The babel style for Vietnamese

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1 Vietnamese language support

This file provides definitions for the Vietnamese language. It can be loaded by babel with either the vietnamese or the vietnam option. It works with xetex and luatex, as well as with 8-bit engines.

Unicode engines don't require loading a font encoding, but you may use EU1 and EU2, respectively, if you want. In addition, you may load the language with the modifier licr to have access to LICR entities like \uhook, for example (but then fontenc *must* be loaded).

\usepackage[vietnamese.licr]{babel}

In 8-bit engines you must use the T5 font encoding, which always defines the LICR entities. If for some reason you don't want the encoding to be loaded by the package, just use the modifier noencoding.

The code

- 1 (*code)
 2 \LdfInit{\CurrentOption}{captions\CurrentOption}
- When this file is read as an option, i.e., by the \usepackage command, vietnamese could be an 'unknown' language in which case we have to make it known. So we check for the existence of \lovietnamese and \lovietnam to see whether we have to do something here.
- 3 \ifx\l@vietnamese\@undefined
- 4 \ifx\l@vietnam\@undefined
- 5 \@nopatterns{Vietnamese}
- 6 \adddialect\l@vietnamese 0
- 7 \adddialect\l@vietnam 0
- 8 \else
- 9 \chardef\l@vietnamese\l@vietnam
- 10 \fi
- 11 \else
- 12 \ifx\l@vietnam\@undefined
- 13 \chardef\l@vietnam\l@vietnamese

```
14 \fi
15 \fi
   If utf8x (from ucs) is used instead of utf8, do some additional adjustments.
16 \@ifpackageloaded{ucs}{%
    \PreloadUnicodePage{0}%
17
    \PreloadUnicodePage{1}%
18
    \PreloadUnicodePage{30}%
19
    \ifx\UnicodeCharFilter\@undefined
20
      \UCSProtectionIeC
21
22
    \else
23
      \UnicodeCharFilter\IeC
    fi}{}
   In 8-bit T<sub>E</sub>X we load and set the encoding, but not yet (this temporary com-
mand is redefined for Unicode engines).
25 \def\vn@@tempa{%
    \@expandtwoargs\in@{,noencoding,}{,\BabelModifiers,}%
27
    \ifin@\else
      \InputIfFileExists{t5enc.def}%
28
         {\message{Loading definitions for the Vietnamese font encoding}}%
29
         {\errhelp{I can't find the file 't5enc.def' for Vietnamese fonts}%
30
          \errmessage{%
31
           Since I do not know what the T5 encoding means^^J
32
33
           I can't typeset Vietnamese.^^J
34
           I stop here, while you install the VnTeX package^^J
            to get a suitable 't5enc.def' file}
35
          \@end}%
36
      \@ifpackageloaded{inputenc}{}%
37
         {\PackageWarning{babel}{No input encoding specified for
38
39
         Vietnamese}}%
40
    \fi
    \DeclareRobustCommand{\viettext}{%
41
      \fontencoding{T5}\selectfont
42
      \def\encodingdefault{T5}}%
43
    \let\viet\viettext
44
    \DeclareTextFontCommand{\textviet}{\viet}}
The macro \captionsvietnamese defines all strings used in the four standard
document classes provided with LATEX.
46 \StartBabelCommands*{vietnamese, vietnam}{captions}
    [unicode, charset=utf8, fontenc=EU1 EU2]
47
48
    \SetString{\prefacename}{Li núi u}
    \SetString{\refname}{Tii liu}
49
    \SetString{\abstractname}{Túm tt ni dung}
50
    \SetString{\bibname}{Tii liu tham kho}
51
    \SetString{\chaptername}{Chng}
52
    \SetString{\appendixname}{Ph 1c}
53
    \SetString{\contentsname}{Mc lc}
54
    \SetString{\listfigurename}{Danh sòch honh v}
```

