**.

Command WorkStation bypasses color management for printer inks.

- 3 In the **Map to** column, do one of the following, based on your selection in the **Source** column:
 - Spot color manufacturer: Select a color from the internal spot color library.
 - Color space: Enter color values in the selected color space.
 - **Alias**: Select **Cyan**, **Magenta**, **Yellow**, **Black**, or any custom spot color from the current spot color table.
 - **PRINTER**: Select a printer ink channel.

You can assign a printer ink in addition to the original spot color definition. The additional inks print either behind or on top of the original spot color.

The **PRINTER** setting is useful in the packaging industry, where gold or silver metallic colors are often used.

Some settings have an “inverted” equivalent and have the letters INV in their name. If you select an inverted setting, Command WorkStation applies the inversely proportional amount of ink—for example, 70% color instead of 30% color. An inverted setting allows you to simulate the final print run on any colored media.

- 4 In the **Apply as** column, select a printer-specific color (optional).

This feature allows you to create many interesting special effects, particularly with multi-pass (multi-layer) printing. Be aware that to create such special effects, you must make printer-specific settings on the **Special Settings** panel.

- 5 Repeat the above steps for all unknown spot colors.
- 6 Click **Save**.

Command WorkStation creates a new spot color table and updates the preview.

Now watch the video [here](#).

Select a spot color table

You can ensure that Command WorkStation automatically detects a job's spot colors, by selecting a spot color table that contains those spot colors.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Spot Colors** panel.
 - In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.
- 2 Under **Spot color library**, select a custom spot color table.

Select and edit a spot color table for a loaded job

You can add additional spot colors to an existing spot color table, change spot color definitions, and tweak spot colors that alias an internal spot color.

Saving changes always creates a new spot color table that has the original name plus an incremental number. Therefore, you can easily revert to an earlier spot color table.

- 1 In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.
- 2 Under **Spot color library**, select a custom spot color table.
- 3 Add an unknown spot color, or edit an existing spot color definition.

The spot colors of spot color manufacturers are defined in the device-independent L*a*b* color space and saved as a name that cannot be edited—for example, PANTONE YELLOW C, or TOYO 0008. You can adjust the color values by selecting **Inkjet** in the **Source** column of the table, which converts the spot color to editable values in your printer's color space.

Now watch the video [here](#).

Print jobs with undefined spot colors

You can replace all unknown spot colors with a warning color that is easily recognizable in the printout. The default warning color is orange.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Color**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Spot Colors** panel.
 - In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.
- 2 Select the check box **Print unknown spot colors as warning color**.
- 3 Type new CMYK values to change the default warning color (optional).
To reselect the default warning color, click **Reset**.

Now watch the video [here](#).

Include or exclude spot colors

You can print a job that contains unknown spot colors, by excluding those spot colors. You can also print separated files, by selecting spot colors one at a time.

- 1 In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.
- 2 In the first column of the spot color definition table, clear the appropriate check boxes to exclude a spot color from the job.

Change the ink sequence

You can change the print order of the job's colors. By default, spot colors are printed on top of the process colors.

The ink sequence can greatly affect the printed result. A spot color printed below the process colors looks completely different from a spot color printed on top of the process colors.

The process colors (CMYK) are grouped together. You cannot move them individually.

- 1 In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.
- 2 In the spot color definition table, click a color.
- 3 Underneath the spot color definition table, click an arrow button to move the color up or down the list.

Specify the search priority of spot color names

If a spot color name exists multiple times, each with a different color definition, you can specify which one you want to use.

During job processing, Command WorkStation searches for each spot color definition in a specified search order and applies the first instance of each spot color it detects.

For example, if you redefined a spot color in the source file with your own CMYK color values, you can force Command WorkStation to use that spot color definition, by placing CMYK first in the search order. You can also remove spot color types from the search order altogether.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Spot Colors** panel.
- In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.

2 Under **Search priority**, select the order in which Command WorkStation looks for spot colors.

Select **None** to remove that type of spot color definition from the search order altogether.

Note: Selecting **None** for all four boxes deactivates the spot color search feature. Command WorkStation displays all spot colors as unknown, and job processing cannot continue.

Set up spot color handling

When a file contains one or more spot colors, you can specify how accurate colors are overprinting each other.

Command WorkStation offers a **Production** setting that is faster and less accurate but suitable for most production jobs. The **Proof** setting is slower than the **Production** setting but creates the best overprint accuracy for a job.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Spot Colors** panel.
- In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel.

2 Under **Spot color handling**, select the type of algorithm to use:

- **Automatic (default)**—The **Automatic** setting uses the **Production** spot color algorithm as long as none of the settings enforces a proof spot color algorithm where the algorithm switches to **Proof** internally for one of the following conditions:
 - The .CxF file defines a L*a*b* strategy.
 - The spot color order is defined, and then the algorithm switches to **Proof** internally.
- **Proof**—The **Proof** setting creates spot color handling as accurate as possible as in earlier versions.
- **Production**—The **Production** setting enforces using the fastest algorithm for spot color overprint by simply adding tints on top of the process colors.

Force Command WorkStation to use the source profile

You can force Command WorkStation to apply a CMYK or a custom multicolor profile to a PostScript or TIFF job.

Before you begin: Copy custom multicolor profiles to the ..Server\Profiles\Reference folder.

Forcing the use of the CMYK source profile has the following effects:

Color space of job	File format	Applied source profile: CMYK
CMYKO/CMYKOG/CMYKOV/CMYKRG/CMYKOGB/CMYKRGB/CMYKV	PostScript	CMYK is printed. OG/OGB/RGB are treated as spot colors.
CMYKO/CMYKOG/CMYKOV/CMYKRG/CMYKOGB/CMYKRGB/CMYKV	TIFF	CMYK is printed. The multicolor channels are lost.

Forcing the use of the multicolor source profile has the following effects:

Color space of job	File format	Applied source profile: CMYK
CMYKO/CMYKOG/CMYKOV/CMYKRG/CMYKOGB/CMYKRGB/CMYKV	PostScript/ TIFF	If the multicolor source profile and the job have the same number of ink channels, all colors are printed. If ink channels are missing from the multicolor source profile, those colors are treated as spot colors.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Spot Colors** panel.
- 2 Under **Input handling**, click **Force CMYK** or **Force multicolor**.
These settings have no effect on RGB and grayscale jobs.
- 3 Select a rendering intent.

Select the PANTONE PLUS spot color library

You can switch from using the standard internal PANTONE spot color library to PANTONE PLUS, a spot color library that includes contemporary metallic, pastel and neon colors.

When selected, the PANTONE PLUS color library is applied to all PANTONE spot color definitions. PANTONE PLUS contains the following color libraries:

- PANTONE+ Solid Coated/Uncoated
- PANTONE+ Solid Coated/Uncoated V4
- PANTONE+ Premium Metallics Coated
- PANTONE+ Pastels & Neons Coated/Uncoated
- PANTONE+ Fashion + Home Cotton/Fashion + Home Paper

- PANTONE+ ColorBridge Coated/Uncoated
- PANTONE+ Solid Coated/Uncoated V2
- PANTONE+ ColorBridge Coated/Uncoated V2
- PANTONE+ Extended Gamut Coated
- PANTONE+ Fashion, Home + Interiors
- PANTONE+ Solid Coated/Uncoated V3
- PANTONE+ ColorBridge Coated/Uncoated V3

- 1** In Server Manager: On the sidebar, click **Server**, and then click **Server Info & Configuration**.
- 2** Under **General settings**, select **Use PANTONE PLUS color definitions**.

The new setting takes effect immediately.

Delete spot color tables

You can delete spot color tables that are no longer needed.

- Do one of the following:
 - Go to ProgramData\Fiery\Fiery XF\Server\Profiles\Spotcolor, and delete the spot color table.
 - In Server Manager: On the sidebar, click **Server**, and then click **Maintenance**. Select **Spot Color Definitions**, and then click **Delete Now**.

Note: Clear all other check boxes first if you only want to delete spot color tables.

Spot colors in Color Editor

Color Editor is a comprehensive program for defining, measuring and editing spot colors.

Command WorkStation has an internal spot color library which automatically manages the spot colors of all major spot color manufacturers. If you load a job that contains a spot color that is not known to Command WorkStation, you must define it before you can output the job correctly.

Now watch the video [here](#).

Start Color Editor

You can start Color Editor from Job Center or from Job Editor. If you start from Job Editor, the spot colors of the current job are transferred to Color Editor.

You can add new spot colors to an empty or to an existing spot color table. You can also import spot colors from a different spot color table.

1 Do one of the following:

- In Job Editor: On the sidebar, click **Color**. On the **Color** tab, expand the **Spot Colors** panel, and click **Edit in Color Editor**.
- In Job Center: On the toolbar, click Color Editor.

2 Do one of the following:

- Create a new spot color table: In the toolbar, click **New Table**.
- Open an existing spot color table: In the toolbar, click **Open**, and browse to a spot color table. Color Editor supports spot color tables in the following formats: CXF, BCT, or TAB.
- Import spot colors from a different spot color table: Click **File > Import**.

Now watch the video [here](#).

It is recommended that you familiarize yourself with the Color Editor user interface before you define your first spot color (see [Color Editor features](#) on page 124, [Color Editor buttons](#) on page 123, and [Select preferences in Color Editor](#) on page 125).

Add a new spot color table

Select the printer, the workflow, and the media that you want to apply the spot color table to.

1 Type a name for your spot color table.

2 Select your printer.

Color Editor retrieves information about the connected printer and uses it to check whether new spot colors can be accurately reproduced.

3 Select a workflow.

You do not need to select a workflow if the spot color table will be used for more than one workflow.

4 Select a media preset.

The media is required if you want to define printer-dependent spot colors.

5 Click **Preferences** (optional).

In the **Preferences** dialog box, you can make general settings that are applied to all new custom spot colors that you create.

6 Click **OK**.

Deal with naming conflicts when importing spot colors

All spot colors must have a unique name. If an naming conflict occurs, you can either rename or replace one of the spot colors, or cancel the import of the duplicate color.

- In the **Import Conflict** dialog box, do one of the following:
 - Rename one of the spot colors in either of the spot color tables. This may be useful if the spot colors have different color values. Use this setting to keep both spot colors.
 - Replace one of the spot colors in either of the spot color tables. This setting overwrites the name and the spot color values. It provides an easy way to merge two spot colors.
 - Do not import conflicting spot colors. In this case, spot colors remain unchanged in both spot color tables. Click **Cancel** to skip the current conflict, or click **Cancel All** to skip all conflicting spot colors.

Color Editor buttons

The buttons in the lower toolbar are concerned with creating and editing custom spot colors.

- **Add (+)** button—Adds a new spot color.
- **Subtract (-)** button—Deletes a selected spot color.
- **Duplicate** button—Creates a copy of a selected spot color. You can duplicate custom spot colors or spot colors from the internal spot color library.
- **Select all** button—Selects all the custom spot colors in the table. You can duplicate or delete a multiple selection.
- **Gamut check** button—Checks how accurately Command WorkStation can reproduce L*a*b* spot colors using the selected profiles. You can also check if L*a*b* spot colors lie within the color gamut of your printer.
- **Convert** button—Converts the selected L*a*b* spot colors to the color space of the printer. It is easier to edit spot colors that are defined in the ink colors of the printer.
- **Optimize** button—Creates a spot color optimization file to reduce dE values.
- **Print swatch book** button—Demonstrates how different print conditions affect color reproduction.

Color Editor features

The settings you make in the Color Editor program window are applied to the current custom spot color.

The Color Editor program window consists of the following tabs:

- **Color Definition**—Define full-tone spot colors, create a link between two spot colors with different names to replicate color values, assign printer inks (white, clear, metallic), print variations of a selected spot color, and make transparency settings.
- **Characterization**—Define up to 99 color gradients for each spot color.
- **Gradation**—Modify the brightness of a spot color's gradients.

Color Definition tab

You can define full-tone spot colors, create a link between two spot colors with different names to replicate color values, assign printer inks (white, clear, metallic), print variations of a selected spot color, and make transparency settings.

- **Use as alias for**—You can ensure that two spot colors with different names use the same color values by mapping one to another. By creating an alias, you can avoid having to rename a spot color in the graphics program.
- **Apply as**—If your printer supports white ink, clear ink, or metallic inks, you can assign one of these printer inks to a spot color definition. The printer inks are printed either behind or on top of the spot color.
- **Transparency**—The transparency setting affects overlapping colors. A transparency value of 100% means that overlapped colors can shimmer through. A transparency value of 0% equals 100% opacity and means that overlapped colors are knocked out.
- **Spot color definition at 100%**—You can define a full-tone spot color by measuring a color patch in CIE L*a*b* or CIE LCH, or by entering color values in the printer's color space.
- **Variations**—You can modify a spot color's appearance to a desired state, print and compare the color reproduction of twenty neighboring colors that have slightly different hues and saturation/brightness levels, and choose one to use.

Gradation tab

If you have a spot color with different gradients and find that one gradient is too bright or too pale in the printout, you can modify the brightness by adding or subtracting color along the gradation curve.

You can modify a gradation point along the curve by dragging the point upward (to add color), or downward (to subtract color). You can also type the required coordinates directly in the table.

Preferences dialog box only: You can apply your changes to the current spot color table, or to all the future spot color tables you create.

You can delete a gradient by selecting a row in the table and pressing .

Select preferences in Color Editor

In the **Preferences** dialog box, you can make general settings that are applied to all new custom spot colors that you create.

- 1 In Color Editor: On the toolbar, click **Preferences**.
- 2 Make your desired settings on the following tabs:
 - **Color Definition**—Select overprint characteristics, and make white point, and dE settings.
 - **Measurement and Display**—Select a measuring device, and make settings related to light conditions and monitor profiles.
 - **Gradation**—Modify the brightness of a spot color's gradients.

Now watch the video [here](#).

Color Definition tab (Preferences)

You can select overprint characteristics, and make white point, and dE settings.

- **Overprint settings**
 - **Ink overprinting characteristics**—Define how two or more spot colors will behave when printed on top of each other. A higher setting results in a darker printout.

For example, an overprint value of 100% means that the colors will be completely added to each other - something that is not possible on a proper printing press. A lower setting results in lighter printouts because colors appear more opaque and hide parts of other colors.
 - **Gamma**—Modify the dot gain simulation for overprinting spot colors. This setting is applied to areas with a mixture of spot colors and process colors, or to areas that consist of more than one spot color. It lets you define non-linear behavior for overprinting.
 - **Method**—Define the overprint behavior of L*a*b* colors in the L*a*b* color space. The default setting is based on the Bradford and ROMM chromatic adaptation transforms (CATs). CATs are able to predict corresponding colors under different illumination sources.

Command WorkStation supports many different chromatic adaptation models, including Bradford CAT, XYZ Scaling, vonKries, and Sharp CAT.
 - **Overprint brightness of similar colors**—Accentuate the brightness of overprinted colors that are very similar to each other - for example, yellow on yellow, or magenta on red.
- **White point settings**—The color tint of the media is known as the white point. The white point of the print media affects the color accuracy of the printout.

Particularly in a proofing workflow, it is important to be able to simulate accurately the color tint of the final media. You can use a measuring device to measure the media white point. The measured white point is taken into account in your spot color definitions.

