

# Getting Started

## Fiery JDF, version 1.01

This document provides an overview of Fiery JDF (Job Definition Format) and how to set up a Fiery JDF workflow with your Fiery print controller. Fiery JDF enables integrated, bidirectional communication of JDF product intent and JDF process job tickets between JDF-submitting applications and Fiery print controller(s) using JDF's JMF (Job Messaging Format).

Fiery JDF may already be available on your Fiery print controller (see [page 3](#)). If Fiery JDF is not already available on your Fiery print controller, you may be able to install the service, provided your Fiery print controller is a certified Fiery JDF printer.

### IMPORTANT

The Fiery JDF update is not available for all Fiery print controllers. To see if Fiery JDF can be installed on your Fiery print controller, check the certified printer page accessed from <http://www.efi.com/fjdf>. If you find your Fiery print controller listed as Fiery JDF Certified, contact your supplier to install the Fiery JDF update for your system.

JDF jobs submitted to the Fiery print controller are displayed in Command WorkStation, where you can view JDF settings and resolve media errors during job processing.

## About this document

This document covers the following topics:

- About JDF and JMF
- System requirements
- Checking for Fiery JDF on the Fiery print controller
- Configuring Fiery JDF on the Fiery print controller
- Configuring JDF-submitting applications
- Media workflow for Fiery JDF
- Using Fiery JDF on the Fiery print controller
- Troubleshooting

## About JDF and JMF

JDF is an open standard technology that allows data to pass between different applications in the graphic arts industry for automating the print production workflow. By simplifying data exchange, JDF makes digital production faster and more efficient, while also facilitating faster movement of job details. JDF is an XML-based file format for electronic job tickets. JDF specifies how a job is to be handled and produced from customer concept to final production.

Think of the JDF file as an electronic version of a customer's specifications for a particular job. For instance, a job ticket with the customer's request for a job with the specifications "100 copies of a 10-page document on 20# letter-size white paper, printed duplex, black-and-white" would be represented in a standardized XML format readable by JDF-enabled devices, in other words, the JDF ticket.

JMF is the protocol JDF devices use to communicate JDF information with each other. JMF messages transmit information about events (start, stop, error), status (available, offline, and so on), results (count, waste, and so on). Support for JMF allows the Fiery print controller to provide feedback on the status of the JDF job and production data (such as processing and printing time and paper used) to the JDF-submitting application.

## System requirements

To use Fiery JDF, you must install Command WorkStation 5. You can download Command WorkStation from the EFI web site (<http://www.efi.com/CWS5>). If you install the software from the User Software DVD that accompanies your Fiery print controller, the Microsoft Windows or Apple Mac OS computer must be equipped with a built-in or external DVD-ROM drive. You can also install the software from WebTools on the Fiery print controller.

The following table lists the minimum system requirements for Command WorkStation:

Minimum requirements for	Windows	Mac OS
Operating system	Windows XP/Server 2003/Vista/Windows Server 2008, Windows Server 2008 R2, and Windows 7 (32-bit and 64-bit)	Mac OS v10.4.9, v10.5.x, v10.6.x (Intel-based)
CPU	1.0GHz or greater Pentium 4 processor	1.6GHz or greater
RAM	1GB	
Hard disk drive	500MB hard disk drive (HDD) space available for application installation 3GB HDD space available for application use, 5GB for Fiery SeeQuence Suite applications	
Monitor	A monitor that supports 16-bit color at a minimum resolution of 1024x768	
Networking protocol	TCP/IP	TCP/IP, EtherTalk, and AppleTalk
WebTools	Java-enabled Web browser: <ul style="list-style-type: none"> <li>• Mac OS X: Safari v4.0, Firefox v3.5</li> <li>• Windows: Internet Explorer 6, 7, and 8, Firefox v3.5</li> </ul> <b>NOTE:</b> Microsoft releases frequent updates to Internet Explorer. Because support cannot be guaranteed for all versions, use the versions specified for best results. A TCP/IP-enabled network and the Fiery print controller IP address or DNS name Web Services enabled on the Fiery print controller	

## Checking for Fiery JDF on the Fiery print controller

Check to see if JDF is already installed and enabled on your Fiery print controller.

