

# TengwarScript 1.3.1

## A package for writing *tengwar* with L<sup>A</sup>T<sub>E</sub>X

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## 1 Introduction

The *tengwar* script is a writing system invented by J. R. R. Tolkien for his fantasy world, it's not only a very beautiful script but can also be used for writing all kinds of real and invented languages. For more info about the *tengwar*, visit the excellent site Amanye Tenceli (<http://at.mansbjorkman.net>).

TengwarScript is a L<sup>A</sup>T<sub>E</sub>X package whose aim is to provide a mid-level access to *tengwar* fonts while still generating good output by default. Each *tengwar* sign has an individual command, which should place the sign nicely with relation to the preceding signs. So, to typeset the word *quetta* (which means *word*) in Quenya mode one would just write: `\Tquesse\TTacute\Ttinco\TTdoubler\TTthreedots`, resulting (with the Tengwar Parmaite 2 font) in:

For long texts, all this typing would be too cumbersome, so it is advised to use an automatic transcriber. The recommended one is `ptt` (Perl tengwar transcriber), which can be found in the author's homepage at the moment (<http://djelibeiibi.unex.es/tengwar>).

## 2 Instalation and requirements

The main package file `tengwarscript.sty` and the `*.cfg` files should be placed where  $\LaTeX$  can find them (usually in `[TEXMF]/tex/latex/tengwarscript`), preferably in the local or user tree. Also included in the package are the `.tfm`, `.vf`, `.enc`, and `.map` files needed for using the supported *tengwar* fonts, these should be probably be placed somewhere in `[TEXMF]/fonts`. Don't forget to refresh the configuration and database (using `updmap` and `texhash` with `tetex`, for example). For more precise information refer to your  $\TeX$  distribution documentation.

The TengwarScript package requires the FP package to be installed (particularly `fp-basic.sty` and `fp-snap.sty`), although this is probably overkill.

Note that the TengwarScript package needs some *tengwar* font installed to work properly. See the section 4 section below.

If you have an old version of TengwarScript installed (v. 1.1), note that the default names for the font files have changed, and there are new virtual fonts provided. I recommend to delete the old `.tfm` and `.pfb` files and use the new ones instead.

## 3 Usage

To load the package just use `\usepackage[options]{tengwarscript}` in your preamble, where *options* are the *tengwar* fonts you intend to use in the document (see section 4 below). You should set at least one *tengwar* font here, otherwise the package will use the current text font and output the *tengwar* names instead of the *tengwar* themselves, i.e., you'll get “[tinco]” instead of the *tengwa* called *tinco*.

### 3.1 *Tengwar* and *tehtar* commands

Once the package is loaded, you have access to all the *tengwar* signs through individual commands. The commands are named `\T` followed by the name of the *tengwa* or sign, or `\TT` plus the name for *tehtar* signs, which are placed above or below the preceding *tengwa*. Note that in some *tengwar* modes (Sindarin and English, for instance) the *tehtar* are placed over the *tengwa* representing the following consonant, while TengwarScript always places *tehtar* over the preceding *tengwa*; this means that you may have to change the phonetical order of the commands.

You can see all supported signs and their commands in the included file `tengtest.pdf`.

#### *Tengwar*

```
\Ttinco, \Tparma, \Tcalma, \Tquesse, \Tando, \Tumbar, \Tanga, \Tungwe,  
\Tthuule, \Tformen, \Taha, \Thwesta, \Tanto, \Tampa, \Tanca, \Tunque,  
\Tnuumen, \Tmalta, \Tnoldo, \Tnwalme, \Toore, \Tvala, \Tanna, \Tvilya,
```

