arm2hpdl - Add HP download header/trailer to an ARM ELF binary.

SYNOPSIS

arm2hpdl [options] arm-binary.img > hpdl.dl

DESCRIPTION

arm2hpdl adds an HP download header/trailer to an ARM ELF binary. If the file already has an HP header, just copy it to stdout.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

−D level

Set Debug level [0].

EXAMPLES

Add an HPDL header to a HP LaserJet 1005.

```
$ arm2hpdl sihp1005.img > sihp1005.dl
```

FILES

/usr/bin/arm2hpdl, /usr/share/foo2*/firmware/

SEE ALSO

foo2zjs(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

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ddstdecode - Decode a Ricoh DDST stream into human readable form.

SYNOPSIS

ddstdecode [options] <ddst-file

DESCRIPTION

ddstdecode decodes a Ricoh DDST stream into human readable form.

A Ricoh DDST stream is the printer language used by some Ricoh printers. From what I can tell, it is pbmtojbg(1) wrapped with some PJL.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- -D level

Set Debug level [0].

EXAMPLES

Decode an Ricoh DDST stream file created by a Ricoh SP112.

```
$ ddstdecode -h ~/testpage-ricoh-sp112.prn
    0: 33%-12345X@PJL
     f: @PJL SET TIMESTAMP=2017/03/16 16:53:16
    37: @PJL SET FILENAME=testpage.pdf
    57: @PJL SET COMPRESS=JBIG
    6f: @PJL SET USERNAME=rick
    87: @PJL SET COVER=OFF
    9b: @PJL SET HOLD=OFF
    ae: @PJL SET PAGESTATUS=START
    c9: @PJL SET COPIES=1
    dc: @PJL SET MEDIASOURCE=TRAY1
    f8: @PJL SET MEDIATYPE=PLAINRECYCLE
   119: @PJL SET PAPER=LETTER
   130: @PJL SET PAPERWIDTH=5100
   14a: @PJL SET PAPERLENGTH=6600
   165: @PJL SET RESOLUTION=600
   17e: @PJL SET IMAGELEN=60604
   197: DDST_JBIG_DATA_BEGIN 60604 bytes
                DL = 0, D = 0, P = 1, - = 0, XY = 5100 \times 6600
                L0 = 128, MX = 0, MY = 0
                Order = 3 ILEAVE SMID
                Options = 72 LRLTWO TPBON
                52 stripes, 0 layers, 1 planes
  ee53: DDST_JBIG_DATA_END
  ee53: @PJL SET DOTCOUNT=1765571
  ee6e: @PJL SET PAGESTATUS=END
  ee87: @PJL EOJ
  ee91: 33%-12345X
```

FILES

/usr/bin/ddstdecode

SEE ALSO

foo2ddst-wrapper(1), foo2ddst(1), pbmtojbg(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2xqx.rkkda.com/

foo2ddst - Convert Ghostscript pbmraw into a DDST printer stream

SYNOPSIS

foo2ddst [options] < pbmraw-file > ddst-file

DESCRIPTION

foo2ddst converts Ghostscript pbmraw to monochrome DDST streams, for driving the Ricoh Aficio SP 112, the Ricoh Aficio SP 201, and other DDST-based printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

−d duplex

Duplex code to send to printer [1].

 $-\mathbf{g}$ $xpix\mathbf{x}ypix$

Set page dimensions in pixels [5100x6600].

-m media

Media code to send to printer [1].

Media	Code
plain&recycled	1
paper	2
thin	3
thick	4
recycled	5

-p *paper*

Paper code to send to printer [1].

1	letter	5	A4
2	legal	6	A5
3	executive	7	A6
4	invoice(5.5x8.5)	8	B5 JIS
		10	16k 197x273
11	16k 184x260	12	16k 195x270

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [600x600].

-s source

Source (InputSlot) code to send to printer [7].

1	tray 1	2	manual
---	--------	---	--------

- **-t** Draft mode. Every other pixel is white.
- -T density

Print density (1-5). The default is 3 (medium).

-J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2ddst** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the ZjStream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.

Debugging Options

These options are used for debugging foo2ddst.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a black and white DDST stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r1200x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2ddst -r1200x600 -g10200x6600 -p1 >testpage.zm
```

FILES

/usr/bin/foo2ddst

SEE ALSO

```
\label{lem:cond} \textbf{foo2ddst-wrapper}(1), \, \textbf{ddstdecode}(1) \\ \textbf{https://github.com/madlynx/ricoh-sp100} \\
```

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2ddst.rkkda.com/

foo2ddst-wrapper - Convert Postscript into a DDST printer stream

SYNOPSIS

foo2ddst-wrapper [options] [ps-file]

DESCRIPTION

foo2ddst-wrapper is a Foomatic compatible printer wrapper for the **foo2ddst** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to DDST printer format for driving the Ricoh Aficio SP 112, the Ricoh Aficio SP 201, and other DDST-based printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

−d duplex

Duplex code to send to printer [1].

```
1 off 2 long edge 3 short edge
```

-m media

Media code to send to printer [1].

Media	Code
plain&recycled 1	
paper 2	
thin 3	
thick 4	
recycled 5	

-p paper

Paper size code to send to printer [1].

1	letter	5	A4
2	legal	6	A5
3	executive	7	A6
4	invoice(5.5x8.5)	8	B5 JIS
		10	16k 197x273
11	16k 184x260	12	16k 195x270

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [600x600].

-s source

Source (Input Slot) code to send to printer [7].

```
1 upper 2 manual
```

- **-t** Draft mode. Every other pixel is white.
- -T density

Print density (1-5). The default is 3 (medium).

-2 -3 -4 -5 -6 -8 -9 -10 -12 -14 -15 -16 -18

Print in N-up. Requires the psutils package.

-o orient

Orientation used for N-up.

Portrait -op (normal)

Landscape -ol (rotated 90 degrees anticlockwise) Seascape -os (rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2ddst** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the ZjStream. **foo2ddst-wrapper** always runs Ghostscript with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

Debugging Options

These options are used for debugging **foo2ddst** and its wrapper.

-D level

Set Debug level [0].

EXAMPLES

Create a monochrome ZjStream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2ddst-wrapper testpage.ps > testpage.ddst
ddstdecode < testpage.ddst
lpr -P raw testpage.ddst
```

FILES

/usr/bin/foo2ddst-wrapper

SEE ALSO

foo2ddst(1), ddstdecode(1) https://github.com/madlynx/ricoh-sp100

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2ddst.rkkda.com/

foo2hbpl2 - Convert Ghostscript pbmraw or bitcmyk format into a ZJS printer stream

SYNOPSIS

foo2hbpl2 [options] < pbmraw-file > hbpl2-file

foo2hbpl2 [options]

 bitcmyk-file >hbpl2-file

foo2hbpl2 [options] < pksmraw-file > hbpl2-file

DESCRIPTION

foo2hbpl2 converts Ghostscript pbmraw, bitcmyk, or pksmraw output formats to monochrome or color HBPL version 2 streams, for driving the Dell 1355, Dell C1765, Epson AcuLaser M1400, Epson AcuLaser CX17NF, Fuji Xerox DocuPrint CM205, Fuji Xerox DocuPrint CM215, Fuji Xerox DocuPrint M215, Fuji Xerox DocuPrint P205, Xerox Phaser 3010, Xerox Phaser 3040, Xerox WorkCentre 3045 MFP, and Xerox WorkCentre 6015 MFP printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Force color mode if autodetect doesn't work.
- $-\mathbf{d}$ duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

 $-\mathbf{g}$ $xpix\mathbf{x}ypix$

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [1].

Media	HBPL
plain	1
bond	2
lwcard	3
lwgcard	4
labels	5
envelope	6
recycled	7
plain2	8
bond2	9
lwcard2	10
lwgcard2	11
recycled2	12

-p *paper*

Paper code to send to printer [1].

Paper	HBPL
A4	1
B5jis	2
A5	3

4
5
6
6
7
9
10
11
12

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (InputSlot) code to send to printer [7].

1	upper	4	manua
2	lower	7	auto

- **-t** Draft mode. Every other pixel is white.
- -J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2hbpl2** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the ZjStream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- **-P** Do not send START_PLANE codes on monochrome output. May be needed by some black and white only printers, such as the HP LaserJet 1000.
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.
- -X padlen

Add extra zero padding to the end of BID segments. The default is 16 bytes. Padding 16 bytes of zeroes is needed for older ZjStream printers, such as the Minolta 2200DL and HP LaserJet 1000, and seems harmless to newer ones, such as the Minolta 2300DL. So the default should be good for all cases.

Debugging Options

These options are used for debugging **foo2hbpl2**.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

−D level

Set Debug level [0].

EXAMPLES

Create a black and white ZJS stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r1200x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2hbpl2 -r1200x600 -g10200x6600 -p1 >testpage.zm
```

Create a color ZJS stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g10200x6600 -r1200x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
| foo2hbpl2 -r1200x600 -g10200x6600 -p1 >testpage.zc
```

FILES

/usr/bin/foo2hbpl2

SEE ALSO

foo2hbpl2-wrapper(1), hbpldecode(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> Peter Korf <peter@niendo.de> http://foo2hbpl.rkkda.com/

foo2hbpl2-wrapper - Convert Postscript into a ZJS printer stream

SYNOPSIS

foo2hbpl2-wrapper [options] [ps-file]

DESCRIPTION

foo2hbpl2-wrapper is a Foomatic compatible printer wrapper for the **foo2hbpl2** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to Zenographics ZjStream printer format for driving the Dell 1355, Dell C1765, Epson AcuLaser M1400, Epson AcuLaser CX17NF, Fuji Xerox DocuPrint CM205, Fuji Xerox DocuPrint CM215, Fuji Xerox DocuPrint P205, Xerox Phaser 3010, Xerox Phaser 3040, Xerox WorkCentre 3045 MFP, and Xerox WorkCentre 6015 MFP printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Print in color (else monochrome).
- -C colormode

Color correction mode [0].

10 ICM color profile (using -G *.icm file)

-d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-m media

Media code to send to printer [1].

Media	HBPL
plain	1
bond	2
lwcard	3
lwgcard	4
labels	5
envelope	6
recycled	7
plain2	8
bond2	9
lwcard2	10
lwgcard2	11
recycled2	12

-p paper

Paper size code to send to printer [1].

Paper	HBPL
A4	1
B5jis	2
A 5	3

letter	4
executive	5
fanfold german legal	6
folio	6
legal	7
env#10	9
envMonarch	10
envC5	11
envDL	12

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (Input Slot) code to send to printer [7].

```
1 upper 4 manual
2 lower 7 auto
```

-t Draft mode. Every other pixel is white.

-T density

Print density (1-5). The default is 3 (medium).

-2 -3 -4 -5 -6 -8 -9 -10 -12 -14 -15 -16 -18

Print in N-up. Requires the psutils package.

−o orient

Orientation used for N-up.

```
Portrait -op (normal)
Landscape -ol (rotated 90 degrees anticlockwise)
Seascape -os (rotated 90 degrees clockwise)
```

Printer Tweaking Options

These are the options used to customize the operation of foo2hbpl2 for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the ZjStream. **foo2hbpl2-wrapper** always runs Ghostscript with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

-P Do not send START_PLANE codes on monochrome output. May be needed by some monochrome-only printers, such as the HP LaserJet 1000.

-X padlen

Add extra zero padding to the end of BID segments. The default is 16 bytes. Padding 16 bytes of zeroes is needed for older ZjStream printers, such as the Minolta 2200DL and HP LaserJet 1000, and seems harmless to newer ones, such as the Minolta 2300DL. So the default should be good for all cases.

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

-g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. (WORK IN PROGRESS).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \text{ exp}\}\ \{0.333 \text{ exp}\}\ \{0.333 \text{ exp}\}\ \text{setcolortransfer}$

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging foo2hbpl2 and its wrapper.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a monochrome ZjStream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2hbpl2-wrapper testpage.ps > testpage.prn
hbpl2decode < testpage.prn
lpr -P raw testpage.prn
```

Create a color ZjStream stream from a Postscript document:

foo2hbpl2-wrapper -c testpage.ps > testpage.prn

FILES

/usr/bin/foo2hbpl2-wrapper

SEE ALSO

 ${\bf foo2hbpl2} (1), {\bf hbpldecode} (1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2hbpl.rkkda.com/

foo2hiperc - Convert Ghostscript pbmraw or bitcmyk format into a HIPERC printer stream

SYNOPSIS

```
foo2hiperc [options] < pbmraw-file >hiperc-file
```

foo2hiperc [options]

 bitcmyk-file >hiperc-file

foo2hiperc [options] < pksmraw-file > hiperc-file

DESCRIPTION

foo2hiperc converts Ghostscript pbmraw, bitcmyk, or pksmraw output formats to monochrome or color HIPERC streams, for driving the Oki C310dn, C3100, C3200, C3300n, C3400n, C5100n, C5500n, C5600n, and the C5800n HIPERC printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Force color mode if autodetect doesn't work.
- -d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

 $-\mathbf{g}$ $xpix\mathbf{x}ypix$

Set page dimensions in pixels [5100x6600].

-m media

Media code to send to printer [0].

Media	HIPERC
plain	0
labels	1
transparency	2

-p *paper*

Paper code to send to printer [2].

1	A4	2	letter
3	legal	-	-
5	A5	6	B5jis
7	A6	8	env Monarch
9	env DL	10	env C5
11	env #10	12	executive
13	env #9	14	legal 13.5"
15	A3	16	tabloid/ledger

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [600x600].

-s source

Source (InputSlot) code to send to printer [0].

