



HP Latex 300/500 Series

This document bridges the gap between the Fiery XF documentation and the HP Latex 300/500 series documentation.

Refer to the Installation section before you connect the printer to a computer.

The Operation chapter has information for profile generation and everyday use. Please refer also to the documentation shipped with your printer, which you can also download from:

<http://www.hp.com/go/latex300/manuals/>

Installation

The printer driver supports the printers:

- HP Latex 110 Printer
- HP Latex 310 Printer
- HP Latex 315 Printer
- HP Latex 330 Printer
- HP Latex 335 Printer
- HP Latex 360 Printer
- HP Latex 365 Printer
- HP Latex 370 Printer
- HP Latex 375 Printer
- HP Latex 560 Printer
- HP Latex 570 Printer

Product: EFI Fiery XF 7.3

License: You require a license for the Printer Option Group 6

Make sure that the following outgoing TCP ports are not blocked by a firewall: 80, 8085, 8086, 8090, 9100. Windows blocks most ports if it considers a network to be “public”.

To configure the Fiery XF output device

- 1 Make sure the printer is on and not in power-saving mode.
You can check that over the network by visiting the printer's IP address with a web browser. It should show a consumable status page. If it shows only a message and the "Activate" button, press that button. The printer needs a minute to become fully responsive.
- 2 Start Fiery XF Server and Fiery Command WorkStation
- 3 Start Server Manager and add your HP Latex printer.
- 4 On the information pane right to the printer, there is a Test button right of the IP Address field. Click it. Within approximately 5 minutes, the following happens:
 - a. Fiery XF retrieves all media information from the printer.
 - b. Fiery XF downloads all the ICC profiles from the printer and creates Fiery XF calibration sets for all print modes.
- 5 Restart the Fiery XF server.
The HP Raster Library is synchronized with the media types from the media information.
- 6 Make sure a medium is loaded in the printer.
You can see the information at the printer's front panel.
Or you can visit the printer's IP address with a web browser and look for the media information.
- 7 Start Server Manager.
Choose the roll type (*no edge holder* or *edge holder*) and roll width.
Choose a calibration set for the media that is loaded in the printer.
Go to the special settings tab and review the settings.
- 8 Print any test job.

Operation

Open Media System / Substrate Library

The HP Latex series printer introduces a new approach to media type handling.

HP uses the term "Substrate Preset" for a file format that is also called "Open Media System" (.oms). This file contains:

- General information about the media, e.g. name, media key
- Specific information for up to 6 print modes. For each print mode it contains all the print parameters and an ICC profile.

You can manage Substrate Presets in the printer's Substrate Library screen. There, you can do an online search for media, clone an existing Substrate Preset or create a new preset. The printer's website has functions to import and export Substrate Presets. The available set of substrates for a particular printer is thus totally dynamic.

The Fiery XF printer driver reads the media information from the printer and creates Fiery XF calibration sets for all media types found on the printer. Other RIP vendors do similar things to make media profiles available in their software. Media vendors need to create the OMS file only once as it can be used with all RIPs.

Device connection and configuration

Backup files

The Fiery XF printer driver automatically retrieves information for the configured IP address. For all bidirectional data acquired from the printer, there is a backup file in the Fiery XF server's data folder (C:\ProgramData\EFI\EFI XF\Server). The file names contain the configured IP address. The table shows the files for an example IP address.

File	Description
HpL25500_10.130.96.57_Config.xml	General information about the printer
HpL25500_10.130.96.57_Loaded.xml	Information about loaded medium
HpL25500_10.130.96.57_Media.xml	All media types and their print modes
HpLatex360_10.130.96.57_Status.xml	Status of the printer

If you don't see all 4 files, communication to the printer is not working.

- Correct IP address?
- Firewall software?
- Printer in power-saving mode?

Backup means the files are read when the printer is in power-saving mode or off.

Calibration sets

The Fiery XF printer driver creates the Fiery XF calibration sets in an "Automatic" subfolder of the EFI Media Profiles folder, for example (C:\ProgramData\EFI\EFI Media Profiles\Automatic_10_130_96_57).

