# VUTEk HS100 Pro White Clear

This document bridges the gap between the Fiery XF documentation and the VUTEk documentation.

## EPL and color-compatible printers

- VUTEk HS100 Pro
- VUTEk HS100 Pro White
- VUTEk HS100 Pro Clear

## Ink types

- VUTEk HS100 v1.0
- VUTEk HS100 v2.0
- VUTEk HS100 Ultra Pro
- WHITE_INK (additional)
- CLEAR_INK (additional)

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Fiery XF 6.4

## Printer settings

The following settings are color-dependent. You define them in Color Tools when you create a new base linearization (EPL) file. EPL files contain all the settings necessary to reproduce colors and ink coverage on the printer. They also contain a reference to an ICC color profile.

### Color modes

- CMYK, Advanced (supported since Fiery XF 4.5)
- CMYKcm, Advanced (supported since Fiery XF 4.5)
- CMYK (supported since Fiery XF 6.1)
- CMYKcm (supported since Fiery XF 6.1)
- CMYKO (supported since Fiery XF 6.1)
- CMYKV (supported since Fiery XF 6.1)
- CMYKcmO (supported since Fiery XF 6.1)
- CMYKcmV (supported since Fiery XF 6.1)

Color Tools displays only color modes that can be used for EPL creation, as well as those whose colors are compatible, even if the color mode is no longer supported.

### Resolutions

- Fast scan: 600 dpi; slow scan: 360 dpi
- Fast scan: 1000 dpi; slow scan: 720 dpi

### Halftoning

- Error diffusion (SE1)
- Stochastic screening (SE2)

**Note:** EPL files created with Fiery XF 6.3 will use a new internal stochastic screening (SE2+). EPLs built with a version prior to Fiery XF 6.3 will still use the legacy stochastic screening (SE2).

### Dot modes

- Fixed: Single drop size print mode
- Grayscale: Multiple drop size print mode (available for lower resolutions only)

# Printer driver features

## Print Head Control Bar

This Fiery XF printer driver supports the Print Head Control Bar. For more information on how to use it, see "Printing to a VUTEk printer" in the Fiery XF user manual. You can download the user manual from http://help.fiery.com/index/index.html.

## Printer encoder - VUTEk RTL file output

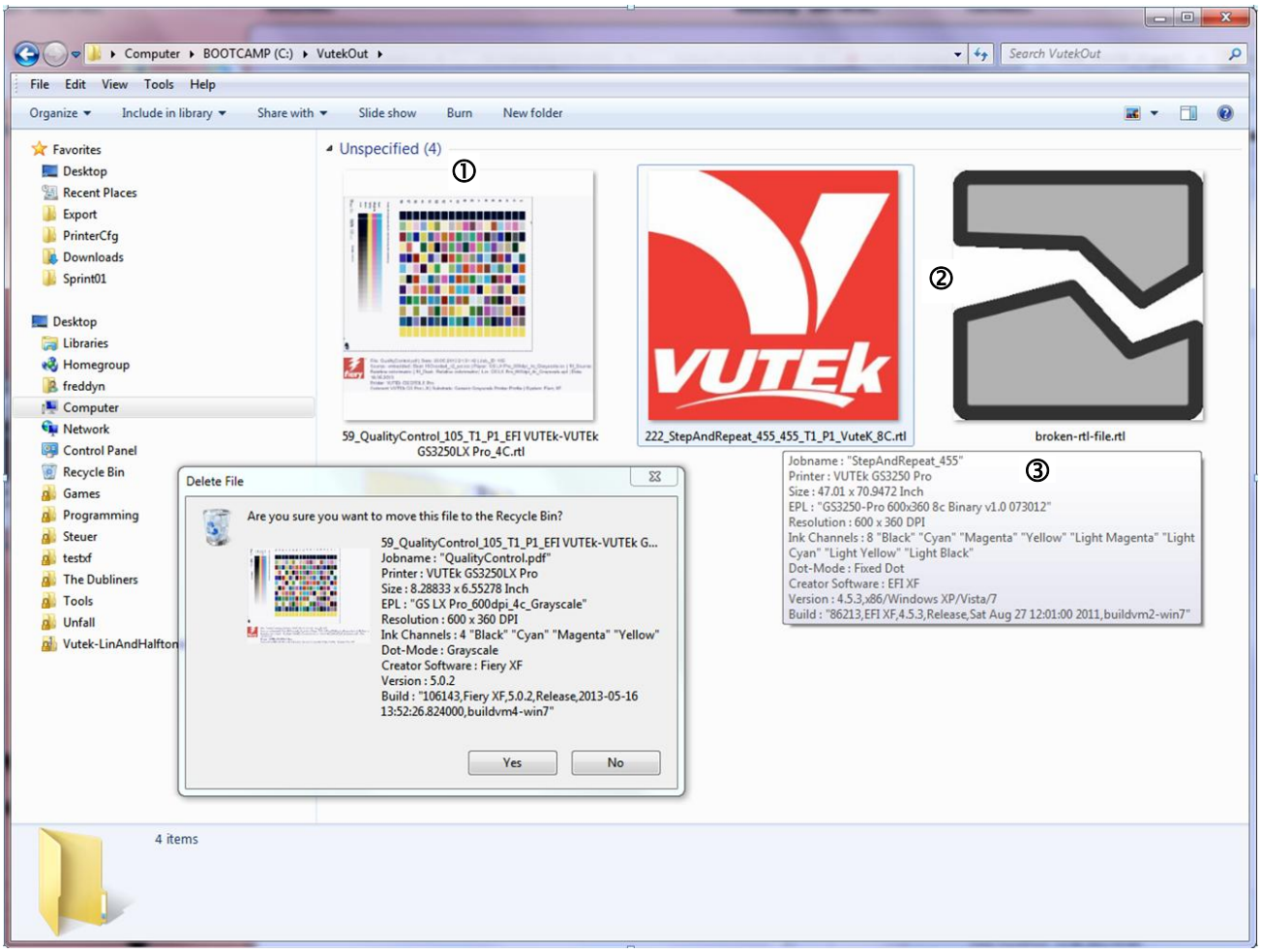
The Fiery XF printer driver encoder generates image data in HP-RTL (Raster Transfer Language) format, with additional proprietary metadata in the PJL section. Since the GS generation of VUTEk printers, image data has been compressed into packbits. The image data for older printer models is not compressed.