```
    0
    auto select

    1
    tray1
    2
    tray2

    3
    multi
    4
    manual
```

- **-t** Draft mode. Every other pixel is white.
- -J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2hiperc** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the HIPERC stream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.
- -Z compressed

Use uncompressed (0) or compressed (1) JBIG data.

Debugging Options

These options are used for debugging foo2hiperc.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a black and white HIPERC stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r600x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2hiperc -r600x600 -g5100x6600 -p0 >testpage.zm
```

Create a color HIPERC stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g5100x6600 -r600x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
```

| foo2hiperc -r600x600 -g5100x6600 -p0 >testpage.zc

FILES

/usr/bin/foo2hiperc

SEE ALSO

foo2hiperc-wrapper(1), hipercdecode(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.com> http://foo2hiperc.rkkda.com/

foo2hiperc-wrapper - Convert Postscript into a HIPERC printer stream

SYNOPSIS

foo2hiperc-wrapper [options] [ps-file]

DESCRIPTION

foo2hiperc-wrapper is a Foomatic compatible printer wrapper for the **foo2hiperc** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to the Oki HIPERC printer format for driving the Oki C310dn, C3100, C3200, C3300n, C3400n, C5100n, C5500n, C5600n and the C5800n HIPERC printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Print in color (else monochrome).
- -C colormode

Color correction mode [0].

10 ICM color profile (using -G *.icm file)

-d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-m media

Media code to send to printer [0].

Media	HIPERC
plain	0
labels	1
transparency	2

-p *paper*

Paper size code to send to printer [2].

1	A4	2	letter
3	legal	-	-
5	A5	6	B5jis
7	A6	8	env Monarch
9	env DL	10	env C5
11	env #10	12	executive
13	env #9	14	legal 13.5"
15	A3	16	tabloid/ledger

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [600x600].

-s source

Source (Input Slot) code to send to printer [0].

0	auto select		
1	tray1	2	tray2
3	multi	4	manual

-t Draft mode. Every other pixel is white.

-2 -3 -4 -5 -6 -8 -9 -10 -12 -14 -15 -16 -18

Print in N-up. Requires the **psutils** package.

-o orient

Orientation used for N-up.

Portrait -op (normal)
Landscape -ol (rotated 90 degrees anticlockwise)
Seascape -os (rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2hiperc** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size].

-L mask

Send the logical clipping values from -u/-l in the HIPERC stream. **foo2hiperc-wrapper** always runs Ghostscript with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- send both X and Y clipping amounts

−z model

Model is 0 for non-A3 sized printers, and 1 for A3/Tabloid/Ledger sized printers (i.e. C810, etc.). The default is 0.

-Z compressed

Use uncompressed (0) or compressed (1) JBIG data.

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

−g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. (WORK IN PROGRESS).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \exp\} \{0.333 \exp\} \{0.333 \exp\} \{0.333 \exp\}$ setcolortransfer

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging **foo2hiperc** and its wrapper.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- **−D** level

Set Debug level [0].

EXAMPLES

Create a monochrome HIPERC stream from a Postscript document, examine it, and then print it using nc(1) or netcat(1):

```
foo2hiperc-wrapper testpage.ps > testpage.hc
hipercdecode < testpage.hc
nc 192.168.1.NNN 9100 < testpage.hc
```

Create a color HIPERC stream from a Postscript document:

foo2hiperc-wrapper -c testpage.ps > testpage.hc

FILES

/usr/bin/foo2hiperc-wrapper

SEE ALSO

foo2hiperc(1), hipercdecode(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2hiperc.rkkda.com/

foo2hp - Convert Ghostscript pbmraw or bitcmyk format into a ZJS printer stream

SYNOPSIS

```
foo2hp [options] < pbmraw-file > zjs-file
```

foo2hp [options] <bitcmyk-file >zjs-file

foo2hp [options] <cups-file >zjs-file

DESCRIPTION

foo2hp converts Ghostscript pbmraw, bitcmyk, or cups output formats to monochrome or color ZJS streams, for driving the Hewlett-Packard 2600n color laser printer and other Zenographics-based printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-b** bits Bits per plane if autodetect doesn't work (1 or 2) [1].
- -c Force color mode if autodetect doesn't work.
- -d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

 $-\mathbf{g}$ $xpix\mathbf{x}ypix$

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [1].

Media	HPLJ 2600n
plain	1
preprinted	514
letterhead	513
transparency	2
prepunched	515
labels	265
bond	260
recycled	516
color	512
tough	276
envelope	267
light	258
heavy	262
cardstock	261
lightglossy	268
glossy	269
heavyglossy	270
cover	277
photo	278

-p paper

Paper code to send to printer [1].

1	letter	9	A4
5	legal	11	A5
7	executive	13	B5jis
20	env #10	27	env DL
28	env C5	34	env B5
37	env Monarch		

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [600x600].

-s source

Source (InputSlot) code to send to printer [7].

- **-t** Draft mode. Every other pixel is white.
- -J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2hp** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

−l xoff **x**yoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the ZjStream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- send both X and Y clipping amounts

$-\mathbf{O}$ c,m,y,k

Alignment of CMYK in rows. The default is 0,0,0,0.

- **-P** Do not send START_PLANE codes on monochrome output. May be needed by some black and white only printers, such as the HP LaserJet 1000.
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.
- -X padlen

Add extra zero padding to the end of BID segments. The default is 16 bytes.

Debugging Options

These options are used for debugging **foo2hp**.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

2

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

-D level

Set Debug level [0].

EXAMPLES

Create a black and white ZJS stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r600x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2hp -r600x600 -g5100x6600 -p1 >testpage.zm
```

Create a color ZJS stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g5100x6600 -r600x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
| foo2hp -r600x600 -g5100x6600 -p1 >testpage.zc
```

FILES

/usr/bin/foo2hp

SEE ALSO

foo2hp2600-wrapper(1), zjsdecode(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2hp.rkkda.com/

foo2hp2600-wrapper - Convert Postscript into a ZJS printer stream

SYNOPSIS

foo2hp2600-wrapper [options] [ps-file]

DESCRIPTION

foo2hp2600-wrapper is a Foomatic compatible printer wrapper for the **foo2hp** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to Zenographics ZjStream printer format for driving the Hewlett-Packard 2600n color laser printer and other Zenographics-based printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-b** bits Number of bits per plane. 1 or 2. [1].
- **-c** Print in color (else monochrome).
- **−d** *duplex*

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-m media

Media code to send to printer [1].

Media	HPLJ 2600n
plain	1
preprinted	514
letterhead	513
transparency	2
prepunched	515
labels	265
bond	260
recycled	516
color	512
tough	276
envelope	267
light	258
heavy	262
cardstock	261
lightglossy	268
glossy	269
heavyglossy	270
cover	277
photo	278

⁻p paper

Paper size code to send to printer [1].

1	letter	9	A4
5	legal	11	A5
7	executive	13	B5jis
20	env #10	27	env DL
28	env C5	34	env B5
37	env Monarch		

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (Input Slot) code to send to printer [7].

```
1 tray 2 4 manual/tray 1
2 tray 3 7 auto
```

-t Draft mode. Every other pixel is white.

Print in N-up. Requires the psutils package.

-o orient

Orientation used for N-up.

Portrait -op (normal)
Landscape -ol (rotated 90 degrees anticlockwise)
Seascape -os (rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2hp** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the ZjStream. **foo2hp2600-wrapper** always runs Ghostscript with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

-O parm=val

Alignment of CMYK. *parm* is c, m, y, or k. *val* is in rows. Multiple options are allowed. The default is "-Oc=0 -Om=0 -Oy=0 -Ok=0".

-P Do not send START_PLANE codes on monochrome output. May be needed by some monochrome-only printers, such as the HP LaserJet 1000.

-X padlen

Add extra zero padding to the end of BID segments. The default is 16 bytes. Padding 16 bytes of zeroes is needed for older ZjStream printers, such as the Minolta 2200DL and HP LaserJet 1000, and seems harmless to newer ones, such as the Minolta 2300DL. So the default should be good for all cases.

−z model

Model: Model: 0=HP CLJ 1600/2600n; 1=HP CLJ CP1215

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

-g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. If *profile.icm* is none.icm, then prepare for ordering a ICM custom printer profile (i.e. from www.ICCFactory.com).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \text{ exp}\}\ \{0.333 \text{ exp}\}\ \{0.333 \text{ exp}\}\ \text{setcolortransfer}$

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging **foo2hp** and its wrapper.

–S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

−D level

Set Debug level [0].

EXAMPLES

Create a monochrome ZjStream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2hp2600-wrapper testpage.ps > testpage.zm
zjsdecode < testpage.zm
lpr -P raw testpage.zm
```

Create a color ZjStream stream from a Postscript document:

foo2hp2600-wrapper -c testpage.ps > testpage.zc

FILES

/usr/bin/foo2hp2600-wrapper

SEE ALSO

 $\textbf{foo2hp}(1),\,\textbf{zjsdecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2hp.rkkda.com/

foo2lava - Convert Ghostscript pbmraw or bitcmyk format into a LAVAFLOW or a OPL printer stream

SYNOPSIS

foo2lava [options] < pbmraw-file >lava-file

foo2lava [options] <bitcmyk-file >lava-file

foo2lava [options] < pksmraw-file >lava-file

DESCRIPTION

foo2lava converts Ghostscript pbmraw, bitcmyk, or pksmraw output formats to monochrome or color LAVAFLOW or OPL streams, for driving the Konica Minolta magicolor 2530 DL network color laser printer, the Konica Minolta magicolor 2480/2480 MF AIO printer, and other Zenographics-based LAVAFLOW printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Force color mode if autodetect doesn't work.
- $-\mathbf{d}$ duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-g *xpix***x***ypix*

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [0].

Media	2530DL
plain	0
transparency	4
thick stock	20
envelope	22
letterhead	23
postcard	25
labels	26
recycled	27

-p *paper*

Paper code to send to printer [2].

1	executive	25	A5
2	letter	26	A4
3	legal	45	B5jis
80	env Monarch	65	B5iso
81	env #10	90	env DL
91	env C5	92	env C6
835	4x6" photo	837	10x15cm photo

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (InputSlot) code to send to printer [255].

- **-t** Draft mode. Every other pixel is white.
- -J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2lava** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the LAVAFLOW stream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.
- -z model

Model. The default is [0].

model	protocol	Description
0	LAVAFLOW	magicolor 2490 MF
0	LAVAFLOW	magicolor 2530 DL
1	OPL	magicolor 2480 MF
2	LAVAFLOW	magicolor 1600W
2	LAVAFLOW	magicolor 1680MF
2	LAVAFLOW	magicolor 1690MF

Debugging Options

These options are used for debugging foo2lava.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

-D level

Set Debug level [0].

EXAMPLES

Create a black and white LAVAFLOW stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r1200x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2lava -r1200x600 -g10200x6600 -p1 >testpage.zm
```

Create a color LAVAFLOW stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g10200x6600 -r1200x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
| foo2lava -r1200x600 -g10200x6600 -p1 >testpage.zc
```

FILES

/usr/bin/foo2lava

SEE ALSO

 $\textbf{foo2} \\ \textbf{lava-wrapper} (1), \\ \textbf{lavadecode} (1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.com> http://foo2zjs.rkkda.com/

foo2lava-wrapper - Convert Postscript into a LAVAFLOW or OPL printer stream

SYNOPSIS

foo2lava-wrapper [options] [ps-file]

DESCRIPTION

foo2lava-wrapper is a Foomatic compatible printer wrapper for the **foo2lava** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to Zenographics LAVAFLOW printer format for driving the Konica Minolta magicolor 1600W color laser printer, the Konica Minolta magicolor 1680MF/1690MF AIO printer, the Konica Minolta magicolor 2480/2490 MF AIO printer, the Konica Minolta magicolor 2530 DL network color laser printer, and other Zenographics-based LAVAFLOW printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Print in color (else monochrome).
- -C colormode

Color correction mode [0].

- 1 Photos (using m2300w CRDs)
- 2 Photos and text (using m2300w CRDs)
- 3 Graphics and text (using m2300w CRDs)
- 10 ICM color profile (using -G *.icm file)

$-\mathbf{d}$ duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-m media

Media code to send to printer [0].

Media	2530DL
plain	0
transparency	4
thick stock	20
envelope	22
letterhead	23
postcard	25
labels	26
recycled	27

-p *paper*

Paper size code to send to printer [2].