`\Textendedtinco`, `\Textendedparma`, `\Textendedcalma`, `\Textendedquesse`,  
`\Textendedando`, `\Textendedumbar`, `\Textendedanga`, `\Textendedungwe`,  
`\Troomen`, `\Tarda`, `\Tlambe`, `\Talda`, `\Troomenalt`, `\Tardaalt`, `\Tlambealt`,  
`\Tsilme`, `\Tsilmenuquerna`, `\Tesse`, `\Tessenuquerna`, `\Tsilmealt`,  
`\Tsilmenuquernaalt`, `\Tessealt`, `\Tessenuquernaalt`, `\Thyarmen`, `\Thalla`,  
`\Thwestasindarinwa`, `\Tyanta`, `\Tuure`, `\Tosse`, `\Ttelco`, `\Taara`

### ***Tehtar* and modifiers**

`\Tlefthook`, `\Trighthook`, `\Tcurlyhook`, `\Tuphook`, `\TTdot`, `\TTacute`,  
`\TTthreedots`, `\TTrightcurl`, `\TTleftcurl`, `\TTcaron`, `\TTbreve`,  
`\TTdoubleacute`, `\TTdoublerightcurl`, `\TTdoubleleftcurl`, `\TTtwodots`,  
`\TTtilde`, `\TTlefttilde`, `\TTnasalizer`, `\TTdoubler`, `\TTdotbelow`,  
`\TTtwodotsbelow`, `\TTlefttwodotsbelow`, `\TTthreedotsbelow`,  
`\TTdoubleacutebelow`, `\TTrightcurlbelow`, `\TTleftcurlbelow`,  
`\TTverticalbarbelow`

### **Numerals**

`\Tzero`, `\Tone`, `\Ttwo`, `\Tthree`, `\Tfour`, `\Tfive`, `\Tsix`, `\Tseven`, `\Teight`,  
`\Tnine`, `\Tten`, `\Televen`, `\TTdecimal`, `\TTduodecimal`, `\TTleastsignificant`

### **Punctuation**

`\Tcentereddot`, `\Tcolon`, `\Threeverticaldots`, `\Tcenteredtilde`,  
`\Tcenteredlongtilde`, `\Texclamation`, `\Tquestion`, `\Tparenthesis`,  
`\Tromanquestion`, `\Tromanexclamation`, `\Tromanperiod`, `\Tromancomma`,  
`\Tromansemicolon`, `\Tromanquoteleft`, `\Tromanquoteright`,  
`\Tromandblquoteleft`, `\Tromandblquoteright`, `\Tromanparenleft`,  
`\Tromanparenright`

### **Notes**

**S-hooks:** The s-hook signs `\Tlefthook`, `\Trighthook`, `\Tcurlyhook`, and `\Tuphook` are a bit tricky. There is some code which tries to use the best glyph and location for attaching a hook to each *tengwa*, but some combinations look weird and others are not supported; particularly, `\Tlefthook` is only intended to work with `\Tquesse` and similar shapes.

**Alternate glyphs:** Some fonts have alternate glyphs for some *tengwar*, sometimes they are just different shapes, sometimes they allow a better positioning of *tehtar* or s-hooks. `TengwarScript` supports some of these alternate signs, with `alt` added to the `\Ttengwa` command (`\Tsilmealt`, for example), but the particular results depend on the font used. When a font doesn't include an alternate glyph, the `alt` command gives the same standard *tengwa*.

## **3.2 Other commands**

Some other commands and environments are provided, these are:

`\tengmag`      Sets a magnification factor for the *tengwar* font (compulsory argument). The

default factor (when no `\tengmag` is used) is 1.0, which should be fine for 12pt text. The magnification factor can be changed anywhere in the document and its effect is confined inside the group where it's been changed. However, this has no effect inside a `tengwar` environment (see below), because the *tengwar* font has been already selected then. Note that the factor specified with `\tengmag` multiplies that of font selection commands like `\tengwarparmaite`, but overwrites that of previous `\tengmag` instances.

