

# The Experimental Unicode ‘EUx’ Encodings

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## Abstract

This file documents some experimental Unicode font encodings, used for X<sub>E</sub>T<sub>E</sub>X and LuaT<sub>E</sub>X. Includes Latin Modern font definitions for version 1.6 and later of those fonts.

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## 1 Introduction

L<sub>A</sub>T<sub>E</sub>X’s font encoding system provides a method for ensuring that characters in a document can be rendered properly by glyphs in the output. It is also a sensible system for typesetting multilingual documents while remaining within T<sub>E</sub>X’s restrictions of 8-bit fonts.

When X<sub>E</sub>T<sub>E</sub>X came along, no work had been done on using this infrastructure for Unicode fonts. For one thing, the notion of a well-defined font encoding — which neatly pigeonholes a font into a category of containing a specific set of glyphs — doesn’t work so well when designers have an essentially unrestricted selection of glyphs they may add to their fonts.

Both technical advantages of L<sub>A</sub>T<sub>E</sub>X’s font encodings — error checking, and multilingual typesetting — were no longer relevant with X<sub>E</sub>T<sub>E</sub>X, due to impracticality for the former and redundancy in the latter; X<sub>E</sub>T<sub>E</sub>X’s support of OpenType

fonts obviates the need for font switching (for glyph coverage only) by necessity when changing languages, although multiple fonts will often be used for stylistic purposes.

Nonetheless, font encodings are tied inextricably into L<sup>A</sup>T<sub>E</sub>X's font selection mechanisms. For the first couple of years of X<sub>E</sub>T<sub>E</sub>X's life, defined font families were placed in the U encoding; appropriate, given the Unicode initial, but *inappropriate* within the framework of L<sup>A</sup>T<sub>E</sub>X itself. The U encoding stands for 'undefined', to be used for fonts that contain glyphs that are essentially arbitrary; for example, a Dingbats font.

Since X<sub>E</sub>T<sub>E</sub>X documents didn't interact with the 'regular' world so much, this overloading of the encoding didn't really matter in the long run. But eventually, it became apparent that it would be appropriate to use font encodings to represent Unicode subsets and/or different methods of font loading. With the advent of LuaT<sub>E</sub>X, this latter use has justified the approach originally taken here.

This package now also includes most of the xunicode package when unicode fonts are used under LuaT<sub>E</sub>X. (For X<sub>E</sub>T<sub>E</sub>X, xunicode should still be loaded explicitly unless you are using the xltextra package.) The justification here is that the xunicode package essentially defines and configures a unicode font encoding for L<sup>A</sup>T<sub>E</sub>X, which is therefore appropriate to have as part of the standard encoding definitions for unicode.

## 2 The EU1 encoding

The EU1 encoding represents the first attempt of providing a standard L<sup>A</sup>T<sub>E</sub>X encoding for Unicode fonts. At present, it loads and defines nothing in terms of declaring text glyphs and accents. That rôle is played for now by Ross Moore's xunicode package; in the future I hope some of that package will migrate here. (And indeed, some of it has; see the EU2 encoding below.)

Because we can assume that all current T<sub>E</sub>X distributions will contain the Latin Modern OpenType fonts (fonts/opentype/public/1m), these are selected as the default fonts. More details on this later.

I am now defining the convention that EU1 encoded fonts have no necessary subsets of Unicode. Perhaps in the future this will be restricted to fonts that support Unicode accent characters.

Furthermore, no restrictions are made on the method used to load the font. X<sub>E</sub>T<sub>E</sub>X allows fonts of two types: system installed fonts (also accessible via regular applications or programs); and 'local' fonts, which are specified by filename to be found either in a texmf tree of the local directory.

```
1 \DeclareFontEncoding{EU1}{}{}  
2 \DeclareErrorFont{EU1}{lmr}{m}{n}{10}  
3 \DeclareFontSubstitution{EU1}{lmr}{m}{n}
```

The : character needs to be sanitised in case babel makes it active:

```
4 \g@addto@macro\nfss@catcodes{\@makeother: }
```