It is possible to embed preview images into the VUTEk RTL files. The Fiery Proserver RTL extension for Windows File Explorer uses it to show the embedded preview as a thumbnail image instead of a VUTEk logo. Usually this feature is deactivated because it can cause issues with reading the RTL on first generation VUTEk printer software for GS-series printers. However, it can be activated by request.

## Printer decoder - Windows Explorer shell extension for VUTEk RTL files

A Windows shell extension for RTL files is available in the Windows version of Fiery XF. This shell extension provides RTL file validation, an Info tooltip to show metadata from the RTL and thumbnail previews, if the RTL contains embedded previews.

The screenshot shows three different statuses for RTL files:




| Key | Description |
|---|---|
| 1 | RTL file is valid. It contains an embedded preview. |
| 2 | RTL file is valid, but it contains no embedded preview. Instead of a preview a VUTEk logo will be used to indicate a valid RTL file. |
| 3 | RTL file is invalid. The file has an .RTL file extension, but the validation failed. It cannot be used on VUTEk printer software. |

While Fiery XF is processing an RTL file, it may show up as an invalid RTL until the RIP process has finished. To enforce a refresh and re-validation from the Explorer shell extension, press F5.

## WHITE_INK for VUTEk printers

There are two VUTEk printer drivers for printers that support white ink:

- One without WHITE_INK inside the RIP process
- One with WHITE_INK inside the RIP process

If you use the printer driver for white ink, the generated printer output always contains a white ink channel. Furthermore, the internal process also runs with this additional color channel. Therefore, it is recommended that you switch to the WHITE_INK driver only if you intend to use the printer's WHITE_INK channel.

## WHITE_INK inside the linearization process for VUTEk printer drivers

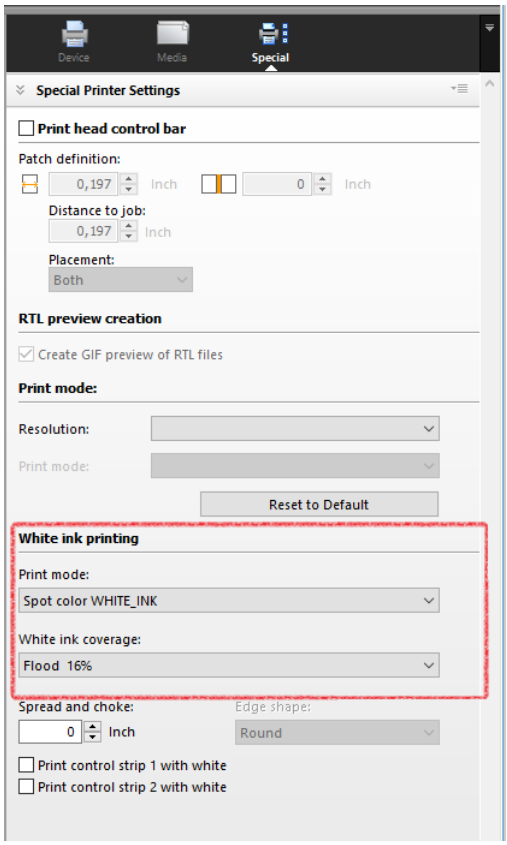
The VUTEk printer linearization performs a WHITE_INK channel calibration to create linear behavior from L* values to input con-tone values. This step is skipped if you are creating a new EPL with a non-WHITE_INK driver.

