GENERIC DRIVERS

White Paper

This document explains how to use the different Generic Printer Drivers.

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Introduction

State of the Art

In order to expand supported printers range, Caldera has introduced Generic Drivers.

PRT Format

The PRT format driver are mainly addressing Chinese electronics based printer drivers, you will see later on in this document, that there are 3 driver types for this.

TIFF Format

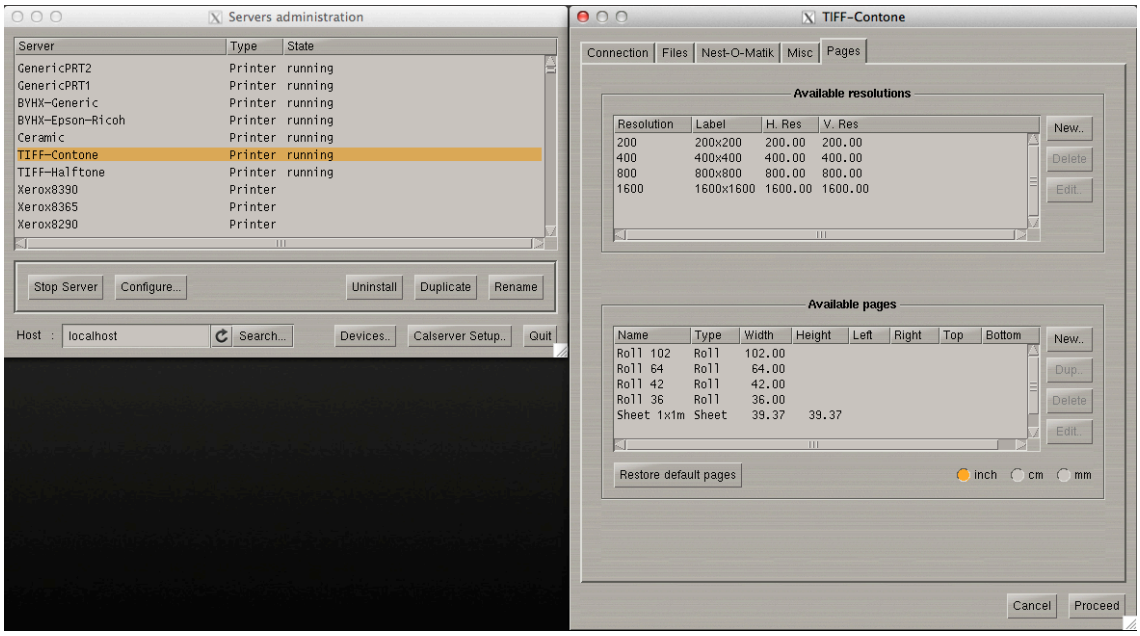
TIFF is quite extensively used as a file-format for Controller based printers, these drivers enable the use of a configurable generic TIFF Halftone or Contone, separated or contiguous format.

Each and single of these drivers are so called "Generic", meaning that they will need to be configured to fit the requirements of the printer , the default available modes paper sizes and resolutions are just examples (the can be found under manufacturer Misc (Extranet / Usernet)).

- **Paper sizes**
- **Resolutions**
- **Amount of Drops**
- **Supported Color-Modes**

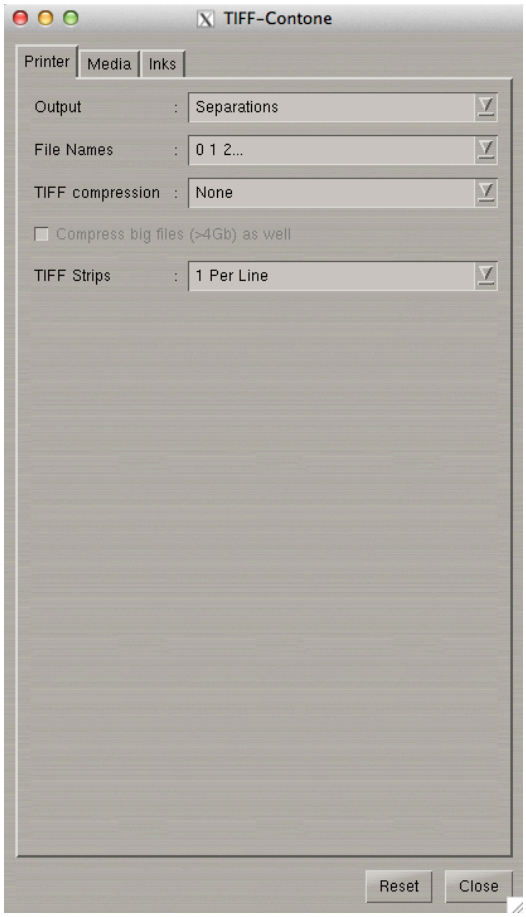
TIFF Contone

- This driver produces TIFF Contone (8 Bits) files.
- This driver is File format based.
- Paper sizes and Resolutions can be configured via Server-admin.