### 3 The EU2 encoding

The EU2 encoding is to be used with LuaTeX, it is essentially the same as EU1, the actual difference is in the font definition files.

```
5 \DeclareFontEncoding{EU2}{ }{ }
6 \DeclareErrorFont{EU2}{lmr}{m}{n}{10}
7 \DeclareFontSubstitution{EU2}{lmr}{m}{n}
```

The : character needs to be sanitised in case babel makes it active:

```
8 \g@addto@macro\nfss@catcodes{\@makeother: }
```

We also load `euxunicode`,<sup>1</sup> our subset of Ross Moore's `xunicode` package, which provides control sequences for accessing a wide range of unicode symbols and (especially) accents.

```
9 \providetoggle{\UTFencname}{EU2}
10 \input euxunicode.sty
```

### 4 The Latin Modern OpenType fonts

Version 0.1g of `euenc` supports version 1.6 of the LM fonts, released in October 2009.

#### 4.1 Conversion scripts

The .fd files are converted from the T1 encoding with the following shell script. Only the package maintainers need to be able to run this script and those following.

##### 4.1.1 Encoding conversion shell script

```
11 sed -f sed-eu1lm.sed 'kpsewhich t1lmr.fd' eu1lmr.fd
12 sed -f sed-eu1lm.sed 'kpsewhich t1lmdh.fd' eu1lmdh.fd
13 sed -f sed-eu1lm.sed 'kpsewhich t1lmss.fd' eu1lmss.fd
14 sed -f sed-eu1lm.sed 'kpsewhich t1lmssq.fd' eu1lmssq.fd
15 sed -f sed-eu1lm.sed 'kpsewhich t1lmvtt.fd' eu1lmvtt.fd
16
17 sed -f sed-eu2lm.sed 'kpsewhich t1lmr.fd' eu2lmr.fd
18 sed -f sed-eu2lm.sed 'kpsewhich t1lmdh.fd' eu2lmdh.fd
19 sed -f sed-eu2lm.sed 'kpsewhich t1lmss.fd' eu2lmss.fd
20 sed -f sed-eu2lm.sed 'kpsewhich t1lmssq.fd' eu2lmssq.fd
21 sed -f sed-eu2lm.sed 'kpsewhich t1lmvtt.fd' eu2lmvtt.fd
22
23 sed -f sed-eu1lm.sed -e \
24   '/:mapping=tex-text//g' 'kpsewhich t1lmtt.fd' eu1lmtt.fd
```

---

<sup>1</sup>For backwards compatibility reasons, we do not do the same under the EU1 encoding.

```

25 sed -f sed-eu2lm.sed -e \
26     's/.trep;.tlig;//g' `kpsewhich t1lmtt.fd` eu2lmtt.fd

```

#### 4.1.2 Encoding conversion sed scripts

The shell script above requires the following sed scripts.