By including the paper white in the spot color definition, spot color values can easily be adjusted for use with different media to ensure that color accuracy is maintained whatever substrate is used.
- **Gamut check settings**—Check how accurately an L*a*b* spot color can be reproduced using the selected profiles. You can also check if an L*a*b* spot color lies within the color gamut of your printer. The color gamut describes the full range of colors that the printer can reproduce.

Measurement and Display tab

You can select a measuring device, and make settings related to light conditions and monitor profiles.

- **Measurement device settings**—You can use an ES-1000, an ES-2000, or an ES-3000 measuring device to define a 100% colorant and gradients, or to measure the white point of a media. You can also use the X-Rite i1Pro3, X-Rite i1Pro3 Plus, and Konica Minolta MYIRO-1 measuring devices.
- **Light conditions**—Define how spectrophotometric values are converted to $L^*a^*b^*$.
 - Select a light (illuminant) source: D-50 (horizon light), D-65 (artificial daylight at noon) and C (daylight).
 - Select an observer angle: Two degrees is the default setting, but the larger viewing angle of ten degrees is sometimes used in the packaging or textile industry.
- **Monitor profile**—You can select a monitor profile that is provided with the operating system, or a custom monitor profile.

Add or duplicate spot colors

You can define a new full-tone spot color, or you can duplicate an existing custom or internal spot color. If your printer supports white ink, clear ink, or metallic inks, you can also define 100% color values for these ink channels.

Before you begin, check the default settings. The **Preferences** dialog box provides general settings that are automatically applied to new spot colors.

- 1 In Color Editor: Do one of the following:
 - On the lower toolbar, click **Add**.
 - Right-click an existing spot color. On the lower toolbar, click **Duplicate**.
 - Drag a spot color from the internal spot color library to the custom spot color section.
- 2 Under **Spot color name**, type a name.
The name must match exactly the spot color name from the job.
- 3 On the **Color Definition** tab, under **Transparency**, move the slide bar to define the degree of transparency/opacity (optional)
The transparency setting affects overlapping colors. A transparency value of 100% means that overlapped colors can shimmer through. A transparency value of 0% equals 100% opacity and means that overlapped colors are knocked out.
- 4 Do one of the following:
 - Define a full-tone spot color: You can type color values, or you can measure a color patch (see [Define full-tone spot colors](#) on page 127).
 - Assign a spot color to a printer ink channel: Your printer must support white ink, clear ink, or metallic inks (see [Assign a spot color to a printer ink channel](#) on page 128).
 - Select an alias spot color: An alias creates a fixed link between two spot colors with different names, and ensures that both use the same color values (see [Create a spot color alias](#) on page 128).

- 5 On the toolbar, click **Save**.
- 6 Assign the spot color table to one or more workflows.

Now watch the video [here](#).

Define full-tone spot colors

You can type color values in the color space of the source profile or printer, or you can measure a color patch in CIE L*a*b* or CIE LCH.

Before you begin, make sure you have added a custom spot color.

- 1 Under **My Custom Spot Colors**, select a spot color.
- 2 On the **Color Definition** tab, under **Spot color definition at 100%**, do one or both of the following.
 - **Independent**—Connect your measuring device, click **Measure**, and follow the on-screen instructions to measure a color patch. Spot colors that are measured in the L*a*b* color space can be included in the dynamic wedge.

The default measuring device is ES-3000. If you have an ES-1000 or an ES-2000, you must select it first in the **Preferences** dialog box. The X-Rite i1Pro3, X-Rite i1Pro3 Plus, and Konica Minolta MYIRO-1 are also supported measuring devices.
 - **Dependent**—Type color values in the color space of the source profile or printer. Then, select a spot color type, and type color values in the appropriate boxes.

Note: To define 100% white ink, clear ink, or metallic inks, select **Printer**, and then select **Automatic** as the spot color type. The additional ink channels are listed as “1”, “2” and “3”. Rest the pointer on “1”, “2” or “3” to show the respective ink channel.

You can now go on to add color gradients, if required.

Add color gradients to a spot color

You can define up to 99 color gradients for each spot color.

Before you begin, make sure you have added a custom spot color and defined the full tone.

By default, spot colors are defined with 100% and 0% color values. 100% represents the full-tone color. 0% represents the color of the media. By default, 0% equals the unmeasured value for pure white. If your media is not pure white, you can change the color value for 0%.

- 1 Under **My Custom Spot Colors**, select a spot color.
- 2 Click the **Characterization** tab.

The diagram displays the color curve for just one color. You can change the displayed color via the drop-down list box above the grid diagram. Alternatively, you can display all inks simultaneously by selecting **All**.

- 3 In the **Ink** column, type a gradient between 1 and 99.

4 Do one of the following:

- Add color gradients in the printer's color space: Type appropriate values in the characterization table. you can fine-tune a gradient by dragging the appropriate point along the curve in the diagram.
- Add color gradients in the L*a*b* or LCH color space: Connect your measuring device, click **Measure**, and follow the on-screen instructions to measure a color patch.

You can view the spot color from any angle by dragging the pointer to rotate the diagram.

Now watch the video [here](#).

Assign a spot color to a printer ink channel

If your printer supports white ink, clear ink, or metallic inks, you can assign one of these printer inks to a spot color definition. The printer inks are printed either behind or on top of the spot color.

Before you begin, make sure you have added a custom spot color.

You can use this feature to:

- Simulate the final production run on a white or colored media.
- Create interesting special effects using gold or metallic inks, as seen in the packaging industry. The possibilities are increased if your printer supports multi-pass (multi-layer) printing. Be aware that to create such special effects, you must also make printer-specific settings (see our printer supplements on www.help.fiery.com).

1 Under **My Custom Spot Colors**, select a spot color.

2 On the **Color Definition** tab, under **Apply as**, click the ... button.

3 In the table, scroll down to **Printer Color System**, click the **Add (+)** button to expand the content, and select the printer ink that you want to assign to the spot color.

Some settings have an “inverted” equivalent. They can be recognized by the letters “INV” in their name. If you select an inverted setting, the inversely proportional amount of ink is applied - for example, 0% color instead of 100% color, or 70% color instead of 30% color.

4 Click **Use Selection**.

You can also remove the link to a printer ink channel in the **Apply as** dialog box.

Create a spot color alias

An alias creates a fixed link between two spot colors with different names, and ensures that both use the same color values.

Before you begin, make sure you have added a custom spot color.

You can create an alias to an existing custom spot color or a spot color from the internal spot color library. If the alias is a custom spot color, you can edit the color values, which changes the color output of both spot colors.

You can edit the gradation and transparency values of either spot color independently.

1 Under **My Custom Spot Colors**, select a spot color.

- 2 On the **Color Definition** tab, under **Use as alias for**, click the ... button.
- 3 In the table, select the spot color that you want to alias.
Use the search function to help you find the spot color more easily.
- 4 Click **Use Selection**.

You can also remove an alias in the **Select Alias** dialog box.

Check and improve the color accuracy of spot colors

You can check how accurately Command WorkStation can reproduce L*a*b* spot colors. You can reduce a delta E by applying a spot color optimization file.

Color Editor provides the following methods to check and improve color accuracy:

- Check color accuracy—Indicates whether a spot color is in gamut or out of gamut for a selected combination of printer and print configuration set.
- Convert spot colors to the printer's color space—It is easier to make color adjustments to spot colors that are defined in the printer inks.
- Create a spot color optimization file—Optimizes in-gamut spot colors that are outside the acceptable dE tolerance limit.

Convert L*a*b* spot colors to the printer's color space

You can edit spot colors easier when they are defined in the printer inks.

- 1 In Color Editor: Under **My Custom Spot Colors**, select one or more L*a*b* spot colors.
- 2 On the lower toolbar, click **Convert**.
- 3 Select a printer.
- 4 Select a media.
If you have created a custom media, you can select it here. Otherwise, use the default media.
- 5 Select a rendering intent.
- 6 Click **Next**.
- 7 Click **Finish**.

The spot color values are displayed in the printer's color space on the **Color Definition** tab.

Check the color accuracy of L*a*b* spot colors

You can check how accurately Command WorkStation can reproduce L*a*b* spot colors using the selected profiles. After performing a gamut check, Color Editor displays the dE value of each spot color.

The color gamut describes the full range of colors that the printer can reproduce. During job processing, spot colors that are out of gamut are mapped to the nearest possible color within the available color gamut. The deviation in color is displayed as a dE value.

Color Editor applies a default dE value of 5.0, measured in the dE 2000 format. It effectively widens the color gamut by this value, by allowing spot colors that lie within this tolerance area to be accepted as "in gamut". You can change the acceptable dE value in the **Preferences** dialog box.

1 In Color Editor: Select one or more L*a*b* spot colors.

2 On the lower toolbar, click **Gamut check**.

3 Select a printer.

4 Select a media.

If you have created a custom media, you can select it here. Otherwise, use the default media.

5 Click **Next**.

6 Click **Finish**.

The dE column shows if the spot color can be accurately reproduced. Green indicates "in gamut". Red indicates "out of gamut". Be aware that it is possible for a spot color to yield a dE that exceeds the defined tolerance limit for that color, but still be within the printer's gamut.

If a spot color is out of gamut, you may be able to reduce the dE value. Try the following:

- Switch to a different combination of printer and media. In this way, you can quickly find out which combination will produce the best results.
- Create a spot color optimization file.

Now watch the video [here](#).

Create a spot color optimization file

You may be able to reduce the dE values of L*a*b* spot colors by applying a spot color optimization file. You can optimize custom spot colors, and spot colors from the internal spot color library.

Before you begin, connect your measuring device to the computer.

1 In Color Editor: Select one or more L*a*b* spot colors.

2 On the lower toolbar, click **Optimize**.

3 Select your measuring device.

4 Select a printer.

5 Select a media.

If you have created a custom media, you can select it here. Otherwise, use the default media.

6 Click **Next**.

A chart of the spot colors to be optimized is printed.

7 Follow the on-screen instructions to measure the chart.

8 Click **Next**.

Color Editor displays the achieved average dE and the maximum dE.

9 Do one of the following:

- Click **Iterate** to repeat the optimization procedure until no further optimization is possible. In the optimization table, click the best set of results, and then click **Finish** to save your optimization.
- Click **Finish** to create your spot color optimization file.

The spot color optimization file is applied to all workflows that are using that spot color table.

Now watch the video [here](#).

Spot color variations

Color Editor can convert a selected L*a*b* spot color to the printer's color space, and prints twenty neighboring colors that have slightly different hues and saturation/brightness levels. You can choose which color you want to use.

It is useful to print spot color variations because a perfect dE match does not always result in a perfect visual match, due to the non-uniformity of the L*a*b* color space. A spot color that looks color accurate on one media may yield a visibly incorrect color result on a different media.

When you create spot color variations, Color Editor displays three groups of seven color patches in a honeycomb pattern. The center patch of the middle group is the original spot color. Each of the surrounding six color patches is a variation of the original spot color in the hue directions of cyan, green, yellow, red, magenta, and blue respectively. The two outer groups of color patches represent an increase and decrease either in saturation or in brightness, whichever you select.

Note: Be aware that spot color variations are lost in the following circumstances:

- When you import a CXF file and replace the conflicting/duplicate spot color from the imported file
- When you make the spot color an alias for another spot color
- When you clear the **Independent** or **Dependent** check box
- When you select the **Source** radio button
- When you change the spot color type to a different color space
- When you change the L*a*b* values, either manually or by measuring
- When you convert the spot color to the printer gamut

Create spot color variations

You can modify an L*a*b* spot color's appearance, print and compare the color reproduction of twenty neighboring colors that have slightly different hues and saturation/brightness levels, and choose one to use.

To print variations, you require a media size that is at least 20 cm (8 inches) wide.

By default, sport color variations are imported into Job Center as "hold" jobs, which means you must start the print process manually. You can configure the workflow settings to print jobs automatically on import.

- 1 In Color Editor: Under **My custom spot colors**, select an L*a*b* custom spot color. On the **Color Definition** tab, select **Variations**.
- 2 In the **Color Conversion** dialog box, select the printer, an appropriate media, and a rendering intent. Then, click **OK**.

This step converts the spot color to the printer's color space. The spot color and the generated variations are displayed on the **Color Definition** tab.

Note:

A spot color cannot consist of more than 100% of any one color. If the original spot color is composed of 100% yellow, the impression of a neighboring variation that is an even more saturated yellow is achieved by reducing the percentage of colors of the opponent hue.

- 3 On the **Color Definition** tab, select a tuning mode: **Saturation** or **Brightness**.

The tuning mode allows you to make changes to a spot color based on brightness or saturation. Move the slide bar to increase or decrease the percentage of saturation or brightness.

- 4 Click **Print**.
- 5 Select one of the following pattern layouts:
 - **Color search pattern**—Prints three groups of color patches that are arranged similarly to the honeycomb pattern.
 - **Color neighbor pattern**—Prints color patches in a 3 x 7 grid. The middle patch of the top row shows the original spot color. Furthermore, the grid pattern provides details of each color patch's color values.

- 6 Click **OK**.

You can print multiple color neighbor patterns, and then select which color patch to use from each chart by typing in the desired color values.

Note:

If you print the color search pattern, do not exit Color Editor until the chart has been printed and you have selected which color patch you want to use.

7 Identify the color patch with the best color reproduction. Then, on the **Color Definition** tab, do one of the following:

- Click once on the corresponding patch.

This step updates the spot color definition at 100%.

Note:

Be aware that the selected color patch becomes the new basis for further spot color variations. Therefore, if you inadvertently click a color patch more than once, further spot color variations are created, based on that color patch. Click **Reset** to return to the original spot color and its variations.

- Type the color values of the corresponding patch.

This step is only possible if you have printed the color neighbor pattern.

Now watch the video [here](#).

Print a swatch book

You can print out swatch books to demonstrate how different print conditions affect color reproduction.

You can use swatch books to see:

- what colors will print like before going into production
- how colors could be enhanced by switching to a different printer, ink set, or media

1 In Color Editor: Select one or more spot colors.

To select spot colors from multiple spot color libraries, drag the spot colors from the internal spot color libraries to the custom spot color section.

2 On the lower toolbar, click **Print swatch book**.

3 Select a printer.

4 Select a media.

5 Select a rendering intent.

6 Select a patch size.

7 Select a page size.

8 Click **Print**.

The job appears as a multi-page PDF in Job Center. You can create a nesting from the job to print the swatch book in a space-saving manner. In the printout, the spot color name, and the CMYK color values are printed under each color patch.

Now watch the video [here](#).

Search for spot colors

You can search for custom spot colors and spot colors from the internal spot color library.

- 1 In Color Editor: In the search box located underneath the toolbar, type the name of the spot color you want to find.

You can also search for parts of a name. For example, if you search for “red”, Color Editor will find all spot colors with “red” anywhere in their name.

- 2 Press <Enter>.

Color Editor displays all spot colors that fulfill the search criterion.

Search for and rename custom spot colors

You can search for a custom spot color. You can also rename custom spot colors by replacing all or part of the name.

- 1 In Color Editor: On the toolbar, click **Find and replace**.

- 2 Under **Find what**, type the name of the spot color whose name you want to replace.

You can also search for parts of a name. For example, if you search for “red”, Color Editor will find all spot colors with “red” anywhere in their name.

- 3 Under **Replace with**, type the new name.

