Name

afmtodit − adapt Adobe Font Metrics files for *groff* PostScript and PDF output

Synopsis

afmtodit [**−ckmnsx**] [**−a** *slant*] [**−d** *device-description-file*] [**−e** *encoding-file*] [**−f** *internal-name*] [**−i** *italic-correction-factor*] [**−o** *output-file*] [**−w** *space-width*] *afm-file map-file font-description-file*

afmtodit −−help

afmtodit −v
afmtodit −−version

Description

afmtodit adapts an Adobe Font Metric file, *afm-file*, for use with the **ps** and **pdf** output devices of *troff*(1). *map-file* associates a *groff* ordinary or special character name with a PostScript glyph name. Output is written in *groff_font*(5) format to *font-description-file,* a file named for the intended *groff* font name (but see the **−o** option).

map-file should contain a sequence of lines of the form

```
ps-glyph groff-char
```

where *ps-glyph* is the PostScript glyph name and *groff-char* is a *groff* ordinary (if of unit length) or special (if longer) character identifier. The same *ps-glyph* can occur multiple times in the file; each *groff-char* must occur at most once. Lines starting with "#" and blank lines are ignored. If the file isn't found in the current directory, it is sought in the *devps/generate* subdirectory of the default font directory.

If a PostScript glyph is not mentioned in *map-file*, and a *groff* character name can't be deduced using the Adobe Glyph List (AGL, built into *afmtodit*), then *afmtodit* puts the PostScript glyph into the *groff* font description file as an unnamed glyph which can only be accessed by the "\N" escape sequence in a *roff* document. In particular, this is true for glyph variants named in the form "*foo.bar*"; all glyph names containing one or more periods are mapped to unnamed entities. Unless **−e** is specified, the encoding defined in the AFM file (i.e., entries with non-negative codes) is used. Refer to section "Using Symbols" in *Groff: The GNU Implementation of troff*, the *groff* Texinfo manual, or *groff_char*(7), which describe how *groff* character identifiers are constructed.

Glyphs not encoded in the AFM file (i.e., entries indexed as "−1") are still available in *groff*; they get glyph index values greater than 255 (or greater than the biggest code used in the AFM file in the unlikely case that it is greater than 255) in the *groff* font description file. Unencoded glyph indices don't have a specific order; it is best to access them only via special character identifiers.

If the font file proper (not just its metrics) is available, listing it in the files */usr/local/share/groff/1.23.0/font/devps/download* and */usr/local/share/groff/1.23.0/font/devpdf/download* enables it to be embedded in the output produced by *grops*(1) and *gropdf*(1), respectively.

If the **−i** option is used, *afmtodit* automatically generates an italic correction, a left italic correction, and a subscript correction for each glyph (the significance of these is explained in *groff_font*(5)); they can be specified for individual glyphs by adding to the *afm-file* lines of the form:

```
italicCorrection ps-glyph n
leftItalicCorrection ps-glyph n
subscriptCorrection ps-glyph n
```

where *ps-glyph* is the PostScript glyph name, and *n* is the desired value of the corresponding parameter in thousandths of an em. Such parameters are normally needed only for italic (or oblique) fonts.

The **−s** option should be given if the font is "special", meaning that *groff* should search it whenever a glyph is not found in the current font. In that case, *font-description-file* should be listed as an argument to the **fonts** directive in the output device's *DESC* file; if it is not special, there is no need to do so, since *troff*(1) will automatically mount it when it is first used.

Options

−−help displays a usage message, while **−v** and **−−version** show version information; all exit afterward.

−a *slant*
: Use *slant* as the slant ("angle") parameter in the font description file; this is used by *groff* in the positioning of accents. By default *afmtodit* uses the negative of the **ItalicAngle** specified in the AFM file; with true italic fonts it is sometimes desirable to use a slant that is less than this. If you find that an italic font places accents over base glyphs too far to the right, use **−a** to give it a smaller slant.

−c
: Include comments in the font description file identifying the PostScript font.

−d *device-description-file*
: The device description file is *desc-file* rather than the default *DESC*. If not found in the current directory, the *devps* subdirectory of the default font directory is searched (this is true for both the default device description file and a file given with option **−d**).