##### Sed scripts

```

27 /^%.*$/d
28 {eu1sedlm}s/{T1}/{EU1}/g
29 {eu1sedlm}s/t1lm/eu1lm/g
30 {eu2sedlm}s/{T1}/{EU2}/g
31 {eu2sedlm}s/t1lm/eu2lm/g
32
33 s/ec-lmri\([0-9]*\)/lmroman\1-italic/g
34 s/ec-lmro\([0-9]*\)/lmromanslant\1-regular/g
35 s/ec-lmr\([0-9]*\)/lmroman\1-regular/g
36 s/ec-lmcsc0\([0-9]*\)/lmromancaps\1-oblique/g
37 s/ec-lmcsc\([0-9]*\)/lmromancaps\1-regular/g
38
39 s/ec-lmbxo\([0-9]*\)/lmromanslant\1-bold/g
40 s/ec-lmbxi\([0-9]*\)/lmroman\1-bolditalic/g
41 s/ec-lmbx\([0-9]*\)/lmroman\1-bold/g
42 s/ec-lmbo\([0-9]*\)/lmromandemi\1-oblique/g
43 s/ec-lmb\([0-9]*\)/lmromandemi\1-regular/g
44
45 s/ec-lmdunh\([0-9]*\)/lmromandunh\1-regular/g
46 s/ec-lmduno\([0-9]*\)/lmromandunh\1-oblique/g
47
48 s/ec-lmss\([0-9]\{1,\}\)/lmsans\1-regular/g
49 s/ec-lmss0\([0-9]\{1,\}\)/lmsans\1-oblique/g
50
51 s/ec-lmssdc\([0-9]\{1,\}\)/lmsansdemicond\1-regular/g
52 s/ec-lmssd0\([0-9]\{1,\}\)/lmsansdemicond\1-oblique/g
53
54 s/ec-lmssbx\([0-9]\{1,\}\)/lmsans\1-bold/g
55 s/ec-lmssbo\([0-9]\{1,\}\)/lmsans\1-boldoblique/g
56
57 s/ec-lmssq\([0-9]\{1,\}\)/lmsansquot\1-regular/g
58 s/ec-lmssq0\([0-9]\{1,\}\)/lmsansquot\1-oblique/g
59 s/ec-lmssqbx\([0-9]\{1,\}\)/lmsansquot\1-bold/g
60 s/ec-lmssqbo\([0-9]\{1,\}\)/lmsansquot\1-boldoblique/g
61
62 s/ec-lmtt\([0-9]\{1,\}\)/lmono\1-regular/g
63 s/ec-lmtt0\([0-9]\{1,\}\)/lmonoslant\1-regular/g
64 s/ec-lmtti\([0-9]\{1,\}\)/lmono\1-italic/g
65
66 s/ec-lmtcsc\([0-9]\{1,\}\)/lmonocaps\1-regular/g

```

```

67 s/ec-lmtcso\([0-9]\{1,\}\)/lmmmonocaps\1-oblique/g
68
69 s/ec-lmtl\([0-9]\{1,\}\)/lmmmonolt\1-regular/g
70 s/ec-lmtlo\([0-9]\{1,\}\)/lmmmonolt\1-oblique/g
71 s/ec-lmtk\([0-9]\{1,\}\)/lmmmonolt\1-bold/g
72 s/ec-lmtko\([0-9]\{1,\}\)/lmmmonolt\1-boldoblique/g
73
74 s/ec-lmtlc\([0-9]\{1,\}\)/lmmmonoltcond\1-regular/g
75 s/ec-lmtlco\([0-9]\{1,\}\)/lmmmonoltcond\1-oblique/g
76
77 s/ec-lmvtt\([0-9]\{1,\}\)/lmmmonoprop\1-regular/g
78 s/ec-lmvtt\([0-9]\{1,\}\)/lmmmonoprop\1-oblique/g
79
80 s/ec-lmvtl\([0-9]\{1,\}\)/lmmmonoprop\1-regular/g
81 s/ec-lmvtno\([0-9]\{1,\}\)/lmmmonoprop\1-oblique/g
82 s/ec-lmvtk\([0-9]\{1,\}\)/lmmmonoprop\1-bold/g
83 s/ec-lmvtko\([0-9]\{1,\}\)/lmmmonoprop\1-boldoblique/g
84
85 {eu1sedlm}s/\(. [ ]*\)\(lm[a-z0-9\-\-]\{1,\}\)/\1"\[\2]:mapping=tex-text"/g
86 {eu2sedlm}s/\(. [ ]*\)\(lm[a-z0-9\-\-]\{1,\}\)/\1file:\2:script=latn;+trep;+tlig;/g

```

## 5 euxunicode.sty file

This file is derived heavily from Ross Moore's *xunicode* package. Most, if not all, of the code comments are his. We have removed the Xe<sub>E</sub>T<sub>E</sub>X-specific components and removed some of the more esoteric control sequences from its repertoire.

For backwards compatibility, we load it only under LuaT<sub>E</sub>X. (I.e., with the EU2 encoding.)

### 5.1 First checks

Because *euxunicode* is part of a font encoding, it may be theoretically loaded at any time, not just in the document preamble. (Of course, this is unlikely because *fontspec* will usually be setting up the font encoding anyway.)