- This driver supports spot-colors (White / Varnish).
- This driver supports Custom-InkSet (Additional colorants : Orange, Green, Blue …).
- This driver supports Composite (1 output file), or separated (1 file per color), TIFF.
- This driver supports Ink-Reordering.

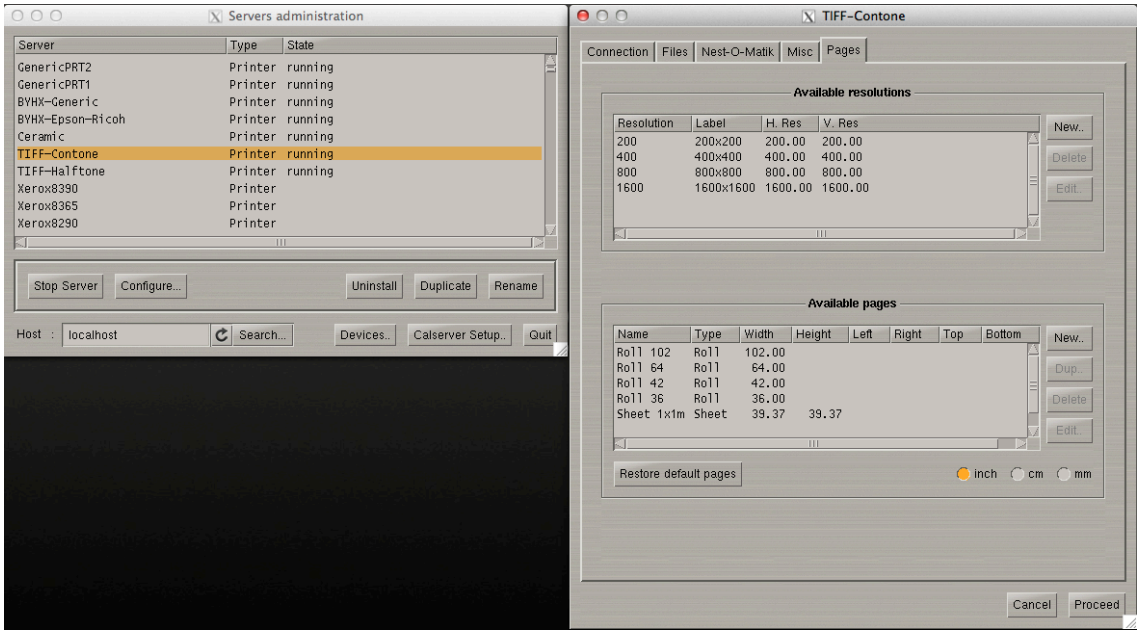
- **Options** :



- *Output*:
  - Separations: One file per color, name can be configured see *File Names*
  - *Composite:* One output file.
- *File Names :*
  - Output file names can be configured in case *Separations* is used.
    - _0,_1,_2…
    - _1,_2,_3…
    - _C,_M,_Y…
    - _Cyan,_Magenta,_Yellow…
    - …
- *TIFF compression* : self explanatory
- *TIFF strip size* : Default 1 Per Line.
- *Inks Tab :*
  - Ink reordering is supported to assign each Color to a Layer.
  - Empty Layers are supported as well.

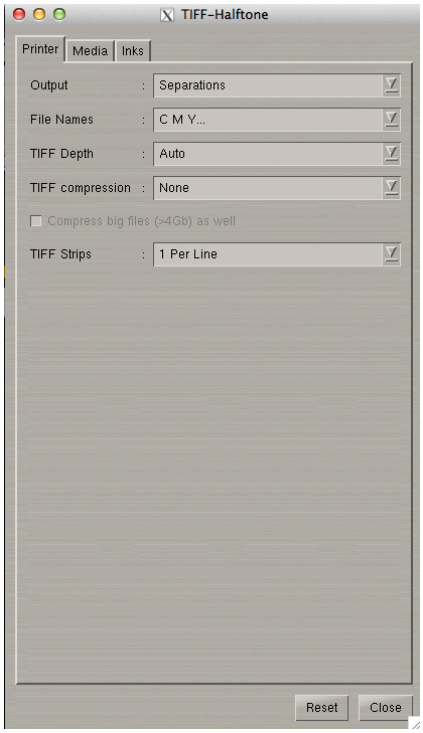
TIFF Halftone

- This driver produces TIFF Halftone (1,2,4 Bits) files.
- This driver is File format based.
- Paper sizes and Resolutions can be configured via Server-admin.
    - *Resolutions have a particular form*:
        - **A**x-**Z**D :
            - X = X resolution
            - Y = Y resolution
            - Z = Number of drops.
            - For example : 300x300-3D = 300x300 dpi 3 Drop sizes (2 Bits).
              300x300-1D = 300x300 dpi 1 Drop (Binary).