1	executive	25	A5
2	letter	26	A4
3	legal	45	B5jis
80	env Monarch	65	B5iso
81	env #10	90	env DL
91	env C5	92	env B5
835	4x6" photo	837	10x15cm photo

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (Input Slot) code to send to printer [255].

-t Draft mode. Every other pixel is white.

-2 -3 -4 -5 -6 -8 -9 -10 -12 -14 -15 -16 -18

Print in N-up. Requires the **psutils** package.

-o orient

Orientation used for N-up.

Portrait -op (normal)
Landscape -ol (rotated 90 degrees anticlockwise)
Seascape -os (rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2lava** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the LAVAFLOW stream. **foo2lava-wrapper** always runs Ghostscript with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

−z model

Model. The default is [0].

model	protocol	Description
0	LAVAFLOW	magicolor 2490 MF

0	LAVAFLOW	magicolor 2530 DL
1	OPL	magicolor 2480 MF
2	LAVAFLOW	magicolor 1600W
2	LAVAFLOW	magicolor 1680MF
2	LAVAFLOW	magicolor 1690MF

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

-g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. (WORK IN PROGRESS).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \{0.333 \text{ exp}\}$ setcolortransfer

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging foo2lava and its wrapper.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

−D level

Set Debug level [0].

EXAMPLES

Create a monochrome LAVAFLOW stream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2lava-wrapper testpage.ps > testpage.zm
lavadecode < testpage.zm
lpr -P raw testpage.zm
```

Create a color LAVAFLOW stream from a Postscript document:

foo2lava-wrapper -c testpage.ps > testpage.zc

FILES

/usr/bin/foo2lava-wrapper

SEE ALSO

 $\textbf{foo2lava}(1), \textbf{lavadecode}(1) \ \textbf{opldecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

foo2oak - Convert Ghostscript pbmraw, pgmraw or bitcmyk format into an OAKT printer stream

SYNOPSIS

```
{\bf foo2oak}\ [options] < pbmraw-file > OAKT-file
```

foo2oak [options] < pgmraw-file > OAKT-file

foo2oak [options] <bitcmyk-file >OAKT-file

DESCRIPTION

foo2oak converts Ghostscript pbmraw or bitcmyk output formats to monochrome or color OAKT streams, for driving the HP Color LaserJet 1500 laser printer, Kyocera KM-1636/KM-2035 copiers, and other OAKT-based printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Force color mode if autodetect doesn't work.
- -d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-g *xpix***x***ypix*

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [1].

Media	Code
autoselect	0
plain	1
preprinted	2
letterhead	3
transparency	4
prepunched	5
labels	6
bond	7
recycled	8
color	9
cardstock	10
envelope	11
light	13
tough	14
vellum	15
rough	16
thick	19
highqual	20

-p paper

Paper code to send to printer [1].

1	letter	3	ledger
5	legal	6	statement
7	executive	8	A3
9	A4	11	A5
12	B4	13	B5jis
14	folio	19	env9
20	env10	27	envDL
28	envC5	30	envC4
37	envMonarch	257	A6
258	B6	259	B5iso
260	env6		

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [600x600].

-s source

Source (InputSlot) code to send to printer [7].

-J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2oak** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the OAKT stream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.
- -M mirror

Mirror bytes. Mirror is 0 for Kyocera KM-1635/KM-2035 and 1 for the HP Color LaserJet 1500. The default is 1.

-z model

Model is 0 for the HP Color LaserJet 1500, and 1 for the Kyocera KM-1635/KM-2035 copiers. The default is 0.

Debugging Options

These options are used for debugging foo2oak.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

-D level

Set Debug level [0].

EXAMPLES

Create a black and white OAKT stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r600x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2oak -r600x600 -g5100x6600 -p1 >testpage.oak
```

Create a color OAKT stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g5100x6600 -r600x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
| foo2oak -r600x600 -g5100x6600 -p1 >testpage.oak
```

FILES

/usr/bin/foo2oak

SEE ALSO

foo2oak-wrapper(1), oakdecode(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2oak.rkkda.com/

foo2oak-wrapper - Convert Postscript into an OAKT printer stream

SYNOPSIS

foo2oak-wrapper [options] [ps-file]

DESCRIPTION

foo2oak-wrapper is a Foomatic compatible printer wrapper for the **foo2oak** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to Oak Technology OAKT printer format for driving the HP Color LaserJet 1500 laser printer, Kyocera KM-1636/KM-2035 copiers, and other OAKT-based printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-b** bits Number of bits per plane (1 or 2) [1].
- **-c** Print in color (else monochrome).
- -d duplex

Duplex code to send to printer [1].

1 off | 2 long edge | 3 short edge

-m media

Media code to send to printer [1].

Media	HP CLJ 1500	KM-1635
	-z0	-z1
autoselect	0	0
plain	1	1
preprinted	2	2
letterhead	3	3
transparency	4	4
prepunched	5	5
labels	6	6
bond	7	7
recycled	8	8
color	9	9
cardstock	10	10
envelope	11	11
light	13	na
tough	14	na
vellum	na	15
rough	na	16
thick	na	19
highqual	na	20

-p *paper*

Paper size code to send to printer [1].

1	letter	3	ledger
5	legal	6	statement
7	executive	8	A3
9	A4	11	A5
12	B4	13	B5jis
14	folio	19	env9
20	env10	27	envDL
28	envC5	30	envC4
37	envMonarch	257	A6
258	B6	259	B5iso
260	env6		

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [600x600].

-s source

Source (Input Slot) code to send to printer [7].

-2 -3 -4 -5 -6 -8 -9 -10 -12 -14 -15 -16 -18

Print in N-up. Requires the psutils package.

-o orient

Orientation used for N-up.

Portrait -op (normal)
Landscape -ol (rotated 90 degrees anticlockwise)
Seascape -os (rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2oak** for a particular printer.

-u xoff x voft

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the OAKT stream. **foo2oak-wrapper** always runs Ghostscript with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

-z model

Model is 0 for the HP Color LaserJet 1500, and 1 for the Kyocera KM-1635/KM-2035 copiers. The default is 0.

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

-g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. (WORK IN PROGRESS).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \{0.333 \text{ exp}\}$ setcolortransfer

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging foo2oak and its wrapper.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a monochrome OAKT stream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2oak-wrapper testpage.ps > testpage.oak
oakdecode < testpage.oak
lpr -P raw testpage.oak
```

Create a color OAKT stream from a Postscript document:

foo2oak-wrapper -c testpage.ps > testpage.oak

FILES

/usr/bin/foo2oak-wrapper

SEE ALSO

foo2oak(1), oak(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2oak.rkkda.com/

foo2qpdl - Convert Ghostscript pbmraw or bitcmyk format into a QPDL printer stream

SYNOPSIS

```
foo2qpdl [options] < pbmraw-file > qpdl-file
```

foo2qpdl [options]

 bitcmyk-file >qpdl-file

foo2qpdl [options] < pksmraw-file > qpdl-file

DESCRIPTION

foo2qpdl converts Ghostscript pbmraw, bitcmyk, or pksmraw output formats to monochrome or color QPDL streams, for driving the Samsung CLP-300, CLX-2160, CLP-600, CLX-3160, CLP-610 CLP-620, CLP-360, CLP-365, and the Xerox Phaser 6110 QPDL printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Force color mode if autodetect doesn't work.
- -d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-g *xpix***x***ypix*

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [0].

Media	QPDL
plain	0
thick	1
thin	2
bond	3
color	4
card	5
labels	6
envelope	7
preprinted	8
cotton	9
recycled	10
transparency	11
archive	12

-p paper

Paper code to send to printer [0].

0	letter	1	legal
2	A4	3	executive
6	env #10	7	env Monarch
8	env C5	9	env DL
11	B5jis	12	B5iso
16	A5	17	A6
23	env C6	24	folio
25	env 6.75	26	env #9
28	oficio	21	custom

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (InputSlot) code to send to printer [255].

1	auto	2	manual
3	multi	4	tray1

- **-t** Draft mode. Every other pixel is white.
- -J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2qpdl** for a particular printer.

-a *b,c,s,cr,mg,yb*

Color Adjust: brightness, contrast, saturation, cyan-red balance, magenta-green balance, and yellow-blue balance from 0 to 100. The default is 50,50,50,50,50,50. This only works when the -z3 (e.g. CLP-365) model is set!

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff **x**yoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the QPDL stream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.
- -z model

Printer model. Model 0 is the default.

model	Description
0	CLP-300, CLX-2160, CLX-3160
1	CLP-600
2	CLP-310, CLP-315, CLP-610, CLX-3175
3	CLP-620, CLP-360, CLP-365

Debugging Options

These options are used for debugging foo2qpdl.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

-D level

Set Debug level [0].

EXAMPLES

Create a black and white QPDL stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r1200x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2qpdl -r1200x600 -g10200x6600 -p0 >testpage.zm
```

Create a color QPDL stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g10200x6600 -r1200x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
| foo2qpdl -r1200x600 -g10200x6600 -p0 >testpage.zc
```

FILES

/usr/bin/foo2qpdl

SEE ALSO

```
\textbf{foo2qpdl-wrapper}(1), \, \textbf{qpdldecode}(1)
```

AUTHOR

Rick Richardson <rick.richardson@comcast.com> http://foo2qpdl.rkkda.com/

foo2qpdl-wrapper - Convert Postscript into a QPDL printer stream

SYNOPSIS

foo2qpdl-wrapper [options] [ps-file]

DESCRIPTION

foo2qpdl-wrapper is a Foomatic compatible printer wrapper for the **foo2qpdl** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to Samsung/Xerox QPDL printer format for driving the Samsung CLP-300, CLX-2160, CLX-3160, CLP-315, CLX-3175, CLP-600, CLP-610, CLP-620, CLP-360, CLP-365, and Xerox Phaser 6110 QPDL printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Print in color (else monochrome).
- -C colormode

Color correction mode [0].

- 1 CRD
- 10 ICM color profile (using -G *.icm file)
- -d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-m media

Media code to send to printer [0].

Media	QPDL
plain	0
thick	1
thin	2
bond	3
color	4
card	5
labels	6
envelope	7
preprinted	8
cotton	9
recycled	10
transparency	11
archive	12

-p paper

Paper size code to send to printer [0].

0	letter	1	legal
2	A4	3	executive
6	env #10	7	env Monarch
8	env C5	9	env DL
11	B5jis	12	B5iso
16	A5	17	A6
23	env C6	24	folio
25	env 6.75	26	env #9
28	oficio		

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (Input Slot) code to send to printer [255].

1	auto	2	manua
3	multi	4	tray1

-t Draft mode. Every other pixel is white.

-2 -3 -4 -5 -6 -8 -9 -10 -12 -14 -15 -16 -18

Print in N-up. Requires the **psutils** package.

-o orient

Orientation used for N-up.

```
Portrait -op (normal)
Landscape -ol (rotated 90 degrees anticlockwise)
Seascape -os (rotated 90 degrees clockwise)
```

Printer Tweaking Options

These are the options used to customize the operation of **foo2qpdl** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size].

-L mask

Send the logical clipping values from -u/-l in the QPDL stream. **foo2qpdl-wrapper** always runs Ghostscript with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

−z model

Printer model. Model 0 is the default.

```
model Description
0 CLP-300, CLX-2160, CLX-3160
```

- 1 CLP-600
- 2 CLP-310, CLP-315, CLP-610, CLX-3175
- 3 CLP-620, CLP-360, CLP-365

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

-a parm=val

Color Adjust. *parm* is b, c, s, cr, mg, yb for brightness, contrast, saturation, cyan-red balance, magenta-green balance, and yellow-blue balance. *val* is 0 to 100. Multiple options are allowed. The default is "-ab=50 -ac=50 -as=50 -acr=50 -amg=50 -ayb=50". This only works when the -z3 (e.g. CLP-365) model is set!

-g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. (WORK IN PROGRESS).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \text{ set color transfer}$

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging **foo2qpdl** and its wrapper.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a monochrome QPDL stream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2qpdl-wrapper testpage.ps > testpage.zm
qpdldecode < testpage.zm
lpr -P raw testpage.zm
```

Create a color QPDL stream from a Postscript document:

foo2qpdl-wrapper -c testpage.ps > testpage.zc

FILES

/usr/bin/foo2qpdl-wrapper

SEE ALSO

 ${\bf foo2qpdl}(1),\,{\bf qpdldecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2qpdl.rkkda.com/

foo2slx - Convert Ghostscript pbmraw or bitcmyk format into a SLX printer stream

SYNOPSIS

foo2slx [options] < pbmraw-file > slx-file

foo2slx [options] <bitcmyk-file >slx-file

foo2slx [options] < pksmraw-file > slx-file

DESCRIPTION

foo2slx converts Ghostscript pbmraw, bitcmyk, or pksmraw output formats to monochrome or color SLX streams, for driving the Lexmark C500 network color laser printer and other SLZ-based printers. The SLX stream is a variant of ZjStream produced by Software Imaging K.K.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Force color mode if autodetect doesn't work.
- **-g** *xpix***x***ypix*

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [0].

Media	SLX
plain	0
transparency	1
labels	2
thick1	3
envelope1	4
thin	5
thick2	6
envelope2	7
middle	8
special	9

-p *paper*

Paper code to send to printer [6].

6	letter	2	A4
9	legal	4	B5
8	executive	5	B5iso
10	env #10	11	env DL

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (InputSlot) code to send to printer [0].