You can modify your search by taking upper/lower-case characters into account, or by searching for a full name only.

- 4 Click the appropriate buttons to find and replace spot color names.

Assign spot color tables to workflows

When you save a new spot color table, you assign it to an available workflow. You can assign it to additional or different workflows after you have created the spot color table.

You can only assign one spot color table to each workflow. A previously selected spot color table is overridden.

- 1 In Color Editor: Click **Apply to**.

- 2 Select or clear the check boxes.

If you select a printer name, the spot color table is assigned to all that printer's workflows.

Color verification

You can verify color consistency by defining an acceptable dE tolerance margin and comparing measured color values with a reference. The reference defines the standard that you want to achieve.

Note: A certain amount of color deviation is almost unavoidable. Due to differing printing conditions (printer, ink, media, etc.), it is generally impossible to obtain identical prints on two different printers.

Note: Color verification using Fiery Verify requires Color Profiler Suite v5.3.1 and later, Command WorkStation 6.5.0.171 and later, and Fiery XF server 7.0 and later. Verifier can also be used with earlier versions of Fiery XF server.

Verification tools

Fiery Verify is the standard verification tool used to measure color accuracy.

Fiery Verify is an integrated element of Command WorkStation. Refer to [Fiery Command WorkStation system requirements](#) for supported operating systems on Windows and Mac computers.

The newer measurement devices, for example ES-3000, X-Rite i1Pro3, X-Rite i1Pro3 Plus, X-Rite i1iO3, KM MYIRO-1, are all supported in Fiery Verify.

However, if you are running Command WorkStation for instance on macOS Mojave 10.14 or lower, you can continue to use Verifier, if required. For more information, see [Switch from Fiery Verify to Verifier](#) on page 135.

Command WorkStation provides three separate programs for color verification.

- Fiery Verify is the standard verification program. Now watch the video [here](#).
- Verifier is the proven verification program that will be usable for a while until it is completely replaced by Fiery Verify. Now watch the video [here](#).
- Fiery ColorGuard, which is integrated with Fiery IQ, enables operators to verify color accuracy on a defined schedule, create system verifications, and track verification results over time for enhanced color accuracy and consistency. See [Color verification with Fiery ColorGuard](#) on page 155.

Switch from Fiery Verify to Verifier

Fiery Verify is the default program selected for color verification. You can switch back to Verifier, if required.

Verifier is supported on all Windows systems and on Mac computers running macOS 10.14 or lower.

To re-enable Verifier on macOS 10.14 and lower, you must download and install the Fiery XF v7.x Color Verifier for Mac package from <https://www.fiery.com/support-and-downloads/>.

- 1 In Server Manager: On the sidebar, click **Server**, and then click **Server Info & Configuration**.
- 2 Under **General settings**, select **Use Color Verifier**.

Verification workflow in Command WorkStation

You can integrate the color verification tool into a Command WorkStation workflow.

You can use a verification workflow for the following purposes:

- To verify a proof (or print) for ISO 12647-7, 12647-8, G7 compliance or do a Fogra PSD Print Check
- To achieve Fogra Proof Certification
- To verify any house standard
- To verify color consistency across sites

Set up a verification workflow

To verify color accuracy, you must select reference data, and define acceptable dE tolerances. You must also print your jobs with a job label. The job label can consist of one or two control bars, which must be compatible with your measuring device.

Command WorkStation provides default workflow templates that are already set up with the basic settings necessary for verifying color accuracy. If you prefer to set up a custom workflow, make sure to include the following settings.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Verify** tab, expand the **Control Bars** panel.
 - In Job Editor: On the **Verify** tab, expand the **Control Bars** panel.
- 2 Select a control bar, which can also be a dynamic wedge.

The following table shows which type of control bar is suitable for each reference:

Type of control bar	Reference profile	Measurement file from remote container	SWOP/GRACoL	Fogra characterization data
EFI Chart	Yes	Yes	No	No
IDEAlliance ISO 12647-7	Yes	Yes	Yes	No
Ugra Fogra-MediaWedge	Yes	Yes	Yes	Yes
Dynamic wedge	Yes	No	No	No

- 3 Under **Measuring device settings**, make sure that your measuring device is selected (dynamic wedge incorporated into a Fiery Verify workflow only).

Device-specific settings are available for some measuring devices. For example, you can select a measurement condition (M0, M1 or M2). For more information, see [Measuring device settings](#) on page 86.

- 4 On the **Verify** tab, expand the **Verify Control Bar 1** panel. In the tab header bar, select the check box to activate the settings.

5 Select **Print label after verification automatically (optional).**

Some printers with an integrated measuring device can print out a label with the results of the color verification. The label includes all the necessary ISO 12647-7/8-compliant information and is printed regardless of whether the job passes color verification or not. Alternatively, by selecting **Print only if verification results passed**, you can specify that a label is printed only if all the measured results are within the defined tolerances.

6 Select one of the following references:

- the reference profile
- an MKCheck 10 or MKCheck 11 characterization data set
- the measurement file from a remote container

7 Under **Target tolerances preset, define the highest acceptable error margin when verifying the color accuracy of the printout. Do one of the following:**

- Select a tolerance preset for a recognized standard.
- Select a custom tolerance preset.
- Define or create custom tolerance presets (house standards) by editing existing or creating new presets. Custom tolerances provide an easy way to adapt quickly to the latest norms.
- Create new custom tolerance presets easily using the Server Manager.

Note:

Jobs are verified as color accurate only if all color measurements are within the defined dE tolerance limits. In Verifier, you can force jobs to be verified if some dE values are marginally exceeded.

Characterization data sets

Characterization data sets define a combination of printing conditions for standard print processes. You can measure job colors against a reference, and calculate any deviation from the reference as a dE value.

IT8 characterization data is authorized measured data from the Fogra Institute. The measurement is based on the Altona Test Suite and the ISOcoated_v2 simulation (reference) profile.

Command WorkStation also provides profiling charts with randomly arranged color patches. You can recognize them by the letter “R” in their name—for example, FOGRA39_ECI2002R.it8. Whereas non-random profiling charts print inks in blocks of each color, random profiling charts distribute each ink color more evenly on the media.

For Ugra/Fogra media wedges, you can select a set of characterization data (Fogra, IFRA, PSR, or SWOP) to define a standardized printing condition. The following table shows which characterization data to use for which reference profile:

Reference profile	Characterization data
ISOcoated.icc	Fogra 27
ISOwebcoated.icc	Fogra 28
ISOuncoated.icc	Fogra 29

Reference profile	Characterization data
ISOuncoatedyellowish.icc	Fogra 30
ISOcoated_v2_eci.icc/ISOcoated_v2_300_eci.icc	Fogra 39
SC_paper_eci.icc	Fogra 40
PSO_MFC_paper_eci.icc	Fogra 41
PSO_SNP_paper_eci.icc	Fogra 42
PSO_Coated_NPscreen_ISO12647_eci.icc	Fogra 43
PSO_Uncoated_NPscreen_ISO12647_eci.icc	Fogra 44
PSO_LWC_Improved_eci.icc	Fogra 45
PSO_LWC_Standard_eci.icc	Fogra 46
PSO_Uncoated_ISO12647_eci.icc	Fogra 47
PSO_INP_Paper_eci.icc	Fogra 48
PSO_Coated_v2_300_Matte_laminate_eci.icc	Fogra 49
PSO_Coated_v2_300_Glossy_laminate_eci.icc	Fogra 50
PSOcoated_v3.icc	Fogra 51
PSOuncoated_v3_FOGRA52.icc	Fogra 52
eciCMYK.icc	Fogra 53
PSO SC-B Paper v3.icc	Fogra 54
FOGRA55_TAC300_CL.icc	Fogra 55
PSO Coated v3 Matte laminate.icc	Fogra 56
PSO Coated v3 Glossy laminate.icc	Fogra 57
eciCMYK_v2.icc	Fogra 59

Reference profile	Characterization data
Metal Printing MPC1 FOGRA60.icc	Fogra 60
PSR_LWC_PLUS_V2_PT.icc	PSR_LWC_PLUS_V2
PSR_LWC_STD_V2_PT.icc	PSR_LWC_STD_V2
PSRgravureMF.icc	PSRgravureMF
PSR_SC_STD_V2_PT.icc	PSR_SC_STD_V2
PSR_SC_PLUS_V2_PT	PSR2_SC_PLUS_V2
ISOnewspaper26v4.icc	IFRA26
PaC.Space_CMYK_gravure_V1a.icc	PaC.Space
GRACoL2013_CRPC6.icc	CRPC6 - IDEAlliance ISO 12647-7 Control Wedge 2013 GRACoL2013_CRPC6 Ref
GRACoL2013UNC_CRPC3.icc	CRPC3 - IDEAlliance ISO 12647-7 Control Wedge 2013 GRACoL2013UNC_CRPC3 Ref
SWOP2013C3_CRPC5.icc	CRPC5 - IDEAlliance ISO 12647-7 Control Wedge 2013 SWOP2013C3_CRPC5 Ref
SWOP2013C5.icc	IDEAlliance ISO 12647-7 Control Wedge 2013 SWOP2013C5 Ref
EFIJMPA3	EFIJMPA3
JapanColor2011Coated	JapanColor

Tolerance presets

Command WorkStation provides predefined tolerance presets for proof production (verification based on an ISO 12647-7 or 12647-8-compliant media wedge) and for certification purposes (such as FograCert).

You can measure dT tolerances for the primary colors only. Verifier cannot calculate dT values for colors that are composed of a mixture of CMYK.

Reference profile	Characterization data
ISO 12647-7 Contract Proof “Media Wedge” ISO/DIS-12647-7:2016 Contract Proof “Media Wedge”	ISO 12647-7 (contract proofing)
PSO_Coated_v3 (Offset) PSO_Uncoated_v3_FOGRA52 (Offset) PSO_Coated_v3 (Offset) Verify PSO_Uncoated_v3_FOGRA52 (Offset) Verify	ISO 12647-7 (contract proofing) For use with media with optical brighteners
ISO 12647-8 Validation Print “Media Wedge” CD2	ISO 12647-8 (FograCert validation print certification)
G7-ISO12647-7 Contract Proof	G7-compliant verification of proof jobs
Dynamic wedge	Verification of a job's key colors, including spot colors
Fogra PSD Side-by-Side (ISO/TS 15311) Fogra PSD 2016 Side-by-Side Fogra PSD 2018 Side-By-Side Fogra PSD Spot Colors (ISO/TS 15311) Fogra PSD 2016 Spot Colors Fogra PSD 2018 Spot Colors Fogra PSD Media-Relative (ISO/TS 15311) Fogra PSD 2016 Media-Relative Fogra PSD 2018 Media-Relative	Verification of Process Standard Digital compliance level (A, B or C) to do a print check for each printout in daily production. Fogra PSD Spot Colors (ISO/TS 15311), Fogra PSD 2016 Spot Colors, and Fogra PSD 2018 Spot Colors are available only for the dynamic wedge.
G7 Grayscale Compliance	G7-grayscale-compliant output
Japan Color Contract Proof	Japan Color-compliant (contract proofing)
Softproofing (FograCert Softproof)	Softproof verification (on-screen)

ISO 12647-7-compliant proof

To achieve an ISO 12647-7-compliant proof, the verification job must contain a control bar, a job label, and certain IT8 characterization data. The dE and dH values of the measured control bar must be within the defined tolerances.

The following settings are recommended:

Select ...	Command WorkStation verify workflow: Go to ...	Verifier stand-alone: Go to ...	Fiery Verify stand- alone: Go to ...
Ugra/Fogra media wedge (v2.2/v3.0) or any ISO 12647-7-compliant media wedge	Verify > Control Bar	Preferences > General	Edit > Verification Preset Editor
Fogra MKCheck10 or Fogra MKCheck 11	Verify > Verify Control Bar 1	Preferences > General	Edit > Verification Preset Editor
Tolerances	Verify > Verify Control Bar 1	Preferences > Comparison Settings	Edit > Tolerance Set Editor
Job label/Report to include the following information: <ul style="list-style-type: none"> • Name of the proofing software • Ink • Media • Printing condition to be simulated • Color profiles used • Date and time of printout 	Layout > Job Label > Edit (Set up a job label for the workflow before starting the verification process.)	File > Print > Report (Type in the applicable information.)	Button in program window (Information predefined by Fiery Verify)

Verify color consistency

You can verify the color consistency of your jobs by printing out a control bar and measuring it against a selected reference.

Before you begin:

- Make sure that you have selected a control bar that is compatible with your measuring device.
- Make sure that you have defined dE tolerance values.
- Connect your measuring device to the computer.

1 Print a job with a control bar.

2 In Job Center, select the job. In the **Job Summary** area, click **Verify** next to the color bar you want to measure. The verification tool starts.

3 Do one of the following:

- **Fiery Verify:** Follow the on-screen instructions to measure the printed control bar.
- **Verifier:** On the **Joblist/Preview** tab, double-click the control bar that you want to measure. Verifier populates the left-hand table with the $L^*a^*b^*$ color values of the reference. Under the right-hand table, click **Measure**, and follow the on-screen instructions to measure the printed control bar.

After you have measured the control bar, the verification tool indicates whether the job has passed verification.

You can also view:

- The $L^*a^*b^*$ measurement results
- The dE value achieved for each color
- An analysis of the measurement results

Note: In Fiery Verify, you must click **Details** to display this information.

4 Do one of the following to send the measurement data back to Command WorkStation:

- In Fiery Verify: Click **Done**.
- In Verifier: Click **Send**.

You can also select **File > Save to JDF and send**. Saving the measurement data to a JDF file provides a record of the color accuracy. You can save multiple sets of measurement data to one JDF file.

In Job Center, the job receives the status **Verified** or **Verification failed**. The measurement data are sent back to Command WorkStation and displayed in Job Editor on the **Verify Control Bar** panel.

If the verification failed, you may be able to optimize the result to achieve a pass. For more information, see [Optimize verification results](#) on page 142.

You can create a remote container from verified results. A remote container contains all the information that is needed to create a color-accurate proof at multiple sites. For more information, see [Create remote containers](#) on page 153.

Optimize verification results

If a job fails verification, you may be able to improve the result by performing an optimization. The optimization process creates a correction profile that is a better match for the color gamut of the simulation (reference) profile.

It is not possible to optimize jobs if any of the following have been applied:

- Color adjustments
- Clean colors
- Perceptual or Saturated rendering intent
- Dynamic rendering intent

1 Do one of the following:

- In Job Center: In the **Job Summary** area, click **Optimize**.
- In Job Editor: On the **Verify** tab, expand the **Verify Control Bar** panel. In the panel header bar, select the check box to activate the settings. Then, click **Optimize**.

The **Optimize** button optimizes one control bar only.

The job is reprinted.

2 Repeat the verification procedure until no further optimization is possible.

Now watch the video [here](#).

Fiery Verify standalone

You can use Fiery Verify as a standalone verification tool.

You can use the standalone verification tool for the following purposes:

- To verify color consistency between two prints (print-to-print comparison)
- To verify color consistency between two profiles (profile-to-profile comparison)
- To measure single color patches

Create or edit a verification preset

You can change the default settings for color reference, tolerance set, and patch set, and save the new settings as a verification preset.

