HP Latex R530, FS60, FS50 series

This document bridges the gap between the Fiery XF documentation and the HP Latex R530/FS60/FS50 documentation.

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

Manuals

HP Latex R530

HP Latex FS60

HP Latex FS50

Installation

The printer driver supports the following printers:

- HP Latex R530 (CMYK+White)
- HP Latex FS60
- HP Latex FS60 W
- HP Latex FS50
- HP Latex FS50 W

Minimum Fiery XF version: 9.0.1

License requirement: Option Group 6

Ensure that a firewall does not block the following outgoing TCP ports: 80, 443, 8085, 8086 and 9100. Windows blocks most ports if it considers a network “public.”

To configure the Fiery XF output device

1. Make sure the printer is turned on and not in sleep mode.
2. Start the Fiery XF server.
3. In the Server Manager, create a new output device with your HP Latex printer as the device type.
4. Enter the IP address of the printer and export path.
5. Once printer is added Fiery XF retrieves all media information from the printer. The retrieval process can take several minutes. During this time, the Fiery XF server downloads all the ICC profiles from the printer and creates the Fiery XF calibration sets for all print modes. There will be a folder, Automatic_IpAddress, below "C:\ProgramData\EFI\EFI Media Profiles", e.g., Automatic_10_129_201_15
6. Restart the Fiery XF server.
   The HP Raster Library retrieves all media types from the actual printer, when you restart the server.
7. In the Fiery XF server, configure the output device.
   Select a calibration set for the media loaded in the printer. If you receive a missing profiles error message, the ICC profiles have not been successfully downloaded from the printer.
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 “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 and media key.
- Specific information for print modes. Each print mode contains all the print parameters and an ICC profile.

You can manage media profiles in the printer’s Substrate Library screen. You can search for media online, 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 printing 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 printing vendors.

Device connection and configuration

The Fiery XF printer driver automatically retrieves information for the configured IP address. There is a backup file in the Fiery XF server’s data folder for all bidirectional data acquired from the printer. The names of these backup files follow the naming convention HpPrinter_Type_IPaddress.xml, e.g., HpPrinter_MediaInfo_10.129.201.15_.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.
   Wait several minutes for the new folder to be created and populated.
2. Restart the Fiery XF server.
   After the restart, you should see the changed set of media types in the Fiery XF server.

Settings

- Media Source

  The Fiery XF printer driver offers three media source settings:

Source	Borderless printing	Margin
Roll 1	Set in IPS	Set in IPS
Roll 2	Set in IPS	Set in IPS
Roll Paper(Auto)	Set in IPS	Set in IPS

- Media Type

  The media type is the most important key to several 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 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: 300dpi and 600dpi which are contone data resolutions and affect only the level of detail. The actual print resolution is higher.

  Each print mode is a collection of settings:

  - Number of passes, e.g., 10p
  - Color mode, either 6c or 4c
    4c (no light ink) is for cases where the amount of ink must be as low as possible.
  - Channel ink limit, e.g., 100
  - Optimizer settings
  - Overcoat settings
  - Curing settings
  - White print order (R530/FS60W/FS50W only):

Short cut	Full name	Meaning
empty	*empty*	CMYK only
UF	Underflood	White under the color On an opaque substrate
OF	Overflood	White over the color Mirrored on the back of the transparent substrate
SP	Spot	White only Faster than UF or OF
SW3L	Sandwich	Color white color On the transparent substrate, get similar color for combined daylight and backlit application

  By default, a print mode name is comprised of key parameters, e.g., “10p_6c_120_WOF60”. Customized names are also possible. The name is displayed in the printer’s menu and the Fiery XF server.

Printer settings on the Special tab

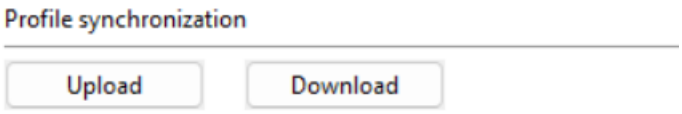
The HP Latex series printer has many specific settings on the Special tab.