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### TO CHECK IF FIERY JDF IS INSTALLED AND ENABLED

- 1 **Connect to the Fiery print controller, log on with the Administrator user name and password, and access Configure from Command WorkStation in one of the following ways:**

Click Device Center > General > Configure or

Click Device Center > Users > Configure or

Choose Server > Configure.

**Or type the IP address of the Fiery print controller in your browser and access Configure from WebTools.**

- 2 **From Configure, choose Server > JDF.**

If JDF is listed and the Enable JDF check box is selected, Fiery JDF is enabled.

For information about using Fiery JDF, see [page 8](#).

If JDF is not listed, the Fiery JDF service has not been installed. Contact your supplier to install Fiery JDF, provided your Fiery print server is Fiery JDF certified.

## Configuring Fiery JDF on the Fiery print controller

Use Configure to specify JDF settings and to view the Fiery JDF version, the JDF Device ID, and the JMF URL.

**NOTE:** If a Fiery print controller is shipped with Fiery JDF, you must manually enable Fiery JDF in Configure to use it. If Fiery JDF is installed by your supplier, Fiery JDF is automatically enabled.

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### TO CONFIGURE FIERY JDF ON THE FIERY PRINT CONTROLLER

- 1 **Log on as Administrator to WebTools or Command WorkStation.**
- 2 **From Configure, choose Server > JDF.**
- 3 **Select Enable JDF to enable JDF functionality.**
- 4 **If a virtual printer has been created for your specific workflow, select it from the Use Job Settings from Virtual Printer option.**

**NOTE:** This option only applies to specific workflows and is recommended for advanced users only. Virtual Printers are not required for a standard workflow.

- 5 **To change the default print queue action, choose it from the Job Action menu.**

**NOTE:** The default is Hold. We recommend that only advanced users change the default for their specific requirements.

- 6 **To override the settings specified in the JDF ticket, select Override JDF job with the above settings.**
- 7 **Click Apply, and then click Reboot.**

## Configuring JDF submitting applications

A JDF job can be submitted from a variety of JDF-submitting applications (see examples in parentheses):

- Web-to-print (EFI Digital StoreFront)
- MIS systems (EFI PrintSmith, Pace, Monarch)
- Make-ready and prepress systems (Agfa Apogee)
- Customer product intent creators (Adobe Acrobat)

A variety of protocols, including HTTP, MIME, FTP, and Windows file sharing, are used for referencing the content run lists (the actual content files of the job). In most cases, the protocol that you use to reference the content run list of a JDF job is determined by the JDF-submitting application that you use. To submit a job with a JDF ticket to a Fiery print controller, you need the JMF URL and Device ID of the Fiery print controller (see Configure > Server > JDF).

**NOTE:** In this version of Fiery JDF, the port is set to 8010, therefore the format for the Fiery print controller's JMF URL is as follows:

http://<host>:<port> (for example, http://192.168.1.159:8010)

### Sending a JDF job to the Fiery print controller

A JDF file contains references to the content files (the artwork to be RIPped and printed) and the electronic JDF ticket. JMF is used for bidirectional communication between the Fiery print controller and the JDF-submitting application. When you send a JDF job to the Fiery print controller, the content files must be accessible over the network by the Fiery print controller, whether the files are sent with the JDF (for instance, as a MIME package) or are located on a remote server.

#### Protocols for sending JDF job content files

This section discusses the various protocols that are used to send the content files of JDF jobs, and any specific requirements for each.

##### MIME

A MIME (Multipurpose Internet Mail Extensions) package is perhaps the easiest way of sending JDF jobs to the Fiery print controller. The MIME package can contain both the JDF and content files, so the content is sent across the network to the Fiery print controller, as opposed to residing on a remote server.

##### HTTP

Using the HTTP protocol requires that the content files be shared across the network via an HTTP address. This method should be straightforward, provided no logon is required to access the site where the content files are located.

## FTP

When content files are sent by FTP, any logon information should be included in the path, or, for easier access by the Fiery print controller, no logon should be required.

