NAME

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/

NAME

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 x 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/

NAME

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 *xres***x***yres*

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* **x** *yoff*
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* **x** *yoff*
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/

NAME

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].

1	off	2	long edge	3	short edge

–g *xpix***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 *xres***x***yres*

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

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

NAME

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
A5	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 *xres***x***yres*
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* **x***yoff*
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* **x***yoff*
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 **setcolortransfer** 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 **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

foo2hbpl2(1), **hbpldecode**(1)

AUTHOR

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

NAME

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.

−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	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

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 *xres***x***yres*
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.

−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* **x** *yoff*
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

−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/

NAME

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 *xres***x***yres*

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

–l *xoff* **x** *yoff*
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
3 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 **setcolortransfer** 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/

NAME

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

–g *xpix***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 *xres***x***yres*
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* **x** *yoff*
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 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/

NAME

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

–g *xpix***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 *xres***x***yres*

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

−s *source*

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

1	tray 2	7	auto
2	tray 1		

−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* **x***yoff*

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

−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.

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/

NAME

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 *xres***x***yres*
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.

−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 **foo2hp** for a particular printer.

−u *xoff* **x** *yoff*
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* **x** *yoff*
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 **setcolortransfer** 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 **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

foo2hp(1), **zjsdecode**(1)

AUTHOR

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

NAME

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)

–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 *xres***x***yres*
Set device resolution in pixels/inch [1200x600].

−s *source*
Source (Input Slot) code to send to printer [255].

1	Tray 1	255	auto
4	Tray 2		

−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* **x***yoff*
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* **x***yoff*
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 **setcolortransfer** 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 **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

foo2lava(1), **lavadecode**(1) **opldecode**(1)

AUTHOR

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

NAME

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.

−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 *xres***x***yres*
Set device resolution in pixels/inch [1200x600].

−s *source*
Source (InputSlot) code to send to printer [255].

1	Tray 1	255	auto
4	Tray 2		

−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* **x** *yoff*
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 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

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

AUTHOR

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

NAME

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 -z0	KM-1635 -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 *xres***x***yres*
Set device resolution in pixels/inch [600x600].

−s *source*
Source (Input Slot) code to send to printer [7].

1	tray1	2	tray2
4	manual	7	auto

−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***yoff*
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* **x***yoff*
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 **setcolortransfer** 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 **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/

NAME

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

SYNOPSIS

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 *xres***x***yres*
Set device resolution in pixels/inch [600x600].

−s *source*
Source (InputSlot) code to send to printer [7].

1	tray1	2	tray2
4	manual	7	auto

−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* **x** *yoff*
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 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/

NAME

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 *xres***x***yres*
Set device resolution in pixels/inch [1200x600].

−s *source*
Source (Input Slot) code to send to printer [255].

1	auto	2	manual
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***x***yoff*
Set the offset of the start of the printable region from the upper left corner, in pixels [varies with paper size].

−l *xoff***x***yoff*
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 **setcolortransfer** 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 **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

foo2qpdl(1), **qpdldecode**(1)

AUTHOR

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

NAME

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 *xres***x***yres*
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* **x** *yoff*
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

foo2qpdl-wrapper(1), **qpdldecode**(1)

AUTHOR

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

NAME

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].

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 *xres***x***yres*

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

–s *source*

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

0	auto	1	cassette1

–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 **foo2slx** for a particular printer.

−u *xoff*x*yoff*

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*x*yoff*

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 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

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 **setcolortransfer** 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 **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/

NAME

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 *xres***x***yres*
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* **x** *yoff*
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 **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

foo2slx-wrapper(1), **slxdecode**(1)

AUTHOR

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

NAME

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 *xres***x***yres*

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 **foo2xqx** for a particular printer.

–u *xoff* **x***yoff*
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* **x***yoff*
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 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 **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

foo2xqx(1), **xqxdecode**(1)

AUTHOR

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

NAME

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

–g *xpix***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 *xres***x***yres*

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* **x***yoff*
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

foo2xqx-wrapper(1), **xqxdecode**(1)

AUTHOR

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

NAME

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

foo2hp2600-wrapper(1), **foo2lava-wrapper**(1), **foo2oak-wrapper**(1), **foo2qpdl-wrapper**(1), **foo2slx-wrapper**(1), **foo2xqx-wrapper**(1), **foo2zjs-wrapper**(1)

AUTHOR

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

NAME

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].