- `tengwar` Everything inside this environment is typeset with the *tengwar* font, but you still should use the commands above if you want to know what you're typing. The benefits against using the bare commands are that there is only one font change (which can be quicker for long texts) and that font-specific lengths like `lex` and `lem` are defined in terms of the *tengwar* font. The downside is that font changing commands like `\tengwarparmaite` and `\tengmag` don't work in the `tengwar` environment.
- `\Tempty` Produces a blank of the width of the *tenwa óre*, useful for typesetting isolated *tehtar* as in `\Tempty\TTthreedots`.
- `\Ts` Outputs a space in the *tengwar* font. You don't usually want to use "normal" spaces, because they are typeset in the text font, which can have a very different size (unless it is done in a `tengwar` environment, but still using `\Ts` is recommended).
- `\Tkern` Adjusts the kerning between two characters, it has one compulsory argument, which is the with (in ex units of the *tengwar* font, but don't write the `ex`) of the kerning.
- `\Tbox` Typesets a text displaced horizontally and vertically. The syntax for using this command is `\Tbox[y]{x}{text}`, which typesets `text` in the *tengwar* font displaced a distance `x` to the right and raised by `y`. `x` and `y` are just numbers, given in ex units of the *tengwar* font (again, no explicit `ex` is needed), `y` is optional. This is useful for manually placing a *tehta* or an s-hook.
- `\tengwa` Outputs one character in the *tengwar* font, it takes a number between 0 and 255 as an argument, which is the position of the character in the font. You'll rarely want to use this command, use the `\Twhatever` commands instead.

## 4 Tengwar fonts

For every supported font there is an option to the package (shown as `[option]` in section 4.2 below) and a command named `\tengwaroption` (so, for example, the command for `[parmaite]` is `\tengwarparmaite`). The commands themselves take an optional argument which works as a magnification factor for the font, default is 1.0. This magnification factor works *in addition*, i.e., it's multiplied, to the one specified by `\tengmag`.

Only the fonts given as options to the package are loaded, so you have to specify here all the *tengwar* fonts you want to use in the document (or `[all]` if you want all the fonts). The default selected font is the last option passed to the package. Use the `\tengwaroption` commands to select a different font.

A sample of all supported fonts is shown in the file `tengfonts.pdf`.

## 4.1 Font installation

Most *tengwar* fonts are available in TrueType format, you can download the `.ttf` files from their homepages and install them normally in your operating system. To make these files available to  $\text{\TeX}$  you'll probably have to copy them somewhere in its tree too, for example, in `tetex`, you'd copy them in `[TEXMF]/fonts/truetype/tengwarscript`. The `.map`, `.enc`, `.tfm`, and `.vf` files are also needed, see section 2.

For convenience, a bash script (`install-tengwar-scripts.sh`) is included, which automatically downloads and renames the `.ttf` font files. The script is created and maintained by Nathaniel Beaver (<https://github.com/nbeaver/tengwarscript-install-guide>).

If you prefer using the fonts in PostScript Type 1 format (for example, if you're not using `pdfLATEX`), some of the fonts are also available in that format. If they are not, you can easily convert the TrueType fonts with `ttf2pt1` (use `ttf2pt1 -a -b fontfile.ttf`) or with `fontforge` (<http://fontforge.sourceforge.net/>). Place the resulting `.pfb` files in `[TEXMF]/fonts/type1/tengwarscript` and edit the `tengwarscript.map` file replacing the `.ttf` extensions with `.pfb`. Note that when converting from TrueType to Type 1, whatever hinting originally existed is usually lost, but on the other hand, if the TrueType has no or bad hinting, the converter can add automatic hinting, which is better than none.

## 4.2 Supported fonts

[parmaite] Tengwar Parmaite 2, designed by Måns Björkman (<http://at.mansbjorkman.net/parmaite.htm>). A virtual font named `Parmaite_full` combines glyphs from `Parmaite` and `Parmaite_alt`.

[unicodeparmaite] Unicode Tengwar Parmaite, a conversion to Unicode encoding of Tengwar Parmaite made by Conrado Badenas (<http://www.uv.es/~conrad/tolkien.html>). This font is available only in Type 1 format, to avoid conflicts rename the file to `UnicodeParmaite.pfb`. It's based on an older version of Tengwar Parmaite and many glyphs are missing, use Tengwar Parmaite 2 if possible.