## Windows file sharing

If MIME, HTTP, and FTP are unavailable, the content files are very large, or network file transfer speeds are an issue, sharing files from a remote Windows computer may be the best way for the Fiery print controller to retrieve the content files. However, for the Fiery print controller to retrieve the files on a Windows share, you must enable Fiery JDF to access files on Windows shares. To do this, the logon for the Fiery JDF service on the Fiery print controller must match the logon for the Fiery print controller (see the following procedure).

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### TO ENABLE FIERY JDF TO ACCESS FILES ON WINDOWS SHARES

- 1 Go to Start > Control Panel > Administrative Tools > Services.
- 2 Right-click the Fiery CSI Atom (Fiery JDF) service and select Properties.
- 3 Click the Log On tab and select This account.
- 4 Enter Administrator or the account used for logging on to the Fiery print controller, and then enter the password associated with that user name.

**NOTE:** If you log on with Administrator privileges, the default password for Administrator access is “Fiery.1”.

<b>IMPORTANT</b>
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You must use the same account to log on to the Fiery print controller and Fiery CSI Atom service.

- 5 Click OK.
- 6 Restart Fiery CSI Atom service.

**NOTE:** If you use this workaround for Windows file sharing, the Fiery CSI Atom service will not start until the specified user logs on. If you configure the Fiery CSI Atom service for Administrator and then log on with a different user name, the Fiery CSI Atom service will not start.

If nobody logs on, Fiery CSI Atom service will not start.

When Fiery JDF is enabled and configured on the Fiery print controller, and your JDF-submitting applications have been configured correctly, you can submit JDF jobs to the Fiery print controller. For information about using Fiery JDF, see [page 8](#).

If you have any issues with sending JDF jobs successfully to the Fiery print controller, see “[Troubleshooting](#)” on page 12.

## Media workflow for Fiery JDF jobs

Setting up a smooth media handling process for your Fiery JDF jobs is essential for an efficient, unattended workflow. Ideally, you should only have to enter a media once and integrate the various media catalogs of both JDF-submitting applications and Fiery print controller(s).

In this section, we discuss the strategies for setting up and integrating your media catalog:

- Adding media entries to the Paper Catalog from the JDF jobs
- Importing the media database from the JDF-job submitting application
- Creating a master media catalog on one Fiery print controller and importing it to another Fiery print controller, as needed

### Adding media to Paper Catalog from JDF jobs

In this scenario, the Paper Catalog on the Fiery print controller is populated by adding the media from the JDF jobs that are submitted. This strategy works well when the submitting location (for instance, a print shop) selects from a catalog of 10 to 12 media for most jobs.

When a JDF job is submitted, the Fiery print controller attempts to automatically map the specified media for the JDF job with a corresponding entry in the Paper Catalog. If automatic mapping is successful, the media is used for any job containing the same media definition. If automatic mapping fails, you have two options:

- Manually select a media to use for that one media in that one job  
or
- Manually add the JDF job media definition to Paper Catalog

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#### TO ADD A MEDIA DEFINITION FROM A JDF JOB TO THE PAPER CATALOG

- 1 Submit a JDF job to the Fiery print controller Print or Hold queue from a JDF-submitting application.**

If an error occurs in the JDF job, the job is displayed in red with an error icon in the Held list in Command WorkStation. If no error occurs, and the job was sent to the Print queue, the job prints without further user intervention.

- 2 Right-click the JDF job and choose JDF Settings, or click the JDF Settings button in the Job Summary pane.**

The Media tab in the JDF Settings window displays the media information for the job.

If the media has been successfully mapped to an entry in the Paper Catalog, the matching Paper Catalog entry media attributes are displayed. In this case, proceed to [step 4](#).

If no matching media is available in the Paper Catalog, a warning icon and the message “Not Available” are displayed. In this case, proceed to [step 3](#).

### 3 From the Map to Paper Catalog menu, choose a media entry from the Paper Catalog.

This is the first option referred to on [page 6](#): manual selection of a media to use for that one media in that one job.

**Or select Add/Map to Paper Catalog and the media from the JDF job is added to the Paper Catalog.**

This is the second option referred to on [page 6](#): manual addition of a JDF job media definition to Paper Catalog.

As jobs are submitted to the Fiery print controller, you can add media to the Paper Catalog until it is fully populated with all of the media entries that you commonly use.