For this reason we do not load it as a regular package but use *\input* and *\endinput* to ensure it is only loaded once.

```

87 \csname ifeuxunicodeloaded\endcsname
88 \let\ifeuxunicodeloaded\endinput

```

Now check for Xe<sub>E</sub>T<sub>E</sub>X or LuaT<sub>E</sub>X use: (again, just as unlikely this will fail)

```

89 \def\notUnicodeEngine{%
90   \@latex@error{*** this package currently works only with XeTeX or LuaTeX ***}^J
91   You are not using XeTeX or LuaTeX, so we are exiting cleanly!^J
92   Continuing may lead to 'unavailable font metrics' errors!^J}@ehc
93 \endgroup\endinput}

```

```

94 \expandafter\ifx\csname XeTeXrevision\endcsname\relax
95   \expandafter\ifx\csname directlua\endcsname\relax
96     \notUnicodeEngine
97   \else
98     \def\@Engine{LuaTeX}
99   \fi
100 \else
101   \def\@Engine{XeTeX}
102 \fi

```

The single biggest mistake made by novice X<sub>E</sub>T<sub>E</sub>X users is to declare wrong encodings, using the (lua)inputenc package. While not fatal, this can cause bad output, which they then incorrectly attribute to X<sub>E</sub>T<sub>E</sub>X or LuaT<sub>E</sub>X. So here is a test for this error, which posts warning messages.

We also deprecate xunicode, but there is no way by default that that code path will ever run (this package is only loaded under LuaT<sub>E</sub>X for now, and xunicode can only be loaded under X<sub>E</sub>T<sub>E</sub>X).

```

103 \def\@TestForWongPackage{%
104   \@ifpackageloaded{inputenc}{\@dontuse@inputenc}{ }%
105   \@ifpackageloaded{luainputenc}{\@dontuse@inputenc}{ }%
106   \@ifpackageloaded{xunicode}{\@dontuse@xunicode}{ }%
107 }
108 \def\@dontuse@inputenc{%
109   \typeout{*** You should *not* be loading inputenc nor luainputenc}%
110   \typeout{*** with the \UTFencname\space encoding. Your engine}%
111   \typeout{*** expects the source to be in UTF-8 encoding.}%
112   \typeout{*** Some features of other encodings may conflict,}%
113   resulting in poor output.}%
114 }
115 \def\@dontuse@xunicode{%
116   \typeout{*** xunicode is deprecated, please use only the fontspec package,}%
117   \typeout{*** it will automatically load the relevant packages.}%
118 }
119 \def\@cleanupaftertest{%
120   \let\@TestForWongPackage\relax
121   \let\@dontuse@inputenc\relax
122   \let\@dontuse@xunicode\relax
123 }
124 \AtBeginDocument{\@TestForWongPackage}
125 \AtBeginDocument{\@TestForWongPackage}
126 \AtBeginDocument{\@cleanupaftertest}

```

## 5.2 Macro definitions

\DeclareUTFcharacter Use \DeclareUTFcharacter to assign a cs-name to access a Unicode code-point.

```

127 \newcommand{\DeclareUTFcharacter}[3][\UTFencname]{%
128   \let\add@flag@ne % == add support in this encoding

```

```

129  \check@hexcom@digits #2@@@!@{#1}{#2}{#3}%
130 }

\UndeclareUTFcharacter Use \UndeclareUTFcharacter to cancel a declaration when the appropriate
code-point is not supported in the desired text-font.
131 \newcommand{\UndeclareUTFcharacter}[3][\UTFencname]{%
132   \let\add@flag\z@ % == remove support in this encoding
133   \check@hexcom@digits #2@@@!@{#1}{#2}{#3}%
134 }

135 \def\check@hexcom@digits#1#2@!@#3#4#5{%
136   \ifx x#1\relax
137     \check@hexcom@digits@#2@!@{#3}{#4}{#5}%
138   \else
139     \UTFacc@warning@{code #4 for #3-\string#5 fails to start with 'x'}%
140   \fi
141 }

\DeclareUTFcomposite Use \DeclareUTFcomposite to assign a cs-name to access accents or composite
characters via Unicode code-points, or the Unicode "Composing Character"
mechanism.
142 \newcommand{\DeclareUTFcomposite}[4][\UTFencname]{%
143   \let\add@flag\@ne % == add support in this encoding
144   \check@hex@digits #2@@@!@{#1}{#2}{#3}{#4}%
145 }

146 \newcommand{\DeclareUTFmulticomposite}[4][\UTFencname]{%
147   \let\add@flag\@ne % == add support in this encoding
148   \check@hex@digits #2@@@!@{#1}{#2}{#3}{#4}%
149 }

\UndeclareUTFcomposite Use \UndeclareUTFcomposite to cancel a declaration when the appropriate
code-point is not supported in the desired text-font.
150 \newcommand{\UndeclareUTFcomposite}[4][\UTFencname]{%
151   \let\add@flag\z@ % == remove support in this encoding
152   \check@hex@digits #2@@@!@{#1}{#2}{#3}{#4}%
153 }

154 \def\check@hex@digits#1#2@!@#3#4#5#6{%
155   \ifx x#1\relax
156     \check@hex@digits@#2@!@{#3}{#4}{#5}{#6}%
157   \else
158     \UTFacc@warning@{code #4 for #3-\string#5#6 fails to start with 'x'}%
159   \fi
160 }

161 \def\UTF@ignore#1{\iffalse}
162 \def\UTF@doit#1{\iftrue}