```
0 auto 1 cassette1
```

Printer Tweaking Options

These are the options used to customize the operation of **foo2slx** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the ZjStream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.

Debugging Options

These options are used for debugging **foo2slx**.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a black and white SLX stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r1200x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2slx -r1200x600 -g10200x6600 -p1 >testpage.zm
```

Create a color SLX stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g10200x6600 -r1200x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
| foo2slx -r1200x600 -g10200x6600 -p1 >testpage.zc
```

FILES

/usr/bin/foo2slx

SEE ALSO

 $\textbf{foo2slx-wrapper}(1),\,\textbf{slxdecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2slx.rkkda.com/

foo2slx-wrapper - Convert Postscript into a SLX printer stream

SYNOPSIS

foo2slx-wrapper [options] [ps-file]

DESCRIPTION

foo2slx-wrapper is a Foomatic compatible printer wrapper for the **foo2slx** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to Software Imaging K.K. SLX printer format for driving the Lexmark C500 network color laser printer and other SLX-based printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

-c Print in color (else monochrome).

-m media

Media code to send to printer [0].

Media	SLX
plain	0
transparency	1
labels	2
thick1	3
envelope1	4
thin	5
thick2	6
envelope2	7
middle	8
special	9

-p *paper*

Paper size code to send to printer [6].

Г	6	letter	2	A4
	9	legal	4	B5
	8	executive	5	B5iso
	10	env #10	11	env DL

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (Input Slot) code to send to printer [0].

0 auto

Print in N-up. Requires the psutils package.

-o orient

Orientation used for N-up.

Portrait -op (normal)

Landscape -ol (rotated 90 degrees anticlockwise) Seascape -os (rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2slx** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the ZjStream. **foo2slx-wrapper** always runs Ghost-script with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

−g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. (WORK IN PROGRESS).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \{0.333 \text{ exp}\} \{0.333 \text{ exp}\}$ setcolortransfer

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging **foo2slx** and its wrapper.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

1 Cyan

- 2 Magenta
- 3 Yellow
- 4 Black

−D level

Set Debug level [0].

EXAMPLES

Create a monochrome ZjStream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2slx-wrapper testpage.ps > testpage.zm
slxdecode < testpage.zm
lpr -P raw testpage.zm
```

Create a color ZjStream stream from a Postscript document:

foo2slx-wrapper -c testpage.ps > testpage.zc

FILES

/usr/bin/foo2slx-wrapper

SEE ALSO

foo2slx(1), slxdecode(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2slx.rkkda.com/

foo2xqx - Convert Ghostscript pbmraw into a XQX printer stream

SYNOPSIS

foo2xqx [options] < pbmraw-file > xqx-file

DESCRIPTION

foo2xqx converts Ghostscript pbmraw to monochrome XQX streams, for driving the HP LaserJet P1005/P1006/P1007/P1008, the HP LaserJet P1505, the HP LaserJet P2014, the HP LaserJet M1005 MFP, the HP LaserJet M1120 MFP, the HP LaserJet Pro M1132s MFP, the HP LaserJet Pro M1212nf MFP, and other XQX-based printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

−d *duplex*

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

 $-\mathbf{g}$ $xpix\mathbf{x}ypix$

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [1].

Media	M1005
standard	1
transparency	2
envelope	257
letterhead	259
thick	261
postcard	262
labels	263

-p paper

Paper code to send to printer [1].

1	letter	9	A4
5	legal	11	A5
7	executive	13	B5
20	env #10	27	env DL
28	env C5	34	env B5
37	env Monarch	257	16k 197x273
263	16k 184x260	264	16k 195x270

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (InputSlot) code to send to printer [7].

1	upper	4	manual
2	lower	7	auto

- **-t** Draft mode. Every other pixel is white.
- -T density

Print density (1-5). The default is 3 (medium).

-J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2xqx** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff **x**yoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the ZjStream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.

Debugging Options

These options are used for debugging foo2xqx.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a black and white XQX stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r1200x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2xqx -r1200x600 -g10200x6600 -p1 >testpage.zm
```

FILES

/usr/bin/foo2xqx

SEE ALSO

 $\textbf{foo2xqx-wrapper}(1),\, \textbf{xqxdecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2xqx.rkkda.com/

foo2xqx-wrapper - Convert Postscript into a XQX printer stream

SYNOPSIS

foo2xqx-wrapper [options] [ps-file]

DESCRIPTION

foo2xqx-wrapper is a Foomatic compatible printer wrapper for the **foo2xqx** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to XQX printer format for driving the HP LaserJet P1005/P1006/P1007/P1008, the HP LaserJet P1505, the HP LaserJet P2014, the HP LaserJet M1005 MFP, the HP LaserJet M1120 MFP, the HP LaserJet Pro M1132s MFP, the HP LaserJet Pro M1212nf MFP, and other XQX-based printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

-d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-m media

Media code to send to printer [1].

Media	M1005
standard	1
transparency	2
envelope	257
letterhead	259
thick	261
postcard	262
labels	263

-p *paper*

Paper size code to send to printer [1].

1	letter	9	A4
5	legal	11	A5
7	executive	13	B5
20	env #10	27	env DL
28	env C5	34	env B5
37	env Monarch	257	16k 197x273
263	16k 184x260	263	16k 195x270

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (Input Slot) code to send to printer [7].

1	upper	4	manual
2	lower	7	auto

-t Draft mode. Every other pixel is white.

-T density

Print density (1-5). The default is 3 (medium).

Print in N-up. Requires the psutils package.

-o orient

Orientation used for N-up.

Portrait -op (normal)

Landscape -ol (rotated 90 degrees anticlockwise) Seascape -os (rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2xqx** for a particular printer.

-u xoff xyoff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the ZjStream. **foo2xqx-wrapper** always runs Ghost-script with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts

Debugging Options

These options are used for debugging **foo2xqx** and its wrapper.

-D level

Set Debug level [0].

EXAMPLES

Create a monochrome ZjStream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2xqx-wrapper testpage.ps > testpage.xqx
xqxdecode < testpage.xqx
lpr -P raw testpage.xqx
```

FILES

/usr/bin/foo2xqx-wrapper

SEE ALSO

 $\textbf{foo2xqx}(1), \, \textbf{xqxdecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2xqx.rkkda.com/

foo2zjs - Convert Ghostscript pbmraw or bitcmyk format into a ZJS printer stream

SYNOPSIS

foo2zjs [options] < pbmraw-file > zjs-file

foo2zjs [options] <bitcmyk-file >zjs-file

foo2zjs [options] < pksmraw-file > zjs-file

DESCRIPTION

foo2zjs converts Ghostscript pbmraw, bitcmyk, or pksmraw output formats to monochrome or color ZJS streams, for driving the Minolta/QMS 2300 DL network color laser printer and other Zenographics-based printers.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- **-c** Force color mode if autodetect doesn't work.
- -d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-g *xpix***x***ypix*

Set page dimensions in pixels [10200x6600].

-m media

Media code to send to printer [1].

	2300DL	2200DL	HP 1018	HP P1102	HP
3.6.11		2200DL			
Media	HP 1005		HP 1020	HP P1606	CP1025
	-z0	-z0	-z1	-z2	-z3
standard	1	1	1	1	1
transparency	2	2	2	2	2
envelope	257	na	267	267	267
letterhead	259	na	513	513	513
bond	na	na	260	260	260
thick	261	4	261	na	na
postcard	262	na	na	na	na
rough	na	na	263	263	263
heavy	na	na	262	262	262
labels	263	3	263	265	265
vellum	na	na	273	273	273
medium	na	na	na	282	282
extraheavy	na	na	na	283	283
color	na	na	512	512	512
light	na	na	258	258	258
preprinted	na	na	514	514	514
prepunched	na	na	515	515	515
recycled	na	na	516	516	516

-p *paper*

Paper code to send to printer [1].

		********	****	
	MC 2300DL	HP 1018	HP P1102	HP
Paper	HP 1005	HP 1020	HP P1606	CP1025
	-z0	-z1	- z 2	-z3
letter	1	1	1	1
legal	5	5	5	5
executive	7	7	7	7
A4	9	9	9	9
A5	11	11	11	11
B5jis	13	13	13	13
env #10	20	20	20	20
env DL	27	27	27	27
env CL	28	28	28	28
env B5	34	34	34	34
env Monarch	37	37	37	37
postcard (japan)	na	260	43	43
B5iso	na	259	na	na
A6	na	262	70	70
double postcard rotated	na	261	82	82
16k 197x273	na	257	257	257
fanfold german legal	na	258	258	258
16k 184x260	na	na	263	263
16k 195x270	na	na	264	264
photo 4x6	na	na	na	268
photo 5x8	na	na	na	269
photo 10x15	na	na	na	270

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (InputSlot) code to send to printer [7].

1	upper	4	manua
2	lower	7	auto

-t Draft mode. Every other pixel is white.

-T density

Print density (1-5). The default is 3 (medium).

-J filename

Filename string to send to printer.

-U username

Username string to send to printer.

Printer Tweaking Options

These are the options used to customize the operation of **foo2zjs** for a particular printer.

$-\mathbf{u}$ xoff \mathbf{x} yoff

Set the offset of the start of the printable region from the upper left corner, in pixels [0x0].

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [0x0].

-L mask

Send logical clipping amounts implied by -u/-l in the ZjStream [3].

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- **-P** Do not send START_PLANE codes on monochrome output. May be needed by some black and white only printers, such as the HP LaserJet 1000.
- -A AllIsBlack: convert C=1,M=1,Y=1 to just K=1. Works with bitcmyk input only.
- **-B** BlackClears: K=1 forces C,M,Y to 0. Works with bitcmyk input only.
- -X padlen

Add extra zero padding to the end of BID segments. The default is 16 bytes. Padding 16 bytes of zeroes is needed for older ZjStream printers, such as the Minolta 2200DL and HP LaserJet 1000, and seems harmless to newer ones, such as the Minolta 2300DL. So the default should be good for all cases.

−z model

Model. Default is 0.

- 0 KM 2300DL / HP 1000 / HP 1005
- 1 HP 1018 / HP 1020 / HP 1022
- 2 HP Pro P1102 / P1566 / P1606dn
- 3 HP Pro CP1025

Debugging Options

These options are used for debugging **foo2zjs**.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black

−D level

Set Debug level [0].

EXAMPLES

Create a black and white ZJS stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -r1200x600 -sDEVICE=pbmraw
-sOutputFile=- - < testpage.ps
| foo2zjs -r1200x600 -g10200x6600 -p1 >testpage.zm
```

Create a color ZJS stream:

```
gs -q -dBATCH -dSAFER -dQUIET -dNOPAUSE
-sPAPERSIZE=letter -g10200x6600 -r1200x600 -sDEVICE=bitcmyk
-sOutputFile=- - < testpage.ps
| foo2zjs -r1200x600 -g10200x6600 -p1 >testpage.zc
```

FILES

/usr/bin/foo2zjs

SEE ALSO

 ${\bf foo2zjs\text{-}wrapper}(1),\,{\bf zjsdecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

foo2zjs-pstops - Add PS code for foo2*-wrapper

SYNOPSIS

foo2zjs-pstops [options] [file]

DESCRIPTION

Add PS code for foo2zjs-wrapper.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

- **-a** Accurate screens code.
- -c CIE Color.
- -n Neuter CUPS cupsPSLevel2
- **-r** Rotate 90 degrees clockwise.
- -w Well Tempered Screens code.
- **−D** level

Set Debug level [0].

FILES

/usr/bin/foo2zjs-pstops

SEE ALSO

 $\label{lem:co2hp2600-wrapper} \textbf{(1)}, \ \ \textbf{foo2lava-wrapper} \textbf{(1)}, \ \ \textbf{foo2oak-wrapper} \textbf{(1)}, \ \ \textbf{foo2qpdl-wrapper} \textbf{(1)}, \ \ \textbf{foo2slx-wrapper} \textbf{(1)}, \ \ \textbf{foo2xqx-wrapper} \textbf{(1)}, \ \ \textbf{foo2zjs-wrapper} \textbf{(1)}$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

foo2zjs-wrapper - Convert Postscript into a ZJS printer stream

SYNOPSIS

foo2zjs-wrapper [options] [ps-file]

DESCRIPTION

foo2zjs-wrapper is a Foomatic compatible printer wrapper for the **foo2zjs** printer driver. This script reads a Postscript *ps-file* or standard input and converts it to Zenographics ZjStream printer format for driving the Minolta/QMS 2300 DL network color laser printer and other Zenographics-based printers.

This script can be used in a standalone fashion, but is intended to be called from a printer spooler system which uses the Foomatic printer database.

COMMAND LINE OPTIONS

Normal Options

These are the options used to select the parameters of a print job that are usually controlled on a per job basis.

- -c Print in color (else monochrome).
- -C colormode

Color correction mode [0].

- 1 Photos (using m2300w CRDs)
- 2 Photos and text (using m2300w CRDs)
- 3 Graphics and text (using m2300w CRDs)
- 10 ICM color profile (using -G *.icm file)
- -d duplex

Duplex code to send to printer [1].

1 off 2 long edge 3 short edge

-m media

Media code to send to printer [1].

	2300DL	2200DL	HP 1018	HP P1102	HP
Media	HP 1005		HP 1020	HP P1606	CP1025
	-z0	-z0	-z1	-z2	-z3
standard	1	1	1	1	1
transparency	2	2	2	2	2
envelope	257	na	267	267	267
letterhead	259	na	513	513	513
bond	na	na	260	260	260
thick	261	4	261	na	na
postcard	262	na	na	na	na
rough	na	na	263	263	263
heavy	na	na	262	262	262
labels	263	3	263	265	265
vellum	na	na	273	273	273
medium	na	na	na	282	282
extraheavy	na	na	na	283	283
color	na	na	512	512	512
light	na	na	258	258	258
preprinted	na	na	514	514	514

prepunched	na	na	515	515	515
recycled	na	na	516	516	516

-p *paper*

Paper size code to send to printer [1].

	MC 2300DL	HP 1018	HP P1102	HP
Paper	HP 1005	HP 1020	HP P1606	CP1025
1	-z0	-z1	-z2	-z3
letter	1	1	1	1
legal	5	5	5	5
executive	7	7	7	7
A4	9	9	9	9
A5	11	11	11	11
B5jis	13	13	13	13
env #10	20	20	20	20
env DL	27	27	27	27
env CL	28	28	28	28
env B5	34	34	34	34
env Monarch	37	37	37	37
postcard (japan)	na	260	43	43
B5iso	na	259	na	na
A6	na	262	70	70
double postcard rotated	na	261	82	82
16k 197x273	na	257	257	257
fanfold german legal	na	258	258	258
16k 184x260	na	na	263	263
16k 195x270	na	na	264	264
photo 4x6	na	na	na	268
photo 5x8	na	na	na	269
photo 10x15	na	na	na	270

-n copies

Number of copies [1].

-r xresxyres

Set device resolution in pixels/inch [1200x600].

-s source

Source (Input Slot) code to send to printer [7].

-t Draft mode. Every other pixel is white.

-T density

Print density (1-5). The default is 3 (medium).

-2 -3 -4 -5 -6 -8 -9 -10 -12 -14 -15 -16 -18

Print in N-up. Requires the psutils package.

-o orient

Orientation used for N-up.

Portrait	-op	(normal)
Landscape	-ol	(rotated 90 degrees anticlockwise)
Seascape	-os	(rotated 90 degrees clockwise)

Printer Tweaking Options

These are the options used to customize the operation of **foo2zjs** for a particular printer.

-u xoff x voff

Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-l xoff xyoff

Set the offset of the end of the printable region from the lower right corner, in pixels [varies with paper size]. The defaults should work on the 2200DL and 2300DL, and have not been tested on any other printers.

-L mask

Send the logical clipping values from -u/-l in the ZjStream. **foo2zjs-wrapper** always runs Ghost-script with the ideal page dimensions, so that the scale of the image is correct, regardless whether or not the printer has unprintable regions. This option is used to move the position of the clipped image back to where it belongs on the page. The default is to send the amount which was clipped by -u and -l, and should be good in most cases.

- 0 don't send any logical clipping amounts
- 1 only send Y clipping amount
- 2 only send X clipping amount
- 3 send both X and Y clipping amounts
- **-P** Do not send START_PLANE codes on monochrome output. May be needed by some monochrome-only printers, such as the HP LaserJet 1000.

-X padlen

Add extra zero padding to the end of BID segments. The default is 16 bytes. Padding 16 bytes of zeroes is needed for older ZjStream printers, such as the Minolta 2200DL and HP LaserJet 1000, and seems harmless to newer ones, such as the Minolta 2300DL. So the default should be good for all cases.

-z model

Model. Default is 0.

- 0 KM 2300DL / HP 1000 / HP 1005
- 1 HP 1018 / HP 1020 / HP 1022
- 2 HP Pro P1102 / P1566 / P1606dn
- 3 HP Pro CP1025

Color Tweaking Options

These are the options used to control the quality of color output. Color correction is currently a WORK IN PROGRESS.

-g gsopts

Additional options to pass to Ghostscript, such as -g"-dDITHERPPI=nnn", etc. This option may appear more than once.

-G profile.icm

Convert *profile.icm* to a Postscript color rendering dictionary (CRD) using **foo2zjs-icc2ps** and adjust the printer colors by using the Postscript **setcolorrendering** operator. (WORK IN PROGRESS).

-G gamma-file.ps

Prepend *gamma-file.ps* to the Postscript input to perform color correction using the **setcolortrans-fer** Postscript operator. For example, the file might contain:

 $\{0.333 \exp\} \{0.333 \exp\} \{0.333 \exp\} \{0.333 \exp\}$ setcolortransfer

-I intent

Select profile intent from the ICM file. 0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute. Default is 0 (perceptual).

Debugging Options

These options are used for debugging foo2zjs and its wrapper.

-S plane

Output just a single color plane from a color print and print it on the black plane. The default is to output all color planes.

- 1 Cyan
- 2 Magenta
- 3 Yellow
- 4 Black
- -D level

Set Debug level [0].

EXAMPLES

Create a monochrome ZjStream from a Postscript document, examine it, and then print it using a RAW print queue:

```
foo2zjs-wrapper testpage.ps > testpage.zm
zjsdecode < testpage.zm
lpr -P raw testpage.zm
```

Create a color ZjStream stream from a Postscript document:

foo2zjs-wrapper -c testpage.ps > testpage.zc

FILES

/usr/bin/foo2zjs-wrapper

SEE ALSO

 $\textbf{foo2zjs}(1),\,\textbf{zjsdecode}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

gipddecode - Decode a GIPD stream into human readable form.

SYNOPSIS

gipddecode [options] <gipd-file</pre>

DESCRIPTION

gipddecode decodes a Granite Image Printer Driver (GIPD) stream into human readable form. Granite Systems was acquired by Monotype Imaging.

A GIPD stream is the printer language used by the Lexmark X500 and the Dell 1125 MFP printers.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- **−D** level

Set Debug level [0].

EXAMPLES

Decode an GIPD stream file.

```
$ gipddecode -h x500-mono.prn
     0: OFST 0 len=128
   80: OFST 1 len=128
100: OFST 2 len=128
180: OFST 3 len=128
200: OFST 4 len=128
         [SNIP]
 27d80: OFST 1275 len=128
 27e00: \033%-12345X@PJL SET DISPINFOWHILEPRINT=OFF
 27e2a: @PJL SET DISPATPAPERCHANG=OFF
 27e49: @PJL SET JAMRECOVERY=ON
 27e62: @PJL SET OUTPUTBLANKPAPER=OFF
 27e81: @PJL SET PRINTSLOWLY=OFF
 27e9b: @PJL SET REVERSEPRINT=OFF
 27eb6: \033%-12345X
 27ebf: GDIJ len=108
         unk0=0, unk1=0, unk2=0, unk3=0, unk4=0
         unk5=16777221(0x1000005), unk6=0, unk7=0, unk8=0, paper=0
         27f37: GDIP
                  len=52
         nplane = 1, w254 = 4896, h254 = 6110
         132018de, 0, 0, 0, 0, 1000000, 0, 0, 0, 0, 0, 0, 0,
27f77: GDIB 0 len=60 (0x3c)
27fcb: GDIB 1 len=252 (0xfc)
280df: GDIB 2 len=124 (0x7c)
28173: GDIB 3 len=956 (0x3bc)
28547: GDIB 4 len=1692 (0x69c)
28bfb: GDIB 5 len=572 (0x23c)
```

```
28e4f: GDIB 6 len=17084 (0x42bc)
2d123: GDIB 7 len=18108 (0x46bc)
317f7: GDIB 8 len=8508 (0x213c)
3394b: GDIB 9 len=1756 (0x6dc)
3403f: GDIB 10 len=1596 (0x63c)
34693: GDIB 11 len=892 (0x37c)
34a27: GDIB 12 len=2332 (0x91c)
3535b: GDIB 13 len=8380 (0x20bc)
3742f: GDIB 14 len=3452 (0xd7c)
381c3: GDIB 15 len=60 (0x3c)
38217: GDIB 16 len=1468 (0x5bc)
387eb: GDIB 17 len=2076 (0x81c)
3901f: GDIB 18 len=284 (0x11c)
39153: GDIB 19 len=1660 (0x67c)
397e7: GDIB 20 len=2908 (0xb5c)
3a35b: GDIB 21 len=156 (0x9c)
3a40f: GDIB 22 len=188 (0xbc)
3a4e3: GDIB 23 len=220 (0xdc)
3a5d7: GDIB 24 len=60 (0x3c)
3a62b: PIDG
3a637: JIDG
Total Size = 75843 (0x12843)
```

FILES

/usr/bin/gipddecode

AUTHOR

Rick Richardson <rick.richardson@comcast.net>

hbpldecode - Decode a HBPL stream into human readable form.

SYNOPSIS

hbpldecode [options] <hbpl-file

DESCRIPTION

hbpldecode decodes a HBPL stream into human readable form. HBPL is Host Based Printer Language.

There are two versions of HBPL in existence.

Version one is an HBPL stream with JBIG2 (?) data. This data is used by the Dell 1250c, Dell C1660w, Epson AcuLaser C1700, Fuji-Xerox cp105b, and similar printers. These printers are unsupported.

Version two is an HBPL stream with JBIG encoded data. This data is used by the Xerox WorkCentre 6015, Fuji Xerox DocuPrint CM205, Dell 1355c, and similar printers. These printers are supported by foo2hbpl2-wrapper et al.

Both versions can be decoded by hbpldecode.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

_d basename

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- -D level

Set Debug level [0].

EXAMPLES

Decode an HBPL stream file, version 1.

```
$ hbpldecode -h 1250c-mono.prn
    0: \033%-12345X@PJL JOB MODE=PRINTER
          @PJL SET STRINGCODESET=UTF8
         @PJL COMMENT DATE=06/01/2011
   3b:
         @PJL COMMENT TIME=13:28:30
   58:
          @PJL COMMENT DNAME=empty - Notepad
   73:
   96:
          @PJL SET JOBATTR="@LUNA=rick"
   b4:
         @PJL SET COPIES=1
   c6:
         @PJL SET QTY=1
         @PJL SET JOBATTR="@TRCH=OFF"
   d5:
   f2:
         @PJL SET DUPLEX=OFF
  106:
         @PJL SET BINDING=LONGEDGE
  120:
         @PJL SET RENDERMODE=GRAYSCALE
  13e:
          @PJL SET ECONOMODE=OFF
  155:
         @PJL SET RET=ON
  165:
         @PJL SET JOBATTR="@IREC=OFF"
  182:
         @PJL SET JOBATTR="@HOAD=I0A00020F"
  1a5: @PJL SET JOBATTR="@JOAU=rick"
  1c3: @PJL SET JOBATTR="@CNAM=RICK-VB"
  1e4:
         @PJL SET IWAMANUALDUP=OFF
  1fe:
          @PJL SET IWAJAMRECOVERY=AUTO
  21b: @PJL SET JOBATTR="@MSIP=NORMAL"
```

```
23b:
                                         @PJL SET PAPERDIRECTION=SEF
      257: @PJL SET RESOLUTION=600
    26f: @PJL SET BITSPERPIXEL=8
287: @PJL SET JOBATTR="@DRDM=RASTER"
2a7: @PJL SET JOBATTR="@TCPR=33"
2c3: @PJL SET JOBATTR="@TUCR=33"
      2df: @PJL SET JOBATTR="@TTRC=33"
      2fb: @PJL SET JOBATTR="@TSCR=33"
      317: @PJL SET JOBATTR="@GCPR=33"
      333: @PJL SET JOBATTR="@GUCR=33"
     34f: @PJL SET JOBATTR="@GTRC=33"
36b: @PJL SET JOBATTR="@GSCR=33"
387: @PJL SET JOBATTR="@ICPR=34"
      3a3: @PJL SET JOBATTR="@IUCR=34"
      3bf: @PJL SET JOBATTR="@ITRC=34"
    3db: @PJL SET JOBATTR="@ISCR=34"
3f7: @PJL SET JOBATTR="@TDFT=0"
412: @PJL SET JOBATTR="@GDFT=0"
42d: @PJL SET JOBATTR="@IDFT=0"
448: @PJL ENTER LANGUAGE=HBPL
461: RECTYPE 'A' [0x41]:
      462:
                                                               81 a1: 0x0
     465:
469:
                                                               82 a2: 0x7
                                                               83 a2: 0x1
      46d: RECTYPE 'C' [0x43]: 46e: 91 al: 0x0
     471:
                                             92 al: 0x1
93 al: 0x1
   474: 93 a1: 0x1
477: 94 a1: 0x0
47a: 95 c2: 0x0
480: 96 a1: 0x0
483: 97 c3: 0x0
489: 98 a1: 0x0
48c: 99 a4: 1 [PAGECNT]
492: 9a c4: 5104x6600 [WxH]
49c: 9b a1: 0x0
49f: 9c a1: 0x1
4a2: 9d a1: 0x9
4a5: 9e a1: 0x2
4a8: 9f a1: 0x5
4ab: a0 a1: 0x8
4ae: a1 a1: 0x0
4b1: a2 c4: 5104x6600 [WxH]
4bb: RECTYPE 'Q' [0x51]:
      474:
    4bb: RECTYPE 'Q' [0x51]:
4bc: RECTYPE 'R' [0x52]:
4bd: a3 a1: 0x0
400: a4 a2: 6457 (0: 1dfe: RECTYPE 'S' [0x53]: 1dff: RECTYPE 'D' [0x44]: 1e00: RECTYPE 'B' [0x42]: RECTYPE 'B' [0x
                                                                    a4 a2: 6457 (0x1939) bytes of data...
 1dff: \033%-12345X@PJL EOJ
```

Decode an HBPL stream file, version 2.