### 4 Specify additional print options in Job Properties and print the job.

**NOTE:** In some cases, the Paper Catalog is read-only. Your Fiery print controller may require that you set up all media entries on the copier/printer, using the copier/printer touch panel. If so, you must manually enter the media attributes for each media entry on the copier/printer touch panel to populate the Paper Catalog on the Fiery print controller. For more information, see the documentation that accompanies the Fiery print controller and your copier/printer.

## Importing a media catalog from the JDF-submitting application

In this scenario, you export a media catalog database from the JDF-submitting application, and import it into the Paper Catalog on the Fiery print controller. This method is dependent on the capability of the JDF-submitting application to export the media database as a JDF media resource in XML format.

In Paper Catalog, you would then use the Import function to import the media catalog. The Import function has two selections, displayed by clicking the arrow to the right of the Import button: “Merge with Existing” or “Replace with Existing.”

**Merge with Existing:** the imported media entries are added to the existing entries in the Paper Catalog.

**Replace with Existing:** the imported media entries completely override the existing entries in the Paper Catalog.

## Creating and importing a master Paper Catalog

In this scenario, you set up a master Paper Catalog on one Fiery print controller, export it as an XML file, and then import it into the Paper Catalog on any Fiery print controller.

This method is useful and time-saving in situations where you may use more than one Fiery print controller to print jobs. The master Paper Catalog may be set up by creating individual entries, importing media entries from the JDF-submitting application as described in the two previous scenarios, or populating the Paper Catalog with media entries set up on the copier/printer. The Paper Catalog may come with a default set of entries. The way in which you set up the master Paper Catalog is determined by the specifics of your environment and the Fiery print controller. See the documentation that accompanies the Fiery print controller and your copier/printer.

## Using Fiery JDF in Command WorkStation

Command WorkStation allows the user to view the JDF settings and resolve media errors during job processing.



**NOTE:** The information provided in this document about managing Fiery JDF in Command WorkStation is also found in Command WorkStation Help.

### Fiery JDF Setup

JDF must be enabled in Configure to allow JDF jobs to be submitted to the Fiery print controller. The following parameters can be specified:

- Default Virtual Printer: select a Virtual Printer, if desired.
- Default print queue: choose from Hold, Process and Hold, Print, Print and Hold.
- Override JDF ticket: default print settings override the JDF settings.

For more information, see [“Configuring Fiery JDF on the Fiery print controller”](#) on page 3.

### Enabling JDF submitting applications

Fiery JDF contains an enablement mechanism to test and certify JDF-submitting applications. The specific JDF-submitting applications are enabled for Fiery JDF on the Fiery print controller or by a JMF message sent from the JDF submitting application, if requested.

If a JDF-submitting application has not been enabled, the JDF job is processed, but the following indicators alert users to jobs from applications not yet tested and certified:

- A warning icon is displayed for the job in the Command WorkStation job list.
- A warning message is displayed in the JDF Settings window.

All EFI JDF-submitting applications are enabled by default on the Fiery print controller.

## Fiery JDF workflow

During the Fiery JDF job workflow, the Fiery print controller uses JMF to send status and audit information to the JDF job-submitting application.

When a JDF job is submitted to the Fiery print controller, the job is checked for any errors or conflicts. If no errors are found, a job that has been sent to the Print queue automatically prints. A job goes to the Print queue if that has been specified as the default queue, or if the JDF job requests to be automatically printed. If no errors occur and the job has been sent to the Hold queue, the operator can choose additional print actions from the Actions menu in Command WorkStation, or choose to print the job directly.

If an error occurs, the job is flagged in the Hold queue with an error icon.

**NOTE:** If an unrecoverable error occurs, the JDF job may be returned with a JMF error to the JDF-submitting application without ever showing up in the Command WorkStation interface. An example of an unrecoverable error is when the Fiery print controller may not be able to resolve the links to the run list content files.

The Job Errors window allows you to fix or ignore JDF ticket conflicts. Ignoring a conflict may result in the job being printed, but with missing JDF information. However, ignoring a conflict means that the media information collected and sent back to the JDF-submitting application may be inaccurate. Fixing a conflict involves selecting media manually for the job.