After you have upgraded the printer, or made changes to the Substrate Library:

1. You have two options:
 - a. Wait at least 2 minutes
 - b. Push the Test button and wait until the OK message box pops up.
2. Restart the Fiery XF Server.
3. Delete the Automatic folder. In approximately 5 minutes the folder is created and populated again.

Please don't put your own data into the Automatic folder. Use "My Profiles" instead.

Settings

- Media Source

The Fiery XF printer driver offers three margin settings:

Source	Borderless printing	Margin
Roll (no edge holder)	Off	5mm
Roll (Edge holder)	Off	10mm
Roll (no edge holder)	On	-5mm

- Media Type

The media type is the most important key to a number of important settings, e.g. curing temperature.

The list of available media types comes from the latest media information that the Fiery XF printer driver has acquired from the printer.

If the media type of a print job does not match the media type actually loaded in the printer, the Fiery XF printer driver will refuse to print. This is a safety measure to avoid damaging the media.

- Resolutions and Print modes

The HP Latex series printers support the resolutions 150dpi, 300dpi and 600dpi. 600dpi is not available for less than 8 passes. These resolutions are contone data resolutions and affect only the level of detail. The actual print resolution is higher.

Print mode is a key to a number of important settings, e.g. curing temperature. A print mode has three key properties:

- Number of passes, e.g. 10p
- Color mode, either CMYKcm or CMYK
CMYK (no light ink) is for extreme cases where the amount of ink has to be kept as low as possible.
- Channel ink limit, e.g. 120

A print mode name is made up of three key parameters, e.g. "10p_CMYKcm_120". This name is displayed in the printer's menu and in Fiery XF.

Each media type has its own set of up to 6 print modes. Only those can be used for printing. The full choice of possible print modes is only available in the printer's Substrate Library screen, where you add a print mode to your own media type.

- Uni-directional printing

Uni-directional printing can be defined at the printer panel. It appears as `Direction="unidir"` in the media XML. Apparently, only "Generic Self-Adhesive Vinyl optimized for small text" supports unidirectional printing (for all its print modes). It is not possible to switch between unidirectional and bidirectional because it has a similar effect to speed and curing as the number of passes.

- Latex 300 series settings on the Special tab

The HP Latex series printer does not have many specific settings on the Special tab. Most settings are self-explanatory:

▼ SPECIAL SETTINGS

Cut

Mode

Autocut on

Print borderless

Borderless printing

Date	Time	Driver status
8/11/2022	9:53:00 PM	Initializing

Profile synchronization

Upload

Continuous Printing

Continuous Printing

Wait for print completion

Enable

Printer warm-up

Warm-up

The Upload button is explained in a separate chapter.

Continuous printing is a feature which enables the HP Latex printers to print continuously from one job to the next (if the print mode is the same).

Wait for print completion

- The checkmark controls the behaviour after print data transfer: If enabled, the driver will watch the printer for final job status data and set Fiery XF job print status accordingly. This happens asynchronously without interfering with print performance.
- Availability depends on license **XF Job print status option**.

Print job preview

The printer driver creates a preview directly from the print data. The preview is displayed on the printer's control panel, depending on the "RIP and print on the fly" setting you make for the workflow in Fiery XF.

RIP and print on the fly	Job preview
On	No
Off	Yes

The preview is only displayed if the "RIP and print on the fly" setting is off because:

- The Fiery XF preview is not created until a page has finished being processed. However, the printer requires the preview as soon as it starts printing.
- "RIP and print on the fly" means that the data is sent to the printer before job processing is completed. In other words, the preview is not available when the first set of data is sent to the printer.

Dual-side printing (HP Latex 360, 365, 370, 375, 560, 570 only)

The machine operates in three modes:

Mode	Description
Off	Normal operation
Side A (Front)	The front sides are printed. The printer adds a registration bar at the end of each job.
Side B (Back)	After loading the A sides (last print first!), the printer prints the back pages in reverse order and rotated by 180 degrees. The printer uses the registration bars to find the start positions of the images.

You can set these modes at the printer's control panel. We do not set the mode from the Fiery XF software for two reasons:

- Printing one side may span over several jobs. Setting on a per-job basis would be error prone. Global settings would be difficult to understand.
- To change to Side B mode you need to go to the printer, anyway.

For Side B mode, Fiery XF automatically prints in smart rotation mode. This means you can print jobs with a footer and still have a proper alignment of front page and back page.