Driver status

This shows the status of the driver and the activities in the driver like downloading profiles:

Profile synchronization

This group has buttons for uploading profiles and downloading profiles from printer.



Profile synchronization

Download

Synchronizes the calibration sets in the Fiery XF server with the media on the printer.

Upload

Uploads an ICC profile to the related print mode of a medium. This becomes part of the OMS file and can be ported to other printers.

Printer discovery

Select a printer variant that the driver supports.

Log Level

Amount of logging activity. Normally set to None.

White Ink printing

Choose how white will be generated. The setting is only applicable to print modes with a white print order attribute such as Underflood.

Print mode

Where the white shall come from:

- The printer-specific spot color WHITE_INK (separation from job).
  If your PDF contains a “white layer” separation, the spot color handling of the Fiery XF server can redirect that to WHITE_INK.
- Algorithms that generate white from the CMYK image.

White ink coverage

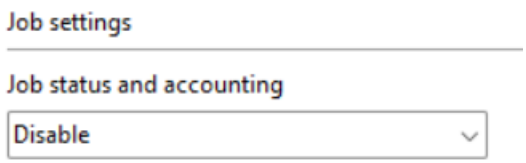
Amount factor of white ink.

Spread and Choke

Adjust the white image.

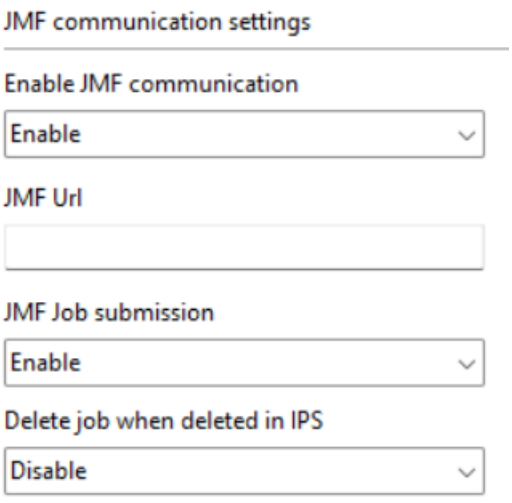
Job Settings

Activate watching print progress and retrieving consumption data from the printer.



JMF Settings

These are settings to control the JMF communication with the printer. A JMF URL is required to communicate with the printer. The format of the URL is ‘ipaddress’:8080/jmfservice. It is populated by default in the driver.
Note: Without JMF communication enabled, the Job status and accounting will not work.
JMF job submission setting should be the same as in IPS, i.e. if jobs are received via hotfolder, it should be disabled here as well, else it should be enabled.



Creating Profiles

Before you start

Heat resistance is a key feature of media for the 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)

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

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

- Delete the EFI Media Profiles\Automatic_IP folder and wait several 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

  You can create the ICC profile on the printer when you create the media profile entry (OMS). 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 file 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.
     The Fiery Printer Profiler starts.
     Note: 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. The ICC profile cannot be part of the OMS: The ICC profile alone would print incorrect 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 730/830 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 where more than one printing 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).

To upload an ICC profile to the printer

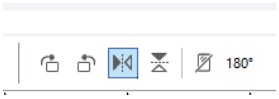
Push the Upload button in the Profile synchronization group and choose the EPL file that has the ICC attached.

- The function reads the print parameters from the EPL, communicates with the printer to get the key for the print mode, and uploads the ICC file to the related slot.
- If the ICC slot of the print mode already contains an ICC file, you are prompted to confirm that you want to overwrite the existing ICC file on the printer.
- The function detects errors and displays related error messages. In particular, it rejects Fiery XF-specific profiles.

Double sided printing

Follow the instructions in the user guide to load the media for printing double sided.

- Side A: Send job from Fiery XF and print.
- Side B: After reloading the media in printer, open the same job in Fiery XF Job Editor and rotate the job by 180 degrees, optionally can mirror as well.



Alternatively, create two workflows, one for side A and one for side B. In side B workflow settings, set the rotation. Now send side A job from side A workflow and side B job from side B workflow.