1 The Estonian language

The file `estonian.dtx`[1] defines the language definition macro's for the Estonian language.

This file was written as part of the TWGML project, and borrows heavily from the babel German and Spanish language files `germanb.ldf` and `spanish.ldf`.

Estonian has the same umlauts as German (ä, ö, ü), but in addition to this, we have also õ, and two recent characters š and ž, so we need at least two active characters. We shall use `"` and `~` to type Estonian accents on ASCII keyboards (in the 7-bit character world). Their use is given in table 1. These active accent

`~o`	`\~o`, (and uppercase);
`"a`	`\"a`, (and uppercase);
`"o`	`\"o`, (and uppercase);
`"u`	`\"u`, (and uppercase);
`~s`	`\v s`, (and uppercase);
`~z`	`\v z`, (and uppercase);
`"|`	disable ligature at this position;
`"-`	like `\-`, but allowing hyphenation in the rest of the word;
`"‘`	for Estonian low left double quotes (same as German);
`"’`	for Estonian right double quotes;
`"<`	for French left double quotes (also rather popular)
`">`	for French right double quotes.

Table 1: The extra definitions made by `estonian.ldf`

characters behave according to their original definitions if not followed by one of the characters indicated in that table; the original quote character can be typed using the macro `\dq`.

We support also the T1 output encoding (and Cork-encoded text input). You can choose the T1 encoding by the command `\usepackage[T1]{fontenc}`. This package must be loaded before babel. As the standard Estonian hyphenation file `eehyph.tex` is in the Cork encoding, choosing this encoding will give you better hyphenation.

As mentioned in the Spanish style file, it may happen that some packages fail (usually in a `\message`). In this case you should change the order of the `\usepackage` declarations or the order of the style options in `\documentclass`.

[1]The file described in this section has version number v1.0k and was last revised on 2009/03/08. The original author is Enn Saar, (`saar@aai.ee`).

1.1 Implementation

The macro `\LdfInit` takes care of preventing that this file is loaded more than once, checking the category code of the `@` sign, etc.

```
⟨*code⟩
\LdfInit{estonian}\captionsestonian
```

If Estonian is not included in the format file (does not have hyphenation patterns), we shall use English hyphenation.

```
\ifx\l@estonian\@undefined
  \@nopatterns{Estonian}
  \adddialect\l@estonian0
\fi
```

Now come the commands to switch to (and from) Estonian.

`\captionsestonian` The macro `\captionsestonian` defines all strings used in the four standard documentclasses provided with LaTeX.

```
\addto\captionsestonian{%
  \def\prefacename{Sissejuhatus}%
  \def\refname{Viited}%
  \def\bibname{Kirjandus}%
  \def\appendixname{Lisa}%
  \def\contentsname{Sisukord}%
  \def\listfigurename{Joonised}%
  \def\listtablename{Tabelid}%
  \def\indexname{Indeks}%
  \def\figurename{Joonis}%
  \def\tablename{Tabel}%
  \def\partname{Osa}%
  \def\enclname{Lisa(d)}%
  \def\ccname{Koopia(d)}%
  \def\headtoname{}%
  \def\pagename{Lk.}%
  \def\seename{vt.}%
  \def\alsoname{vt. ka}%
  }
```

These captions contain accented characters.

```
\begingroup \catcode`\"\active
\def\x{\endgroup
\addto\captionsestonian{%
  \def\abstractname{Kokkuv~ote}%
  \def\chaptername{Peat"ukk}%
  \def\proofname{T~oestus}%
  \def\glossaryname{S~onastik}%
}}\x
```

`\dateestonian` The macro `\dateestonian` redefines the command `\today` to produce Estonian dates.

```
\begingroup \catcode`\"\active
\def\x{\endgroup
  \def\month@estonian{\ifcase\month\or
    jaanuar\or veebruar\or m"arts\or aprill\or mai\or juuni\or
    juuli\or august\or september\or oktoober\or november\or
    detsember\fi}}
\x
\def\dateestonian{%
  \def\today{\number\day.\space\month@estonian
    \space\number\year.\space a.}}
```

Some useful macros, copied from the spanish package (and renamed `es@...` to `et@...`).

```
\def\et@sdef#1{\babel@save#1\def#1}

\@ifundefined{documentclass}
 {\let\ifet@latex\iffalse}
 {\let\ifet@latex\iftrue}
```

`\extrasestonian` `\noextrasestonian` The macro `\extrasestonian` will perform all the extra definitions needed for Estonian. The macro `\noextrasestonian` is used to cancel the actions of `\extrasestonian`. For Estonian, `"` is made active and has to be treated as 'special' (`~` is active already).

```
\initiate@active@char{"}
\initiate@active@char{~}
\addto\extrasestonian{\languageshorthands{estonian}}
\addto\extrasestonian{\bbl@activate{"}\bbl@activate{~}}
```

Estonian does not use extra spaces after sentences.

```
\addto\extrasestonian{\bbl@frenchspacing}
\addto\noextrasestonian{\bbl@nonfrenchspacing}
```

`\estonianhyphenmins` For Estonian, `\lefthyphenmin` and `\righthyphenmin` are both 2.

```
\providehyphenmins{\CurrentOption}{\tw@\tw@}
```

The standard TEX accents are too high for Estonian typography, we have to lower them (following the babel German style). For umlauts, we can use `\umlautlow` in `babel.ldf`.

```
\addto\extrasestonian{\umlautlow}
\addto\noextrasestonian{\umlauthigh}
```