- The color reference is the targeted colors that sample measurements are compared to. Industry-standard color spaces, such as GRACoL2013 and Fogra 51, comprise most of the color reference sections.
- A tolerance set is the criteria used to compare a color reference and a measurement sample.
- The patch set is the defined set of color patches printed to use as the measurement sample. Industry-standard patch sets, such as Idealliance Control Wedge 2013, Fogra Media Wedge v3, and IT6.7/4, comprise most of the patch set selections. Custom patch sets can be imported.

1 Select **Edit > Verification Preset Editor**.

The **Verification Preset Editor** window opens.

2 Under **Verification preset**, select the preset you want to edit.

3 Click the **Duplicate** button.

A copy of the selected verification preset is created.

4 Under **Verification preset**, type a unique name (optional).

5 Under Color reference, do one of the following:

- Select an available color reference.
- Click the **Add (+)** button, and browse to a color reference appropriate for your color production workflow.

The color reference should match your job's source color profile.

- 6 Select a tolerance set appropriate for your color production workflow, and then click the **Duplicate** button.
- 7 Define custom tolerance limits by editing the default values, and then click **Save**.
To edit a value, select the check box next to the tolerance criterion you want to edit.
- 8 Do one of the following:
 - Select an available patch set appropriate for your color production workflow.
 - Click the **Add (+)** button, and browse to a patch set appropriate for your color production workflow.
- 9 Click **Save**.

Create or edit a tolerance set

You can create a tolerance set to specify the highest acceptable error margin when verifying the color accuracy of the printout against a reference.

Note: To edit a tolerance preset, you need to use Verifier or can make use of the tolerance preset editing capabilities in Server Manager.

You can define acceptable limits in different dE formula (dE 2000, dE 76, dE CMC 1:1, dE 94, CMC 2:1) for the following:

- General dE limits
- Primary color dE limits
- Hue difference dH limits
- Tone value difference tolerance limits
- Chromaticness difference dCh limits
- Spot color dE limits

- 1 Select **Edit > Tolerance Set Editor**.

The **Tolerance Set Editor** window opens.

- 2 Under **Tolerance set**, click the **Duplicate** button.

A copy of the selected tolerance set is created.

- 3 Select a dE formula.

- 4 Define custom tolerance limits by editing the default values.

To edit a value, select the check box next to the tolerance criterion you want to edit.

- 5 Select either **Warn** or **Fail** to specify how Fiery Verify will indicate when a measurement exceeds the limit.

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

- 6 Click **Save**.

Compare reference and sample colors in Fiery Verify

You can use the standalone verification tool for print-to-print comparison, and profile-to-profile comparison.

Before you begin, connect your measuring device to the computer if you want to verify the color accuracy of a printout.

Fiery Verify supports .txt and .it8 file formats. The sample and reference files must contain valid CGATS data.

- 1 In Job Center, in the toolbar, click Verifier.

Fiery Verify starts.

- 2 Select **File > New comparison**.

- 3 Do one of the following:

- Select **Comparison > Load reference**. Select a file, such as a reference profile, and then click **Open**.
- Select **Comparison > Measure reference**, and measure the control bar on your first printout.

- 4 Do one of the following:

- Select **Comparison > Load sample**. Select a file, such as a Fogra reference, and then click **Open**.
- Select **Comparison > Measure sample**, and measure the control bar on your second printout.

- 5 Select the appropriate tolerance set for your workflow.

For more information on tolerance sets, see [Tolerance presets](#) on page 140.

- 6 Do one of the following to save the results of the verification comparison as a PDF file (optional):

- Click **Report**.
- Select **File > Export to PDF > Report**.

- 7 Click **Label** to display the verification results in your browser (optional).

The label includes all the criteria that are required to verify ISO 12647-7,12647-8, G7, or Fogra PSD Print Check compliance. You can print out the label on your default printer.

Save measurement samples

You can save a measurement sample for use as a reference, or for comparison purposes. Measurement samples are saved as an .it8 file.

- Do one of the following:

- Select **Comparison > Save sample**, browse to the destination where you want to save the file, and click **Save**.
- Select **Comparison > Save sample as reference**, type a name, and click **Save**.

Measure single color patches

You can measure the L*a*b* color values of multiple single color patches. Before you begin, connect your measuring device to the computer.

- 1 Select **Comparison > Start patch measurement**.
- 2 Measure the first color patch.
Fiery Verify populates the left-hand table with the L*a*b* color values of the color patch.
- 3 Measure further color patches, if required.
- 4 Click **Stop patch measurement** to finish.

Verifier standalone

You can use Verifier as a standalone verification tool.

You can use a verification workflow for the following purposes:

- To verify color consistency between two prints (print-to-print comparison)
- To verify color consistency between two profiles (profile-to-profile comparison)
- To measure single color patches

Set preferences

You can select a measuring device, and change the default settings for color reference and tolerance set, and save the new settings as a verification preset.

Before you begin, connect your measuring device to the computer.

- 1 In Job Center, in the toolbar, click **Verifier**.

Verifier starts.

- 2 Click **Preferences**, and click the **General** tab.
- 3 Under **Measuring device**, make sure that your measuring device is selected.

Device-specific settings are available for some measuring devices. For example, you can select a measurement condition (M0, M1 or M2), or specify that you want to measure single color patches.

ES-1000 measuring device only: To measure a control bar, as opposed to single color patches, select the direction of measurement. This setting ensures that the color patches are measured in accordance with the movement of the measuring device over the control bar.

- 4 Under **User interface**, select a beep tone (optional).

By default, Verifier uses the beep tone from the measuring device. If you select the check box, the beep tone from the operating system is used instead.

- 5 Select a chart or wedge (control bar).

You can also select a custom control bar by clicking **Add (+)**. The following table shows which type of control bar is suitable for each reference:

Type of control bar	Measurement file from remote container	SWOP/GRACoL	Fogra characterization data
EFI Chart	Yes	No	No
IDEAlliance ISO 12647-7	Yes	Yes	No
Ugra Fogra-MediaWedge	Yes	Yes	Yes

6 Select a characterization data set.

If you also select **Load characterization data automatically**, Verifier automatically checks the measured values against the reference when you have measured the control bar. You do not have to search for the characterization data set manually.

7 Under **User interface**, select **Enable measurement approval** (optional).

Jobs are verified as color accurate only if all color measurements are within the defined tolerance limits. By enabling measurement approval, you can force a pass result if some dE values are marginally exceeded.

8 Click the **Comparison Settings** tab. Under **Tolerance limits**, define the highest acceptable error margin when verifying the color accuracy of the printout against a reference.

Do one of the following:

- Select a tolerance preset for a recognized standard. You can also modify preset values.
- Define custom tolerance limits (house standard) by editing the default values.

Select **Use for dynamic wedge** (optional). To verify a dynamic wedge, you can define only dE tolerances. Other values are not permitted due to the unique composition of the color patches for each job.

9 Click **Normative** or **Informative** for each tolerance limit.

The buttons affect job verification as follows:

Button	Description
Normative	Normative values are evaluated. If any of the measurements lie outside the specified range of tolerance, indicates that the result is not satisfactory and the verification fails.
Informative	Informative values are evaluated for reference purposes only and have no effect on whether the job passes or fails verification. Thus, an overall pass result can be achieved, even if an informative value exceeds the defined tolerance limits.
Off	If you select Off , the tolerance limit is not evaluated, and it is not included in the evaluation.

10 Select **Show preset in XF Client (optional).**

This setting makes the preset available for selection in a workflow that is set up for color verification.

11 Click **Save (optional).**

This setting saves custom tolerance limits as a preset.

Specify a light source and an observer angle

Different light sources make colors appear differently. When converting spectral data to the L*a*b* color space, Verifier takes the light (illuminant) setting and the observer angle into account. You can select a light source and an observer angle.

Verifier has three light settings:

- D-50 (5000 K) is the international norm for horizon sunlight on a clear morning/evening.
- D-65 (6504 K) represents midday light (noon).
- C (6774 K) stands for average daylight, excluding ultraviolet radiation.

The angle of view affects the color sensitivity of the eye. The standard viewing angle is 2°, but 10° is sometimes used in the packaging or textile industry.

- 1 Start Verifier, click **Preferences**, and click the **General** tab.
- 2 Under **General**, click a light source for spectral data conversion.

Compare reference and sample colors in Verifier

You can verify the color consistency of your jobs by printing out a control bar and measuring it against a selected reference. You can also verify a house standard by verifying saved measurement data against a selected reference.

The steps below are an example of how you can achieve ISO 12647-7 compliance. However, you can verify any suitable combination of sample data against a reference.

Before you begin:

- Make sure that you have set up Verifier for color verification.
- Verify by measurement only: Set up and connect your measuring device to the computer.
- Verify by data comparison only: Make sure that saved measurement data is available.

- 1 Start Verifier.
- 2 For the first set of measurement values (reference), click **Open**, and do one of the following:
 - Verify by measurement: From the Fogra_MKCheck11 folder, load a Fogra characterization data set—for example, Fogra39.it8 (for ISOcoated_v2_eci.icc).
 - Verify by data comparison: Load the Ugra/Fogra media wedge measurement data.

3 For the second set of measurement values (sample), do one of the following:

- Verify by measurement: Click **Measure**, and measure the media wedge.
- Verify by data comparison: Click **Open**. From the Fogra_MKCheck11 folder, load a Fogra characterization data set—for example, Fogra39.it8 (for ISOcoated_v2_eci.icc).

You can now review the verification results.

Verification results

Verifier can measure the color accuracy between one set of measurement data and one set of reference data, between two sets of measurement data, or between two sets of reference data.

Verifier provides the following ways to help you evaluate the verification results:

- Results area—The **Results** tab provides a summary of the overall result. If all the measurements lie within the specified range of tolerance, a green check mark indicates a verification result of “Passed”. A red cross warns you if any color patch exceeded the maximum tolerance values.
- Measurement value tables—The tables can display color values in the L*a*b* (default), RGB, XYZ, or CIELCH color space. Density values are also available if color values are already displayed.
- Reference and Sample color comparison tables—The table displays the color results side by side for easy comparison. You can adjust the brightness by changing the monitor gamma setting in the **Preferences** dialog box.
- dE table—The table can display the amount of color deviation in delta E (default), CIE L*a*b*, CMC, dE 94, or dE 2000.
- 2D Viewer—The 2D diagram displays a cross-section of the L*a*b* color space at a specific value along the L* axis.
- 3D Viewer—The 3D diagram shows the full color gamuts of both sets of measurement data. You can rotate the 3D model to see where the measured data do not fit into the color gamut of the reference.

Now watch the video [here](#).

Verify color accuracy using a random profiling chart

To verify the accuracy of each color with its reference, you must reorganize visually arranged IT8.7/4 reference color patches so that they match the order of the random chart.

Sorting reference data allows you to:

- Compare any combination of IT8.7/4 chart and Ugra/Fogra media wedge that is selected as the control bar, because only the Ugra/Fogra media wedge data is taken into account.
- Use the test form ISO12647_7_Evaluation_A.pdf to verify printing conditions whose characteristic data is available only as ECI2002 and not as IT8.7/4 data.
- In the Verifier program window, right-click on one set of color values, and click **Sort as reference data**.

Verify color accuracy using 2D Viewer

2D Viewer displays a cross-section of the $L^*a^*b^*$ color space at a specific value along the L^* axis. You can show the cutting plane for the reference color gamut, the sample color gamut, or both.

- 1 In the Verifier program window, click the **Color space** tab.
- 2 Click the appropriate button to display 2D Viewer.
- 3 Click the appropriate button to display an enlarged view of 2D Viewer (optional).
- 4 Move the slide bar to show the a^*b^* dimensions for a desired L^* value (optional).

Verify color accuracy using 3D Viewer

3D Viewer displays a 3D model of the full color gamuts of reference and sample. You can rotate the 3D model to check for colors outside the color gamut of the reference. You can also see exactly where any selected $L^*a^*b^*$ color is projected to in the reference color gamut.

- 1 In the Verifier program window, click the **Color space** tab.
- 2 Click the appropriate button to display 3D Viewer.
- 3 Drag the 3D model to rotate it (optional).
- 4 Click the appropriate button to display an enlarged view of 3D Viewer with additional settings (optional).

In the enlarged 3D view, you can do the following:

- Make general settings pertaining to how Verifier displays the reference and sample color gamuts
- Reset the rotation angle
- View where an $L^*a^*b^*$ color is projected to in the reference color gamut. Select **Enable projection**, click **Projection Point**, and then type an $L^*a^*b^*$ value in the dialog box. Verifier maps out-of-gamut colors to their nearest point on the edge of the available color gamut.

Verify color accuracy using the dE table

You can display dE results in delta E (default), CIE $L^*a^*b^*$, CMC, dE 94, or dE 2000. The amount of deviation is indicated by a color code.

- In the Verifier program window, right-click on the dE table, and click an item.

The amount of color deviation is illustrated by the following color code:

- White—The measurement is within the permitted tolerance.
- Yellow—The measurement exceeds the average tolerance limit, but is within the maximum tolerance limit.
- Red—The measurement exceeds the permitted maximum tolerance limit. Verification fails.

Verify color accuracy using the measurement value tables

The tables can display color values in the L*a*b* (default), RGB, XYZ, or CIELCH color space. Density values are also available if color values are already displayed.

In a color-accurate proof, the displayed density values are comparable with the density values that are obtained during a production run. However, be aware that the density of inkjet inks is different from that of offset printing inks due to the different composition of the inks.

- In the Verifier program window, right-click on a measurement value table, point to **Color space**, and click an item.

Copy measurement data to the clipboard

You can copy RGB, L*a*b*, XYZ, CIELCH, Density, or spectral measurement data to the clipboard for insertion into a spreadsheet.

- In the Verifier program window, right-click on the reference or sample table, point to **Copy to clipboard**, and click **Table reference**, **Table sample**, or **Spectral data**.

Save measurement data

You can save reference and sample measurement data, such as a house standard, to CSV, or TXT format. You can also add measurement data to the existing JDF file of a remote container.

- 1 In the Verifier program window, do one of the following:
 - Save to CSV or TXT: Click **File > Save**. Then, type a file name, select a file type, and click **Save**.
 - Save to JDF: Click **File > Add data to JDF**. Select the JDF file, and click **Save**.
- 2 Select which measurement data you want to save.

Load measurement data

You can load previously saved CSV, TXT, or JDF measurement data.

- 1 Do one of the following:
 - Click **File > Open reference**.
 - Click **File > Open sample**.
- 2 Select a set of measurement data.

Print verification results

You can print out verification results as a screenshot of the Verifier program window, as a report, or as a label.

- **Screenshot**—Prints an image of the current program window.
- **Report**—Includes ISO-12647-7 and ISO-12647-8-compliant information. The report also displays CMYK gradation curve diagrams, depicting all reference and measured points along the curve.
- **Label**—Includes all the criteria that is required to verify ISO 12647-7, 12647-8, G7, or Fogra PSD Print Check compliance.

1 Set up the printer.

- In Windows: Click **File** > **Select printer**.
- On Macintosh: Click **Verifier** > **Page Setup**.

2 Click **File** > **Print**, and click an item.

Before printing a report, or a label, you can enter and save job properties as a template for future jobs.

Measure single color patches

You can measure the L*a*b* color values of multiple single color patches. Before you begin, connect your measuring device to the computer.