Printing with such an EPL cannot create a linear behavior between white ink input and linear L* values on the WHITE_INK channel. In some cases, it makes sense to perform a WHITE_INK linearization, e.g. to create gradients with WHITE_INK. However, in other cases, such as 3-layer backlit with WHITE_INK flood fill, there is no benefit.

For more information on how to create a base linearization file and profile for white ink, see "Create a base linearization file (printer settings)" in the Fiery XF user manual. See also the "White Linearization Guide for EFI VUTEk Printers" for Fiery XF 6.3 users. You can download both documents from http://help.fiery.com/index/index.html.

## White ink settings

The white ink settings are located on the Special tab (System Manager and Job Explorer).



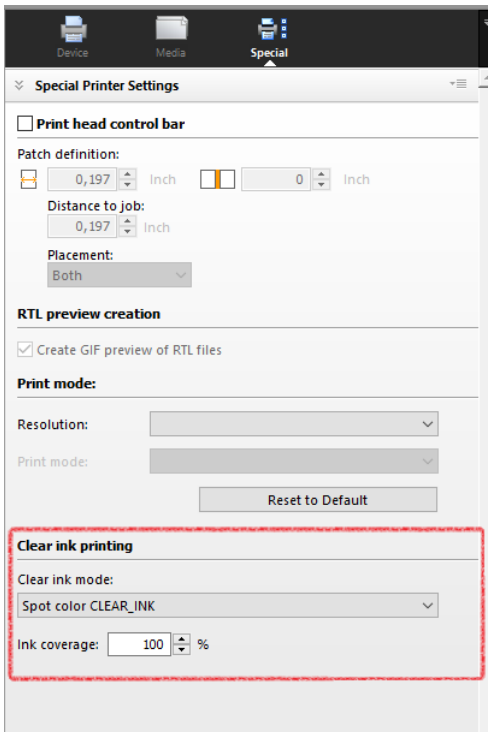

- Print mode

| Setting | Description |
|---|---|
| Spot color WHITE_INK | The spot color of this name or alias from a separated document prints white ink. |
| Inked image | Every pixel which does not have CMYK = 0,0,0,0 on the printer side adds white ink. |
| Inked image inverse | Like “Inked image”, but inverted. |
| Tonal image | White ink generation based on the color input. Use case for non-white media. |
| Tonal image inverse | Like “Tonal image”, but inverted white ink. |
| Bounding box | Every pixel in the image rectangle adds white ink. This is the recommended mode during linearization and profile creation. |
| Off | White ink off, even when it comes from the separated document. |

- “White ink coverage” configures the amount of white ink relative to black.

## CLEAR_INK settings

The clear ink settings are located on the Special tab (System Manager and Job Explorer).




- Clear ink mode

| Setting | Description |
|---|---|
| Spot color CLEAR_INK | The spot color of this name or alias from a separated document prints clear ink. |
| Inked image | Every pixel which does not have CMYK = 0,0,0,0 on the printer side adds clear ink. |
| Inked image inverse | Like “Inked image”, but inverted. |
| Tonal image | Clear ink generation based on the color input. Use case for creating a surface structure. |
| Tonal image inverse | Like “Tonal image”, but inverted clear ink. |
| Bounding box | Every pixel in the image rectangle adds clear ink. This is the recommended mode during linearization and profile creation. |
| Off | Clear ink off, even when it comes from the separated document. |

- “Clear ink coverage” configures the amount of clear ink for the bounding box.

## Printing via IP

Printing to a VUTEk via an IP address can speed up the process and enables integration into other products such as EFI Pace, Fiery Navigator, etc. When jobs are printed via the IP address, the VUTEk printer software does not need to scan the complete RTL file (which takes some time). Instead, it reads the GIF preview that you can select to create in Fiery XF. This accelerates the process noticeably.

For more information on how to set up a VUTEk printer in Fiery XF, see “Printing to a VUTEk printer” in the Fiery XF user manual. You can download the user manual from http://help.fiery.com/index/index.html.