\captionsvietnamese

\SetString{\listtablename}{Danh soch bng}

```
\SetString{\indexname}{Ch mc}
 57
           \SetString{\figurename}{Honh}
 58
           \SetString{\tablename}{Bng}
          \SetString{\partname}{Phn}
 60
           \SetString{\enclname}{Kốm theo}
 61
           \SetString{\ccname}{Cứng gi}
 62
           \verb|\SetString{\headtoname}{Gi}|
 63
           \SetString{\pagename}{Trang}
 64
           \SetString{\seename}{Xem}
 65
           \SetString{\alsoname}{Xem thm}
 66
           \SetString{\proofname}{Chng minh}
 67
           \SetString{\glossaryname}{T in chữ gii}
 68
 70 \StartBabelCommands*{vietnamese, vietnam}{date}
 71
           [unicode, charset=utf8, fontenc=EU1 EU2]
 72
           \SetString\today{Ngiy \number\day\space
               thong \number\month\space
 73
               nm \number\year}
 74
 75
 76 \AfterBabelCommands{%
 77
           \def\vn@@tempa{%
               \DeclareRobustCommand{\viettext}{}%
 78
               \let\viet\viettext
 79
               \DeclareTextFontCommand{\textviet}{\viet}%
 80
               \@expandtwoargs\in@{,licr,}{,\BabelModifiers,}%
 81
 82
               \ifin@
 83
                    \input{uvnenc}%
 84
                \fi}}
         And now the generic branch, using the LICR and assuming T5.
 85 \StartBabelCommands*{vietnamese, vietnam}{captions}
           \SetString{\prefacename}{L\'\ohorn i n\'oi \dj\'\acircumflex u}%
 87
           \SetString{\refname}{T\'ai li\d\ecircumflex u}%
           \SetString{\abstractname}{T\'om t\'\abreve t n\d\ocircumflex i dung}%
           \SetString{\bibname}{T\'ai li\d\ecircumflex u tham kh\h{a}o}%
 90
           \SetString{\chaptername}{Ch\uhorn \ohorn ng}%
 91
           \SetString{\alpha} {\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\
           \SetString{\contentsname}{M\d{u}c 1\d{u}c}%
 92
           \label{listfigurename} $$ \operatorname{Danh s'\ ach \ h'\ inh \ v^e}_{\ } $$
 93
           \label{list} $$\operatorname{Danh s'ach bh{a}ng}% $$
 94
           \SetString{\indexname}{Ch\h{i} m\d{u}c}%
 95
           \SetString{\figurename}{H\'inh}%
 96
           \SetString{\tablename}{B\h{a}ng}%
 97
           \SetString{\partname}{Ph\'\acircumflex n}%
 98
           \SetString{\pagename}{Trang}%
           \SetString{\headpagename}{Trang}%
100
101
           \SetString{\seename}{Xem}%
102
           \SetString{\alsoname}{Xem th\ecircumflex m}%
103
           \SetString{\enclname}{K\'em theo}%
           \SetString{\cname}{C\'ung g\h\uhorn i}%
104
```

```
\SetString{\headtoname}{G\h\uhorn i}%
105
     \SetString{\proofname}{Ch\',\uhorn ng minh}%
106
     \SetString{\glossaryname}{T\'\uhorn{} \dj i\hecircumflex n ch\'u gi\h ai}
107
108
109 \StartBabelCommands*{vietnamese, vietnam}{date}
     \SetString\today{Ng\'ay \number\day\space
110
       th\'ang \number\month\space
111
       n\abreve m \number\year}
112
113
114 \EndBabelCommands
115 \vn@@tempa
```

\extrasvietnamese \noextrasvietnamese

The macro \extrasvietnamese performs all the extra definitions needed for the Vietnamese language. The macro \noextrasvietnamese is used to cancel the actions of \extrasvietnamese.

```
116 \initiate@active@char{"}
117 \declare@shorthand{\CurrentOption}{"-}{\bbl@hy@soft}
118 \declare@shorthand{\CurrentOption}{"=}{\bbl@hy@hard}
119 \declare@shorthand{\CurrentOption}{"|}{\discretionary{-}{}{kern.03em}}
```

We specify that the Vietnamese group of shorthands should be used. These characters are 'turned on' once; later on their definition may vary. For Vietnamese texts \frenchspacing should be in effect. We make sure this is the case and reset it if necessary.

```
120 \expandafter\addto\csname extras\CurrentOption\endcsname{%
121  \viettext
122  \bbl@frenchspacing
123  \languageshorthands{vietnamese}%
124  \bbl@activate{"}}
```

We restore the encoding with **\latintext**, but this is far from ideal. A better approach would be preferable.

```
125 \expandafter\addto\csname noextras\CurrentOption\endcsname{%
126  \latintext
127  \bbl@nonfrenchspacing
128  \bbl@deactivate{"}}
129 \ldf@finish{\CurrentOption}
130 \( /code \)
```

