HP Latex 300 series

This document bridges the gap between the Fiery XF documentation and the HP Latex 310/330/335/365/360/560/570 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/

http://h10032.www1.hp.com/ctg/Manual/c05226490.pdf

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

Products based on Fiery XF technology: Fiery XF 6.5 (Windows only)

License requirement: Output option XXL

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 idle.

2 Start Fiery XF.

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Fiery XF 6.5

3 In System Manager click the Linearization device.

4 On the Device tab, open the Information pane, and select your HP Latex printer as the device type.

5 Open the Connection pane, and type the printer's IP address. Then, click Test.
Fiery XF retrieves all media information from the printer. This can take approximately one minute.

6 Make sure that the Linearization device is online.
An online workflow has green arrows from user, to workflow, to output device.

7 Wait three minutes.
During this time, Fiery XF downloads all the ICC profiles from the printer and creates Fiery XF calibration sets for all print modes.

8 Restart the Fiery XF server.
When you restart the server, the HP Raster Library retrieves all media types from the actual printer.

9 In Fiery XF, create an output device.
You can create an output device in System Manager or by using the Setup Wizard. When prompted to select a calibration set, select the media that is loaded in the printer. If you receive a missing profiles error message, it indicates that the ICC profiles have not been successfully downloaded from the printer.

10 Print any test job.

Operation

Opening Media System / Substrate Library

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

HP uses the term "Media Profile" 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 media profiles in the printer's Substrate Library screen. There, you can do an online search for media, clone an existing media profile or create a new profile. The printer's website has functions to import and export media profiles. 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

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. The names of these backup files follow the naming convention HpL25500_IPaddress_Type.xml, e.g. HpL25500_10.130.96.157_Config.xml.

The Fiery XF printer driver creates the Fiery XF calibration sets in a subfolder of the EFI Media Profiles folder, e.g. C:\ProgramData\EFI\EFI Media Profiles\Automatic_10_130_96_57 folder. It writes all output data to this folder.

To upgrade the printer, or make changes to the Substrate Library

1 Force the creation of a new Automatic folder, by deleting the existing one.

2 Wait 3 minutes for the new folder to be created and populated.

3 Restart the Fiery XF server.
After the restart, you should see the changed set of media types in Fiery XF.

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.

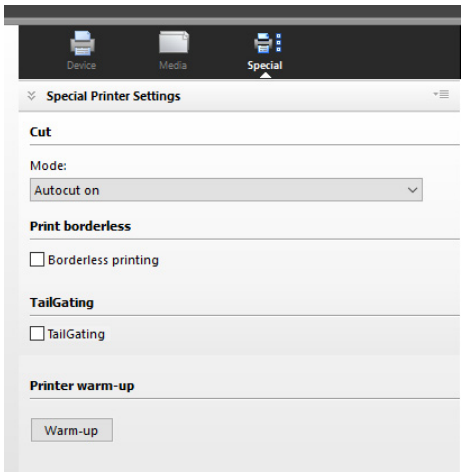
  Print mode is a key to a number of important settings, e.g. curing temperature. A print mode has three key properties:

  - 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.

- Latex 300 series settings on the Special tab

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



Tailgating is a feature which enables the HP Latex printers to print continuously from one job to the next.

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 media profile entry (OMS)

In the Substrate Library screen you can create a new media profile entry for your media. You can also clone an existing entry 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 has a measuring device that allows you to calibrate the printer and even create the ICC profile for a print mode.

When you have created the OMS and print modes, do the following:

- Delete the EFI Media Profiles\Automatic_IP folder and wait 3 minutes.
- Restart the Fiery XF server.

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

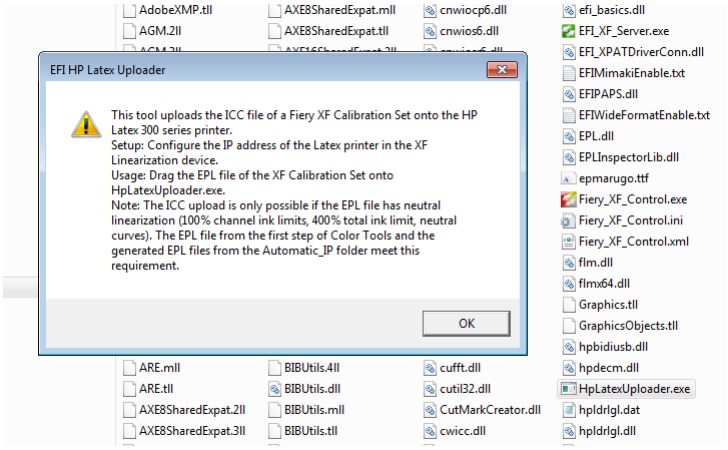
You need this function only if you have created a portable ICC profile in Fiery XF, as described above, and one of the following:

- You have more than one HP Latex 300 series printer and want to copy media profiles (OMS) from one printer to another.
- You are a consultant, dealer or media manufacturer and want to distribute media profiles (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

1 Copy the HpLatexUploader.exe to C:\Program Files\EFI\Fiery XF\Server.

2 Double-click HpLatexUploader.exe.
The following dialog box opens:



3 Drag the EPL file onto HpLatexUploader.exe.
The tool reads the print parameters, communicates with the printer to get the key for the print mode, and uploads the file.

If the ICC slot of the print mode already contains an ICC file, you are prompted to confirm that you really want to overwrite the existing ICC file on the printer.

Note: The program detects errors and displays related error messages. In particular, it rejects Fiery XF specific profiles.