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].

             0   Best compromise
             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	2200DL
standard	1	1
transparency	2	2
envelope	257	na
letterhead	259	na
thick	261	4
postcard	262	na
labels	263	3

     −p *paper*
             Paper size code to send to printer [1].

             │ 1   letter   │ 9   A4
             │ 5   legal   │ 11   A5
             │ 7   executive │ 13   B5

     −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

−2   Print in 2-up. Requires the **psutils** package.

−4   Print in 4-up. Requires the **psutils** package.

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.

−F *firmware*
>   Some printers (such as the HP LaserJet) need firmware to be downloaded to them after they are powered up or reset. This option will always prepend the contents of the file *firmware* to the job. COMPLETELY UNTESTED - LET ME KNOW IF THIS IS USEFUL.

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

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 <rickr@mn.rr.com>
>   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	2200DL
standard	1	1
transparency	2	2
envelope	257	na
letterhead	259	na
thick	261	4
postcard	262	na
labels	263	3

−p *paper*

Paper code to send to printer [1].

| 1   letter | 9   A4
| 5   legal | 11   A5
| 7   executive | 13   B5

−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

−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.

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 <rickr@mn.rr.com>
       http://foo2zjs.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 langauge 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

       –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
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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 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).

−m *media*

Media code to send to printer [1].

1	standard	259	letterhead
2	transparency	261	thickstock
3	glossy	262	postcard
257	envelope	263	labels

−p *paper*

Paper size code to send to printer [1].

1	letter	9	A4
5	legal	11	A5
7	executive	13	B5

−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	4	manual
7	auto		

−2   Print in 2-up. Requires the **psutils** package.

−4   Print in 4-up. Requires the **psutils** package.

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

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

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 <rickr@mn.rr.com>
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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 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.

−g *xpix***x***ypix*
       Set page dimensions in pixels [10200x6600].

−m *media*
       Media code to send to printer [1].

1	standard	259	letterhead
2	transparency	261	thickstock
3	glossy	262	postcard
257	envelope	263	labels

−p *paper*
       Paper code to send to printer [1].

1	letter	9	A4
5	legal	11	A5
7	executive	13	B5

−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	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   Turn off: conversion of C=1,M=1,Y=1 to pure black.

−B   Turn off: K=1 forces C,M,Y to 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 <rickr@mn.rr.com>
    http://foo2oak.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 langauge 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

–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 <rickr@mn.rr.com>
> http://foo2oak.rkkda.com/