Media	2300DL HP 1005 -z0	2200DL -z0	HP 1018 HP 1020 -z1	HP P1102 HP P1606 -z2	HP CP1025 -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].

Paper	MC 2300DL HP 1005 -z0	HP 1018 HP 1020 -z1	HP P1102 HP P1606 -z2	HP CP1025 -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 *xres***x***yres*

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 **foo2zjs** for a particular printer.

−u *xoff*x*yoff*
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*x*yoff*
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 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.

−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 **setcolortransfer** 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

foo2zjs(1), **zjsdecode**(1)

AUTHOR

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

NAME

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].

Media	2300DL HP 1005 -z0	2200DL -z0	HP 1018 HP 1020 -z1	HP P1102 HP P1606 -z2	HP CP1025 -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].

Paper	MC 2300DL HP 1005 -z0	HP 1018 HP 1020 -z1	HP P1102 HP P1606 -z2	HP CP1025 -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 *xres***x***yres*

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 **foo2zjs** for a particular printer.

−u *xoff* **x** *yoff*

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

−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

foo2zjs-wrapper(1), **zjsdecode**(1)

AUTHOR

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

NAME

gipddecode − Decode a GIPD stream into human readable form.

SYNOPSIS

gipddecode [*options*] <*gipd-file*

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
        0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 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>

NAME

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
    1f:    @PJL SET STRINGCODESET=UTF8
    3b:    @PJL COMMENT DATE=06/01/2011
    58:    @PJL COMMENT TIME=13:28:30
    73:    @PJL COMMENT DNAME=empty - Notepad
    96:    @PJL SET JOBATTR="@LUNA=rick"
    b4:    @PJL SET COPIES=1
    c6:    @PJL SET QTY=1
    d5:    @PJL SET JOBATTR="@TRCH=OFF"
    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:         82 a2: 0x7
 469:         83 a2: 0x1
 46d:    RECTYPE 'C' [0x43]:
 46e:         91 a1: 0x0
 471:         92 a1: 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]:
 4bc:    RECTYPE 'R' [0x52]:
 4bd:         a3 a1: 0x0
 4c0:         a4 a2: 6457 (0x1939) bytes of data...
1dfe:    RECTYPE 'S' [0x53]:
1dff:    RECTYPE 'D' [0x44]:
1e00:    RECTYPE 'B' [0x42]:
1dff:    \033%-12345X@PJL EOJ
```

Decode an HBPL stream file, version 2.

```
$ hbpldecode -h 6015c-color.prn
     0:     33%-12345X@PJL JOB NAME=PRINTER
    20:    @PJL SET JOBATTR="HOST:dual.rkkda.org"
    48:    @PJL SET JOBATTR="USER:rick"
    66:    @PJL SET JOBATTR="DOCU:(stdin)"
    87:    @PJL SET JOBATTR="OWNR:rick"
    a5:    @PJL SET DUPLEX=OFF
    ba:    @PJL SET MEDIASOURCE=0
    d2:    @PJL SET RENDERMODE=COLOR
    ed:    @PJL SET RESOLUTION=600
   106:    @PJL SET BITSPERPIXEL=2
   11f:    @PJL SET COPIES=1
   132:    @PJL ENTER LANGUAGE=HBPL
   14c:    RECTYPE JP [Job Parameters]
00000000: 1b 4a 50 04 01 00 00 01  00 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.... ...C....
00000030: 00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  ........ ........
   18c:    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 00 e0 00  ........ X.......
00000020: 00 00 e0 00 00 00 f0 00  00 00 00 00 00 00 00 00  ........ ........
00000030: 00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00  ........ ........
              w,h=5120x6406 res=600 color=1
              mediatype=Plain(1) papersize=Letter(4)
   1cc:    Cyan BIH:
              DL = 0, D = 0, P = 1, - = 0, XY = 10240 x 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 x 6406
              L0 = 128, MX = 0, MY = 0
              Order   = 0
              Options = 64  LRLTWO
              51 stripes, 0 layers, 1 planes
              ...magenta data skipped...
   38c:    Yellow BIH:
              DL = 0, D = 0, P = 1, - = 0, XY = 10240 x 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 x 6406
              L0 = 128, MX = 0, MY = 0
              Order   = 0
              Options = 64  LRLTWO
```