2 LICR for Unicode

The file uvnenc.def maps the LICR to the actual characters if the Unicode engine is used.

```
131 \*unilicr\
132 \ProvidesFile{uvnenc.def}[2015/12/31 v1.0a Vietnamese EUx encoding]
133 \ifcase\bbl@engine\or
134 \def\vn@enc{EU2}
```

```
135 \or
             \def\vn@enc{EU1}
136
137 \fi
138 \DeclareTextAccent{\h}{\vn@enc}{12}
           A fake accent for the horn.
139 \verb|\DeclareTextCommand{\horn}{\vnQenc}[1]{\TextSymbolUnavailable{\horn}$\#1$} \#1$}
           If the dblaccnt package is not loaded, make a dummy \DeclareTextDoubleComposite.
140 \ifx \DeclareTextDoubleComposite \undefined
             \def\DeclareTextDoubleComposite#1#2#3#4#5{}
141
142 \fi
143
144 \DeclareTextComposite{\'}{\vn@enc}{A}{192}
                                                                                                                                                                 % Agrave
145 \DeclareTextComposite{\';}{\vn@enc}{A}{193}
                                                                                                                                                                 % Aacute
146 \DeclareTextComposite{\^}{\vn@enc}{A}{195}
                                                                                                                                                                 % Atilde
147 \DeclareTextComposite{\h}{\vn@enc}{A}{7842}
                                                                                                                                                                 % Ahookabove
                                                                                                                                                                 % Adotbelow
148 \DeclareTextComposite{\d}{\vn@enc}{A}{7840}
149
150 \DeclareTextComposite{\^}{\vn@enc}{A}{194}
                                                                                                                                                                 % Acircumflex
151 \DeclareTextDoubleComposite{\'}{\vn@enc}{\^}{A}{7846}
                                                                                                                                                                 % Acircumflexgrave
152 \DeclareTextDoubleComposite{'}{\vn@enc}{^}{A}{7844}
                                                                                                                                                                 % Acircumflexacute
153 \DeclareTextDoubleComposite\{\^\}{\vn@enc}{\^}{A}{7850}
                                                                                                                                                                 % Acircumflextilde
154 \DeclareTextDoubleComposite{\h}{\vn@enc}{\^}{A}{7848}
                                                                                                                                                                 % Acircumflexhookabove
155 \DeclareTextDoubleComposite{\d}{\vn@enc}{\^}{A}{7852}
                                                                                                                                                                 % Acircumflexdotbelow
156
157 \DeclareTextComposite{\u}{\vn@enc}{A}{258}
                                                                                                                                                                 % Abreve
158 \DeclareTextDoubleComposite{'}{\vn@enc}{\u}{A}{7856}
                                                                                                                                                                 % Abrevegrave
159 \label{locality} $$159 \encorrected which is a property of the composite $$ \vn\encorrected which is a property of the composite $$\close{\vn\encorrected} = 159 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 159 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 159 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 159 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 159 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 159 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of the composite $$\close{\vn\encorrected} = 150 \encorrected which is a property of $\close{\vn\encorrected} = 150 \encorrected which is a property of $\close{\vn\encorrected} = 150 \encorrected which is a property of $\close{\vn\encorrected} = 150 \encorrected which is a property of $\close{\vn\encorrected} = 150 \encorrected which is a property of $\close{\vn\encorrected} = 150 \encorrected which is a property of $\close{\vn\encorrected} = 150 \encorrected which is a property of $\close{\vn\encorrected} = 150 \encorrected whi
                                                                                                                                                                 % Abreveacute
160 \end{Tensor} $$160 \end{Tensor} \end{Tensor} \end{Tensor} $$160 
                                                                                                                                                                 % Abrevetilde
161 \DeclareTextDoubleComposite{\h}{\vn@enc}{\u}{A}{7858}
                                                                                                                                                                 % Abrevehookabove
162 \DeclareTextDoubleComposite{\d}{\vnQenc}{\u}{A}{7862}
                                                                                                                                                                 % Abrevedotbelow
164 \DeclareTextComposite{\'}{\vn@enc}{E}{200}
                                                                                                                                                                 % Egrave
165 \DeclareTextComposite{\';}{\vn@enc}{E}{201}
                                                                                                                                                                 % Eacute
166 \DeclareTextComposite{\~}{\vn@enc}{E}{7868}
                                                                                                                                                                 % Etilde
167 \DeclareTextComposite{\h}{\vn@enc}{E}{7866}
                                                                                                                                                                 % Ehookabove
168 \DeclareTextComposite{\d}{\vn@enc}{E}{7864}