```
$ hbpldecode -h 6015c-color.prn
         33%-12345X@PJL JOB NAME=PRINTER
   20:
         @PJL SET JOBATTR="HOST:dual.rkkda.org"
         @PJL SET JOBATTR="USER:rick"
   48:
   66:
         @PJL SET JOBATTR="DOCU:(stdin)"
         @PJL SET JOBATTR="OWNR:rick"
   87:
   a5:
         @PJL SET DUPLEX=OFF
        @PJL SET MEDIASOURCE=0
   ba:
        @PJL SET RENDERMODE=COLOR
   d2:
        @PJL SET RESOLUTION=600
   ed:
         @PJL SET BITSPERPIXEL=2
  106:
  11f:
         @PJL SET COPIES=1
  132:
         @PJL ENTER LANGUAGE=HBPL
         RECTYPE JP [Job Parameters]
  14c:
00000000: 1b 4a 50 04 01 00 00 01 00 00 00 00 00 00 00 .JP.....
00000010: b0 bd ac 43 00 f0 cf 08 f4 9f ac 43 59 ba a0 43 ...C.... CY..C
00000020: f4 9f ac 43 00 e0 cd 08 9c ba a0 43 00 f0 cf 08 ...C....
RECTYPE PS [Page Start]
00000000: 1b 50 53 3c 00 14 00 00 06 19 00 00 00 78 f4 01
                                                     .PS<....x..
00000010: 90 03 00 00 04 01 01 00 58 02 e0 00 00 e0 00 ...... X......
00000020: 00 00 e0 00 00 f0 00 00 00 00 00 00 00 00 ......
w, h=5120x6406 res=600 color=1
              mediatype=Plain(1) papersize=Letter(4)
         Cyan BIH:
  1cc:
              DL = 0, D = 0, P = 1, - = 0, XY = 10240 \times 6406
              L0 = 128, MX = 0, MY = 0
              Order
                     = 0
              Options = 64 LRLTWO
              51 stripes, 0 layers, 1 planes
              ...cyan data skipped...
  2ac:
         Magenta BIH:
              DL = 0, D = 0, P = 1, - = 0, XY = 10240 \times 6406
              L0 = 128, MX = 0, MY = 0
              Order
                     = 0
              Options = 64 LRLTWO
              51 stripes, 0 layers, 1 planes
              ...magenta data skipped...
         Yellow BIH:
  38c:
              DL = 0, D = 0, P = 1, - = 0, XY = 10240 \times 6406
              L0 = 128, MX = 0, MY = 0
              Order = 0
              Options = 64 LRLTWO
              51 stripes, 0 layers, 1 planes
              ...yellow data skipped...
  46c:
         Black BIH:
              DL = 0, D = 0, P = 1, - = 0, XY = 10240 \times 6406
              L0 = 128, MX = 0, MY = 0
              Order
                     = 0
              Options = 64 LRLTWO
              51 stripes, 0 layers, 1 planes
              ...black data skipped...
        RECTYPE PE [Page End]
  55c:
```

/usr/bin/hbpldecode

SEE ALSO

 ${\bf foo2hbpl2\text{-}wrapper}(1), {\bf foo2hbpl2}(1)$

AUTHOR

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Peter Korf <peter@niendo.de>
http://foo2hbpl.rkkda.com/

hipercdecode – Decode a HIPERC stream into human readable form.

SYNOPSIS

hipercdecode [options] <hiperc-file</pre>

DESCRIPTION

hipercdecode decodes a HIPERC stream into human readable form. Uncompressed and JBIG formats are handled.

An HIPERC stream is the printer language used by the Oki Data C310dn, C3100, C3200n, C3200n, C3200n, C5100n, C5100n, C5500n, C5500n, C5600, and the C5800n printers.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

_d basanama

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- -D level

Set Debug level [0].

EXAMPLES

Decode an HIPERC stream file created by foo2hiperc.

```
$ foo2hiperc-wrapper testpage.ps | hipercdecode -h
     0: \033%-12345X@PJL
             @PJL RDYMSG DISPLAY = "Unknown"
    30:
            @PJL SET OKIJOBACCOUNTJOB USERID="Unknown" JOBNAME="Unknown"
    6e:
            @PJL SET OKIAUXJOBINFO DATA="DocumentName=Unknown"
    a2:
             @PJL SET OKIAUXJOBINFO DATA="ComputerName=dual.rkkda.org"
             @PJL SET OKIAUXJOBINFO DATA="ReceptionTime=00:00:00 2008/01/30"
    dd:
           @PJL SET OKIAUTOTRAYSWITCH=ON
   11e:
   13d:
           @PJL SET OKIPAPERSIZECHECK=ENABLE
   160:
           @PJL SET RESOLUTION=600
   179:
           @PJL SET PAPER=LETTER
   190: @PJL SET OKITRAYSEQUENCE=PAPERFEEDTRAY
1b8: @PJL SET OKIPAPERFEED=TRAY1
1d5: @PJL SET OKIMEDIATYPE = PLAIN
1f4: @PJL SET LPARM:PCL OKIPRINTMARGIN=INCH:
21f: @PJL SET COPIES=1
232: @PJL SET QTY=1
             @PJL SET LPARM:PCL OKIPRINTMARGIN=INCH1D6
           @PJL SET HIPERCEFFECTIVEBLOCKSIZE=34799360
   242:
   26e: @PJL ENTER LANGUAGE=HIPERC
289: RECTYPE 0 (len=52,0x34 cnt=1)
   291:
                     BLKNUM 0, nbie=1, pn=3 [black] uc=0,0, wid=4864 ud=0,100
   2a5:
                     BLKNUM 1 (len=20), uncompressed=1, bie:
              DL = 48, D = 48, P = 49, - = 48, XY = 4864 x 6816
              L0 = 256, MX = 0, MY = 0
              Order
                      = 0
              Options = 0
              1 stripes, 0 layers, 49 planes
```

1

```
2bd:
           RECTYPE 1 (len=155668,0x26014 cnt=1)
   2c5:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
  2cd:
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
 262d1: RECTYPE 1 (len=155668,0x26014 cnt=2)
 262d9:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
 262e1:
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
 4c2e5: RECTYPE 1 (len=155668,0x26014 cnt=3)
 4c2ed:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
 4c2f5:
          RECTYPE 1 (len=155668,0x26014 cnt=4)
 722f9:
 72301:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
 72309:
 9830d: RECTYPE 1 (len=155668,0x26014 cnt=5)
 98315:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
 9831d:
be321:
           RECTYPE 1 (len=155668,0x26014 cnt=6)
 be329:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
 be331:
be331: BLKNUM 1 (len=155648), Data=00 e4335: RECTYPE 1 (len=155668,0x26014 cnt=7)
 e433d:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
e4345:
10a349: RECTYPE 1 (len=155668,0x26014 cnt=8)
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
10a351:
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
10a359:
           RECTYPE 1 (len=155668,0x26014 cnt=9)
13035d:
130365:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
13036d:
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
156371: RECTYPE 1 (len=155668,0x26014 cnt=10)
156379:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ...
156381:
17c385:
           RECTYPE 1 (len=155668,0x26014 cnt=11)
17c38d:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
17c395:
1a2399: BLKNUM 1 (1en=155648), Data=00
1a2399: RECTYPE 1 (1en=155668,0x26014 cnt=12)
1a23a1:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
1a23a9:
1c83ad: RECTYPE 1 (len=155668,0x26014 cnt=13)
1c83b5:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
1c83bd:
1ee3c1:
           RECTYPE 1 (len=155668,0x26014 cnt=14)
1ee3c9:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
1ee3d1:
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
2143d5: RECTYPE 1 (len=155668,0x26014 cnt=15)
2143dd:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
2143e5:
23a3e9:
           RECTYPE 1 (len=155668,0x26014 cnt=16)
23a3f1:
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
23a3f9:
2603fd: RECTYPE 1 (len=155668,0x26014 cnt=17)
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
260405:
26040d:
                 BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
286411:
         RECTYPE 1 (len=155668,0x26014 cnt=18)
                 BLKNUM 0 (len=4), plane=3, uc=0,0,0
286419:
```

286421:

BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..

```
2ac425:
           RECTYPE 1 (len=155668,0x26014 cnt=19)
2ac42d:
                   BLKNUM 0 (len=4), plane=3, uc=0,0,0
2ac435: BLKNUM 1 (len=155648), Data=00
2d2439: RECTYPE 1 (len=155668,0x26014 cnt=20)
                   BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
2d2441:
                   BLKNUM 0 (len=4), plane=3, uc=0,0,0
2d2449: BLKNUM 1 (len=155648), Data=00
2f844d: RECTYPE 1 (len=155668,0x26014 cnt=21)
                   BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
2f8455:
                  BLKNUM 0 (len=4), plane=3, uc=0,0,0
                  BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
2f845d:
31e461:
          RECTYPE 1 (len=155668,0x26014 cnt=22)
31e469:
                   BLKNUM 0 (len=4), plane=3, uc=0,0,0
31e471:
                   BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
344475: RECTYPE 1 (len=155668,0x26014 cnt=23)
34447d:
                  BLKNUM 0 (len=4), plane=3, uc=0,0,0
                  BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
344485:
36a489: RECTYPE 1 (len=155668,0x26014 cnt=24)
36a491:
                  BLKNUM 0 (len=4), plane=3, uc=0,0,0
36a499: BLKNUM 1 (len=155648), Data=00 39049d: RECTYPE 1 (len=155668,0x26014 cnt=25)
                  BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
3904a5:
                  BLKNUM 0 (len=4), plane=3, uc=0,0,0
                   BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
3904ad:
3b64b1: RECTYPE 1 (len=155668,0x26014 cnt=26)
                  BLKNUM 0 (len=4), plane=3, uc=0,0,0
3b64b9:
3dc4c5: RECTYPE 1 (len=97300,0x17c14 cnt=27)
3dc4cd: BLKNUM 0 (len=4). plane-2
                  BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 ..
                   BLKNUM 0 (len=4), plane=3, uc=0,0,0
3dc4d5:
                   BLKNUM 1 (len=97280), Data=00 00 00 00 00 00 00 00 00 00 ...
3f40d9: RECTYPE 255 (len=8,0x8 cnt=28) 3f40e1: \033%-12345X
```

/usr/bin/hipercdecode

SEE ALSO

 ${\bf foo2hiperc\text{-}wrapper}(1), {\bf foo2hiperc}(1)$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2hiperc.rkkda.com/

foo2zjs-icc2ps - little cms PostScript converter.

SYNOPSIS

foo2zjs-icc2ps [options]

DESCRIPTION

lcms is a standalone CMM engine, which deals with the color management. It implements a fast transformation between ICC profiles. **foo2zjs-icc2ps** is little cms PostScript converter.

COMMAND LINE OPTIONS

-b Black point compensation (CRD only).

-c < 0,1,2 >

Precision (0=LowRes, 1=Normal (default), 2=Hi-res) (CRD only)

-i profile

Input profile: Generates Color Space Array (CSA).

-n <gridpoints>

Alternate way to set precision, number of CLUT points (CRD only)

−o profile

Output profile: Generates Color Rendering Dictionary(CRD).

-t < 0.1,2,3 >

Intent (0=Perceptual, 1=Colorimetric, 2=Saturation, 3=Absolute).

-u Do NOT generate resource name on CRD.

FILES

/usr/share/foo2*/icm/*

SEE ALSO

 $\label{lem:co2hiperc-wrapper} \textbf{(1), foo2hp2600-wrapper} \textbf{(1), foo2hawrapper} \textbf{(1), foo2oak-wrapper} \textbf{(2), foo2oak-wrappe$

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

lavadecode – Decode a LAVAFLOW stream into human readable form.

SYNOPSIS

lavadecode [options] < lavaflow-file

DESCRIPTION

lavadecode decodes a LAVAFLOW stream into human readable form.

A LAVAFLOW stream is the printer language used by some Konica Minolta printers, such as the KM magicolor 2530 DL.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- -D level

Set Debug level [0].

EXAMPLES

Decode an LAVAFLOW stream file created by foo2lava.