- This driver supports spot-colors (White / Varnish).
- This driver supports Custom-InkSet (Additional colorants : Orange, Green, Blue …).
- This driver supports Composite (1 output file), or separated (1 file per color), TIFF.
- This driver supports Ink-Reordering.

- **Options** :



  - *Output*:
    - Separations: One file per color, name can be configured see *File Names*
    - *Composite:* One output file.
  - *File Names :*
    - Output file names can be configured in case *Separations* is used.
      - _0,_1,_2…
      - _1,_2,_3…
      - _C,_M,_Y…
      - _Cyan,_Magenta,_Yellow…
      - …
  - *TIFF compression* : self explanatory
  - *TIFF depth* : depth of the file

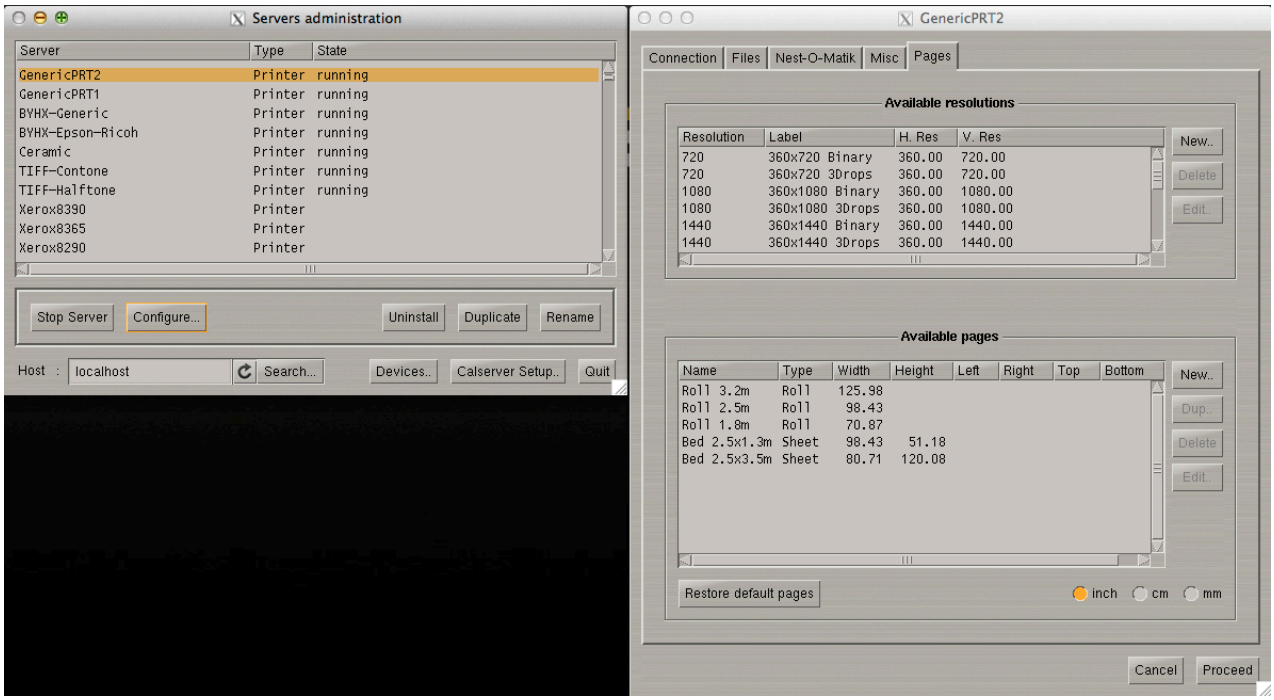
      - Auto, the depth of based on the name of the resolution
      - xBPP, depth is forced to x Bits-Per-Pixel.

  - *TIFF strip size* : Default 1 Per Line.
  - *Inks Tab :*
    - Ink reordering is supported to assign each Color to a Layer.
    - Empty Layers are supported as well.