                                                                                                                                                                 % Edotbelow
169
170 \DeclareTextComposite{^}{\vnQenc}{E}{202}
                                                                                                                                                                 % Ecircumflex
171 \DeclareTextDoubleComposite\{\'\}\\vn@enc\{\'\}\{E}\{7872\}
                                                                                                                                                                 % Ecircumflexgrave
172 \DeclareTextDoubleComposite{'}{\vnQenc}{^}{E}{7870}
                                                                                                                                                                 % Ecircumflexacute
173 \DeclareTextDoubleComposite{\^}{\vn@enc}{\^}{E}{7876}
                                                                                                                                                                 % Ecircumflextilde
174 \DeclareTextDoubleComposite{\h}{\vn@enc}{\^}{E}{7874}
                                                                                                                                                                 % Ecircumflexhookabove
175 \DeclareTextDoubleComposite(d){\vn@enc}{^}{E}{7878}
                                                                                                                                                                 % Ecircumflexdotbelow
177 \DeclareTextComposite{\'}{\vn@enc}{I}{416}
                                                                                                                                                                 % Igrave
                                                                                                                                                                 % Iacute
178 \DeclareTextComposite{\',}{\vn@enc}{I}{7900}
179 \DeclareTextComposite{\~}{\vn@enc}{I}{296}
                                                                                                                                                                 % Itilde
                                                                                                                                                                 % Ihookabove
180 \DeclareTextComposite{\h}{\vn@enc}{I}{7880}
```

```
181 \DeclareTextComposite{\d}{\vn@enc}{I}{7882}
                                                                                                         % Idotbelow
183 \DeclareTextComposite{\'}{\vn@enc}{0}{217}
                                                                                                         % Ograve
184 \DeclareTextComposite{\';}{\vn@enc}{0}{218}
                                                                                                         % Oacute
185 \DeclareTextComposite{\~}{\vn@enc}{0}{7910}
                                                                                                         % Otilde
186 \DeclareTextComposite{\h}{\vn@enc}{0}{7886}
                                                                                                         % Ohookabove
187 \DeclareTextComposite{\d}{\vn@enc}{0}{7884}
                                                                                                         % Odotbelow
188
189 \DeclareTextComposite{\^}{\vn@enc}{0}{360}
                                                                                                         % Ocircumflex
190 \DeclareTextDoubleComposite{\'}{\vn@enc}{\^}{0}{7890}
                                                                                                         % Ocircumflexgrave
191 \DeclareTextDoubleComposite{\';}{\vn@enc}{\^}{0}{7888}
                                                                                                         % Ocircumflexacute
192 \DeclareTextDoubleComposite\{\^^\}{\vn@enc}\{\^^\}{0}{7894}
                                                                                                         % Ocircumflextilde
193 \DeclareTextDoubleComposite{\h}{\vn@enc}{\^}{0}{7892}
                                                                                                         % Ocircumflexhookabove
194 \DeclareTextDoubleComposite{\d}{\vn@enc}{\^}{0}{7896}
                                                                                                         % Ocircumflexdotbelow
196 \DeclareTextComposite{\horn}{\vn@enc}{0}{416}
                                                                                                         % Ohorn
197 \DeclareTextDoubleComposite{\'\}{\vn@enc}{\horn}{0}{7900} % Ohorngrave
198 \DeclareTextDoubleComposite{\'\}{\vn@enc}{\horn}{0}{7898} % Ohornacute
199   \DeclareTextDoubleComposite{\~}{\vn@enc}{\horn}{0}{7904} %   Ohorntilde
200 \DeclareTextDoubleComposite{\h}{\vn@enc}{\horn}{0}{7902} % Ohornhookabove
201 \DeclareTextDoubleComposite{\d}{\vn@enc}{\horn}{0}{7906} % Ohorndotbelow
203 \DeclareTextComposite{\'}{\vn@enc}{U}{217}
                                                                                                         % Ugrave
204 \DeclareTextComposite{\';}{\vn@enc}{U}{218}
                                                                                                         % Uacute
205 \DeclareTextComposite{\^}{\vn@enc}{U}{360}
                                                                                                         % Utilde
206 \DeclareTextComposite{\h}{\vn@enc}{U}{7910}
                                                                                                         % Uhookabove
207 \DeclareTextComposite{\d}{\vn@enc}{U}{7908}
                                                                                                         % Udotbelow
208
209 \DeclareTextComposite{\horn}{\vn@enc}{U}{431}
                                                                                                         % Uhorn
210 \DeclareTextDoubleComposite{\'\}{\vn@enc}{\horn}{U}{7914} % Uhorngrave
211 \DeclareTextDoubleComposite{\'\}{\vn@enc}{\horn}{U}{7912} % Uhornacute
212 \DeclareTextDoubleComposite{\"\} \vnQenc}{\horn}{U}{7918} % Uhorntilde
213 \DeclareTextDoubleComposite{\h}{\vn@enc}{\horn}{U}{7916} % Uhornhookabove
214 \DeclareTextDoubleComposite{\d}{\vnQenc}{\horn}{U}{7920} % Uhorndotbelow
216 \DeclareTextComposite{\'}{\vn@enc}{Y}{7922}
                                                                                                         % Ygrave
217 \DeclareTextComposite{\';}{\vn@enc}{Y}{221}
