

NAME

ot2kpx – extract kerning information from OpenType fonts

SYNOPSIS

ot2kpx [*-afm* | *-kpx* | *-lua*] <fontfile>

DESCRIPTION

ot2kpx extract the kerning data from OpenType fonts and prints it to `stdout`, either in Adobe’s KPX format (for adding to an *afm* file) or as a Luatex custom feature, for use with the `\directlua` command.

OPTIONS AND ARGUMENTS**-help**

Print a short help text and exit.

-version

Print **ot2kpx**’s version and exit.

-afm, -kpx

Output the kerning data in Adobe’s KPX format, as used in *afm* files. This is the default output format.

-lua

Output the kerning data as a Luatex custom font feature, to be included in a `\directlua` command.

<fontfile>

The OpenType font (both *otf* and *ttf* format are supported).

RESTRICTIONS

- **ot2kpx** doesn’t implement all of the OpenType specification. Things that are missing include: support for font files containing multiple fonts, LookupTables with LookupTypes other than 2, “kern” tables with format other than 0 and ValueRecords with other types of data than just XAdvance data.

Most of these limitations won’t matter, since the missing features are rare (the only fonts I know of that use them are the non-western fonts that come with Adobe Reader). Furthermore, many of these features define (according to the OpenType specification) “*subtle, device-dependent adjustments at specific font sizes or device resolutions*”; since there’s no way to express such adjustments in *afm* format, ignoring them seems to be the only option anyway.

- **ot2kpx** collects kerning data first from the “kern” table, then from all LookupTables associated with the “kern” feature; if a kerning pair occurs multiple times, the first value seen is chosen. There are (or may be) several issues with this approach:
 - The OpenType specification says that fonts in *otf* format shouldn’t use the “kern” table at all, just the lookups from the “GPOS” table. Many such fonts do, however, contain a “kern” table, but no “GPOS” table; so we use the “kern” table anyway.
 - Instead of reading all LookupTables, it might be better to let the user specify a script and language and process only the LookupTables for those values. However, at least in the fonts I checked, all script/language combinations eventually point to the *same* “kern” LookupTables, so this approach wouldn’t make any difference (apart from further complicating the code).

AUTHOR

Marc Penninga <marcpenninga@gmail.com>

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VERSION

This document describes **ot2kpx** version 20250819.

RECENT CHANGES

(See the source code for the rest of the story.)

2019-05-20 Added the *-version* option.

2019-04-15 Added the *-lua* command-line option to get output in LuaTeX's custom feature format.