GenericPRT 1,2

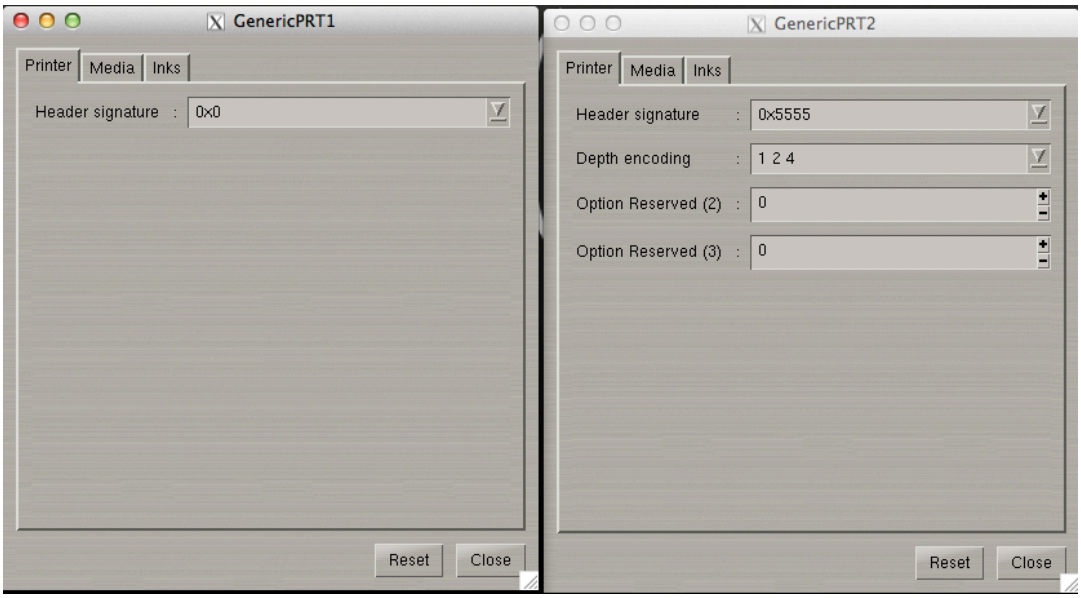
There are actually 2 driver types, addressing different kind of electronics, GenericPRT1 or GenericPRT2 have to be used or tested.

- This driver produces PRT Halftone (1,2,4 Bits) files.
- This driver is File format based (**No direct USB Support, Windows PRT printing tool required**).
- Paper sizes and Resolutions can be configured via Server-admin.
    - *Resolutions have a particular form*:
        - **X**x**Y**-**Z**D or **X**x**Y** **Z**Drops:
            - X = X resolution
            - Y = Y resolution
            - Z = Number of drops.
            - For example : 300x300-3D = 300x300 dpi 3 Drop sizes (2 Bits).
              300x300 1Drop = 300x300 dpi 1 Drop (Binary).
- Quality (x Pass) can be chosen, but might not be supported by the printer itself.



- This driver supports spot-colors (White / Varnish).
- This driver supports Custom-InkSet (Additional colorants : Orange, Green, Blue …).
- This driver supports Composite (1 output file), or separated (1 file per color), TIFF.
- This driver supports Ink-Reordering.

- **Options** :



- *Header signature*:
  - Different values are selectable, the default is recommended.

- *Depth encoding :*
  - For grayscale support, some require (electronic dependent).
    - 1 2 4 : value = Number of Bits-Per-Pixel
    - 0 1 2 : value = Number of Bits-Per-Pixel -1