Redefine tilde (as in `spanish.ldf`). In case of LATEX, we redefine the internal macro for the OT1 encoding because in case of T1, the display and hyphenation of words containing `\~o` works better without redefining it (e. g. words containing `\et@gentilde` are not hyphenated unless `\allowhyphens` is used; when copied from Acrobat Reader, pasting an õ generated using `\et@gentilde{o}` gives `~o` rather than õ; when the times package is used with T1 encoding, `\et@gentilde` places the tilde through the letter o). In plain TEX there is no encoding infrastructure, so we just redefine `\~`.

```
\ifet@latex
  \addto\extrasestonian{%
    \expandafter\et@sdef\csname OT1\string\~\endcsname{\et@gentilde}}
\else
  \addto\extrasestonian{\et@sdef\~{\et@gentilde}}
\fi
```

`\et@gentilde`

```
\def\et@gentilde#1{%
    \if#1s\v{#1}\else\if#1S\v{#1}\else%
    \if#1z\v{#1}\else\if#1Z\v{#1}\else%
    \et@newtilde{#1}%
    \fi\fi\fi\fi}
```

`\et@newtilde` For a detailed explanation of the following code see the definition of `\lower@umlaut` in `babel.dtx`.

```
\def\et@newtilde#1{%
  \leavevmode\bgroup\U@D 1ex%
    {\setbox\z@\hbox{\char126}\dimen@ -.45ex\advance\dimen@\ht\z@
      \ifdim 1ex<\dimen@ \fontdimen5\font\dimen@ \fi}%
    \accent126\fontdimen5\font\U@D #1%
  \egroup}
```

We save the double quote character in `\dq`, and tilde in `\til`.

```
\begingroup \catcode`\"12
\edef\x{\endgroup
  \def\noexpand\dq{"}
  \def\noexpand\til{~}}
\x
```

If the encoding is T1, we have to tell TEX about our redefined accents.

```
\ifx\f@encoding\bbl@t@one
  \DeclareTextComposite{\~}{T1}{s}{178}
  \DeclareTextComposite{\~}{T1}{S}{146}
  \DeclareTextComposite{\~}{T1}{z}{186}
  \DeclareTextComposite{\~}{T1}{Z}{154}
  \DeclareTextComposite{\"}{T1}{'}{17}
  \DeclareTextComposite{\"}{T1}{`}{18}
  \DeclareTextComposite{\"}{T1}{<}{19}
  \DeclareTextComposite{\"}{T1}{>}{20}
```

If the encoding differs from T1, we expand the accents, enabling hyphenation beyond the accent. In this case TEX will not find all possible breaks, and we have to warn people.

```
\else
  \wlog{Warning: Hyphenation would work better for the T1 encoding.}
\fi
```

Now we define the shorthands: umlauts,

```
\declare@shorthand{estonian}{"a}{\textormath{\"{a}\allowhyphens}{\ddot a}}
\declare@shorthand{estonian}{"A}{\textormath{\"{A}\allowhyphens}{\ddot A}}
\declare@shorthand{estonian}{"o}{\textormath{\"{o}\allowhyphens}{\ddot o}}
\declare@shorthand{estonian}{"O}{\textormath{\"{O}\allowhyphens}{\ddot O}}
\declare@shorthand{estonian}{"u}{\textormath{\"{u}\allowhyphens}{\ddot u}}
\declare@shorthand{estonian}{"U}{\textormath{\"{U}\allowhyphens}{\ddot U}}
```

German and French quotes,

```
\declare@shorthand{estonian}{"`}{%
  \textormath{\quotedblbase}{\mbox{\quotedblbase}}}
\declare@shorthand{estonian}{"'}{%
  \textormath{\textquotedblleft}{\mbox{\textquotedblleft}}}
\declare@shorthand{estonian}{"<}{%
  \textormath{\guillemotleft}{\mbox{\guillemotleft}}}
\declare@shorthand{estonian}{">}{%
  \textormath{\guillemotright}{\mbox{\guillemotright}}}
```

tildes and carons

```
\declare@shorthand{estonian}{~o}{\textormath{\~{o}\allowhyphens}{\tilde o}}
\declare@shorthand{estonian}{~O}{\textormath{\~{O}\allowhyphens}{\tilde O}}
\declare@shorthand{estonian}{~s}{\textormath{\v{s}\allowhyphens}{\check s}}
\declare@shorthand{estonian}{~S}{\textormath{\v{S}\allowhyphens}{\check S}}
\declare@shorthand{estonian}{~z}{\textormath{\v{z}\allowhyphens}{\check z}}
\declare@shorthand{estonian}{~Z}{\textormath{\v{Z}\allowhyphens}{\check Z}}
```

and some additional commands:

```
\declare@shorthand{estonian}{"-}{\nobreak\-\bbl@allowhyphens}
\declare@shorthand{estonian}{"|}{%
  \textormath{\nobreak\discretionary{-}{}{\kern.03em}%
              \allowhyphens}{}}
\declare@shorthand{estonian}{""}{\dq}
\declare@shorthand{estonian}{~~}{\til}
```

The macro `\ldf@finish` takes care of looking for a configuration file, setting the main language to be switched on at `\begin{document}` and resetting the category code of `@` to its original value.

```
\ldf@finish{estonian}
```

⟨/code⟩