```
$ lavadecode -h < testpage.prn</pre>
                       0: \033%-12345X@PJL JOB NAME="stdin"
                   1f: \033%-12345X@PJL JOB USERNAME=""
                   3d: \033%-12345X@PJL JOB TIMESTAMP="07/20/2007"
                    66: \033%-12345X@PJL JOB OSINFO="Linux/2.6.20-1.2316.fc5"
                   99: \033%-12345X@PJL ENTER LANGUAGE=LAVAFLOW
                   bf: \033E
                                                                                                                                                   RESET
                  c1: \033&10S
c6: \033&10G
                                                                                                                                                DUPLEX: [off]
                  cb: \033&10G
cb: \033&10G
X RESOLUTION: [1200]
d3: \033&11X
COPIES: [1]
d8: \033&x1X
TRANSMIT ONCE COPIES: [1]
dd: \033&100
ORIENTATION: [port]
e2: \033*r1U
NBIE: [1]
e7: \033*g8W
BW/COLOR: [8]
                  e7: \033*g8W
                                                                                                                                                       fmt=2 np=1
            BLACK: X=1200, Y=600, unifer the state of th
                                                                                                                                                     BLACK: X=1200, Y=600, unk=0, \#=4(2)
              122: \033&10U
             127: \033&10Z
```

```
13a: \033*r1A
                              [Page 1]
                              [black]
  13f: \033*b20V
                               DL = 0, D = 0, P = 1, - = 0, XY = 9792 \times 6400
                               L0 = 128, MX = 0, MY = 0
                               Order = 3 ILEAVE SMID
                               Options = 92 LRLTWO TPDON TPBON DPON
                               50 stripes, 0 layers, 1 planes
  159: \033*b65536V
                              JBIG data (first) [65536,0x10000]
                       ff 02 c2 79 54 3e be e1 a0 de 08 9a b1 d2 c2 59
                       ... ae 88 ef a7 c7 96 d3 96 a6 d7 2c 06 38 75 22 44
                             JBIG data (end) [26432,0x6740]
10162: \033*b26432W
                       0e 89 66 ce 01 41 41 41 41 41 41 41 41 41 41 41 41
                       168ab: \033*x3887138K BLACK DOTS: [3887138]
168b6: \033*x58781662W BLACK WHITEDOTS: [58781662]
168c2: \033*rC
168c6: \033&10H
                            PAPER SOURCE: [eject]
168cb: \033E
                             RESET
```

/usr/bin/lavadecode

SEE ALSO

foo2lava-wrapper(1), foo2lava(1)

168cd: \033%-12345X

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2lava.rkkda.com/

oakdecode - Decode an OAKT printer stream into human readable form.

SYNOPSIS

oakdecode [options] <OAKT-file</pre>

DESCRIPTION

oakdecode decodes an OAKT printer stream into human readable form.

An OAKT printer stream is the printer language used by the HP Color LaserJet 1500 and other printers.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

-r basename

Basename of .jbg file for saving raw planes

- -i Suppress display of image records.
- **-o** Print file offsets.
- **−D** level

Set Debug level [0].

EXAMPLES

Decode an OAKT file created by foo2oak.

```
$ oakdecode < testpage.oak</pre>
0d (80) 1 OTHER
Oc (64) Wed Nov 05 16:30:50 2003 a07d3 100005 32001e
0a (80) testpage.pdf
14 (16) (no args)
28 (16) Source=Tray1
29 (80) PaperType=0 UNK8=2,0,0,0, blanks(63)
2a (32) Copies=1 UNK=0
2b (32) papercode=25 xwid=4648 ywid=9000
                                                       UNK=0
33 (64)
              u1 w h
x0 2128 4300
       u0
                                     resx
                                              resy
                                                       nBits
       x0
                                       600
                                               600
                                                       x1
15 (16) (no args)
     bih0 w h 10
                               bih5 dlen plen unk yOff P subP
3c (64) 00010000 2176 256 256 58030020 1050 1056 000 64 3 0
               DL = 0, D = 0, P = 1, - = 0, XY = 2176 \times 256
               L0 = 256, MX = 32, MY = 0
               Order = 3 ILEAVE SMID
               Options = 88 LRLTWO TPDON TPBON
               1 stripes, 0 layers, 1 planes
3c (64) 00010000 2176 256 256 58030020 3668 3680 000 320 3 0
3c (64) 00010000 2176 256 256 58030020 1463 1472 000 640 3 0 3c (64) 00010000 2176 256 256 58030020 1975 1984 000 896 3 0
3c (64) 00010000 2176 224 224 58030020 2744 2752 000 1152 3 0
3c (64) 00010000 2176 256 256 58030020 988 992 000 1440 3 0
3c (64) 00010000 2176 256 256 58030020 2892 2896 000 1696 3 0
3c (64) 00010000 2176 256 256 58030020 3634 3648 000 1952 3 0
```

```
3c (64) 00010000 2176 256 256 58030020 3236 3248 000 2208 3 0
3c (64) 00010000 2176 256 256 58030020 2279 2288 000 2464 3 0
3c (64) 00010000 2176 256 256 58030020 3746 3760 000 2720 3 0
3c (64) 00010000 2176 200 200 58030020 2404 2416 000 2976 3 0

      3c
      (64)
      00010000
      2176
      256
      256
      58030020
      2404
      2410
      000
      2576
      3

      3c
      (64)
      00010000
      2176
      96
      96
      58030020
      1142
      1152
      000
      3496
      3

      3c
      (64)
      00010000
      2176
      256
      256
      58030020
      2094
      2112
      000
      3752
      3

3c (64) 00010000 2176 256 256 58030020 1319 1328 000 4008 3 0
3c (64) 00010000 2176 36 36 58030020 208 224 000 4264 3 0
17 (16) (no args)
```

18 (16) UNK=0

0b (16) (no args)

FILES

/usr/bin/oakdecode

SEE ALSO

foo2oak-wrapper(1), foo2oak(1), jbg2pbm(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2oak.rkkda.com/

opldecode - Decode a Raster Object (opl) stream into human readable form.

SYNOPSIS

opldecode [options] <zjs-file</pre>

DESCRIPTION

opldecode decodes a Raster Object (opl) stream into human readable form.

A Raster Object stream is the printer language used by some Konica Minolta printers, such as the KM magicolor 2480 MF.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- -D level

Set Debug level [0].

EXAMPLES

Decode an Raster Object stream file created by foo2lava-wrapper -z1.

```
DL = 0, D = 0, P = 1, - = 0, XY = 9792 \times 6400
                                         L0 = 128, MX = 0, MY = 0
                                         Order = 3 ILEAVE SMID
                                         Options = 92 LRLTWO TPDON TPBON DPON
                                         50 stripes, 0 layers, 1 planes
10e8d: RasterObject.Data#32768=
18ea6: RasterObject.Data#32768=
20ebf: RasterObject.Data#19200=
259d8: RasterObject.Planes=FFFFF00,0,0,0,0,0,0;
259ff: RasterObject.Width=9792;
25a17: RasterObject.Height=6400;
25a30: RasterObject.Data#20=
                                         DL = 0, D = 0, P = 1, - = 0, XY = 9792 \times 6400
                                         L0 = 128, MX = 0, MY = 0
                                         Order = 3 ILEAVE SMID
                                         Options = 92 LRLTWO TPDON TPBON DPON
                                         50 stripes, 0 layers, 1 planes
25a5a: RasterObject.Data#32768=
2da73: RasterObject.Data#32768=
35a8c: RasterObject.Data#32768=
3daa5: RasterObject.Data#7056=
3f64d: RasterObject.Planes=000000,0,0,0,0,0,0;
3f674: RasterObject.Width=9792;
3f68c: RasterObject.Height=6400;
3f6a5: RasterObject.Data#20=
                                         DL = 0, D = 0, P = 1, - = 0, XY = 9792 \times 6400
                                         L0 = 128, MX = 0, MY = 0
                                         Order = 3 ILEAVE SMID
                                         Options = 92 LRLTWO TPDON TPBON DPON
                                         50 stripes, 0 layers, 1 planes
3f6cf: RasterObject.Data#32768=
476e8: RasterObject.Data#17472=
4bb41: Event=EndOfPage;
4bb51: Event=EndOfJob;
```

/usr/bin/opldecode

SEE ALSO

foo2lava-wrapper(1), **foo2opl**(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2lava.rkkda.com/

osx-hplj-hotplug - Daemon for downloading firmware files for Mac OS X

SYNOPSIS

osx-hplj-hotplug [options]

DESCRIPTION

osx-hplj-hotplug is a daemon for Mac OS X which watches for Hewlett-Packard LaserJet 1000, 1005, 1018, 1020, P1005, P1006, P1007, P1008, and P1505 being plugged in. If so, then the firmware is downloaded to it.

NOTE: this is not needed by Linux, which has a proper hotplug mechanism.

Here is a /etc/rc.local start:

BEGIN osx-hplj-hotplug from foo2zjs killall osx-hplj-hotplug osx-hplj-hotplug >/tmp/osx-hplj-hotplug 2>&1 & # END osx-hplj-hotplug from foo2zjs

COMMAND LINE OPTIONS

-D level

Set Debug level [0].

FILES

/usr/share/foo2*/firmware/*

SEE ALSO

/etc/rc.local

AUTHOR

Rick Richardson <rick.richardson@comcast.net>

printer-profile - Profile using X-Rite ColorMunki and Argyll CMS

SYNOPSIS

printer-profile [options] manuf model [rgb|cmyk] [patches] [ink-limit]

DESCRIPTION

printer-profile prints a test chart, uses the ColorMunki instrument to scan it in, then computes an ICM profile using the Argyll Color Management System.

```
Manuf is "sam". Model is "clp-300", "clp-315", "clp-325" or "clp-365". Manuf is "hp". Model is "2600" or "cp1215". Manuf is "km". Model is "2300" or "2530". Manuf is "dell". Model is "1355".
```

"rgb" is the usual setting. "patches" is a multiple 196 per page.

Edit the script for additional models.

OPTIONS

```
-b 1|2 Bits per pixel (1)
-r XRESxYRES Resolution. Default=". ()
-P rem-print Remote print (64-bit) machine, or none (amd)
```

- -S rem-scan Remote scan (ColorMunki) machine, or none (mac)
- -D lvl Debug level

EXAMPLES

Profile the Samsung clp-315:

```
$ printer-profile sam 315 rgb 196
```

BUGS

gs 8.64 and before has problems with 32-bit machines and color profile data. Don't use!

You need Argyll_V1.5.1 or later.

FILES

/usr/bin/printer-profile, /usr/share/foo2*/icm/testing.icm

SEE ALSO

firefox http://www.xritephoto.com/html/colormunkisplash.htm firefox http://www.argyllcms.com/ firefox http://www.argyllcms.com/Argyll_V1.5.1_src.zip

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

qpdldecode - Decode a QPDL stream into human readable form.

SYNOPSIS

qpdldecode [options] <qpdl-file

DESCRIPTION

qpdldecode decodes a QPDL stream into human readable form. Only the JBIG compression format (0x13) is handled

An QPDL stream is the printer language used by the Samsung CLP-300, CLP-600, CLX-3160 and the Xerox Phaser 6110 printers.

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- **−D** level

Set Debug level [0].

EXAMPLES

Decode an QPDL stream file created by foo2qpdl.