- *Option Reserved (2)* : Internal use
- *Option Reserved (3)* : Internal use

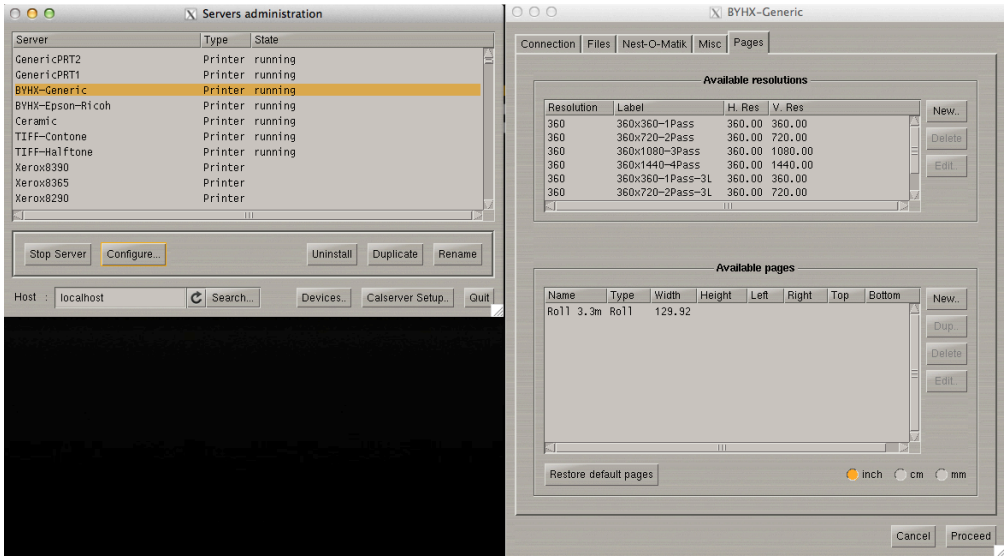
BYHX-Generic and BYHX-Epson-Ricoh

There are actually 2 driver types, designed to be used with printer using BYHX electronics, BYHX-Generic (Any type of head), BYHX-Epson-Ricoh (Epson or Ricoh Heads).

BYHX-Generic

- This driver produces PRT Halftone (1,2,4 Bits) files.
- This driver is File format based. (**No direct USB Support, Windows PRT printing tool required**).
- Paper sizes and Resolutions can be configured via Server-admin.
    - *Resolutions have a particular form*:
        - **X**x**Y**-**N**Pass-ZD:
            - X = X resolution
            - Y = Y resolution
            - Z = Number of drops.
            - N = Number of Passes
            - For example : 300x300-2Pass-3D = 300x300 dpi 2 Pass 3 Drop sizes (2 Bits).

              300x300-1Pass-1Drop = 300x300 dpi 1 Pass 1 Drop (Binary).
- Quality (Uni-Bi-Speed) can be chosen, but might not be supported by the printer itself.

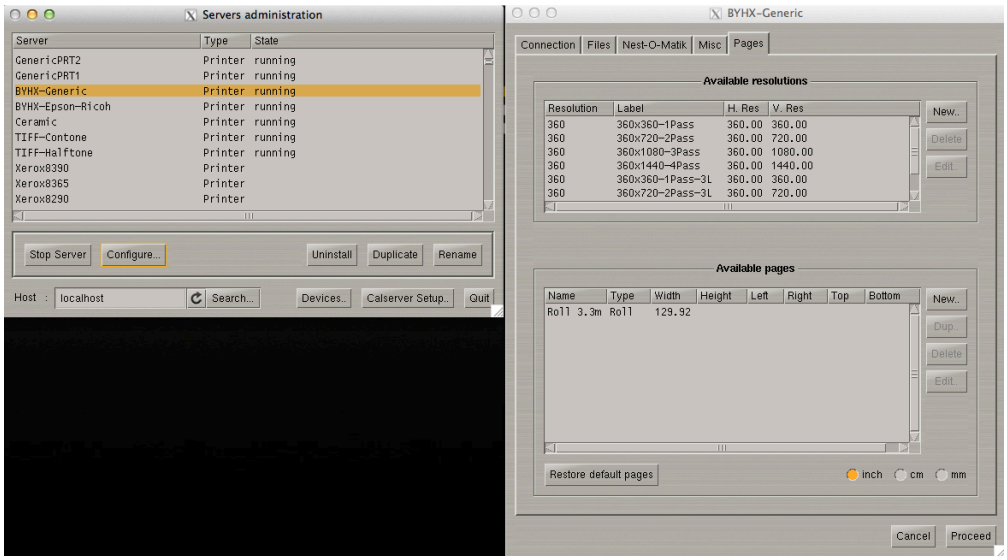


- This driver supports spot-colors (White / Varnish).
- This driver supports Custom-InkSet (Additional colorants : Orange, Green, Blue …).
- This driver supports Composite (1 output file), or separated (1 file per color), TIFF.
- This driver supports Ink-Reordering.

BYHX-Epson-Ricoh

- This driver produces PRT Halftone (1,2,4 Bits) files.
- This driver is File format based. (**No direct USB Support, Windows PRT printing tool required**).
- Paper sizes and Resolutions can be configured via Server-admin.
    - *Resolutions have a particular form*:
        - **X**x**Y**-VSD**Z**:
            - X = X resolution
            - Y = Y resolution
            - Z = VSD Mode (Epson).
            - For example : 360x720-VSD1 = 360x720 dpi VSD1 (2 Bits). 360x360 = 360x360 dpi (2 Bits Ricoh , VSD Auto select).

- Quality (Uni-Bi-Speed, pass) can be chosen, but might not be supported by the printer itself.



- This driver supports spot-colors (White / Varnish).
- This driver supports Custom-InkSet (Additional colorants : Orange, Green, Blue …).
- This driver supports Composite (1 output file), or separated (1 file per color), TIFF.
- This driver supports Ink-Reordering.