1 Start Verifier, click **Preferences**, and click the **General** tab.

2 Under **Measuring device**, select **Measure single patches**, and then click **OK**.

3 Click **Measure**, and follow the on-screen instructions to measure the first color patch.

You can click either **Measure** button.

Verifier populates the table with the L*a*b* color values of the color patch.

4 Measure further color patches, if required.

5 Click **Stop** to finish.

Color consistency across remote sites

A remote container contains all the information that is required to print and verify color accuracy at multiple sites. You can transfer remote containers easily between locations—for example, by FTP server.

A remote container contains:

- The job file (PDF, Image EPS, or TIFF only)
- A JDF file (job settings and measurement data (if available))
- Reference profiles
- Control bars

- Spot color table
- *.3cc profile (optional)

Create remote containers

Command WorkStation can create a remote container automatically for every job, or you can create a remote container manually from PDF, Image EPS, and mono TIFF jobs.

Command WorkStation provides a workflow template “Remote_Out_(ISOcoated_v2)” that is already configured with the basic settings to create a remote container automatically.

If you prefer to configure a custom workflow, make sure that you select a control bar that is compatible with your measuring device, and that you select appropriate reference data.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Printer** tab, expand the **Print Settings** panel.
- In Job Editor: On the **Printer** tab, expand the **Print Settings** panel.

2 Click **Other Settings**.

3 Do one of the following:

- Select **Automatically** to create a remote container for every job.
- Select **Manually** to create a remote container, when required. You can create a remote container by right-clicking the job in Command WorkStation, and clicking **Create Remote Container**.

4 Under **Export path**, select a folder in which to save your remote containers.

5 Select a type of compression to reduce the overall volume of data (optional).

This setting is available for JPEG jobs only. ZIP is the safest form of compression and results in no loss of data when the file is extracted. A minimum amount of data may be lost when you use JPEG compression.

6 Select **Immediately after spooling** (optional).

This setting is available for automatically created remote containers only. If you do not select this setting, Command WorkStation creates a remote container when Verifier sends back verification results.

7 Select **Include 3cc profile** (optional).

Achieve color consistency at remote sites

You can print a job from a remote container, and verify the color accuracy of the printout on the connected printer. To produce color-accurate copies of a job at a remote site, you must configure Command WorkStation to use the measurement data and color management settings from the remote container.

Before you begin:

- Make sure that you select a control bar that is compatible with your measuring device.
- Connect your measuring device to the computer.

You can achieve the most accurate results if you use the same printer model and media that were used to create the original. You can enhance color accuracy still further if both printers are optimally calibrated.

Command WorkStation provides a workflow template “Remote_In” that is already configured with the basic settings to process a remote container.

If you prefer to configure a custom workflow, make sure that you make the following settings.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **Job Detection** panel.
- 2 Under **Remote job import**, select **Remote job**.
This setting ensures that the original color management settings, including the simulation (reference) profile, are automatically selected when you load the job.
- 3 On the **Verify** tab, expand the **Verify Control Bar 1** panel. In the panel header bar, select the check box to activate the settings.
- 4 Under **Characterization data**, select **Open Measurement File**.
This setting ensures that the color values from the remote container are used as the reference. If the remote container was created without measurement data, the simulation (reference) file is used instead.
- 5 Under **Target tolerance preset**, define the acceptable deviation for color accuracy.
The targeted tolerance defines the highest acceptable error margin when verifying the color accuracy of a printout against a reference.
- 6 In Command WorkStation: Import the remote container, and print the job.
After printing, the job is automatically submitted to Verifier.
- 7 In Job Center: Select the job. In the toolbar, click Verifier.
- 8 In Verifier, do the following:
 - a) On the **Job List/Preview** tab: Double-click the job file to display the L*a*b* values from the measurement file.
 - b) Measure the printed control bar.
 - c) Send the results back to Command WorkStation.

Color verification with Fiery ColorGuard

With Fiery ColorGuard, you can leverage scheduled verifications and cloud-based history and trend analysis to achieve consistent, accurate color quality.

Fiery ColorGuard allows you to create color verification schedules that automatically prompt operators when it is time to verify systems. Verifications can be executed automatically without user input if your printer has an inline measurement instrument.

For each printer, you schedule verification against a selectable verification preset, which can be an industry standard or custom-defined standard, in the Fiery ColorGuard Web application. Command WorkStation will notify the operator when a scheduled verification is pending and prompt the operator to perform color verification.

Fiery XF supports system verification using Fiery ColorGuard. With a system verification, you can check the color output of your printer against a verification preset by scanning a printed control wedge with a spectrophotometer.

Fiery ColorGuard sends scheduled system verification jobs for Fiery XF-driven printers directly to print. If a printer is not ready, Fiery ColorGuard waits for up to two hours before sending an error.

You can track verification results over time in the Fiery ColorGuard Web application.

Keep in mind the following:

- You can perform system verifications for any workflow and printer combination.
- For benchmark verifications, the first measurement serves as a reference for all future benchmark verifications.
- You can view the verification status of a Fiery XF-driven printer in the Job Summary pane of Command WorkStation: green indicates that the printer passed the verification, yellow indicates that an error occurred during verification, and red indicates that the verification failed.
- Fiery ColorGuard displays system verification results for each workflow of a printer.
- Fiery ColorGuard shows the most recent system verification result as the system status for all jobs loaded or processed with each workflow and printer combination.
- With universal verification, you can create a verification schedule associated with one workflow of a printer and apply those results to all other verification schedules and workflows for the printer.
- When you perform a job verification, the results of the job verification will be shown in place of any previously performed system verification results for the same workflow.

To access ColorGuard with Fiery XF, you must connect your Fiery XF-driven printer to the Fiery IQ cloud. For more information, see [Connect a Fiery XF-driven printer to the Fiery IQ cloud](#) on page 156.

After connecting your Fiery XF-driven printer to the Fiery IQ cloud, you can access Fiery ColorGuard features in Command WorkStation 7.2 and later using one of the following:

- Click **Server > ColorGuard**.
- Click the More icon (three vertical dots) next to the Fiery XF server name in the Servers pane and click **ColorGuard**.

In the Fiery ColorGuard client window:

- Click **Go to ColorGuard web** to access the Fiery ColorGuard Web application where you can schedule verifications to be completed in Fiery ColorGuard and track the verification results.

The Notifications tab includes the Fiery ColorGuard pending schedule notifications. You can click **Verify now** to open FieryMeasure and complete the verification.

For more information about Fiery ColorGuard, see *Fiery IQ Help for Industrial and Large Format presses*.

Connect a Fiery XF-driven printer to the Fiery IQ cloud

You can connect a Fiery XF-driven printer to the Fiery IQ cloud to access Fiery ColorGuard features.

Before you begin, ensure the Fiery XF server is connected to the internet in order to connect Fiery XF-driven printers to Fiery IQ.

- 1 Click the **Fiery IQ** icon (cloud) in the Command WorkStation sidebar.
- 2 Click **Get Started**.
- 3 Sign in with your Fiery Account.

Note: The Fiery Account must be connected to a company account.

For more information, see [Fiery Account](#) on page 19.

- 4 Click the toggle button next to the Fiery XF server to connect the Fiery XF server to Fiery IQ.
- 5 Click **Next**.

Connecting the Fiery XF server and the associated printers to Fiery IQ will take a few minutes. The Fiery XF server connects to Fiery IQ first, followed by connections to all printers connected to the Fiery XF server. You can click the arrow to view the connection status of each printer. Printers with a green check mark have successfully connected to Fiery IQ.

After all printers are connected to Fiery IQ, you can access Fiery ColorGuard by clicking **Go to Fiery ColorGuard**.

Finishing options

Command WorkStation can help you trim your media accurately by printing crop marks, Fotoba marks, or grommet marks. Command WorkStation can also extract cut contours and output directly to an i-cut cutter, a Zünd Cut Center, or any supported print-and-cut plotter, built-in cutter, or auxiliary cutter.

You require the following options to process certain types of crop marks and cut marks:

- Production option - Required for Fotoba and grommet marks.
- Cut Marks Option - Required for supporting most common flatbed cutters or cutters running own front-end software, such as Zünd Cut Center, EUROSYSYSTEMS OptiSCOUT, SUMMA GoProduce, or i-cut. Use to enable QR and Code 39 barcode as well as the support for materials given by external ZCC or OptiSCOUT database.
- Cut Server Option - Required to support a wide range of additional cutters and routing tables that are not supported directly in Command WorkStation.

Now watch the video [here](#).

Fiery Prep-it connectivity with Fiery XF

Fiery Prep-it makes it easy and efficient to prepare print-for-cut jobs by providing a central hub for all your print-to-cut needs. From true shape nesting and cut path editing to double-sided printing and automation, it can maximize the use of your existing printing and cutting equipment. Fiery Prep-it is fully integrated with Fiery XF.

The benefits of using Fiery Prep-it are:

- Print more jobs on less media with highly optimized, free-angle, true shape nesting
- Save hours of manual prepress time with fast and easy cut path and layout preparation
- Focus on other tasks by fully automating nest creation
- Maximize the use of existing printing and cutting equipment with comprehensive connectivity
- Avoid expensive errors by using predefined workflows and hot folders

You can find more information about Fiery Prep-it and documentation under the **Resources** tab [here](#).

Watch the video [here](#) for information on installation and job setup to create automated workflows.

Configure crop marks and Fotoba marks

You can print guidelines at job corners to indicate where to trim the media after printing. You can also print Fotoba marks, which enable the precise positioning of the blade on a cutter.

You can modify the bleed for a cut path in a PDF file using Fiery Prep-it. For more information, see <https://www.fiery.com/products/large-format/fiery-prep-it/>.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings.

2 Select **Crop Marks**.

3 (Optional) Select **Limit to collection**.

When selected, this setting creates marks for a whole nesting, a whole step and repeat, or a whole tiling. When not selected, this setting creates marks around single jobs, including child jobs in nestings, and individual jobs in step and repeats.

4 Select a crop marks type.

5 Select a line color.

Select a color that is easily visible on your media. To print white marks, you require a printer with white ink.

6 Do one of the following:

- Crop marks - Type a line thickness, line length, and distance to job. Some settings are not available for some types of crop marks.
- Fotoba marks - Type a horizontal and single vertical line thickness. The vertical single line is not available for some types of Fotoba marks.

7 (Optional) Define trim.

The trim setting repositions the crop marks in relation to the job. Type positive trim values to insert white space between job and crop marks.

For crop marks, you can also enter negative trim values to eliminate any unwanted white space that is visible around the job after trimming.

Note: Negative trim causes the knife to cut into the job, which reduces the job dimensions. You can counteract this effect by scaling the job so that the original dimensions are preserved after cutting.

8 (Optional) Define bleed and select a bleed type from the menu.

The bleed setting fills the blank space around the edges of a job, preventing undesired white borders after trimming. You can also use the bleed setting to fill the blank space around the edges of a job for canvas wrap printing.

The available bleed options are as follows:

Option	Description
None	No print bleed is applied.
Duplicate	Repeats pixels from the edge of the job to fill the bleed area.
Color	Fills the bleed area with a selected color.
Content-Aware	Uses AI to fill the bleed area with content that mimics the job content.

9 (Optional) Under **Presets**, click **Save** to create a preset of the current settings.

Now watch the video [here](#).

Configure grommet marks

You can print circular marks to indicate where to cut holes after printing. Grommet marks are used to hang banners, or flags on a pole.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Finishing** tab, expand the **Grommet** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Finishing** tab, expand the **Grommet** panel. In the panel header bar, select the check box to activate the settings.

2 Select **Limit to collection** (optional).

When selected, this setting creates marks for a whole nesting, a whole step and repeat, or a whole tiling. When not selected, this setting creates marks around single jobs, including child jobs in nestings, and individual jobs in step and repeats.

3 Select a grommet marks type.

4 Type a line thickness, and a diameter.

Some settings are not available for some types of grommet marks.

5 Select a color.

Select a color that is easily visible on your media. To print white marks, you require a printer with white ink.

6 Define a margin (optional).

The margin setting repositions grommet marks relative to the edge of the job. Type a positive margin value to print grommet marks outside the job area. Type a negative margin value to print grommet marks inside the job area.

7 Click **Adjust Grommets** (optional).

The **Adjust Grommets** dialog box allows more precise alignment of grommet marks (see the following steps).

8 Type the distance from each job corner to the first grommet mark.

This setting fixes the exact horizontal and vertical positions of end grommet marks. The values you enter are the distance measured from the job corner to the center of the grommet mark. Additional grommet marks are positioned between the two end points in accordance with the settings described below.

9 Do one of the following:

- Type the number of grommet marks. Each edge can have a different number of grommet marks. If no grommet marks are required along one edge, type “0” in the appropriate box.
- Type the targeted distance between grommet marks. The total available distance is equal to the width or height of the image. If the edge of the image is not exactly divisible by the targeted distance, the distance between grommet marks is rounded up or down to ensure that the grommet marks are distributed evenly apart. The actual calculated distance between grommet marks is displayed under the value you entered. If no grommet marks are required along one edge, type “0” in the appropriate edit box.

10 Click **OK**.

11 Under **Presets**, click **Save** to create a preset of the current settings (optional).

Now watch the video [here](#).

Cut Server

Fiery XF 8.0 works with Fiery XF Cut Server 3.0, which supports updated drivers and barcode workflows for a variety of cutters.

One Cut Server license entitles you to install the Cut Server software on one Windows computer. You can configure a maximum of two different cutters for each installation.

The Cut Server installation process requires a separate activation code. This separate activation code is provided together with the Cut Server Option license code.

If you use a Fiery XF 8.0 server, you are required to update to Fiery XF Cut Server 3.0. Older versions of Fiery XF Cut Server are not compatible with Fiery XF 8.0.

Cut Server can receive cut contour jobs from any Fiery XF server through a hot folder.

Install Cut Server

You can install Cut Server from the same data storage medium from which you installed Command WorkStation. Cut Server is available for Windows only.

- 1** Double-click the .iso file for the client component, click **Open folder to view files**, open the Windows_User_SW > FieryXF_Cut_Server folder, and double-click the Autorun.exe file.

You can install Cut Server on any Windows computer by copying the FieryXF_Cut_Server folder to the desktop of that computer. The Fiery XF server does not have to be installed on the same computer.

- 2** Follow the on-screen instructions to complete the installation.

Enter the separate activation code when prompted during the installation process.

The Cut Server program icon is installed on your desktop.

- 3** Activate the Cut Server license.

Now watch the video [here](#).

You can now configure Cut Server and Command WorkStation.

Configure Cut Server

You must configure a connection to the Fiery server and create a hot folder in Cut Server. Cut Server retrieves the cut files from the hot folder.

Note: Ensure that the Fiery XF server has the appropriate rights to write to the hot folder. Ideally, the hot folder is located on the computer where the Fiery XF server is installed.

- 1 Double-click the Cut Server program icon on the desktop.
- 2 From the drop-down menu, select the Fiery XF server on which the Cut Server license is activated.
- 3 Click **Select**.
- 4 Follow the on-screen instructions to select your cutter.
- 5 Click **Finish**.
The Cut Server program window opens.
- 6 Click **Edit > Preferences**, and configure a hot folder.
For more information, see the *Cut Server help*.

Now watch the video [here](#).