```
\033%-12345X@PJL DEFAULT SERVICEDATE=20070212
 2c:
        @PJL SET USERNAME="Unknown"
      @PJL SET JOBNAME="testpage.pdf"
 6a:
      @PJL SET COLORMODE=COLOR
 84:
       @PJL SET PAPERTYPE = NORMAL
 a1:
       @PJL ENTER LANGUAGE = QPDL
       RECTYPE 0x0 len=17
 bd:
             res=600, copies=1, papersize=letter(0), w=2550, h=3300
             papersource=auto, unk=0, duplex=0:0, unk=0,2, unk=268(0x10c)
 ce:
       RECTYPE 0xc len=68(0x44)
             stripe=0, WB=1248(0x4e0), H=128(0x80), plane=4, comp=0x13,
             len=56(0x38)
             magic=0x39abcdef, len=20(0x14), unk=0,0,0,0,0,0,
             checksum=0x356
             DL = 0, D = 0, P = 1, - = 0, XY = 9984 \times 6400
             L0 = 6400, MX = 0, MY = 0
             Order
                    = 0
             Options = 72 LRLTWO TPBON
             1 stripes, 0 layers, 1 planes
112:
       RECTYPE 0xc len=68(0x44)
             stripe=0, WB=1248(0x4e0), H=128(0x80), plane=1, comp=0x13,
             len=56(0x38)
             magic=0x39abcdef, len=20(0x14), unk=0,0,0,0,0,0,
             checksum=0x356
             DL = 0, D = 0, P = 1, - = 0, XY = 9984 \times 6400
             L0 = 6400, MX = 0, MY = 0
             Order
                    = 0
```

1

```
Options = 72 LRLTWO TPBON
               1 stripes, 0 layers, 1 planes
  156:
         RECTYPE 0xc len=68(0x44)
               stripe=0, WB=1248(0x4e0), H=128(0x80), plane=2, comp=0x13,
               len=56(0x38)
               magic=0x39abcdef, len=20(0x14), unk=0,0,0,0,0,0,
               checksum=0x356
               DL = 0, D = 0, P = 1, - = 0, XY = 9984 \times 6400
               L0 = 6400, MX = 0, MY = 0
               Order = 0
               Options = 72 LRLTWO TPBON
               1 stripes, 0 layers, 1 planes
  19a:
         RECTYPE 0xc len=68(0x44)
               stripe=0, WB=1248(0x4e0), H=128(0x80), plane=3, comp=0x13,
               len=56(0x38)
               magic=0x39abcdef, len=20(0x14), unk=0,0,0,0,0,0,
               checksum=0x356
               DL = 0, D = 0, P = 1, - = 0, XY = 9984 \times 6400
               L0 = 6400, MX = 0, MY = 0
                      = 0
               Order
               Options = 72 LRLTWO TPBON
               1 stripes, 0 layers, 1 planes
  1de:
         RECTYPE 0xc len=77488(0x12eb0)
               stripe=1, WB=1248(0x4e0), H=128(0x80), plane=1, comp=0x13,
               len=77476(0x12ea4)
               magic=0x39abcdef, len=77440(0x12e80), unk=2000000,0,0,0,0,0,
               checksum=0x9326d7
1308e:
         RECTYPE 0xc len=77680(0x12f70)
               stripe=1, WB=1248(0x4e0), H=128(0x80), plane=2, comp=0x13,
               len=77668 (0x12f64)
               magic=0x39abcdef, len=77632(0x12f40), unk=2000000,0,0,0,0,0,
               checksum=0x9367e5
25ffe:
          RECTYPE 0xc len=69232(0x10e70)
               stripe=1, WB=1248(0x4e0), H=128(0x80), plane=3, comp=0x13,
               len=69220 (0x10e64)
               magic=0x39abcdef, len=69184(0x10e40), unk=2000000,0,0,0,0,0,0,
               checksum=0x83938a
         RECTYPE 0xc len=45616(0xb230)
36e6e:
               stripe=1, WB=1248(0x4e0), H=128(0x80), plane=4, comp=0x13,
               len=45604 (0xb224)
               magic=0x39abcdef, len=45568(0xb200), unk=2000000,0,0,0,0,0,
               checksum=0x58015d
4209e:
        RECTYPE 0x1 len=3
              copies=1
        RECTYPE 0x9 len=0
420a1:
420a2: \033%-12345X
```

/usr/bin/qpdldecode

SEE ALSO

foo2qpdl-wrapper(1), foo2qpdl(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2qpdl.rkkda.com/

slxdecode - Decode a SLX stream into human readable form.

SYNOPSIS

slxdecode [options] <*slx-file*

DESCRIPTION

slxdecode decodes a SLX stream into human readable form.

A SLX stream is the printer language used by some Lexmark printers, such as the C500.

More information on the Software Imaging K.K. SLX stream can be found at:

http://softwareimaging.com/products-services/sorcerer/index.asp

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d hasename

Basename of .pbm file for saving decompressed planes.

-r basename

Basename of .jbg file for saving raw planes

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- -D level

Set Debug level [0].

EXAMPLES

Decode an SLX file created by foo2slx.

```
$ slxdecode < testpage.zm</pre>
SLX_MAGIC, 0x584c53a5 (SLX)
SLT_START_DOC, 12 items
        SLI_PAGECOUNT, 4294967295 (0xffffffff)
        SLI_DMDUPLEX, 0 (0x0)
        SLI_DMCOLLATE, 0 (0x0)
        SLI_0x3, 0 (0x0)
        SLI_DISPLAY, 0 (0x0)
        SLI_0x5, 0 (0x0)
        SLI_0x6, 0 (0x0)
        SLI_0x7, 1 (0x1)
        SLI 0x8, 0 (0x0)
        SLI_0x9, 0 (0x0)
        SLI_COUNT, 1 (0x1)
        SLI_DMCOLLATE, 0 (0x0)
SLT_START_PAGE, 16 items [Page 1]
        SLI_DMPAPER, 6 (0x6)
        SLI\_CUSTOM\_X, 0 (0x0)
        SLI\_CUSTOM\_Y, 0 (0x0)
        SLI_DMCOPIES, 1 (0x1)
        SLI_DMDEFAULTSOURCE, 0 (0x0)
        SLI_DMMEDIATYPE, 0 (0x0)
        SLI_NBIE, 0 (0x0)
        SLI_RESOLUTION_X, 600 (0x258)
```

```
SLI_RESOLUTION_Y, 600 (0x258)
        SLI_OFFSET_X, 102 (0x66)
        SLI_OFFSET_Y, 102 (0x66)
        SLI_RASTER_X, 4896 (0x1320)
        SLI_RASTER_Y, 6392 (0x18f8)
        SLI_0x10d, 4896 (0x1320)
        SLI_0x10e, 6392 (0x18f8)
        SLI_0x10f, 1 (0x1)
SLT_JBIG_BIH, 0 items
        Data: 20 bytes
                DL = 0, D = 0, P = 1, - = 0, XY = 4896 \times 6392
                L0 = 128, MX = 0, MY = 0
                Order = 0
                Options = 8 TPBON
                50 stripes, 0 layers, 1 planes
SLT_JBIG_BID, 0 items
      Data: 116 bytes
SLT_END_JBIG, 0 items
SLT_END_PAGE, 0 items
SLT_END_DOC, 0 items
```

/usr/bin/slxdecode

SEE ALSO

foo2slx-wrapper(1), foo2slx(1), jbg2pbm(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2slx.rkkda.com/

usb_printerid - prints the ID of the printer on a USB port

SYNOPSIS

usb_printerid [options] /dev/usb/lpNNN

DESCRIPTION

usb_printerid prints the identification of the printer on a USB port using the ioctl control **LPIOC_GET_DEVICE_ID**.

EXAMPLES

Print the USB info before and after downloading the firmware.

```
# usb_printerid /dev/usb/lp0
GET_DEVICE_ID string:
MFG:Hewlett-Packard;MDL:HP LaserJet 1020;CMD:ACL;CLS:PRINTER;\
DES:HP LaserJet 1020;

# cp /usr/share/foo2zjs/firmware/sihp1020.dl /dev/usb/lp0

# usb_printerid /dev/usb/lp0
GET_DEVICE_ID string:
MFG:Hewlett-Packard;MDL:HP LaserJet 1020;CMD:ACL;CLS:PRINTER;\
DES:HP LaserJet 1020;FWVER:20050309;
```

FILES

/usr/bin/usb_printerid, /usr/share/foo2*/firmware/*

SEE ALSO

arm2hpdl(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2zjs.rkkda.com/

xqxdecode - Decode a XQX stream into human readable form.

SYNOPSIS

xqxdecode [options] < xqx-file

DESCRIPTION

xqxdecode decodes a XQX stream into human readable form.

An XQX stream is the printer language used by some HP LaserJet printers, such as the HP LaserJet M1005 (MFP)

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- -D level

Set Debug level [0].

EXAMPLES

Decode an XQX stream file created by foo2xqx.

```
$ xqxdecode -h < testpage.xm</pre>
       0: \033%-12345X@PJL JOB
      12: @PJL SET JAMRECOVERY=OFF
     2b: @PJL SET DENSITY=3
     3e: @PJL SET ECONOMODE=OFF
     55: @PJL SET RET=MEDIUM
      69: @PJL INFO STATUS
     7a: @PJL USTATUS DEVICE = ON
     93: @PJL USTATUS JOB = ON
     a9: @PJL USTATUS PAGE = ON
     c0: @PJL USTATUS TIMED = 30
    10c: @PJL SET JOBATTR="JobAttr4=20061118160242"
    10c: XQX_MAGIC, 0x5851582c (,XQX)
    110: XQX_START_DOC(1), 7 items
    118: XQXI_0x80000000, 84 (0x54)
    124: XQXI_0x10000005, 1 (0x1)
130: XQXI_0x10000001, 0 (0x0)
13c: XQXI_DMDUPLEX, 0 (0x0)
148: XQXI_0x10000000, 0 (0x0)
154: XQXI_0x10000003, 1 (0x1)
160: XQXI_END, 3735928559 (0xdeadbeef)
    16c: XQX_START_PAGE(3), 15 items [Page 1]
    174: XQXI_0x80000000, 180 (0xb4)
180: XQXI_0x20000005, 1 (0x1)
18c: XQXI_DMDEFAULTSOURCE, 7 (0x7)
198: XQXI_DMMEDIATYPE, 1 (0x1)
1a4: XQXI_0x20000007, 1 (0x1)
1b0: XQXI_RESOLUTION_X, 600 (0x258)
```

```
1bc: XQXI_RESOLUTION_Y, 600 (0x258)
1c8: XQXI_RASTER_X, 9856 (0x2680)
1d4: XQXI_RASTER_Y, 6432 (0x1920)
1e0: XQXI_VIDEO_BPP, 2 (0x2)
1ec: XQXI_VIDEO_X, 4923 (0x133b)
1f8: XQXI_VIDEO_Y, 6432 (0x1920)
204: XQXI_ECONOMODE, 0 (0x0)
210: XQXI_DMPAPER, 1 (0x1)
21c: XQXI_END, 3735928559 (0xdeadbeef)
228: YOY_START_PLANE(5) 4 items
    228: XQX_START_PLANE(5), 4 items
    230: XQXI_0x80000000, 64 (0x40)
                       XQXI_0x40000000, 0 (0x0)
    23c:
    248:
                       XQXI_BIH(0x4000002)
                       DL = 0, D = 0, P = 1, - = 0, XY = 9856 \times 6432
                       L0 = 128, MX = 16, MY = 0
                       Order = 3 ILEAVE SMID
                       Options = 92 LRLTWO TPDON TPBON DPON
                        51 stripes, 0 layers, 1 planes
                       XQXI_END, 3735928559 (0xdeadbeef)
    264:
    270: XQX_JBIG(7), 110 items
    2e6: XQX_END_PLANE(6), 0 items
    2ee: XQX_END_PAGE(4), 0 items
    2f6: XQX_END_DOC(2), 0 items
Total size: 110 bytes
      0: \033%-12345X@PJL EOJ
      12: \033%-12345X
```

/usr/bin/xqxdecode

SEE ALSO

foo2xqx-wrapper(1), foo2xqx(1)

AUTHOR

Rick Richardson <rick.richardson@comcast.net> http://foo2xqx.rkkda.com/

zjsdecode – Decode a ZjStream into human readable form.

SYNOPSIS

zjsdecode [options] <zjs-file

DESCRIPTION

zjsdecode decodes a ZjStream into human readable form.

A ZjStream is the printer language used by some Minolta/QMS and HP printers, such as the 2300DL and L L1000

More information on Zenographics ZjStream can be found at:

http://ddk.zeno.com

COMMAND LINE OPTIONS

These are the options that can appear on the command line.

-d basename

Basename of .pbm file for saving decompressed planes.

-r basename

Basename of .jbg file for saving raw planes

- **-h** Print hex file offsets.
- **-o** Print file offsets.
- **-p** Don't do 4 byte padding
- **−D** level

Set Debug level [0].

EXAMPLES

Decode an ZjStream file created by foo2zjs.

```
$ zjsdecode < testpage.zm</pre>
ZJT_START_DOC, 3 items
        ZJI_PAGECOUNT, 0 (0x0)
        ZJI_DMDUPLEX, 1 (0x1)
        ZJI_QUANTITY, 1 (0x1)
ZJT_START_PAGE, 17 items
        ZJI_0x17, 0 (0x0)
        ZJI_0x16, 1 (0x1)
        ZJI_VIDEO_X, 10200 (0x27d8)
        ZJI_VIDEO_Y, 6600 (0x19c8)
        ZJI_VIDEO_BPP, 1 (0x1)
        ZJI_RASTER_X, 10200 (0x27d8)
        ZJI_RASTER_Y, 6600 (0x19c8)
        ZJI\_OFFSET\_X, 0 (0x0)
        ZJI\_OFFSET\_Y, 0 (0x0)
        ZJI_NBIE, 1 (0x1)
        ZJI_RESOLUTION_X, 1200 (0x4b0)
        ZJI_RESOLUTION_Y, 600 (0x258)
        ZJI_DMDEFAULTSOURCE, 7 (0x7)
        ZJI_DMCOPIES, 1 (0x1)
        ZJI_DMPAPER, 1 (0x1)
        ZJI_DMMEDIATYPE, 1 (0x1)
```

/usr/bin/zjsdecode

SEE ALSO

foo2zjs-wrapper(1), foo2zjs(1), jbg2pbm(1)

AUTHOR

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