```

These next macros need to have " with correct catcode.

```
163 {\catcode`\"=12
164 %
165 \gdef\check@hexcom@digits@#1#2#3#4#5@!@#6#7#8{%
166   \ifx @#4\relax
167     \UTFacc@warning@{insufficient hex digits #7 for #6-\string#8}%
168   \else
169     \ifcat \active\noexpand#8%
170       \ifx\add@flag@ne %
171         \expandafter\def\csname\UTFencname\string#8\endcsname{\char"##1#2#3#4\relax}%
172       \ifx\unDeFiNed@#8%
173         \ifx\cf@encoding\UTFencname
174           \DeclareTextCommand{#8}{OT1}{\undefined}%
175         \else
176           \DeclareTextCommand{#8}{\cf@encoding}{\undefined}%
177         \fi
178       \else { macro #8 exists already ...
179         \let\protect\noexpand
180         \edef\UTF@testi{#8}\def\UTF@testii{#8}%
181         \ifx\UTF@testi\UTF@testii\aftergroup\UTF@ignore
182         \else\aftergroup\UTF@doit\fi
183       }%
184     \iffalse
185       ... but when it isn't robust, make it so
186       \expandafter\let\csname?- \string#8\endcsname#8\relax
187       \edef\next@UTF@{\cf@encoding}%
188         {\expandafter\noexpand\csname?- \string#8\endcsname}%
189       \expandafter\DeclareTextCommand\expandafter
190         {\expandafter#8\expandafter}\next@UTF@
191     \fi
192   \fi %
193 \else % \add@flag \z@
194   \expandafter\global\expandafter
195     \let\csname\UTFencname\string#8\endcsname\relax
196   \fi % end of \add@flag switch
197 \else % not active catcode --- shouldn't happen
198 % \typeout{*** did you really mean #8 ? ***}%
199 \ifx\add@flag@ne %
200   \edef\tmp@name{\expandafter\string\csname\UTFencname\endcsname
201     \expandafter\string\csname#8\endcsname}%
202   \expandafter\def\csname\tmp@name\endcsname{\char"##1#2#3#4\relax}%
203   \ifx\cf@encoding\UTFencname
204     \expandafter\DeclareTextCommand\expandafter
205       {\csname#8\endcsname}{OT1}{\undefined}%
206   \else
207     \expandafter\DeclareTextCommand\expandafter
208       {\csname#8\endcsname}{\cf@encoding}{\undefined}%
```

```

209     \fi
210   \else % \add@flag \z@
211     \expandafter\global\expandafter\let\csname#8\endcsname\relax
212   \fi % end of \add@flag switch
213 \fi % end of \ifcat
214 \fi}
215 \gdef\check@hex@digits@#1#2#3#4#5@!@#6#7#8#9{%
216   \ifx @#4\relax
217     \UTFacc@warning@{insufficient hex digits #7 for #6-\string#8#9}%
218   \else
219     \def\UTFchar{\char"#1#2#3#4\relax}%
220     \expandafter\expandafter\expandafter\declare@utf@composite
221     \expandafter\expandafter\expandafter
222       {\expandafter\csname#6\endcsname{\UTFchar}{#8}{#9}\relax
223     \fi}
224 \%gdef\add@UTF@accent#1#2#3{\#2\char"#1\relax}
225 \gdef\add@UTF@accent#1#2#3{\ifx\relax#2\relax\char"#3\else
226   \ifx\ #2\relax\char"#3\else
227     \expandafter\ifx\UTF@space#2\relax\char"#3\else
228       \ifx~#2\char"#3\else#2\char"#1\fi\fi\fi\fi\relax}
229 \gdef\add@UTF@accents#1#2#3{\#2\char"#1\char"#3\relax}
230 \gdef\add@set@accentCOMP#1#2#3{\add@accent{"#1}{#2}}
231 \gdef\add@set@accentMOD#1#2#3{\add@accent{"#3}{#2}}
232 \gdef\declare@hex@command#1#2{\gdef#2{#1}}%
233 %
234 }% end of \catcode`\=12
235
236 {\catcode`\ =10\relax%
237 \gdef\UTF@space{ }%
238 \edef\UTF@space{\UTF@@space}
239
240 \def\declare@utf@composite#1#2#3#4{%
241   \expandafter\ifcat\expandafter A\string#4\relax
242     {\ifx\add@flag@ne %
243       \expandafter\xdef\csname\string#1\string#3-#4\endcsname{#2}%
244     \else
245       \expandafter\global\expandafter
246         \let\csname\string#1\string#3-#4\endcsname\relax
247     \fi}%
248   \else
249     {\ifx\add@flag@ne %
250       \expandafter\xdef\csname\string#1\string#3-\string#4\endcsname{#2}%
251     \else
252       \expandafter\global\expandafter
253         \let\csname\string#1\string#3-\string#4\endcsname\relax
254     \fi}%
255   \fi

