The ligtype package

Comprehensive ligature suppression functionalities

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»I don't think you would ever do this in English«
David Carlisle

1 Introduction

The main feature of this package is the selective suppression of typographic ligatures.

There's already the `selnolig` package by Mico Loretan providing such capability. However, it has some significant shortcomings that render it barely applicable in many use cases. The `ligtype` package steps in to address these deficiencies. The main improvements are:

Kerning The `ligtype` package applies kerning for the glyphs of the suppressed ligatures. Both font and user kerning are applied in the usual way.

Short-armed f If available, it automatically replaces the f-glyphs of suppressed ligatures with their short-arm variant.

Speed It is about ten times faster on a typical document, thanks to its completely different architecture.[1]

Another, rather minor, difference is that it does not require `fontspec`.

The `ligtype` package provides built-in suppression of inappropriate ligatures for **German language documents.** (For this purpose it makes use of the corresponding suppression rules provided by the `selnolig` package, which cover all common f-ligatures[2].) Using the `nodefault` option and the `\nolig` and `\keeplig` macros it can also be used for other languages.

Please note that LuaLaTeX is required to use this package.

Finally, a quick word regarding the code: It is optimized for speed throughout. It would have been much easier to provide a significantly shorter, clearer, more straightforward one. Unfortunately, with this software such code would not have been the fastest one.

2 Basic usage

To load the package, simply add the following line to the preamble of the document:

```
\usepackage{ligtype}
```

If the glyphs forming the ligatures are already properly kerned and a German language document is typeset, loading the package without any options should be sufficient for most use cases.

However, most of the time it will be the case that the corresponding glyphs have to be kerned first. For this task, the `kerntest` option is extremely helpful.

3 Package options

Options can be loaded by adding them comma separated within square brackets:

```
\usepackage[<option1>,<option2>,…]{ligtype}
```

`kerntest` This option prints all glyph combinations that comprise the ligatures `ligtype` is looking for in Regular, Italic, Bold and Italic Bold for both the Roman and the Sans font on the last page of

1 This factor increases with the length of the paragraphs. On a 150-page paragraph, `ligtype` runs about a hundred times faster.

2 Details can be taken from the `selnolig` documentation.

the document. This gives you an overview of all kerning pairs that are relevant when breaking ligatures, and you can inspect the kerning values accordingly.

`makemarks` Marks each point where a ligature was suppressed with a blue triangle below the baseline.

`noshortf` Various use cases are conceivable with this option.

It is primarily intended to suppress the use of short-armed f if they are not desired.

In addition, it may be useful to load this option when using fonts that do not offer short-armed f, since there is a small gain in speed if `ligtype` does not look for them.

Finally, this option could be used to prevent »false positives«. (Even though such are not known to occur.)

`allshortf` In some cases it may be desirable to use short-armed f without having different f-glyphs in the document. This option can be used for such purpose, since it replaces all long-armed f with their short-arm variant (if available).

This option has priority over the `noshortf` option, i. e. if both are loaded, `allshortf` is applied.

`nodefault` Disables the built-in (German language) suppression rules. With this option and the `\nolig` and `\keeplig` macros, `ligtype` can be used for other languages.

4 Macros

`\nolig` `\keeplig` The first macro defines a rule for suppressing ligatures, the second one for keeping them. Both macros take two arguments. The first one specifies the string to search for. In the second, a marker of the breaking point is added to this string using a vertical bar.[3] For example:

```
\nolig{flich}{f|lich}
\keeplig{flicht}{f|licht}
```

A list of alternatives that can be located at the end of the string can be specified within square brackets:

```
\nolig{Auff[aeiloruyäöü]}{Auf|f}
```

It is important to note that macros are processed in the order in which they are defined, which means that strings defined later have priority over strings defined earlier. Accordingly, strings defined later should not be included in strings defined earlier, otherwise the earlier ones will have no effect.

`\ligtypeon` `\ligtypeoff` With the help of these macros the features of the `ligtype` package can be switched on and off within the document.

3 The architecture of the `ligtype` package differs quite significantly from that of the `selnolig` package. To allow current users of `selnolig` to continue using existing macros for creating suppression rules as far as possible without changes, the syntax has been largely adopted. For the `\nolig` macro it is identical. However, in contrast to the `selnolig` syntax, the breakpoint must be specified as a second argument for the `\keeplig` macros, since `ligtype` requires this for every rule application.

5 Acknowledgements

The `ligtype` package makes use of the German language ligature suppression rules of the `selnolig` package by Mico Loretan. The `selnolig` package can be downloaded at

`https://www.ctan.org/pkg/selnolig`

and may be distributed and/or modified under the conditions of the LaTeX Project Public License.

Please see the »License and acknowledgments« section of the `selnolig` documentation to learn about all the people who contributed to the creation of the suppression rules.

In general, the truly excellent `selnolig` documentation is highly recommended for further information on the subject of this package.

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