After a JDF job is printed, it is closed back automatically to the JDF job-submitting application, although it remains in the Fiery print controller Print queue.

## Fiery JDF submission

A JDF job must be sent to a Fiery print controller from a JDF-submitting application. You cannot import a JDF job or send it from the printer driver. A job is sent via JMF. The submitting application sends the job to the Fiery print controller's JMF URL.

The format for the Fiery print controller's JMF URL is as follows:

`http://<host>:<port>` (for example, `http://192.168.1.159:8010`)

**NOTE:** The port for this version of Fiery JDF is always 8010.

When received by the Fiery print controller, the JDF job is displayed in the Print or Hold queue in Command WorkStation.

## JDF column headings in Command WorkStation

When a JDF job is received by the Fiery print controller and displayed in the Command WorkStation Print or Hold queue, a set of JDF column headings can be selected to display useful information about the JDF job.

- **To display column headings for a JDF job, right-click the column heading bar and select JDF Set.**

The default JDF set of headings is added. To see additional JDF categories, click More.

## Fiery JDF jobs and Virtual Printers

In Fiery JDF Setup, you can specify a Virtual Printer for job submission. The job would then use the job settings in that Virtual Printer, if so configured in the Fiery print controller (in the JDF section of Configure). Any settings in the JDF job ticket override the Virtual Printer settings.

Virtual Printers are only required for specific workflows.

For more information about Virtual Printers, see Command WorkStation Help.



## JDF Settings

The JDF Settings window is available when a JDF job in the Print or Hold queue is selected.

- To open the JDF Settings window, right-click and select JDF Settings or click the JDF Settings button in the Job Summary pane.

The following tabs are available from the JDF Settings window:

- **Media** displays the media attributes of the JDF job next to the corresponding Paper Catalog entry. Media for the JDF job can be mapped manually to a Paper Catalog entry on this tab.
- **Comments** displays all comments found in the JDF ticket.
- **Run List** displays the customer-supplied files used to generate the content of the JDF job.

## Paper Catalog and JDF media

When a JDF job is submitted to the Fiery print controller, the Fiery print controller attempts to automatically map the specified media for the JDF job with a corresponding entry in the Paper Catalog on the Fiery print controller.

If automatic media mapping fails, you can add a media definition from a JDF job to the Paper Catalog.

- Select Add/Map to Paper Catalog from the Map to Paper Catalog menu.

For a description of the media workflow for JDF jobs, see [page 6](#).



For information about adding new media to the Paper Catalog, see Command WorkStation Help.

## Managing media conflicts

If a JDF job that has been submitted to the Fiery print controller uses media that cannot be automatically mapped to the Paper Catalog, the JDF job displays an error flag in the Print or Hold queue.

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### TO RESOLVE A MEDIA CONFLICT

- 1 Right-click the selected JDF job and select JDF Settings, or select the JDF job and click the JDF Settings button in the Job Summary pane.**
- 2 Select Fix the JDF conflict.**
- 3 On the JDF Settings Media tab, select a corresponding media entry from the Map to Paper Catalog drop-down menu or select Add/Map to Paper Catalog.**

If you select a corresponding media entry in Paper Catalog, the media is used for that specific job only. If you select Add/Map to Paper Catalog, the media for the JDF job is added to the Paper Catalog.

- 4 Click OK.**

The parameters of the media specified for the JDF job are listed beside the parameters of the Paper Catalog media entry selected. Any attributes that do not match are displayed in a bold font.

You can now print the job.

## Troubleshooting

This section provides information to help you troubleshoot the following issues.

### What if my JDF job does not appear on the Fiery print controller?

If your JDF job does not appear on the Fiery print controller, one of the following reasons may apply:

- Fiery JDF may not be installed on the Fiery print controller (see [page 3](#)).
- Fiery JDF may be installed, but not enabled on the Fiery print controller (see [page 3](#)).
- You may have the wrong JMF URL and Device ID for the Fiery print controller (see [page 3](#)).
- The Fiery print controller may be offline or network communication has failed.