```

```

256 }

lareEncodedCompositeCharacter \DeclareEncodedCompositeCharacter
#1 = encoding
#2 = accent-macro in TeX
#3 = position of combining glyph in Unicode
#4 = bare accent position, in Unicode
##1 = slot for the accented letter

257 \newcommand{\DeclareEncodedCompositeCharacter}[4]{%
258   \expandafter\def\csname #1\string#2\endcsname##1{%
259     \expandafter\@text@composite \csname #1\string#2\endcsname##1\empty
260     \@text@composite{\add@encoded@accent{#3}{##1}{#4}}}}%
261 }

262 \newcommand{\DeclareEncodedCompositeAccents}[4]{%
263   \expandafter\def\csname #1\string#2\endcsname##1{%
264     \expandafter\@text@composite \csname #1\string#2\endcsname##1\empty
265     \@text@composite{\add@encoded@accents{#4}{##1}{#3}}}}%
266 }

267 \let\add@encoded@accent\add@UTF@accent
268 \let\add@encoded@accents\add@UTF@accents
269 %\let\add@encoded@accent\add@set@accentCOMP
270 %\let\add@encoded@accent\add@set@accentMOD

```

### 5.3 Basic definitions

```

271 \DeclareEncodedCompositeCharacter{\UTFencname}{\'}{0300}{02CB} % Combining grave accent
272 @ifundefined{capitalgrave}{\DeclareTextAccent{\capitalgrave}{OT1}{999}}{}
273 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalgrave}{0300}{02CB} % textcomp grave
274 \DeclareEncodedCompositeCharacter{\UTFencname}{\'}{0301}{02CA} % Combining acute accent
275 @ifundefined{capitalacute}{\DeclareTextAccent{\capitalacute}{OT1}{999}}{}
276 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalacute}{0301}{02CA} % textcomp acute
277 \DeclareEncodedCompositeCharacter{\UTFencname}{\^}{0302}{02C6} % Combining circumflex accent
278 @ifundefined{capitalcircumflex}{\DeclareTextAccent{\capitalcircumflex}{OT1}{999}}{}
279 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalcircumflex}{0302}{02C6} % textcomp
280 \DeclareEncodedCompositeCharacter{\UTFencname}{\~}{0303}{02DC} % Combining tilde
281 @ifundefined{capitaltilde}{\DeclareTextAccent{\capitaltilde}{OT1}{999}}{}
282 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitaltilde}{0303}{02DC} % textcomp tilde
283 \DeclareEncodedCompositeCharacter{\UTFencname}{\=}{0304}{02C9} % Combining macron
284 @ifundefined{capitalmacron}{\DeclareTextAccent{\capitalmacron}{OT1}{999}}{}
285 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalmacron}{0304}{02C9} % textcomp macron
286 \DeclareTextAccent{\textoverline}{OT1}{999}
287 \DeclareEncodedCompositeCharacter{\UTFencname}{\textoverline}{0305}{203E} % Combining overline
288 \DeclareEncodedCompositeCharacter{\UTFencname}{\u}{0306}{02D8} % Combining breve
289 @ifundefined{capitalbreve}{\DeclareTextAccent{\capitalbreve}{OT1}{999}}{}
290 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalbreve}{0306}{02D8} % textcomp breve
291 \DeclareEncodedCompositeCharacter{\UTFencname}{\.}{0307}{02D9} % Combining dot above

