NAME

a2ping.pl −− convert between PS, EPS and PDF and other page description formats

SYNOPSIS

a2ping.pl [−−]**help**
a2ping.pl [−−]**doc**
a2ping.pl [*options*] <*inputfile*> [[*outformat*:] *outputfile*]

DESCRIPTION

a2ping is a UNIX command line utility written in Perl that converts many raster image and vector graphics formats to EPS or PDF and other page description formats. Accepted input file formats are: PS (PostScript), EPS, PDF, PNG, JPEG, TIFF, PNM, BMP, GIF, LBM, XPM, PCX, TGA. Accepted output formats are: EPS, PCL5, PDF, PDF1, PBM, PGM, PPM, PS, markedEPS, markedPS, PNG, XWD, BMP, TIFF, JPEG, GIF, XPM. **a2ping** delegates the low-level work to Ghostscript (GS), **pdftops** and **sam2p**. **a2ping** fixes many glitches during the EPS to EPS conversion, so its output is often more compatible and better embeddable than its input.

Without the −−below option, it is guarenteed to start at the 0,0 coordinate. −−below, −−hires and −v are recommended options.

The page size is set exactly corresponding to the BoundingBox. This means that when Ghostscript renders it, the result needs no cropping, and the PDF MediaBox is correct.

If the bounding box is not right, of course, you have problems. If you feed crap in, you get crap. But you can supply the **−−bboxfrom=compute−gs** option to make GS recompute the bounding box.

The name of the input file doesn't matter — **a2ping** detects the file format based on the first few bytes of the file. The name of the output file matters if *outformat* is missing from the command line: then the extension of the output file determines the FileFormat (*outformat*).

EXTERNAL PROGRAMS

The internal file format of **a2ping.pl** is PS/EPS. Everything read is first converted to PS or EPS, then processed by **a2ping.pl**, then converted to the output format.

To analyse the bounding box and other properties of non-EPS PS files (and EPS files with option **−−bboxfrom** other than **=guess**), GS is used. Converting PS to EPS involves this analysis.

To write PDF files, GS is used.

To read PDF files, **pdftops** from the **xpdf** package is used.

Sampled input formats are PNG, JPEG, TIFF, PNM, BMP, GIF, LBM, XPM, PCX and TGA. To read sampled input formats, **sam2p** is used. **sam2p** is a raster image converter written in C++ by the author of **a2ping.pl**.

Extra output formats are PNG, XWD, BMP, TIFF, JPEG, GIF and XPM. To write extra output formats, **sam2p** and GS are used.

PNM output formats are PGM, PGM and PPM. To write PNM output formats, GS is used.

OPTIONS

General Options

−h, **−−help**

Show a summary of the usage

−−doc
> Show the man page

−v, **−−(no)verbose**
> Show progress and debug messages (default: no)

Options for the Bounding box

−−(no)hires
> Use HiResBoundingBox in the input file, if present (default: yes)

−−(no)exact
> Use ExactBoundingBox in the input file, if present (default: no)

−−(no)keepoldmediabox
> keep only old, [0 0]−based MediaBox in PDF (default: no)

−−bboxfrom=*adsc|compute−gs|guess|pagesize*
> Method for determining the BoundingBox (default: guess)

−−(no)below
> Allow page content below and left of the origin (default: no)

Options for graphics and fonts

−−(no)compress
> use compression   (default: best)

−−(no)antialias
> render shades at outlines. Possible values: (=*scale3yes* =*no* =*yes*) (default: scale3no)

−−(no)lossy
> allow lossy image filters (EPS−>PDF) (default: yes)

−−papersize=*unchanged|force−unknown|600bpx5cm*
> (default: default) (bp)

−−threshold=
> min color for 1 in 8−>1 bit conv (default: 128)

Options for debugging and changing internals

−−(no)tmpunlink
> Unlink temporary files (default: yes). Use **−−notmpunklink** if you want to inspect intermediate files.

−−gs−cmd=*path*
> path to Ghostscript program (default: gs or gswin32c)

−−gs−ccmd=*path*
> path to Ghostscript for BoundingBox calculation (default: gs or gswin32c)

−−gsextra=*GS_ARGS*
> Pass extra arguments to gs

−−extra=
> Pass extra arguments to external program (i.e pdftops)

TIPS AND TRICKS

- If your EPS contains a wrong bounding box, you can fix it by running `a2ping.pl -v --bboxfrom=compute-gs thefile.eps --`

- You can specify **−** as *inputfile* to get stdin and as *outputfile* to get stdout. This works even for PDF files (which must be seekable), because **a2ping** copies them to a temporary file automatically.

- If *inputfile* and *outputfile* are the same, **a2ping** copies the *inputfile* to a temporary location first. However, this usage is recommended only if there is a backup of the file to be restored in case **a2ping** doesn't produce the desired result.

- If you specify **−−** as *outputfile*, it will be the same as *inputfile*.

- **a2ping** respects **−−Duplex** for FileFormat PCL5, even though GS doesn't.

- If you have an incompatible PS that GS can read but your printer cannot print, just run `a2ping.pl foo.ps PDF: − | a2ping.pl − PS: foo.ps`

- If you have a PS coming from Win32 (often with extension `.prn`), run it through **a2ping**. It will remove the resolution changes and the progress text printed to the terminal (which confuses **gv**(1) and makes some filters in the print queue emit incorrect output).

- **a2ping** does antialiasing (**−−antialias=scale3no**) of glyphs and curves when emitting a sampled image (FileFormats such as PGM and PPM). This improves readability of the glyphs. **=yes** instructs GS to do internal antialiasing, but it usually doesn't improve much. **=scale3no** turns off GS internal antialiasing, but makes it render everything 3x3 as big, and then scales it back down. **=scale3no** turns on both 3x3 scaling and GS internal antialiasing, which results in thicker lines and worse quality in general.

- When creating a PBM file, antialiasing usually doesn't improve the quality, so it is switched off by default. But if you set **−−antialias=scale3no** or **−−antialias=scale3yes**, GS will render a PGM file, and the value of **−−threshold** determines the minimum intensity for white in the final PBM.

- If you need a bigger sampled output file, specify a larger **−−Resolution**. The default is **−−Resolution=72**. If your sampled output file is going to be really big, you should specify **−−AntiAlias=yes** instead of the default **−−AntiAlias=scale3no** to speed up conversion.

- To make sure fonts are included in a PDF file generated from eps, use **−−gsextra='−dEmbedAllFonts=true −dPDFSETTINGS=/printer'**.

MISC

- Doesn't depend on the filename or extension of the input file.

- Conversion from EPS to PDF: fixes glitches etc., calls gs −sDEVICE=pdfwrite

- Conversion from EPS to EPS: fixes various glitches, moves (llx,lly) to (0,0), removes binary junk from the beginning of the EPS etc.

- Conversion from PDF to PDF: keeps the file intact

- Conversion from PDF to EPS: calls pdftops −eps (of the xpdf package)

- Conversion from PS to EPS: keeps 1st page only, removes setpagedevice etc.

AUTHORS

The author of **a2ping** is Péter Szabó <*pts@fazekas.hu*>.

a2ping is inspired by and historically based on the **epstopdf** Perl script modified by Thomas Esser, Sept. 1998, but his modifications have been removed from **a2ping**, and also **a2ping** and **epstopdf** do not share common code anymore. **epstopdf** is written by Sebastian Rahtz, for

Elsevier Science. **epstopdf** contained extra tricks from Hans Hagen's texutil.

a2ping contains contributions from several people, see the file *HISTORY.txt* for details. Thank you all for contributing!