Configure Command WorkStation for Cut Server

When you have configured a hot folder in Cut Server, you must select it as the export folder in Command WorkStation.

- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings.
 - In Job Editor: On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings.
- 2 Select **Cut Marks**.
- 3 Select a cutter manufacturer, a cutter type, a cut marks type, and, if available, a related cut mark option.
- 4 Under **Export path**, click **Choose**, and browse to the hot folder that is configured in Cut Server.
- 5 Click **Save**.

Now watch the video [here](#).

Set up a print-and-cut device

On a print-and-cut device, you can print and make a cut contour after printing. Fiery XF supports this feature using the **Print and Cut** button in Command WorkStation. You can also choose to print on the print-and-cut device and then use an external cutter for cutting.

Before you begin: Make sure that you have configured your printer in Command WorkStation.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media. On the **Printer & Workflow Settings** tab, expand the **Special Settings** panel.
- In Job Editor: On the **Printer** tab, expand the **Special Settings** panel.

2 Under **Printer Contour cutting**, select the **Printer Contour cutting** check box.

Note: If the **Printer Contour cutting** check box is not selected, then the print-and-cut device can be used as a simple printer. This allows you to use a print-and-cut device with a different external cutter.

Select one of the following:

- **Print** - Prints the job, but does not cut the contour data.
- **Print & Cut** - Prints the job and cuts the contour data.
- **Cut only** - Cuts the contour data without printing the job.

3 Optional: Select **Enable printer cut marks**.

You can now configure cut contours.

Cut contours

Command WorkStation can extract and process industry-standard cut contours created in known spot colors. Known spot colors are those from major spot color manufacturers or ones that you have previously defined in Command WorkStation.

Command WorkStation can process cut contours created in a separate layer in the graphics program. In the graphics program, you can save single or multiple cut contours in one layer. However, Command WorkStation cannot extract cut contours from layers that also contain other information.

Note:

Multiple transparencies in a job can slow down the processing speed. To avoid this, it is recommended that you flatten all transparency levels. In Illustrator, click **Object > Flatten Transparency**, and clear the check box for converting all strokes to outlines.

Command WorkStation supports the following industry-standard cut contours:

- Regmark
- Crease
- Kiss Cut
- Laser Cut

- Pen Plot
- Router Cut
- Score
- Through Cut
- CutContour
- Die line

Any other cut contour can be added at any time, if needed.

Command WorkStation must handle all cut contours separately. The in-RIP separation feature ensures that you can export the cut contour inside of a pre-separated or in-RIP separated file. If Command WorkStation cannot detect a cut contour, it processes the layer as if it were a spot color in a composite job.

Use a PDF box as a cut contour

Command WorkStation can use a PDF box like TrimBox or a BleedBox as a cut contour.

1 Do one of the following:

- In Server Manager: On the **Finishing** tab, expand the marks panel and click **Contour Cutting**.
- In Job Editor: On the **Finishing** tab, expand the marks panel and click **Contour Cutting**.

2 Clear the **Extract contour path from EPS/PDF** check box.

3 Double-click **Bounding Box** and select any of the listed boxes.

Instead of extracting a cut contour defined as a single spot color, the cut path is generated based on the size of the selected box.

Keep the following in mind when working with cut contours:

- It is not possible to extract a cut path from a spot color and a selected box simultaneously. A cut path is generated from either the size of the selected box or the selected spot color layer.
- For TIFF, JPEG, and other supported image file formats, the Fiery XF server always creates a cut path using the size of the job itself.
- You can also specify a PDF box for printing. This box must be bigger than or equal to the size of the selected cut box.

Set up cut contours for loaded jobs

Jobs with industry-standard cut contours in known spot colors are processed automatically. If your jobs contain non-standard cut contour names or unknown spot colors, you must select them in Command WorkStation.

- 1** In Job Editor: On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings.
- 2** Select **Cut marks**.

3 Click **Contour Cutting, and select **Extract contour path from EPS/PDF**.**

The **Contour Cutting** dialog box shows the job's cut contours. Command WorkStation can only extract cut contours with a scissor icon next to them.

A spot color with a scissor icon, but no color patch next to it, indicates that Command WorkStation can detect the cut contour but its spot color is unknown. On the **Color** tab, expand the **Spot Colors** panel, and define the spot color. Then, in the **Contour Cutting** dialog box, select the check box next to the color patch.

A spot color with no scissor icon indicates that Command WorkStation can detect the spot color, but it has not been defined as a cut contour. Select the check box next to the color patch.

Configure cut contour presets

You can change the cutting method and the print quality of default cut contours. You can also define non-default cut contours so that Command WorkStation detects them automatically.

Some of the settings described below are cutter-dependent and may not be available for your cutter.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings.
- Define a distance between the cut mark and the job to print. By default, Fiery XF offers the default distance given by the cutter vendor. If needed, a larger or smaller gap can be set up and will be shown in the preview. For Fiery XF Cut Server-driven cutters, the gap can be defined in cut options settings if available for the related cut mark.

2 Select **Cut marks.**

3 Select a cutter manufacturer, a cutter type, and a cut marks type.

4 (Optional) Define cut mark options.

This setting is available only for Fiery XF Cut Server-driven cutters. It allows you to specify certain settings, like Barcode or the printing conditions of the cut marks.

Note: The cut mark options are available only if you are using Command WorkStation on a Windows computer.

5 (Optional) Clear **Send to cut server after printing.**

This setting is automatically selected if you select a cutter that is supported by Fiery XF Cut Server. Clear the check box if you do not want the cut data to be sent automatically to the cutter after printing.

6 Do one of the following:

- Define how many cut marks are positioned along the horizontal and vertical edges of the image.
- Define the minimum distance between cut marks. This setting can result in a larger gap between the last cut mark and the corner of the image if the length of the edge is not exactly divisible by the defined distance.

7 Select a cut marks color.

Select **Black with yellow background** if you are printing on a dark media. If the printer can print with white ink, you can use white ink for the cut mark. If you are using a Fiery XF Cut Server-driven cutter, you can select the cut mark color in the cut options.

8 (Optional) Click **Print between layout elements**.

This setting prints cut marks between nested jobs and step and repeat elements.

9 (Optional) Define a trim setting.

The trim setting repositions the crop marks in relation to the image. Type positive trim values to insert white space between the image and crop marks.

You can also enter negative trim values to eliminate any unwanted white space that is visible around the image after trimming.

Note: Trim can be applied only to a page definition box not on a cut contour with Fiery XF.

10 Do one of the following:

- Under **Export path**, select a folder in which to save the cut files.

Cut Server only: The folder you select here must be set up as a hot folder in Cut Server. If a hot folder is already set up in Cut Server, select it as the export folder here. Otherwise, make sure that you set up the export folder as a hot folder in Cut Server. An *.ai file and an *.xml job ticket are created during job processing and both files are imported immediately into the Fiery XF Cut Server when the hot folder in Cut Server is set to the export folder in Fiery XF server.

- Zünd Cut Center only: Type the IP address of the cutter, and then type the IP port. The IP port could be 50000. For more information, see the Zünd Cut Center documentation. Click **Test** to test the connection.

11 (Optional) Click **Contour cutting**.

In the **Contour Cutting** window, you can edit the default cut contours, add custom cut contours, or select the material used for cutting. See [Download cutter materials using the Cutter Material Database Connector](#) on page 169.

12 (Optional) Click **Barcode**.

In the **Barcode** window, you can print jobs with a barcode. The barcode identifies the cut-path file of jobs created. Fiery XF allows creating Code 39 and QR barcodes for multiple cutters, for example, i-cut, ZCC, or EUROSISTEMS OptiSCOUT driven cutters.

Add or edit cut contours and set up material

In the **Contour Cutting** dialog box, you can edit the default cut contours, add custom cut contours, and set up the material downloaded from the cutter itself.

Before you begin: Make sure you have configured a cut contour preset and opened the **Contour Cutting** dialog box.

1 Select **Material**.

If a material database has been imported into the Fiery XF server, you can select the material from the available options at the cutter. See [Download cutter materials using the Cutter Material Database Connector](#) on page 169.

2 Select **Extract contour path from EPS/PDF** (optional).

If you do not extract the contour path from EPS/PDF jobs, or if the job does not contain a contour path, the bounding box is automatically used as the cut contour.

3 Do one of the following:

- Define a new cut contour: Under the table, click the **Add (+)** button to add a row to the table. Overwrite **Enter spot color name** with the exact name of the cut contour from the graphics program, and then press **Enter**.

- Configure or edit a cut contour:

In the **Method** column, click an item, and then click it again. Click the down arrow and select a default cut method. Alternatively, select **User defined** to add a custom cut method.

In the **Mode** column, click an item, and then click it again. Click the down arrow and click an item. The mode affects speed and quality. The speed setting ensures that the printout is cut as quickly as possible, but it may not be exact. With the quality setting, the cut is more precise, but takes longer.

Some cut methods have advanced settings. Click the blue pen icon to open the **Advanced contour settings** dialog box. There, you can change the line length, the bit diameter, the grooving angle, and the z depth.

Now watch the video [here](#).

Create cut contours

The Fiery XF server can create rectangle cut contours for the non-vector based file formats like TIFF or JPEG as well as for the different PDF page size definitions such as CropBox, TrimBox, ArtBox, or BleedBox.

For a non-vector based format such as a TIFF file, you can load a file into a workflow that is set up with a cutter or a print-and-cut device. The Fiery XF server will create a rectangle cut path with the size of the image and put the same into the cut file.

For a PDF file, click **Contour cutting** to open the **Contour cutting** window. Turn off the **Extract contour path from EPS/PDF** setting. Select **Bounding Box** from the **Contour source** column. Click **Bounding Box** to access the different PDF page sizes the Fiery XF server must create a rectangle shape from.

Add or edit barcodes

The barcode identifies the cut-path file of jobs created for various cutters, for example ZCC, i-cut, or EuroSystem OptiSCOUT driven cutters. You can use a manually operated barcode reader or a camera built into the cutter.

Before you begin: Make sure you have configured a cut contour preset and opened the **Barcode** window.

Command WorkStation generates a new barcode every time a job is processed. The barcode is generated automatically from information taken from the file name, job number, tile ID, and the creation date of the cut file.

1 Do one of the following:

- Select **Barcode**.
- Open the cut mark options and select **Barcode** (optional and available only for Fiery XF Cut Server-driven cutters).

2 Do one of the following:

- Select the position of the barcode in relation to the image.
- Select available options for the barcode depending on the cut mark type (optional and only available for Fiery XF Cut Server-driven cutters).

Now watch the video [here](#).

Output jobs with cut contours

You can output jobs with cut contours to a hot folder, to a printer, to a print-and-cut device, or to a cutter.

Before you begin:

- Set up your printer, print-and-cut device, or cutter in Command WorkStation.
- Set up cut contours in Command WorkStation.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **PS/EPS/PDF** panel.
- In Job Editor: On the **File** tab, expand the **PS/EPS/PDF** panel.

2 On the **File** tab, open the **PS/EPS/PDF** pane, and set in-RIP separation to **Force**.

Forcing in-RIP separation ensures that Command WorkStation processes the in-RIP information from the graphics program so that cut contours are output as separate files.

3 Do one of the following:

- In the toolbar, click **Print** to send the job to the Cut Server.
- In the toolbar, click **Print & Cut** to send the job to a print-and-cut device or to a cutter.

Exclude cut contours from the output

You can exclude all or single cut contours when you output a job.

• Do one of the following:

- In Job Editor: On the **Finishing** tab, expand the **Marks** panel. In the panel header bar, select the check box to activate the settings. Select **Cut marks**, click **Contour Cutting**, and clear **Extract contour path from EPS/PDF**.

In this case, no cut file is created, and all cut contour layers are printed out composite.

- Exclude individual cut contours: In Job Editor: On the **Color** tab, expand the **Spot Colors** panel. In the table of available spot colors, clear the check box next to the cut contour.

Cut contour layers excluded in this way are neither extracted from the job, nor are they printed out composite.

Remove visible contour markings from the printout

Visible contour markings can appear as a white outline because the overprinting attribute of the cut contour is set to knockout instead of to overprint.

- Open the job in an external program, such as Enfocus PitStop, and set the overprinting setting to overprint.

Download cutter materials using the Cutter Material Database Connector

The Fiery Server Control allows you to download cutter material information from the EUROSYSYSTEM OptiScout Material server and the Zünd Cut Center.

- 1 Set up an L3/D3/S3/G3 Zünd cutter using an IP connection or a EUROSYSYSTEM OptiScout 8 driven cutter in Server Manager under **Workflows > Finishing**.
- 2 Save your changes.
- 3 Shut down the Fiery XF server by using the Fiery Server Control.
- 4 When the Fiery XF server is off, select the **Fiery Cutter Material Database Connector** option from the **Configuration** pane in the Fiery Server Control.
- 5 Type the IP address and port of the computer and the database from EUROSYSYSTEM or Zünd in the window. The related-port settings can be found in the vendor database. Usually, it is port 51001.
- 6 Select the database type and click the **Get cutter materials** button to start downloading.
- 7 After successfully downloading the cutter material information, restart the Fiery XF server using the Fiery Server Control.

The Fiery XF server will connect at startup time to receive the cutter materials with the previously connected workflows for the mentioned cutters. This workflow allows you to select suitable material for each cut job inside the **Contour Cutting** window accessible on the **Finishing** pane in the Fiery XF Server Manager and Fiery XF Job Editor.

By selecting a related cutter material, jobs sent from the Fiery XF server to the Zünd Cut Center or EUROSYSYSTEM OptiScout 8 Material server will be ready to cut and do not require any material assigned on the cutter front-end.

The Fiery XF server allows you to connect to multiple Zünd Cut Centers in parallel using different IP addresses or ports but restricts using only one EUROSYSYSTEM OptiScout 8 Material server.

Improving output quality

You can improve output quality by changing or turning off some program features that are not essential for your workflow.

You can try any of the following:

- Turn off **RIP and print on the fly**, so that job processing and printing do not occur simultaneously.
- Increase the RIP resolution.
- Correct the length of printed jobs.
- Simulate gravure printing, flexo printing, or offset printing.
- Simulate appropriate light conditions.
- Smooth out gradations.
- Properly calibrate the printer. Some printers have an internal calibration feature that you can activate from the **Printer & Workflow Settings** tab.
- Use a high-quality media that is suitable for the job. For example, use photo paper for vivid output of photographic images, and use a proofing media for CMYK proofing jobs.
- Make sure that profiles and rendering intents are suitable for your job.
- Recalibrate the printer. Recalibration adjusts the ink densities to those of the reference printer on which the media profile was created. A recalibration helps to ensure that the printer's color reproduction properties remain constant.
- Optimize the media profile for the best possible color results.
- To verify jobs with the status **Verification failed**, perform a job-specific optimization. This process optimizes the job's color management by creating a correction profile that better matches the color gamut of the simulation profile.
- Use Color Editor to optimize a spot color. If the color quality of a spot color in the printout is unsatisfactory, you can replace it by measuring a truer color representation in another printout.
- Force the use of pure black ink to remove CMY inks to achieve a more saturated black.
- Remove color impurities that can occur in color management during the conversion from RGB to CMYK.
- Adjust color by tweaking the percentage of ink for individual ink channels.