                                                                                                         % Yacute
218 \DeclareTextComposite{\^}{\vn@enc}{Y}{7928}
                                                                                                         % Ytilde
% Yhookabove
% Ydotbelow
222 \DeclareTextComposite{\'}{\vn@enc}{a}{7883}
                                                                                                         % agrave
223 \DeclareTextComposite{\';}{\vn@enc}{a}{242}
                                                                                                         % aacute
224 \DeclareTextComposite\{\^{}{\vn@enc}{a}{245}
                                                                                                         % atilde
225 \DeclareTextComposite{\h}{\vn@enc}{a}{7843}
                                                                                                         % ahookabove
226 \DeclareTextComposite{\d}{\vn@enc}{a}{7841}
                                                                                                         % adotbelow
227
228 \DeclareTextComposite{\^}{\vn@enc}{a}{243}
                                                                                                         % acircumflex
229 \DeclareTextDoubleComposite{\'\}{\vn@enc}{\^}{a}{7847}
                                                                                                         % acircumflexgrave
230 \end{TextDoubleComposite} \end{TextDou
                                                                                                         % acircumflexacute
```

```
231 \DeclareTextDoubleComposite\{\^^\}{\vn@enc}\{\^^\}{a}{7851}
                                                           % acircumflextilde
232 \DeclareTextDoubleComposite{\h}{\vn@enc}{^}{a}{7849}
                                                            % acircumflexhookabove
233 \DeclareTextDoubleComposite\{\d}_{\vn@enc}_{\a} \{7853\}
                                                           % acircumflexdotbelow
234
235 \DeclareTextComposite{\u}{\vn@enc}{a}{259}
                                                            % abreve
236 \DeclareTextDoubleComposite{\'\}{\vn@enc}{\u}{a}{7857}
                                                           % abrevegrave
237 \DeclareTextDoubleComposite\{\'\}{\vnQenc}{\u}{a}{7855}
                                                           % abreveacute
238 \DeclareTextDoubleComposite{\^}{\vnQenc}{\u}{a}{7861}
                                                           % abrevetilde
% abrevehookabove
% abrevedotbelow
241
242 \DeclareTextComposite{\'}{\vn@enc}{e}{7889}
                                                            % egrave
243 \DeclareTextComposite{\';}{\vn@enc}{e}{7895}
                                                            % eacute
244 \DeclareTextComposite{\ \ \ }{\vn@enc}{e}{7869}
                                                            % etilde
245 \DeclareTextComposite{\h}{\vn@enc}{e}{7867}
                                                            % ehookabove
                                                            % edothelow
246 \DeclareTextComposite{\d}{\vn@enc}{e}{7865}
247
                                                            % ecircumflex
248 \DeclareTextComposite{\^}{\vn@enc}{e}{7893}
249 \DeclareTextDoubleComposite{\'\}{\vn@enc}{\^}{e}{7873}
                                                           % ecircumflexgrave
250 \DeclareTextDoubleComposite\{\'\}{\vn@enc}\{\'\}{e}{7871}
                                                           % ecircumflexacute
251 \DeclareTextDoubleComposite\{\^^\}{\vn@enc}\{\^^\}{e}{7877}
                                                           % ecircumflextilde
252 \DeclareTextDoubleComposite\{\h\}\{\vn@enc\}\{\^\}\{e\}\{7875\}
                                                            % ecircumflexhookabove
253 \DeclareTextDoubleComposite{\d}{\vn@enc}{\^}{e}{7879}
                                                           % ecircumflexdotbelow
255 \DeclareTextComposite{\'}{\vn@enc}{i}{417}
                                                            % igrave
256 \DeclareTextComposite{\';}{\vn@enc}{i}{7901}
                                                            % iacute
257 \DeclareTextComposite{\~}{\vn@enc}{i}{297}
                                                            % itilde
258 \DeclareTextComposite{\h}{\vn@enc}{i}{7881}
                                                            % ihookabove
259 \end{are} TextComposite $$ \d}_{\noindent}{i}_{7883}
                                                            % idotbelow
260
261 \DeclareTextComposite{\'\}{\vn@enc}{\i}{417}
                                                            % igrave
262 \DeclareTextComposite{\';}{\vn@enc}{\i}{7901}
                                                            % iacute
263 \DeclareTextComposite{\^}{\vn@enc}{\i}{297}
                                                            % itilde
264 \DeclareTextComposite\{\h\}\{\vn@enc\}\{\i\}\{7881\}
                                                            % ihookabove
265 \DeclareTextComposite{\d}{\vn@enc}{\i}{7883}
                                                            % idotbelow
267 \DeclareTextComposite{\'}{\vn@enc}{o}{242}
                                                            % ograve
268 \DeclareTextComposite{\'}{\vn@enc}{o}{243}
                                                            % oacute
269 \DeclareTextComposite{\^}{\vnQenc}{o}{245}
                                                            % otilde
270 \DeclareTextComposite{\h}{\vn@enc}{o}{7887}
                                                            % ohookabove
% odotbelow
273 \DeclareTextComposite{\^}{\vn@enc}{o}{244}
                                                            % ocircumflex
274 \DeclareTextDoubleComposite{\'}{\vn@enc}{\^}{o}{7891}
                                                           % ocircumflexgrave
275 \DeclareTextDoubleComposite\{\'\}{\vn@enc}\{\'\}{o}{7889}
                                                           % ocircumflexacute
276 \DeclareTextDoubleComposite\{\^\}{\vnQenc}{\^}{o}{7895}
                                                           % ocircumflextilde
277 \DeclareTextDoubleComposite{\h}{\vn@enc}{\^}{o}{7893}
                                                           % ocircumflexhookabove
278 \DeclareTextDoubleComposite{\d}{\vn@enc}{\^}{o}{7897}
                                                           % ocircumflexdotbelow
279
280 \DeclareTextComposite{\horn}{\vn@enc}{o}{417}
```