```

```

292 \@ifundefined{capitaldotaccent}{\DeclareTextAccent{\capitaldotaccent}{OT1}{999}}{}}
293 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitaldotaccent}{0307}{02D9} % textcomp d
294 \DeclareEncodedCompositeCharacter{\UTFencname}{\textcircumflex}{0308}{00A8} % Combining diaeresis
295 \@ifundefined{capitaldieresis}{\DeclareTextAccent{\capitaldieresis}{OT1}{999}}{}}
296 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitaldieresis}{0308}{00A8} % textcomp di
297 \@ifundefined{m}{\DeclareTextAccent{\textcircumflex}{OT1}{999}}{} % miscellaneous IPA symbols
298 \DeclareEncodedCompositeCharacter{\UTFencname}{\textcircumflex}{0309}{0309} % (Combining hook above)
299 \DeclareTextAccent{\texthookabov}{OT1}{999}
300 \DeclareEncodedCompositeCharacter{\UTFencname}{\texthookabov}{0309}{0309} % Combining hook above
301 \DeclareEncodedCompositeCharacter{\UTFencname}{\textring}{030A}{02DA} % Combining ring above
302 \@ifundefined{capitalring}{\DeclareTextAccent{\capitalring}{OT1}{999}}{}}
303 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalring}{030A}{02DA} % textcomp ring a
304 \DeclareEncodedCompositeCharacter{\UTFencname}{\textring}{030B}{02DD} % Combining double acute
305 \@ifundefined{capitalhungarumlaut}{\DeclareTextAccent{\capitalhungarumlaut}{OT1}{999}}{}}
306 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalhungarumlaut}{030B}{02DD} % textcom
307 \DeclareEncodedCompositeCharacter{\UTFencname}{\textcaron}{030C}{02C7} % Combining caron
308 \@ifundefined{capitalcaron}{\DeclareTextAccent{\capitalcaron}{OT1}{999}}{}}
309 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalcaron}{030C}{02C7} % textcomp caron
310 \@ifundefined{textvbaraccent}{\DeclareTextAccent{\textvbaraccent}{OT1}{999}}{}}
311 \DeclareEncodedCompositeCharacter{\UTFencname}{\textvbaraccent}{030D}{02C8} % Combining ve
312 \@ifundefined{textdoublevbaraccent}{\DeclareTextAccent{\textdoublevbaraccent}{OT1}{999}}{}}
313 \DeclareEncodedCompositeCharacter{\UTFencname}{\textdoublevbaraccent}{030E}{030E} % Combin
314 \@ifundefined{U}{\DeclareTextAccent{\textvbar}{OT1}{999}}{}}
315 \DeclareEncodedCompositeCharacter{\UTFencname}{\textvbar}{030E}{} % Combining double vertical lin
316 \@ifundefined{textdoublegrave}{\DeclareTextAccent{\textdoublegrave}{OT1}{999}}{}}
317 \DeclareEncodedCompositeCharacter{\UTFencname}{\textdoublegrave}{030F}{02F5} % Combining d
318 \@ifundefined{G}{\DeclareTextAccent{\textgrave}{OT1}{999}}{}}
319 \DeclareEncodedCompositeCharacter{\UTFencname}{\textgrave}{030F}{02F5} % Combining double grave ad
320 \@ifundefined{textdotbreve}{\DeclareTextAccent{\textdotbreve}{OT1}{999}}{}}
321 \DeclareEncodedCompositeCharacter{\UTFencname}{\textdotbreve}{0310}{0310} % Combining candi
322 \@ifundefined{textroundcap}{\DeclareTextAccent{\textroundcap}{OT1}{999}}{}}