[elfica] Tengwar Elfica, designed by Enrique Mombello ([http://www.oocities.com/enrombell/eng\\_dir/Index.htm](http://www.oocities.com/enrombell/eng_dir/Index.htm)). Depending on the version you have you may have to modify the `tengwarscript.map` file and/or rename the `.tfm` or `.ttf` file (it should work fine if the font file is called `Elfica32`).

[gothika] Tengwar Gothika, designed by Enrique Mombello ([http://www.oocities.com/enrombell/eng\\_dir/Index.htm](http://www.oocities.com/enrombell/eng_dir/Index.htm)). Depending on the version you have, you may have to modify the `tengwarscript.map` file and/or rename the `.tfm` or `.ttf` file (it should work fine if the font file is called `TengwarGothika050`).

[formal] Tengwar Formal, designed by Michal Nowakowski (<http://tengwarformal.limes.com.pl/>). The virtual font `TengwarFormal_full` combines glyphs from `TengwarFormal12` and `TengwarFormalA12`.

[annatar] Tengwar Annatar family, designed by Johan Winge (<http://web.comhem.se/alatius/fonts/annatar.html>). There are four styles: regular, bold, italic and bold italic (the italic versions are based on the famous *One Ring inscription*).

[annatarbold]  
[annataritalic]  
[annatarbolditalic]

Unfortunately, it's not possible to use the L<sup>A</sup>T<sub>E</sub>X font selection commands (`\textbf` and friends) to get the different styles, use the `\tengwarannatarstyle` commands instead. The virtual font `tngan_full` combines glyphs from `tngan` and `tngana`, and similarly for `tnganb_full` (`tnganb` and `tnganab`), `tngani_full` (`tngani` and `tnganai`), and `tnganbi_full` (`tnganbi` and `tnganabi`).

[quenya] Tengwar Quenya, designed by Dan Smith ([http://web.archive.org/web/20060816050032/http://www.acondia.com/font\\_tengwar/index.html](http://web.archive.org/web/20060816050032/http://www.acondia.com/font_tengwar/index.html)). The virtual font `TengwarQuenya_full` combines glyphs from `TengwarQuenya` and `TengwarQuenyaAlt`. Two additional fonts, `TengwarQuenyaCapitals1` and `TengwarQuenyaCapitals2` provide bigger *tehtar* suitable for being used as capital letters, but lack *tehtar*, numerals and punctuation.

[sindarin] Tengwar Sindarin, designed by Dan Smith ([http://web.archive.org/web/20060816050032/http://www.acondia.com/font\\_tengwar/index.html](http://web.archive.org/web/20060816050032/http://www.acondia.com/font_tengwar/index.html)). The virtual font `TengwarSindarin_full` combines glyphs from `TengwarSindarin` and `TengwarSindarinAlt`. Two additional fonts, `TengwarSindarinCapitals1` and `TengwarSindarinCapitals2` provide bigger *tehtar* suitable for being used as capital letters, but lack *tehtar*, numerals and punctuation.

[noldor] Tengwar Noldor, designed by Dan Smith ([http://web.archive.org/web/20060816050032/http://www.acondia.com/font\\_tengwar/index.html](http://web.archive.org/web/20060816050032/http://www.acondia.com/font_tengwar/index.html)). The virtual font `TengwarNoldor_full` combines glyphs from `TengwarNoldor` and `TengwarNoldorAlt`. Two additional fonts, `TengwarNoldorCapitals1` and `TengwarNoldorCapitals2` provide bigger *tehtar* suitable for being used as capital letters, but lack *tehtar*, numerals and punctuation.

[teleri] Tengwar Teleri, designed by Josh Griffing ([http://www.dafont.com/font.php?file=tengwar\\_teleri](http://www.dafont.com/font.php?file=tengwar_teleri)). The characters in this font look like swans and feathers, a nice font for capital letters. The filename is `TengwarTelerin`.

[all] Load all supported font definitions. The default selected font is Tengwar Parmaite 2, but you can select a different font, as usual, with the `\tengwaroption` command. Obviously, there is no `\tengwarall` command.