% ohorn

```
281 \DeclareTextDoubleComposite{\'}{\vn@enc}{\horn}{o}{7901} % ohorngrave
282 \DeclareTextDoubleComposite{\'}{\vn@enc}{\horn}{0}{7899} % ohornacute
283 \DeclareTextDoubleComposite{\"}{\normalfont} % ohorntilde
284 \DeclareTextDoubleComposite{\h}{\vnQenc}{\horn}{o}{7903} % ohornhookabove
285 \DeclareTextDoubleComposite{\d}{\vn@enc}{\horn}{o}{7907} % ohorndotbelow
286
287 \DeclareTextComposite{\'\}{\vn@enc}{u}{7913}
                                                            % ugrave
288 \DeclareTextComposite{\';}{\vn@enc}{u}{250}
                                                            % uacute
289 \DeclareTextComposite{\ ^{\ }}{\ } \Underc}{u}{361}
                                                            % utilde
290 \DeclareTextComposite{\h}{\vn@enc}{u}{7911}
                                                            % uhookabove
291 \DeclareTextComposite{\d}{\vn@enc}{u}{7909}
                                                             % udotbelow
292
293 \DeclareTextComposite{\horn}{\vn@enc}{u}{432}
                                                            % uhorn
294 \DeclareTextDoubleComposite{\'}{\vn@enc}{\horn}{u}{7915} % uhorngrave
295 \DeclareTextDoubleComposite{\'}{\vn@enc}{\horn}{u}{7913} % uhornacute
296 \DeclareTextDoubleComposite{\^}{\vn@enc}{\horn}{u}{7919} % uhorntilde
297 \DeclareTextDoubleComposite{\h}{\vn@enc}{\horn}{u}{7917} % uhornhookabove
298 \DeclareTextDoubleComposite{\d}{\vn@enc}{\horn}{u}{7921} % uhorndotbelow
300 \DeclareTextComposite{\'\}{\vn@enc}{y}{7923}
                                                            % ygrave
301 \DeclareTextComposite{\'\}{\vn@enc}{\y}{253}
                                                            % yacute
302 \DeclareTextComposite\{\^{\}{\vn@enc}{y}{7929}
                                                            % ytilde
303 \DeclareTextComposite{\h}{\vn@enc}{y}{27}
                                                            % yhookabove
304 \DeclareTextComposite{\d}{\vn@enc}{y}{29}
                                                            % ydotbelow
306 \DeclareTextSymbol{\DJ}{\vn@enc}{30}
                                                            % Dcroat
307 \DeclareTextSymbol{\dj}{\vn@enc}{31}
                                                            % dcroat
308
309
310 % For compatibility with ET5.
312 \DeclareTextSymbol{\Acircumflex}{\vn@enc}{194}
                                                            % Acircumflex
313 \DeclareTextComposite{\'\}{\vn@enc}{\Acircumflex}{7846}
                                                            % Acircumflexgrave
314 \DeclareTextComposite{\',}{\vn@enc}{\Acircumflex}{7844}
                                                            % Acircumflexacute
315 \DeclareTextComposite{\~}{\vn@enc}{\Acircumflex}{7850}
                                                            % Acircumflextilde
316 \DeclareTextComposite{\h}{\vn@enc}{\Acircumflex}{7848}
                                                            % Acircumflexhookabove
317 \DeclareTextComposite{\d}{\vn@enc}{\Acircumflex}{7852}
                                                            % Acircumflexdotbelow
319 \DeclareTextSymbol{\Abreve}{\vn@enc}{258}
                                                            % Abreve
                                                            % Abrevegrave
320 \DeclareTextComposite{\'}{\vn@enc}{\Abreve}{7856}
321 \DeclareTextComposite{\';}{\vn@enc}{\Abreve}{7854}
                                                            % Abreveacute
322 \DeclareTextComposite{\~}{\vn@enc}{\Abreve}{7860}
                                                            % Abrevetilde
323 \DeclareTextComposite{\h}{\vn@enc}{\Abreve}{7858}
                                                            % Abrevehookabove
324 \DeclareTextComposite{\d}{\vn@enc}{\Abreve}{7862}
                                                            % Abrevedotbelow
326 \DeclareTextSymbol{\Ecircumflex}{\vn@enc}{202}
                                                            % Ecircumflex
327 \DeclareTextComposite{\'}{\vn@enc}{\Ecircumflex}{7872}
                                                            % Ecircumflexgrave
328 \DeclareTextComposite{\';}{\vn@enc}{\Ecircumflex}{7870}
                                                            % Ecircumflexacute
329 \DeclareTextComposite{\~}{\vn@enc}{\Ecircumflex}{7876}
                                                            % Ecircumflextilde
% Ecircumflexhookabove
```

```
331 \DeclareTextComposite{\d}{\vn@enc}{\Ecircumflex}{7878}
                                                            % Ecircumflexdotbelow
333 \DeclareTextSymbol{\Ocircumflex}{\vn@enc}{360}
                                                            % Ocircumflex
334 \DeclareTextComposite{\'}{\vn@enc}{\Ocircumflex}{7890}
                                                            % Ocircumflexgrave
335 \DeclareTextComposite{\';}{\vn@enc}{\Ocircumflex}{7888}
                                                            % Ocircumflexacute
% Ocircumflextilde
337 \DeclareTextComposite{\h}{\vn@enc}{\Ocircumflex}{7892}
                                                            % Ocircumflexhookabove
                                                            % Ocircumflexdotbelow
338 \DeclareTextComposite{\d}{\vn@enc}{\Ocircumflex}{7896}
339
340 \DeclareTextSymbol{\Ohorn}{\vn@enc}{416}
                                                            % Ohorn
341 \DeclareTextComposite{\'}{\vn@enc}{\Ohorn}{7900}
                                                            % Ohorngrave
342 \DeclareTextComposite{\'\}{\vn@enc}{\Ohorn}{7898}
                                                            % Ohornacute
343 \DeclareTextComposite{\ ^{\ }} \Vn@enc}{\ } \Ohorn}{\ }
                                                            % Ohorntilde