Turn off RIP and print on the fly

You can improve output quality by preventing Command WorkStation from processing and printing chunks of data simultaneously, which can lead to undesirable lines in the printout.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. On the **Printer** tab, expand the **Connection** panel.

- 2 Under **Speed**, clear **RIP and print on the fly**.

Increase the RIP resolution

You can improve output quality by increasing the RIP resolution. However, a higher RIP resolution reduces the output speed.

You cannot process a job at a higher RIP resolution than the print resolution.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **RIP Resolution** panel.
- 2 Move the slide bar to **High quality**.

Now watch the video [here](#).

Turn off bidirectional printing

You can improve output quality by turning off bidirectional printing, which causes the print head to print in one direction only.

The print direction is saved to the calibration file. You can check whether unidirectional or bidirectional printing is selected on the **Media Configuration** panel in either Job Editor or Server Manager.

Note: Not all printers support bidirectional printing.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media. On the **Media** tab, expand the **Media Configuration** panel.
- 2 Under **Print direction**, select **Switch to unidirectional**.

Adjust the length of printed jobs

You can compensate for any inconsistency in the length of a printed image by adjusting the output dimensions. Such inconsistencies can occur as a result of a particular combination of printer and media.

The C:\Program Files (x86)\Fiery\Components\Fiery XF\Samples folder contains the file Lineal_01.ps. It consists of a set of ruler markings for a length and width of 0.5 m x 0.5 m.

- 1 Print out the file Lineal_01.ps and measure the length of the ruler markings.
- 2 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media. On the **Media** tab, expand the **Media Correction** panel.
 - In Job Editor: On the **Media** tab, expand the **Media Correction** panel.

- 3 Under **Media feed adjustment**, type the target length and the actual length.

You can also integrate a media length correction into the calibration file.

Adjust the size of printed jobs

Treatment processes found in textile printing, such as steaming, washing, drying, and tensioning, can affect fabric size (shrinkage or stretch). You can compensate for any inconsistency in the length and width of a printed image by adjusting the output dimensions to the original pattern size.

The C:\Program Files (x86)\Fiery\Components\Fiery XF\Samples folder contains the file Ruler_1m.pdf. It consists of a set of ruler markings for a length and width of 1.0 m x 1.0 m.

- 1 Print out the file Ruler_1m.pdf on your chosen fabric, and perform the usual treatment process. Then, measure the width and length of the ruler markings.
- 2 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media. On the **Media** tab, expand the **Media Correction** panel.
 - In Job Editor: On the **Media** tab, expand the **Media Correction** panel.
- 3 Under **Media size correction**, type the actual length and width of the printed ruler markings.

When media size correction is applied, an information icon appears on the far right of the Job Editor toolbar. It provides details of the exact media size after treatment.

Simulate print characteristics

You can simulate distinctive print characteristics associated with gravure, flexo, and offset printing.

You can do the following:

- Simulate the effect that occurs in gravure printing when ink is not evenly transferred from the cylinder.
 - Define the smallest dot size to be printed. In flexo printing, the smallest dot that can be etched onto a flexographic printing plate may be as small as 2%, but may gain to as much as 12% on the press due to the nature of the photopolymer plate material and the printing process.
 - Simulate offset printing to reproduce an image that more closely resembles output on a printing press. It creates a less smooth effect than an inkjet printout.
- 1 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Printer** tab, expand the **Print Settings** panel.
 - In Job Editor: On the **Printer** tab, expand the **Print Settings** panel.
 - 2 Click **Advanced Settings**.

3 Under **Simulate final run characteristics**, do one of the following:

- Gravure printing: Define the area coverage of missing dots as a percentage.
- Flexo printing: Define where the first printable dot will start. This setting can be applied to contone data, but not to halftone data. Command WorkStation ignores dots that are smaller than the first printable dot.
- Offset printing: Define the percentage up to which Command WorkStation adds graininess to fine contours and fonts.

Simulate light conditions

You can process your jobs to simulate different light conditions. The default setting is D-50 which is the equivalent of natural daylight.

1 Do one of the following:

- In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.
- In Job Editor: On the **Color** tab, expand the **Color Management** panel. In the panel header bar, select the check box to activate the settings.

2 Click **Advanced Settings**.

3 Under **Light adaptation**, do one of the following:

- Select a light source.
- Enter the L*a*b* values of a custom light condition. You can measure a light source using any conventional measuring device.

4 Click **OK**.

5 Click **Save**.

6 Under **Presets**, click **Save** to create a preset of the current settings (optional).

Set up dynamic smoothing

You can smooth the gradations of low-contrast areas and light areas.

Dynamic smoothing achieves the best results in the following situations:

- Low-contrast areas of raster image files that are printed with visible artifacts due to image compression and bit-depth limitations of the RIPing process.
- Light areas that show a pronounced visual effect between 0% (media white) and 1% of ink coverage.

You can apply dynamic smoothing to:

- All PDF and PS files
- All supported color modes
- All process colors, and all named spot colors
- All jobs processed with the Adobe PDF print engine

Be aware that dynamic smoothing requires additional processing time.

You can apply dynamic smoothing on top of FAST RIP. An internal algorithm assesses whether dynamic smoothing can improve upon the smoothing result already achieved by FAST RIP. FAST RIP corrects the gradations of vector data defined in the graphics program if they are printed with undesirable line edge artifacts. Such artifacts can occur because of bit-depth limitations of the RIPing process.

- 1 Set the RIP resolution to **High quality** (see [Increase the RIP resolution](#) on page 171).
- 2 Do one of the following:
 - In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **Printer** tab, expand the **Print Settings** panel. Click **Advanced Settings**.
 - In Job Editor: On the **Printer** tab, expand the **Print Settings** panel. Click **Advanced Settings**.
- 3 Under **Simulate final run characteristics**, reduce the amount of noise to 0%.
This setting removes graininess from fine contours and fonts.
- 4 Under **Dynamic smoothing**, select **Smooth out gradations and compression artifacts**.
- 5 Click **OK**.
- 6 Click **Save**.

Increasing output speed

You can speed up job processing and output by changing or turning off some program features that are not essential for your workflow.

You can try any of the following:

- Use FAST Processing or reduce the RIP resolution.
- Select FAST RIP.
- Turn on **RIP and print on the fly**, so that job processing and printing occur simultaneously.
- Activate bidirectional printing.
- Increase the number of Adobe print engines to process multiple PostScript/PDF jobs simultaneously.
- Set up load balancing to share jobs out among the available resources.
- Move jobs to the top of the print queue.
- Make sure that the computer is not running multiple tasks concurrently.
- Convert complex PostScript jobs to PDF/X format (recommend using PDF/X-4).
- Select a calibration set with a lower print resolution, which has less data to process.
- In the graphics program, convert jobs to a lower input resolution before loading in Command WorkStation.
- In a production workflow, select a template that has been especially designed for fast job output.
- Turn off in-RIP separation, which prints separated files as a composite job using the printer's CMYK inks. If necessary, you can select **Simulate overprinting in composite jobs** instead, which is faster to process.
- If you do apply in-RIP separation, do not set the search priority to look for spot colors in the source files. Scanning for spot color definitions adds to the overall processing time.
- Do not rotate jobs or select minimal media consumption.
- Avoid making color adjustments unless they are absolutely necessary.
- Avoid simulating final run characteristics.
- Install the profile folders and system folders on a separate hard drive.

Use FAST Processing or reduce the RIP resolution

FAST Processing uses the GPU to scale from RIP resolution to print resolution to increase job processing speed. If FAST Processing is not available, you can increase output speed by reducing the RIP resolution.

FAST Processing is available only on CUDA-enabled GPUs and Fiery XF servers on which the FAST Processing Option is available. To check if your GPU is CUDA-enabled, in the **Server Manager** window, go to **Server > Resources**. To check if the FAST Processing Option is available on your Fiery XF server, in the **Server Manager** window, go to **Server > License & Contract**.

Use FAST Processing

1 To enable FAST Processing, do one of the following:

- In the **Server Manager** window, go to **Printers > Media > Special Settings**.
- In Job Editor, go to **Printer > Special Printer Settings**.

2 Under **Print Mode**, select a processing speed.

The processing speed depends on the selected FAST Level. A maximum of four FAST Levels are available, depending on the selected printer resolution. The higher the FAST Level selected, the faster the job is processed.

Note: Higher FAST Levels may affect print quality.

Reduce the RIP resolution

If FAST Processing is not available, you can increase output speed by reducing the RIP resolution. However, a lower RIP resolution results in a draft-like print quality.

You cannot process a job at a higher RIP resolution than the print resolution.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **RIP Resolution** panel.
- 2 Move the slide bar to **Fast**.

Select FAST RIP

FAST RIP is activated by default. It ensures that you achieve the best possible printing result in the fastest possible time. Normally, you should leave FAST RIP activated. However, if FAST RIP has been deactivated, you can reselect it.

FAST RIP stands for Fiery Accelerated System Technology. Command WorkStation requires 8 GB of RAM per instance of FAST RIP. Therefore, if your computer has 32 GB of RAM, the software can process four jobs simultaneously.

When used in conjunction with dynamic smoothing, FAST RIP corrects the gradations of vector data defined in the graphics program if they are printed with undesirable line edge artifacts. Such artifacts can occur because of bit-depth limitations of the processing process.

- 1 In Server Manager: On the sidebar, click **Server**, and then click **Server Info & Configuration**.
- 2 Under **General settings**, select **FAST RIP**.

Turn on RIP and print on the fly

You can increase output speed by making Command WorkStation process and print chunks of data simultaneously. By default, Command WorkStation processes the whole job first and then starts printing.

Note:

The printer may pause sometimes when you select **RIP and print on the fly**, which can lead to undesirable lines in the printout.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. On the **Printer** tab, expand the **Connection** panel.
- 2 Under **Speed**, select **RIP and print on the fly**.

Turn on bidirectional printing

You can increase output speed by turning on bidirectional printing, which causes the print head to print in both directions. However, the result may be less accurate.

The print direction is saved to the calibration file. You can check whether unidirectional or bidirectional printing is selected on the **Media Configuration** panel in either Job Editor or Server Manager.

Note: Not all printers support bidirectional printing.

- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a media. On the **Media** tab, expand the **Media Configuration** panel.
- 2 Under **Print direction**, clear **Switch to unidirectional**.

Increase the number of Adobe print engines

You can increase output speed by increasing the number of Adobe PostScript 3 engines and Adobe PDF print engines, which enables Command WorkStation to process multiple PostScript and PDF jobs simultaneously.

Normally, jobs are processed one after another by one single CPU core. The default number of print engines for CPSI and for Adobe PDF print engine is equal to the maximum number of CPU cores that are available for the operating system.

- 1 In Server Manager: On the sidebar, click **Server**, and then click **Server Info & Configuration**.
- 2 Under **General settings**, increase the number of Adobe PostScript 3 and Adobe PDF print engines.
- 3 Restart the Fiery server.

Set up load balancing

You can increase output speed by setting up a hot folder that is monitored by multiple workflows or multiple printers.

Load balancing ensures that Command WorkStation uses the available system resources as efficiently as possible, by automatically diverting jobs in the hot folder to the first idle printer that becomes available. For example, if one printer is processing a large-volume job, or if one Fiery XF server encounters a problem, job processing can continue via a different printer. When job processing starts, the job is automatically moved to the C:\ProgramData\Fiery\Fiery XF\Server\JobFolder to ensure that it is not processed multiple times or by two printers simultaneously.

Note:

Be aware of the following:

- Printers that monitor the same hot folder may not be configured identically. Different presets or using a different printer can result in unsatisfactory color.
 - Load balancing cannot be applied to jobs in a multi-file format (for example, DCS, Scitex, TIFF/IT or delta lists).
- 1** In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **Job Detection** panel.
 - 2** Configure a hot folder.
 - 3** Select **Enable load balancing**.
 - 4** Repeat the procedure for a second workflow.
Make sure that you select the same hot folder.

Bidirectional communication

The Fiery XF server can send and receive status messages from EFI printers and from third-party manufacturers.

Both the print MIS device and the EFI printer must support bidirectional communication.

The Fiery XF server can:

- Receive print-ready jobs from a print management information system (print MIS device) and submit them to the printer, if the particular combination of devices supports it. Bidirectional communication with MIS systems requires an Advanced JDF Option.
- Transmit information about the current job status back to the print MIS device.
- Receive information about media consumption and ink consumption from the printer.

Bidirectional communication with EFI printers

Bidirectional communication in Command WorkStation enables the printer to submit ink details (volume of ink per color), media details (consumption/wastage), and printing time for each job. You need one output license for each physical printer.

To configure a bidirectional communication between print MIS device, Command WorkStation and printer, you must activate JDF communication in the software. JDF communication enables Command WorkStation to send and receive status messages from the printer. You also require JDF to transmit information about the current job status back to print MIS devices. For more information, see [Enable bidirectional communication with a print MIS device](#) on page 180.

For information on printer software requirements and configuration settings, see <http://help.fiery.com/fieryxf>.

Command WorkStation saves processed jobs to directories specified in Server Control, and Server file paths to the following default folders:

- IP printing: C:\ProgramData\Fiery\Fiery XF\JDF\UploadFiles
- Print to file: C:\ProgramData\Fiery\Fiery XF\Server\Export

For information about default folder paths for IP printing and Print to file for Fiery proServer Core and Fiery proServer Premium, see help.fiery.com.

The printer retrieves them from this folder. You can change the file path setting, if required.

Configure your printer in Command WorkStation for bidirectional printing

Fiery provides printer supplements with detailed information on setting specific printer settings in Command WorkStation. For more information, see help.fiery.com.

See the printer supplement for your printer for how to configure it in Command WorkStation for bidirectional printing.

Enable bidirectional communication with a print MIS device

To configure a bidirectional communication between a print MIS device and Command WorkStation, you must activate JDF communication in the software. Bidirectional communication to an MIS system requires an Advanced JDF Option.

- 1 In Server Manager: On the sidebar, click **Server**, and then click **Server Info & Configuration**.
- 2 Under **General settings**, enable JDF communication by clicking **Start**.

Managing Command WorkStation

Command WorkStation provides tools and features with which you can keep your Command WorkStation installation up to date, move program folders, and organize job files.

You must be logged on as an administrator on the computer running the Fiery server.

- **Fiery Server Control** - Controls the Fiery server status, downloads and installs software updates and media profiles, and licenses the software.
- **Server Manager** - Creates and restores backups, tidies up job files, and uploads job-related files from an external source.

Fiery Server Control

You can use Fiery Server Control to control the Fiery server status, download and install software updates and media profiles, and license the software.

Fiery Server Control is pinned to the taskbar of the computer that is running the Fiery server. The icon displays a white arrow on a green background when the server is running, or a white box on a red background when it is not running.

When you right-click **Fiery Server Control**, the shortcut menu provides the following items:

- **Stop Fiery Server** - Stops the Fiery server.
- **Restart Fiery Server** - Restarts the Fiery server, which can accelerate some processes such as detecting new profiles.
- **Start Fiery Command WorkStation** - Opens Command WorkStation at the Job Center program window.
- **Fiery Online Updater** - Downloads and installs Fiery XF server updates.
- **Fiery Profiles Updater** - Downloads and installs new or updated media profiles.
- **Manage Licenses** - Activates new license files. Displays details of which licenses are currently installed and their expiration dates. Can also be used to deactivate a license on one computer and reactivate it on another computer.
- **Show Installed Updates** - Displays installed updates with their install date.
- **Start Fiery Server Control with Windows** - Starts Fiery Server Control on system start and displays it as an icon in the Windows taskbar.
- **Fiery Server Control** - Opens the **Fiery Server Control** window, which provides direct access to all the shortcut menu items. Also provides quick access to Windows Services and enables you to move profile and system folders from their default install location.