```
                51 stripes, 0 layers, 1 planes
                ...black data skipped...
   55c:    RECTYPE PE [Page End]
00000000: 1b 50 45 3c 00 00 00 00  77 00 00 00 7c 00 00 00  .PE<.... w...|...
00000010: 08 e0 cd 08 00 00 00 00  9c 55 ac bf f4 9f ac 43  ........ .U.....C
00000020: e0 a3 ac 43 00 00 00 00  19 00 00 00 75 9e 99 43  ...C.... ....u..C
00000030: 00 21 99 43 00 00 00 00  01 00 00 00 9a 0e 99 43  .!.C.... .......C
   59c:    \033%-12345X@PJL EOJ
```

FILES

/usr/bin/hbpldecode

SEE ALSO

foo2hbpl2-wrapper(1), **foo2hbpl2**(1)

AUTHOR

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

NAME

hipercdecode – Decode a HIPERC stream into human readable form.

SYNOPSIS

hipercdecode [*options*] <*hiperc-file*

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, C3250n, C3300n, C3400n, C5100n, C5250n, C5500n, C5600, and the C5800n 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 HIPERC stream file created by foo2hiperc.

```
$ foo2hiperc-wrapper testpage.ps | hipercdecode -h
     0:    \033%-12345X@PJL
     f:    @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"
    dd:   @PJL SET OKIAUXJOBINFO DATA="ReceptionTime=00:00:00 2008/01/30"
   11e:  @PJL SET OKIAUTOTRAYSWITCH=ON
   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=INCH1D6
   21f:  @PJL SET COPIES=1
   232:  @PJL SET QTY=1
   242:  @PJL SET HIPERCEFFECTIVEBLOCKSIZE=34799360
   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
     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 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 00 ...
  4c2e5:      RECTYPE 1 (len=155668,0x26014 cnt=3)
  4c2ed:            BLKNUM 0 (len=4), plane=3, uc=0,0,0
  4c2f5:            BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
  722f9:      RECTYPE 1 (len=155668,0x26014 cnt=4)
  72301:            BLKNUM 0 (len=4), plane=3, uc=0,0,0
  72309:            BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
  9830d:      RECTYPE 1 (len=155668,0x26014 cnt=5)
  98315:            BLKNUM 0 (len=4), plane=3, uc=0,0,0
  9831d:            BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
  be321:      RECTYPE 1 (len=155668,0x26014 cnt=6)
  be329:            BLKNUM 0 (len=4), plane=3, uc=0,0,0
  be331:            BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
  e4335:      RECTYPE 1 (len=155668,0x26014 cnt=7)
  e433d:            BLKNUM 0 (len=4), plane=3, uc=0,0,0
  e4345:            BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 10a349:     RECTYPE 1 (len=155668,0x26014 cnt=8)
 10a351:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 10a359:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 13035d:     RECTYPE 1 (len=155668,0x26014 cnt=9)
 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 00 ...
 156371:     RECTYPE 1 (len=155668,0x26014 cnt=10)
 156379:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 156381:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 17c385:     RECTYPE 1 (len=155668,0x26014 cnt=11)
 17c38d:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 17c395:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 1a2399:     RECTYPE 1 (len=155668,0x26014 cnt=12)
 1a23a1:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 1a23a9:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 1c83ad:     RECTYPE 1 (len=155668,0x26014 cnt=13)
 1c83b5:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 1c83bd:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 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 00 ...
 2143d5:     RECTYPE 1 (len=155668,0x26014 cnt=15)
 2143dd:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 2143e5:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 23a3e9:     RECTYPE 1 (len=155668,0x26014 cnt=16)
 23a3f1:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 23a3f9:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 2603fd:     RECTYPE 1 (len=155668,0x26014 cnt=17)
 260405:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
 26040d:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
 286411:     RECTYPE 1 (len=155668,0x26014 cnt=18)
```