344 \DeclareTextComposite{\h}{\vn@enc}{\0horn}{7902}
                                                            % Ohornhookabove
345 \DeclareTextComposite{\d}{\vn@enc}{\Ohorn}{7906}
                                                            % Ohorndotbelow
346
                                                            % Uhorn
347 \DeclareTextSymbol{\Uhorn}{\vn@enc}{431}
348 \DeclareTextComposite{'}{\vnQenc}{\Uhorn}{7914}
                                                            % Uhorngrave
349 \verb|\DeclareTextComposite{\'}{\vn@enc}{\Uhorn}{7912}
                                                            % Uhornacute
350 \DeclareTextComposite{\ ^{\ }} \VnQenc} {\Uhorn} {7918}
                                                            % Uhorntilde
351 \DeclareTextComposite{\h}{\vn@enc}{\Uhorn}{7916}
                                                            % Uhornhookabove
                                                            % Uhorndotbelow
352 \DeclareTextComposite{\d}{\vn@enc}{\Uhorn}{7920}
354 \DeclareTextSymbol{\acircumflex}{\vn@enc}{243}
                                                            % acircumflex
355 \DeclareTextComposite{\'}{\vn@enc}{\acircumflex}{7847}
                                                            % acircumflexgrave
356 \DeclareTextComposite{\';}{\vn@enc}{\acircumflex}{7845}
                                                            % acircumflexacute
357 \DeclareTextComposite{\~}{\vn@enc}{\acircumflex}{7851}
                                                            % acircumflextilde
358 \DeclareTextComposite{\h}{\vn@enc}{\acircumflex}{7849}
                                                            % acircumflexhookabove
                                                            % acircumflexdotbelow
359 \DeclareTextComposite{\d}{\vn@enc}{\acircumflex}{7853}
360
361 \DeclareTextSymbol{\abreve}{\vn@enc}{259}
                                                            % abreve
362 \DeclareTextComposite{\'\}{\vn@enc}{\abreve}{7857}
                                                            % abrevegrave
363 \DeclareTextComposite{\',}{\vn@enc}{\abreve}{7855}
                                                            % abreveacute
364 \DeclareTextComposite{\~}{\vn@enc}{\abreve}{7861}
                                                            % abrevetilde
365 \DeclareTextComposite{\h}{\vn@enc}{\abreve}{7859}
                                                            % abrevehookabove
366 \DeclareTextComposite{\d}{\vn@enc}{\abreve}{7863}
                                                            % abrevedotbelow
368 \DeclareTextSymbol{\ecircumflex}{\vn@enc}{7893}
                                                            % ecircumflex
369 \DeclareTextComposite{\'\}{\vn@enc}{\ecircumflex}{7873}
                                                            % ecircumflexgrave
% ecircumflexacute
371 \DeclareTextComposite{\~}{\vn@enc}{\ecircumflex}{7877}
                                                            % ecircumflextilde
372 \DeclareTextComposite{\h}{\vn@enc}{\ecircumflex}{7875}
                                                            % ecircumflexhookabove
373 \DeclareTextComposite{\d}{\vn@enc}{\ecircumflex}{7879}
                                                            % ecircumflexdotbelow
375 \DeclareTextSymbol{\ocircumflex}{\vn@enc}{244}
                                                            % ocircumflex
376 \DeclareTextComposite{\'}{\vn@enc}{\ocircumflex}{7891}
                                                            % ocircumflexgrave
377 \DeclareTextComposite{\';}{\vn@enc}{\ocircumflex}{7889}
                                                            % ocircumflexacute
378 \DeclareTextComposite{\~}{\vn@enc}{\ocircumflex}{7895}
                                                            % ocircumflextilde
379 \DeclareTextComposite{\h}{\vn@enc}{\ocircumflex}{7893}
                                                            % ocircumflexhookabove
380 \label{localize} $$380 \end{are TextComposite (\d) {\vn@enc} {\coircumflex} {7897} $$
                                                            % ocircumflexdotbelow
```

```
382 \DeclareTextSymbol{\ohorn}{\vn@enc}{417}
                                                                                                     % ohorn
383 \DeclareTextComposite{\'\}{\vn@enc}{\ohorn}{7901}
                                                                                                     % ohorngrave
384 \DeclareTextComposite{\';}{\vn@enc}{\ohorn}{7899}
                                                                                                     % ohornacute
385 \DeclareTextComposite{\~}{\vn@enc}{\ohorn}{7905}
                                                                                                     % ohorntilde
386 \DeclareTextComposite{\h}{\vn@enc}{\ohorn}{7903}
                                                                                                     % ohornhookabove
387 \label{lem:composite} $$387 \end{cenc} {\congruence} $$ \congruence \con
                                                                                                     % ohorndotbelow
388
389 \DeclareTextSymbol{\uhorn}{\vn@enc}{432}
                                                                                                     % uhorn
390 \DeclareTextComposite{\'\}{\vn@enc}{\uhorn}{7915}
                                                                                                     % uhorngrave
391 \DeclareTextComposite{\';}{\vn@enc}{\uhorn}{7913}
                                                                                                     % uhornacute
392 \DeclareTextComposite{\ } \vnQenc} \\uhorn\{7919}