To check if the Fiery print controller is online and you have a network connection to it, type the JMF URL into a browser running on the same computer as the JDF-submitting application. If the Fiery print controller is online and a network connection exists, the information about the JMF URL and Device ID is displayed in the browser window.

- The Fiery print controller may not have been able to access the content files at the specified location. This may be indicated by the content run list displaying no content, or the JDF job may have been sent back to the JDF-submitting application without any notification appearing in Command WorkStation.
- There may be issues with the JDF-submitting application, the JDF job definitions, or the JMF information. To test the separate components in the workflow, create a JDF job and use Alces, a third-party open source testing tool, described in the following section.

### Creating a JDF job

To test the JDF submission process, you can create JDF definitions and attach them to a printing job using Acrobat Pro, version 8 and higher. Submit the job directly from Acrobat or create the job and send it using the Alces tool, described in the following section.

For information about creating a JDF job in Acrobat, see Acrobat online Help. The Fiery JDF support page on the EFI web site (<http://www.efi.com/fjdf>) also offers a link to a video describing how to create a JDF job in Acrobat.

If issues occur with jobs submitted from a particular JDF-submitting application, obtain a sample job from that JDF-submitting application and test it with Alces.

## Using the Alces testing tool

The Alces testing tool can help identify where problems are occurring in the workflow. The following procedure describes how to get started with Alces for manual testing.

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### TO TEST THE JDF WORKFLOW WITH ALCES

**1 Download and install the Alces open source software:**

[http://www.cip4.org/open\\_source/alces/](http://www.cip4.org/open_source/alces/)

**2 Start Alces.**

Windows: Double-click alces.bat

Mac OS X: Double-click Alces.

**3 Type a device URL (the JMF URL for the Fiery print controller) and click the Connect button.**

**NOTE:** For the format of the JMF URL, see [page 3](#).

Buttons representing all messages the Fiery print controller supports are displayed.

**4 Click a button to send a message.**

**5 Click "SendFile..." to send a file containing a JMF message, for example, one of the files in the "testdata" directory.**

The message and the response are displayed.

**6 To submit a JDF job, click the SubmitQueueEntry button.**

**7 Browse to the JDF job file, select the file, and then click Open.**

In the middle pane of the Alces window, you can open up the menu commands. As you choose each, information about that process is displayed in the right-hand column.

Automated testing is also possible.

For more information about Alces, see the following locations:

**FAQ:** <http://www.cip4.org/publicwiki/AlcesFAQ>

**Homepage:** [http://www.cip4.org/open\\_source/alces/](http://www.cip4.org/open_source/alces/)

**Issue tracking:** <http://www.cip4.org/jira/browse/ALCES>

## Enabling Fiery JDF debugging

If you are working with unreleased software for submitting JDF jobs, use the following procedure to capture the incoming JDF and the last JMF message.

### 1 To enable the debug log for Fiery CSI Atom service, open

**E:\EFI\server\system\configuration.txt file (with E being the drive where the Fiery software is installed) and add the following five lines to the bottom of this text file.**

```
[Debug]
DebugLevel =1
[FileLogging]
Enable=1
LogFileFolder= E:\EFI\server\system\
```

### 2 Restart the Fiery CSI Atom service.

The Fiery CSI Atom service starts writing trace logs to the file

E:\EFI\server\system\fierycsiatom.log and JDF files to E:\EFI\server\spool\csiatom\cache\

For additional logging on JMF signals, change Enable=2; this will cause the

E:\EFI\server\spool\csiatom\cache\latest\_jmf.xml to be written any time JMF signals are received.

## What if my JDF job errors with missing content?

The simple test is to copy the FileSpec URL from the JDF file and paste it into a browser on the Fiery print controller. For example,

```
<FileSpec MimeType="application/pdf" URL="http://www.google.com/webmasters/docs/search-engine-optimization-starter-guide.pdf"/>
```

paste

http://www.google.com/webmasters/docs/search-engine-optimization-starter-guide.pdf  
into your browser to ensure the Fiery print controller has read access to the content.

## Additional information

For more information and resources concerning Fiery JDF, go to the support page at:

<http://www.efi.com/fjdf>

For general Fiery support questions, visit the Fiery Digital Print Solutions support page at

<http://www.efi.com/fiery/support/>