```
286419:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
286421:           BLKNUM 1 (len=155648), Data=00 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 00 00 00 00 00 00 00 00 00 00 ...
2d2439:     RECTYPE 1 (len=155668,0x26014 cnt=20)
2d2441:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
2d2449:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
2f844d:     RECTYPE 1 (len=155668,0x26014 cnt=21)
2f8455:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
2f845d:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
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 00 ...
344475:     RECTYPE 1 (len=155668,0x26014 cnt=23)
34447d:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
344485:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
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 00 00 00 00 00 00 00 00 00 00 ...
39049d:     RECTYPE 1 (len=155668,0x26014 cnt=25)
3904a5:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
3904ad:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
3b64b1:     RECTYPE 1 (len=155668,0x26014 cnt=26)
3b64b9:           BLKNUM 0 (len=4), plane=3, uc=0,0,0
3b64c1:           BLKNUM 1 (len=155648), Data=00 00 00 00 00 00 00 00 00 00 00 ...
3dc4c5:     RECTYPE 1 (len=97300,0x17c14 cnt=27)
3dc4cd:           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 00 ...
3f40d9:     RECTYPE 255 (len=8,0x8 cnt=28)
3f40e1:     \033%-12345X
```

FILES

/usr/bin/hipercdecode

SEE ALSO

foo2hiperc-wrapper(1), **foo2hiperc**(1)

AUTHOR

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

NAME

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
     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&l0S             DUPLEX: [off]
    c6: \033&l0G
    cb: \033&u1200D          X RESOLUTION: [1200]
    d3: \033&l1X             COPIES: [1]
    d8: \033&x1X             TRANSMIT ONCE COPIES: [1]
    dd: \033&l0O             ORIENTATION: [port]
    e2: \033*r1U             NBIE: [1]
    e7: \033*g8W             BW/COLOR: [8]
                              fmt=2 np=1
                              BLACK:  X=1200, Y=600, unk=0, #=4(2)
    f4: \033*b1234M          COMPRESSION: [1234] (JBIG)
    fc: \033&l2A             PAGE SIZE: [letter]
   101: \033&l255H           PAPER SOURCE: [auto]
   108: \033&l0M             MEDIA TYPE: [plain]
   10d: \033&l0E             TOP MARGIN: [0]
   112: \033*r9792S          X RASTER: [9792,0x2640]
   11a: \033*r6400T          Y RASTER: [6400,0x1900]
   122: \033&l0U
   127: \033&l0Z
   12c: \033*p200X           X OFFSET: [200]
```

```
  133: \033*p200Y            Y OFFSET: [200]
  13a: \033*r1A              [Page 1]
  13f: \033*b20V             [black]
                              DL = 0, D = 0, P = 1, - = 0, XY = 9792 x 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
10162: \033*b26432W          JBIG data (end) [26432,0x6740]
                        0e 89 66 ce 01 41 41 41 41 41 41 41 41 41 41 41
                       ... 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
168ab: \033*x3887138K        BLACK DOTS: [3887138]
168b6: \033*x58781662W       BLACK WHITEDOTS: [58781662]
168c2: \033*rC               END PAGE
168c6: \033&l0H              PAPER SOURCE: [eject]
168cb: \033E                 RESET
168cd: \033%-12345X
```

FILES

/usr/bin/lavadecode

SEE ALSO

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

AUTHOR

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

NAME

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

SYNOPSIS

oakdecode [*options*] <*OAKT-file*

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
0d (80) 1 OTHER
0c (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)
        u0      u1      w       h       resx    resy    nBits
        x0      x0      2128    4300    600     600     x1
15 (16) (no args)
      bih0     w     h    l0     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 x 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  3114  3120 000 3240 3 0
3c (64) 00010000 2176   96   96 58030020  1142  1152 000 3496 3 0
3c (64) 00010000 2176  256  256 58030020  2094  2112 000 3752 3 0
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/