                                                                                                     % uhorntilde
393 \DeclareTextComposite{\h}{\vn@enc}{\uhorn}{7917}
                                                                                                     % uhornhookabove
394 \DeclareTextComposite{\d}{\vn@enc}{\uhorn}{7921}
                                                                                                     % uhorndotbelow
396 % Make these ugly names still valid (needed for use with utf8).
397
% Acircumflex
399 \DeclareTextComposite{\'}{\vn@enc}{\ACIRCUMFLEX}{7846}
                                                                                                     % Acircumflexgrave
400 \DeclareTextComposite{\'\}{\vn@enc}{\ACIRCUMFLEX}{7844}
                                                                                                     % Acircumflexacute
401 \DeclareTextComposite{\~}{\vn@enc}{\ACIRCUMFLEX}{7850}
                                                                                                     % Acircumflextilde
402 \DeclareTextComposite{\h}{\vn@enc}{\ACIRCUMFLEX}{7848}
                                                                                                     % Acircumflexhookabove
403 \DeclareTextComposite{\d}{\vn@enc}{\ACIRCUMFLEX}{7852}
                                                                                                     % Acircumflexdotbelow
405 \DeclareTextSymbol{\ABREVE}{\vn@enc}{258}
                                                                                                     % Abreve
406 \DeclareTextComposite{\'}{\vn@enc}{\ABREVE}{7856}
                                                                                                     % Abrevegrave
407 \DeclareTextComposite{\';}{\vn@enc}{\ABREVE}{7854}
                                                                                                     % Abreveacute
408 \end{are TextComposite $$ \ \end{are TextComposite } {\norm{ABREVE} {7860}} 
                                                                                                     % Abrevetilde
409 \DeclareTextComposite{\h}{\vn@enc}{\ABREVE}{7858}
                                                                                                     % Abrevehookabove
410 \DeclareTextComposite{d}{\noindenc}{\ABREVE}{7862}
                                                                                                     % Abrevedotbelow
412 \DeclareTextSymbol{\ECIRCUMFLEX}{\vn@enc}{202}
                                                                                                     % Ecircumflex
413 \DeclareTextComposite{\'\}{\vn@enc}{\ECIRCUMFLEX}{7872}
                                                                                                     % Ecircumflexgrave
414 \DeclareTextComposite{\';}{\vn@enc}{\ECIRCUMFLEX}{7870}
                                                                                                     % Ecircumflexacute
415 \DeclareTextComposite{\~}{\vn@enc}{\ECIRCUMFLEX}{7876}
                                                                                                     % Ecircumflextilde
416 \DeclareTextComposite{\h}{\vn@enc}{\ECIRCUMFLEX}{7874}
                                                                                                     % Ecircumflexhookabove
% Ecircumflexdotbelow
                                                                                                     % Ocircumflex
419 \DeclareTextSymbol{\OCIRCUMFLEX}{\vn@enc}{360}
420 \DeclareTextComposite{\'}{\vn@enc}{\OCIRCUMFLEX}{7890}
                                                                                                     % Ocircumflexgrave
421 \DeclareTextComposite{\';}{\vn@enc}{\OCIRCUMFLEX}{7888}
                                                                                                     % Ocircumflexacute
422 \DeclareTextComposite{\~}{\vn@enc}{\OCIRCUMFLEX}{7894}
                                                                                                     % Ocircumflextilde
423 \DeclareTextComposite{\h}{\vn@enc}{\OCIRCUMFLEX}{7892}
                                                                                                     % Ocircumflexhookabove
424 \DeclareTextComposite{\d}{\vn@enc}{\OCIRCUMFLEX}{7896}
                                                                                                     % Ocircumflexdotbelow
425
426 \DeclareTextSymbol{\OHORN}{\vn@enc}{416}
                                                                                                     % Ohorn
427 \DeclareTextComposite{\'\}{\vn@enc}{\OHORN}{7900}
                                                                                                     % Ohorngrave
428 \DeclareTextComposite{\';}{\vn@enc}{\OHORN}{7898}
                                                                                                     % Ohornacute
429 \DeclareTextComposite{\~}{\vn@enc}{\OHORN}{7904}
                                                                                                     % Ohorntilde
% Ohornhookabove
```

Finally, we extend \@uclclist to make \MakeUppercase and \MakeLowercase work correctly. This case mapping is "global" and directly related to the encoding and the LICR, so we don't use \SetCase, which is intended for small readjustments required by a certain language.

```
439 \expandafter\def\expandafter\@uclclist\expandafter{%
     \@uclclist
441
     \abreve\Abreve
442
     \abreve\ABREVE
443
     \acircumflex\Acircumflex
     \acircumflex\ACIRCUMFLEX
444
     \dj\DJ
445
     \ecircumflex\Ecircumflex
446
     \ecircumflex\ECIRCUMFLEX
447
     \ocircumflex\Ocircumflex
448
     \ocircumflex\OCIRCUMFLEX
449
450
     \ohorn\Ohorn
     \ohorn\OHORN
451
```

\uhorn\Uhorn

\uhorn\UHORN}

452

453