−e *encoding-file*
: The PostScript font should be reencoded to use the encoding described in *enc-file*. The format of *enc-file* is described in *grops*(1). If not found in the current directory, the *devps* subdirectory of the default font directory is searched.

−f *internal-name*
: The internal name of the *groff* font is set to *name*.

−i *italic-correction-factor*
: Generate an italic correction for each glyph so that its width plus its italic correction is equal to *italic-correction-factor* thousandths of an em plus the amount by which the right edge of the glyph's bounding box is to the right of its origin. If this would result in a negative italic correction, use a zero italic correction instead.

  Also generate a subscript correction equal to the product of the tangent of the slant of the font and four fifths of the x-height of the font. If this would result in a subscript correction greater than the italic correction, use a subscript correction equal to the italic correction instead.

  Also generate a left italic correction for each glyph equal to *italic-correction-factor* thousandths of an em plus the amount by which the left edge of the glyph's bounding box is to the left of its origin. The left italic correction may be negative unless option **−m** is given.

  This option is normally needed only with italic (or oblique) fonts. The font description files distributed with *groff* were created using an option of **−i50** for italic fonts.

−o *output-file*
: Write to *output-file* instead of *font-description-file.*

−k
: Omit any kerning data from the *groff* font; use only for monospaced (constant-width) fonts.

−m
: Prevent negative left italic correction values. Font description files for roman styles distributed with *groff* were created with "**−i0 −m**" to improve spacing with *eqn*(1).

−n
: Don't output a **ligatures** command for this font; use with monospaced (constant-width) fonts.

−s
: Add the **special** directive to the font description file.

−w *space-width*
: Use *space-width* as the with of inter-word spaces.

−x
: Don't use the built-in Adobe Glyph List.

Files

/usr/local/share/groff/1.23.0/font/devps/DESC
: describes the **ps** output device.

*/usr/local/share/groff/1.23.0/font/devps/*F
: describes the font known as *F* on device **ps**.

/usr/local/share/groff/1.23.0/font/devps/download
: lists fonts available for embedding within the PostScript document (or download to the device).

/usr/local/share/groff/1.23.0/font/devps/generate/dingbats.map
/usr/local/share/groff/1.23.0/font/devps/generate/dingbats−reversed.map
/usr/local/share/groff/1.23.0/font/devps/generate/slanted−symbol.map
/usr/local/share/groff/1.23.0/font/devps/generate/symbol.map
/usr/local/share/groff/1.23.0/font/devps/generate/text.map
: map names in the Adobe Glyph List to *groff* special character identifiers for Zapf Dingbats (**ZD**), reversed Zapf Dingbats (**ZDR**), slanted symbol (**SS**), symbol (**S**), and text fonts, respectively. These *map-file*s are used to produce the font description files provided with *groff* for the *grops* output driver.

Diagnostics

AGL name '*x*' already mapped to groff name '*y*'; ignoring AGL name 'uni*XXXX*'
: You can disregard these if they're in the form shown, where the ignored AGL name contains four hexadecimal digits *XXXX*. The Adobe Glyph List (AGL) has its own names for glyphs; they are often different from *groff*'s special character names. *afmtodit* is constructing a mapping from *groff* special character names to AGL names; this can be a one-to-one or many-to-one mapping, but one-to-many will not work, so *afmtodit* discards the excess mappings. For example, if *x* is ***D**, *y* is **Delta**, and *z* is **uni0394**, *afmtodit* is telling you that the *groff* font description that it is writing cannot map the *groff* special character **\[*D]** to AGL glyphs **Delta** and **uni0394** at the same time.

  If you get a message like this but are unhappy with which mapping is ignored, a remedy is to craft an alternative *map-file* and re-run *afmtodit* using it.

See also

Groff: The GNU Implementation of troff, by Trent A. Fisher and Werner Lemberg, is the primary *groff* manual. Section "Using Symbols" may be of particular note. You can browse it interactively with "info '(groff)Using Symbols'".

groff(1), *gropdf*(1), *grops*(1), *groff_font*(5)