Creating Profiles

Before you start

Heat resistance is a key feature of media for this printer. Media manufacturers sell specific media for HP Latex printers. Please refer to the printer's Operation manual for useful links.

Drying and curing depend on the overall amount of ink, especially in fast print modes.

Before you start, make sure that you have done the usual image quality maintenance tasks.

Creating the Substrate Preset (OMS)

In the Substrate Library screen, you can create a new Substrate Preset for your media. You can also clone an existing preset and modify it.

You can create your own print modes at the printer. The printer's menu leads you through the various options and test charts.

The HP Latex 360 and higher have a measuring device that allows you to calibrate the printer and even create the ICC profile for a print mode.

After you have made your changes to the Substrate Library, you need to synchronize the information to Fiery XF. Please see **Device connection and configuration -> Calibration sets**

Note: If you delete a media type or print mode and re-create it with same name, it will get different identifiers and you must synchronize the information again.

Creating the ICC profile

There are several ways to create the ICC profile:

- Create a **portable ICC profile on the printer**

If you have a HP Latex 360, you can create the ICC profile on the printer when you create the media profile entry as described above. The ICC profile is a property of the print mode that is part of the media profile entry.

- Create a **portable ICC profile in Fiery XF**

A portable ICC profile can become part of the OMS by uploading it to the printer.

- 1 Open the Automatic_IP folder and copy the EPL file of the print mode with the highest resolution to the desktop.
- 2 Rename the EPL file and move it to the EFI Media Profiles\My Profiles folder.
- 3 Start Color Tools, and click Create Media Profile. Fiery Printer Profiler starts.
Do not click Create Base Linearization!
- 4 Choose the EPL file that you renamed.
- 5 Proceed with the settings and create the ICC profile.

- Create a **Fiery XF-specific ICC profile**

A Fiery XF specific profile can only be used with Fiery XF.

The EPL/ICC file pair must be kept because the EPL file contains channel ink limits, linearization curves or specific total ink limit values. This is also the reason why the ICC profile cannot be part of the OMS: The ICC profile alone would print wrong colors.

- 1 Start Color Tools -> Create Base Linearization.
- 2 Proceed with all the usual steps.

Although this method looks simpler at first sight, creating a portable ICC profile is the easier way.

Uploading an ICC profile to the printer

You need this function only if you have created a **portable ICC profile in Fiery XF**, as described above, and one of the following:

- You have more than one HP Latex 300 series printer and want to copy Substrate Presets (OMS) from one printer to another.
- You are a consultant, dealer or media manufacturer and want to distribute Substrate Presets (OMS).
- You have an environment in which more than one RIP application has access to the printer e.g., a showroom.
- You want to have media settings and their ICC profiles in one single file (OMS) for any other reason.

To upload an ICC profile to the printer

The generated EPL file contains the unique identifiers of media type and print mode. This defines where to store the profile within the Substrate Library. Don't connect the ICC profile to that EPL.

1. Make sure you have the generated EPL file and the ICC profile in the same folder.
2. Push the *Profile synchronization* -> *Upload* button on the special settings tab in Server Manager.
3. A file dialog opens. Choose the EPL file and ICC profile and push the Open button of the dialog.
4. The successful upload is a change of the Substrate Library.
 - a. From now on, your ICC profile is part of the Substrate Preset (OMS).
 - b. You need to synchronize the information to Fiery XF. Please see **Device connection and configuration** -> **Calibration sets**.
5. After synchronization, the Automatic folder will contain the uploaded ICC profile with the name of the generated EPL file. Delete temporary EPL/ICC files from "My Profiles" if any.

Copy the Substrate Preset (OMS) from one printer to another

The printer's website (IP address of the printer) has functions to import and export Substrate Presets.:

- On the source printer's website, export the Substrate Preset of your medium to an OMS file. You can even export multiple Substrate Presets into one OMS file.
- On the destination printer's website, import the OMS file.
- You need to synchronize the information to the Fiery XF that is connected to the destination printer. Please see **Device connection and configuration** -> **Calibration sets**. If you create the related Fiery XF output device *after* the OMS import, the synchronization is no extra step. Please see **To configure the Fiery XF output device**.