Now watch the video [here](#).

Display the Fiery Server Control icon

The Fiery Server Control icon is normally pinned to the taskbar of the Windows computer that is running the Fiery server. If you cannot see the Fiery Server Control icon, you can display it manually.

- In the Windows Start menu, click **Fiery > Fiery Server Control**.

Software updates

Fiery provides regular online updates for the Fiery XF server and for software client components, such as Command WorkStation and Color Profiler Suite.

- Fiery XF server - If you have a valid Software Maintenance & Support Agreement (SMSA), a red notification appears at the top right of the Job Center window when an update is available. You can install updates through Fiery Server Control.
- Command WorkStation and Color Profiler Suite - Updates are provided for download in Fiery Software Manager.

Download and install Fiery XF server updates

If you have a valid Software Maintenance & Support Agreement (SMSA), a red notification appears at the top left of the Job Center window when an update is available.

You can check the status of your SMSA in the system maintenance area of Server Manager.

- 1 Exit all programs.
- 2 In the taskbar: Right-click **Fiery Server Control**, and click **Fiery Online Updater**.
The **Updater** window opens.
- 3 Click **Next**.
A window with a list of currently available software updates opens.
- 4 Select the check boxes of the updates you want to install, and click **Next**.
- 5 Follow the on-screen instructions to download the updated files, and to complete the installation.
- 6 Restart your computer, if prompted to do so.

Now watch the video [here](#).

Download and install Command WorkStation and Color Profiler Suite updates

You can check for available program updates in Fiery Software Manager

- 1 In the Windows **Start** menu, click **Fiery > Fiery Software Manager**.
Fiery Software Manager starts. The **Fiery workflow applications** window displays installed Fiery programs and available downloads.

- 2 Under **Explore**, click the appropriate **Download** button if an update for Command WorkStation is available.
- 3 Click **Install**, and follow the on-screen instructions.

Check which software updates are installed

You can display a list of the currently installed software updates.

- In the taskbar: Right-click **Fiery Server Control**, and click **Show Installed Updates**.

Download and install media profiles

You can download new and updated media profiles for your printer. Media profiles are available for many different printer models, media types, and resolutions.

Fiery continues to develop its products after product launch to improve functionality or to increase printer support. It is recommended that you run the update procedure regularly to make sure that your media profiles are always up to date.

- 1 In the taskbar: Right-click **Fiery Server Control**, and click **Fiery Profiles Updater**.

The **Profile Update Service** window opens.

- 2 Click **Next**.
- 3 Under **Manufacturer/Model**, click your printer manufacturer.
- 4 Under **Media Profiles**, select the media profiles that you want to install.

You can select media profiles for different printer manufacturers in one download.

- 5 Click **Download List** (optional).

You can view the listed of selected media profiles. To add or remove media profiles from the list, click **Add More Profiles**.

- 6 Click **Download**.
- 7 Click **Finish**.

The media profiles are downloaded and installed on your computer. Command WorkStation takes approximately thirty seconds to detect the media profiles.

Manage licenses

You can activate or deactivate a product or a product option for this Fiery server.

Make sure you have your License Activation Code (LAC) handy.

For more information on migrating a license from a legacy dongle-protected version of Fiery XF, see the *Quick Start Guide*.

- 1 In the taskbar: Right-click **Fiery Server Control**, and click **Manage Licenses**.

The **License Activation** window opens.

- 2 Do one of the following:
 - To activate a product or a product option for this Fiery server: Click **Activate**.
 - To deactivate a product or product option: Click **Deactivate**.

Note:

You can activate a deactivated license on a different Fiery server. Make a note of the LAC before you deactivate the license. If you forget, the LAC is also recorded on the **History** tab of the **License Activation** window.

- 3 Follow the on-screen instructions.
- 4 Restart the Fiery server.

Now watch the video [here](#).

You can display the contents of an activated license, by expanding the license name in the **Product/Option** column.

Lock or unlock a printer

To remove a license from a printer, you can manually lock that printer. After the license is removed, you can unlock a different printer to reassign the license to that printer.

You must activate a valid license to import, process, or print jobs on a printer connected to Fiery XF. When you set up a new printer, Fiery XF automatically checks for a corresponding license and activates it. If a matching license is not available, Fiery XF locks the printer.

- 1 In Server Manager, click **Printers** on the sidebar.
- 2 Right-click a printer and do one of the following:
 - Select **Lock** to remove the license from the printer.
 - Select **Unlock** to assign an available license to the printer.

For more information about activating and deactivating licenses, see [Manage licenses](#) on page 183.

Configure Windows services

You can check the status of the Windows services used by Command WorkStation. You can also assign network access rights to the Fiery XF server service. Network access rights are required to print through a hot folder.

Command WorkStation uses the following Windows services:

- Fiery XF Log Service
- Fiery JDF Connector Service
- Fiery XF server

In addition, the following Windows services are used for license management:

- EFI License Manager
 - Fiery Option Feature Activation for Fiery XF
- 1 In the taskbar: Click **Fiery Server Control**, and then click **Configure Services**.
 - 2 Do one of the following:
 - Make sure that the Windows services used by Command WorkStation are running. Start, stop, or restart a Windows service, if required.
 - Right-click **Fiery XF Server**, and then click **Properties** to configure network access rights to the Fiery server.
- For more information, see the operating system's online help, or ask your system administrator.

Now watch the video [here](#).

Set Fiery XF folders

You can move some Fiery XF folders to different local partitions or external devices using Universal Naming Convention paths to free up space on your installation drive. Folders you can move include media profiles, temporary CPSI and APPE data, output files, the JDF folder, and backup folders.

Ensure the Fiery server is not running.

UNC paths are specified as follows: \\<Servername or IP address>\<shared folder name or path>.

When using UNC paths, you must use login credentials. These credentials must remain valid even when the user is logged out of the device or the Fiery server will stop working.

- 1 Right-click **Fiery Server Control**, and then click **Server File Paths**.
- 2 Do one of the following:
 - Click the appropriate **Choose** button, and browse to the new folder.
 - Copy and paste the UNC path from Windows Explorer, and enter the login credentials.

Note: If you use a UNC path, you must use the same login credentials in Fiery Server Control and Windows Explorer. You can use identical credentials for all folders, if needed.
- 3 If you used the UNC path in the previous step, copy the files from the previous file location to the new file location.

Note: If you choose a local path, Fiery Server Control will automatically move the files to the new location. Progress will be indicated by a progress bar.
- 4 Restart the Fiery server.

Note:

The JDF output folder cannot be set to a network drive.

Start Fiery Server Control with Windows

By default, Fiery Server Control appears in the taskbar of the computer that is running the Fiery server. You can deactivate the autostart feature for Fiery Server Control.

- Do one of the following:
 - To deactivate: In the taskbar, click **Fiery Server Control**, and then clear **Start Fiery Server Control with Windows**.
 - To reactivate: In the Windows **Start** menu, click **Fiery > Fiery Server Control**.

System backup

Creating regular backups enables you to restore Command WorkStation to an earlier state quickly and easily.

A system backup saves your complete Fiery system, including all user settings, all presets, and all printer configurations in a single file.

The system backup file saves only calibration files and profiles that are in use on your Fiery system. To backup calibration files and profiles that are not in use, you can manually backup the C:\ProgramData\Fiery\Fiery Media Profiles directory. The backup does not save any jobs.

Create a system backup

You can back up your complete Fiery system, including all user settings, all presets, and all printer configurations, in a single file.

You can either save this backup file manually or let the Fiery XF server create it automatically using a defined time interval.

Now watch the video [here](#).

Manual backup

- 1 In Server Manager: Click **Server**, click **Backup & Restore**, and then click **Backup**.
- 2 Select the items that you want to include in the backup, in addition to the server configuration.
- 3 Choose **Manual** under **Backup type**.
- 4 Select the backup location.
By default, the backup is created on the desktop. To choose a different location, click **Choose** and browse to a new destination.
- 5 Click **Backup**.

Automatic backup

- 1 In Server Manager: Click **Server**, click **Backup & Restore**, and then click **Backup**.
- 2 Select the items that you want to include in the backup, in addition to the server configuration.
- 3 Choose **Automatic** under **Backup type**.
- 4 Select how often the Fiery XF server will create a system backup.
- 5 Click **Apply**.
- 6 By default, automatic backups are created at C:\ProgramData\Fiery\Fiery XF\Server\Backup. To choose a different location, shut down the Fiery XF server and open Fiery Server Control, and then click **Server File Path**.

Restore a system backup

You can return a Fiery system to a former state by restoring a previously created backup.

Note: A backup will delete any existing calibrations and profiles, and replace them with those from the backup file. Jobs will not be restored from the backup file.

- 1 In Server Manager: Click **Server**, click **Backup & Restore**, and then click **Restore**.
- 2 Select a backup file from the list.
By default, the list displays backup files that are saved to the desktop. If the backup file is saved elsewhere, click **Choose** and browse to that location.
- 3 Click **Restore**.
- 4 Restart the Fiery server.

Now watch the video [here](#).

Environments

Saving your environments ensures that you use exactly the same settings if you need to output repeat jobs at regular intervals. You can also use an environment to provide customers with exact workflow/printer information.

An environment saves your printer configuration, including all workflows and all media, in a single file. It contains all the information necessary to reproduce the same printer environment on a different Fiery server.

Now watch the video [here](#).

Create an environment

You can save your printer configuration, including all workflows and all media, in a single file.

- 1 In Server Manager: On the sidebar, click **Printers**, right-click a printer name, and then click **Save as Environment**.
- 2 Type an environment name (optional).

3 Select the save location.

By default, the environment is saved to the desktop. To choose a different location, click **Choose** and browse to a new destination.

4 Click **Save**.

Restore an environment

You can restore a previously saved environment, consisting of printer configuration, workflows and media.

1 In Server Manager: On the sidebar, click **Printers**. In the **Printers** tab header, click the **Load Environment** button.

2 Click **Choose**, and browse to the environment.

3 Clear the **Allow overwriting** check box (optional).

By default, existing files of the same name, such as media, reference profiles, media profiles and spot color tables, are overwritten. By clearing this check box, you can retain the existing files.

4 Click **Restore**.

Each environment has a unique printer connection. If the printer connection already exists, Command WorkStation restores the environment with placeholder printer information. In this case, you must configure the printer connection before you can import jobs.

Tidy up job files

Command WorkStation creates different types of files during job processing. Some files remain in the server program folders indefinitely after job completion, so that an excessive volume of data can build up over time. You can delete files when they are no longer needed.

File type	Description
Source files	For every job that you load in your Fiery software product, a source file is created in the Server\JobFolder folder. Deleting the source files does not remove the jobs themselves from the job list.
Output files	An output file (print file) is created in the Server\Output folder when you send a job to the printer.
Preview files	If the preview function is turned on, a preview file is created in the Server\Preview folder.
Temporary files	Various temporary files are created in the Server\Temp folder.
Spot color tables	<p>A spot color table is created in the Server\Profiles\Spotcolor folder when you define a spot color. Every time you save changes, a new spot color is created with a consecutive number added to its name.</p> <p>Note: You cannot delete spot color tables that are currently in use.</p>
Job list	You can delete all jobs from the job list. However, you cannot delete the job list if jobs are currently being processed.

File type	Description
Log files	Log files are created in the Server\Log folder. They provide a record of all Command WorkStation processes. Log files can assist Fiery Support with problem solving.

Delete job files immediately

You can delete output files, preview files, temporary files, spot color tables, all jobs from the job list, and log files to free up space on the hard disk.

- 1 In Server Manager: On the sidebar, click **Server**, and then click **Maintenance**.
- 2 Do one of the following:
 - Select the items you want to delete.
 - Click **Delete All** to delete all file types.
- 3 Click **Delete Now**.

Delete job files after a specified criterion has been met

You can set a condition to delete source files, output files, and preview files.

The following criteria are possible:

- You can delete source files automatically after printing or after a certain number of days. You can also select which source files to delete from a hot folder.
 - You can delete output and preview files automatically after printing or after a certain number of days or hours.
- 1 In Server Manager: On the sidebar, click **Printers**, and select a printer. In the printer's tree view, select a workflow. On the **File** tab, expand the **Basic Information** panel.
 - 2 Under **Delete source files**, specify when sources files are deleted.
 - 3 Select **Delete source files from hot folder** (optional).
 - 4 Under **Delete output/preview files**, specify when output and preview files are deleted.
- This setting is only available if you never delete source files. If you specify a criterion for deleting source files, the same setting is applied also to output and preview files.

Upload files from an external source

You can upload color files and media profiles from an external data storage medium or from the desktop. File Uploader copies the files directly into the correct program folder, thus saving you from having to browse manually.

Make sure that the external data storage medium is connected to your computer, if applicable.

You can upload the following file formats:

- Source profiles (*.icc, *.icm)
- Spot color tables (*.cxf)
- L*a*b* optimizations (*.3cc)
- Visual color correction files (*.vcc)
- Screening files (*.spc)

- 1 In Server Manager: On the sidebar, click **Server**, and then click File Uploader.
- 2 Do one of the following:
 - Click **Standard Files**.
 - Click **Media Profiles**
- 3 Click **Choose**, and browse to the file you want to upload.
- 4 Select the file, and click **Open**.
- 5 Click **Upload**.

Make regional settings

You can change the language and the unit of measurement for Command WorkStation.

- 1 In Job Center: Click **Edit > Preferences**.
- 2 Click **Region**.
- 3 Do one of the following:
 - Select a language.
 - Select a unit of measurement.
- 4 Click **OK**.
- 5 Restart Command WorkStation.

Now watch the video [here](#).

Fiery technical support

Fiery provides a series of self-paced video tutorials and a support database to help you use the software. If you cannot find the information you are looking from any of the Fiery websites, contact your reseller or distributor for assistance.

The following resources are available if you require help:

- [eLearning](#) - An easy-to-use, self-paced Internet-based platform that provides training videos and PDF articles to help you understand some of the features of Command WorkStation.
- help.fiery.com - A central website for all documentation available for current and past product versions, including a technical overview, release notes, a list of supported printers/cutters, and printer supplements for many supported printers.
- [Fiery Communities](#) - Find solutions, share ideas, and discuss products with the Fiery global community of experts.
- [Fiery Smart Search](#) - A search tool that accesses the content of Fiery Communities and the online help to search for answers to any question related to Command WorkStation. The Search icon is located in the lower left corner of the Job Center window.
- [Printer Driver Supplements](#) - Find more information about the Fiery XF printer driver for your printer.

Contact Fiery regional support

The technical support contact details vary by region.

If you contact your reseller or distributor for help, you will need to provide the following information:

- Software version name and release number
- License information
- Printer model
- Operating system with version number
- Details of additional hardware and software that is installed (for example, virus scanners)
- Do one of the following:
 - In Job Editor, click **Help** > **Fiery Technical Support**.
 - On the [Fiery website](#), type Fiery XF in the product search box.