NAME

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

SYNOPSIS

opldecode [*options*] <*zjs-file*

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.

```
$ foo2lava-wrapper -z1 testpage.ps | opldecode -h
     0:    Event=StartOfJob;
    11:   OSVersion=WindowsXP;
    25:   DrvVersion=2.0.1410.0;
    3b:   Resolution=1200x600;
    4f:   RasterObject.Compression=JBIG;
    6d:   Sides=OneSided;
    7c:   MediaSize=custom_size_8.5x11in;
    9b:   MediaType=plain;
    ab:   MediaInputTrayCheck=top;
    c3:   RasterObject.BitsPerPixel=1;
    df:   RasterObject.Planes=00FFFF,0,0,0,0,0,0;
   106:  RasterObject.Width=9792;
   11e:  RasterObject.Height=6400;
   137:  RasterObject.Data#20=

                        DL = 0, D = 0, P = 1, - = 0, XY = 9792 x 6400
                        L0 = 128, MX = 0, MY = 0
                        Order   = 3  ILEAVE SMID
                        Options = 92  LRLTWO TPDON TPBON DPON
                        50 stripes, 0 layers, 1 planes
   161:  RasterObject.Data#32768=
  817a: RasterObject.Data#32768=
 10193:      RasterObject.Data#3168=
 10e0b:      RasterObject.Planes=FF00FF,0,0,0,0,0,0;
 10e32:      RasterObject.Width=9792;
 10e4a:      RasterObject.Height=6400;
```

```
10e63:      RasterObject.Data#20=

                        DL = 0, D = 0, P = 1, - = 0, XY = 9792 x 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=FFFF00,0,0,0,0,0,0;
259ff:      RasterObject.Width=9792;
25a17:      RasterObject.Height=6400;
25a30:      RasterObject.Data#20=

                        DL = 0, D = 0, P = 1, - = 0, XY = 9792 x 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 x 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;
```

FILES

/usr/bin/opldecode

SEE ALSO

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

AUTHOR

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

NAME

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/

NAME

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.

```
  0:    \033%-12345X@PJL DEFAULT SERVICEDATE=20070212
 2c:    @PJL SET USERNAME="Unknown"
 49:    @PJL SET JOBNAME="testpage.pdf"
 6a:    @PJL SET COLORMODE=COLOR
 84:    @PJL SET PAPERTYPE = NORMAL
 a1:    @PJL ENTER LANGUAGE = QPDL
 bd:    RECTYPE 0x0  len=17
             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 x 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 x 6400
             L0 = 6400, MX = 0, MY = 0
```

```
                Order   = 0
                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 x 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 x 6400
                L0 = 6400, MX = 0, MY = 0
                Order   = 0
                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,
                checksum=0x83938a
    36e6e:    RECTYPE 0xc  len=45616(0xb230)
                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
    420a1:    RECTYPE 0x9  len=0
    420a2:    \033%-12345X
```

FILES

/usr/bin/qpdldecode

SEE ALSO

foo2qpdl-wrapper(1), **foo2qpdl**(1)

AUTHOR

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

NAME

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 *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.

–D *level*
Set Debug level [0].

EXAMPLES

Decode an SLX file created by foo2slx.

```
$ slxdecode < testpage.zm
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 x 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
```

FILES

/usr/bin/slxdecode

SEE ALSO

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

AUTHOR

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

NAME

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/

NAME

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
     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: XQX_START_PLANE(5), 4 items
    230:         XQXI_0x80000000, 64 (0x40)
    23c:         XQXI_0x40000000, 0 (0x0)
    248:         XQXI_BIH(0x40000002)
                 DL = 0, D = 0, P = 1, - = 0, XY = 9856 x 6432
                 L0 = 128, MX = 16, MY = 0
                 Order   = 3  ILEAVE SMID
                 Options = 92  LRLTWO TPDON TPBON DPON
                 51 stripes, 0 layers, 1 planes

    264:         XQXI_END, 3735928559 (0xdeadbeef)
    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
```

FILES

/usr/bin/xqxdecode

SEE ALSO

foo2xqx-wrapper(1), **foo2xqx**(1)

AUTHOR

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

NAME

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 LJ-1000.

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
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)
        ZJI_MINOLTA_PAGE_NUMBER, 1 (0x1)
ZJT_JBIG_BIH, 0 items
        Data: 20 bytes
                DL = 0, D = 0, P = 1, - = 0, XY = 10200 x 6600
                L0 = 128, MX = 16, MY = 0
                Order   = 3  ILEAVE SMID
                Options = 92  LRLTWO TPDON TPBON DPON
                52 stripes, 0 layers, 1 planes
ZJT_JBIG_BID, 0 items
        Data: 65536 bytes
ZJT_JBIG_BID, 0 items
        Data: 29120 bytes
ZJT_END_JBIG, 0 items
ZJT_END_PAGE, 0 items
ZJT_END_DOC, 0 items
```

FILES

/usr/bin/zjsdecode

SEE ALSO

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

AUTHOR

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