## 5 Test files

A test file is provided. Source code is `tengtest.tex`, pdf output is `tengtest.pdf`. This file includes a table with all supported commands, some running text tests (a couple of pangrams in Spanish), a complete test for *tehtar* placement, and a character table for the *tengwar* font. To generate the test for a different font, just change the option in the `\usepackage[...]{tengwarscript}` command.

There's another file named `tengfonts.pdf` (and its source, `tengfonts.tex`), which shows all supported fonts. Of course, you need to have them installed if you want to compile the source.

## 6 Bugs, limitations, problems...

Probably many. This was just a “quick'n'dirty” job and I don't have much experience writing L<sup>A</sup>T<sub>E</sub>X packages... The output has only been really tested for the signs used in the Spanish transcription mode.

One of the problems of the approach taken is that possible kerning between *tengwar* is just discarded, but I'm not sure if it would work with the *tehtar* in-between, anyway. For “perfect” results, manual positioning can be applied when needed with the `\Tkern` and `\Tbox` commands.

And it's *slow* for long texts.

## 7 Changelog

- 12/07/2014: New version 1.3.1.
  - " Updated fonts' URLs.
  - " Included download script by Nathaniel Beaver.
- 11/03/2007: New version 1.3.
  - " Added support for Tengwar Gothika.
- 10/03/2007: Updated Tengwar Elfica support to version 3.2.
- 14/08/2006: Added `\TTbreve` when the glyph is available.
- 08/04/2006: Added `\TTlefttwodotsbelow` and a shift after `\TTtwodotsbelow`, for placing a `\TTverticalbarbelow` afterwards.
  - " Made `\Ts` stretchable.
- 05/03/2006: New version 1.2.
- 19/02/2006: Added alternate *tengwar* when available: `\Tsilmealt`, `\Tsilmenuquernaalt`, `\Tessealt`, `\Tessenuquernaalt`, `\Troomenalt`, `\Tardaalt`, `\Tlambealt`.
- 18/02/2006: Added roman punctuation.
  - " Added two additional s-hooks, `\Tcurlyhook` and `\Tuphook`, and added some code to select the most appropriate s-hook glyph for each *tengwa*.
- 11/02/2006: New re-encodings and virtual fonts allow the use of “alt” variants and provide a similar mapping for all fonts.
  - " Added support for `.ttf` fonts. No conversion needed.
- 03/01/2006: First CTAN release 1.1.
  - " Added support for Tengwar Formal.
- 29/10/2005: Added support for Tengwar Teleri.
- 26/12/2005: Load only the `.cfg` files specified in the options.
- 18/12/2005: Added support for Tengwar Annatar.
  - " Added support for Tengwar Elfica.
  - " Made `\Ts` font-dependent.
- 03/12/2005: Changed name to `TengwarScript` to avoid conflicts.
- 30/11/2005: Moved setup commands to `.cfg` files.
  - " Added support for Dan Smith's fonts.
- 27/11/2005: Provide commands for changing the *tengwar* font
- 26/11/2005: Added `\Threeverticaldots` and `\Tparenthesis`.
  - " Changed lower *tehtar* placement for *lambe*.
  - " Added support for Tengwar Parmaite 2.
- 25/11/2005: Simplify the `tengwar` environment (redefine `\teng@type`).
  - " Actually use the current font when no *tengwar* font is loaded.
- 24/11/2005: Output *tengwar* names when no *tengwar* font is loaded.
  - " Set font-dependent default magnification. Now 1.0 should be fine.
- 19/11/2005: First release 1.0.

## 8 License

TengwarScript is copyright 2005,2007,2014 Ignacio Fernández Galván.

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This work has the LPPL maintenance status “maintained”. The Current Maintainer of this work is: Ignacio Fernández Galván ([jellby@yahoo.com](mailto:jellby@yahoo.com)).

This work consists of the files: `tengwarscript.dtx` and `tengwarscript.ins`.