323 \DeclareEncodedCompositeCharacter{\UTFencname}{\textroundcap}{0311}{0311} % Combining inv
324 \@ifundefined{newtie}{\DeclareTextAccent{\textnewtie}{OT1}{999}}{}}
325 \DeclareEncodedCompositeCharacter{\UTFencname}{\textnewtie}{0311}{0311} % Combining inverted b
326 \@ifundefined{capitalnewtie}{\DeclareTextAccent{\capitalnewtie}{OT1}{999}}{}}
327 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalnewtie}{0311}{0311} % Combining inv
328 \@ifundefined{t}{\DeclareTextAccent{\textbreve}{OT1}{999}}{}}
329 \DeclareEncodedCompositeCharacter{\UTFencname}{\textbreve}{0311}{0311} % Combining inverted breve
330 \@ifundefined{capitaltie}{\DeclareTextAccent{\capitaltie}{OT1}{999}}{}}
331 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitaltie}{0311}{0311} % Combining invert
332 \DeclareTextAccent{\textturncommaabove}{OT1}{999}
333 \DeclareEncodedCompositeCharacter{\UTFencname}{\textturncommaabove}{0312}{02BB} % Combini
334 \DeclareTextAccent{\textcommaabove}{OT1}{999}
335 \DeclareEncodedCompositeCharacter{\UTFencname}{\textcommaabove}{0313}{02BC} % Combining co
336 \DeclareTextAccent{\textrevcommaabove}{OT1}{999}
337 \DeclareEncodedCompositeCharacter{\UTFencname}{\textrevcommaabove}{0314}{02BD} % Combining co
338 \DeclareTextAccent{\textcommabover}{OT1}{999}

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339 \DeclareEncodedCompositeCharacter{\UTFencname}{\textcommabover}{0315}{02BC} % Combining combining character above
340 \@ifundefined{textsubgrave}{\DeclareTextAccent{\textsubgrave}{OT1}{999}}{}
341 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubgrave}{0316}{02CE} % Combining grave
342 \@ifundefined{textsubacute}{\DeclareTextAccent{\textsubacute}{OT1}{999}}{}
343 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubacute}{0317}{02CF} % Combining acute
344 \@ifundefined{textadvancing}{\DeclareTextAccent{\textadvancing}{OT1}{999}}{}
345 \DeclareEncodedCompositeCharacter{\UTFencname}{\textadvancing}{0318}{0318} % Combining left arrow
346 \@ifundefined{textretracting}{\DeclareTextAccent{\textretracting}{OT1}{999}}{}
347 \DeclareEncodedCompositeCharacter{\UTFencname}{\textretracting}{0319}{0319} % Combining right arrow
348 \DeclareTextAccent{\textlanglabeabove}{OT1}{999}
349 \DeclareEncodedCompositeCharacter{\UTFencname}{\textlanglabeabove}{031A}{031A} % Combining left angle bracket above
350 \DeclareTextAccent{\textrighthorn}{OT1}{999}
351 \DeclareEncodedCompositeCharacter{\UTFencname}{\textrighthorn}{031B}{031B} % Combining horizontal line
352 \@ifundefined{textsublhalfing}{\DeclareTextAccent{\textsublhalfing}{OT1}{999}}{}
353 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsublhalfing}{031C}{02D3} % Combining left half ring
354 \@ifundefined{textraising}{\DeclareTextAccent{\textraising}{OT1}{999}}{}
355 \DeclareEncodedCompositeCharacter{\UTFencname}{\textraising}{031D}{02D4} % Combining up arrow
356 \@ifundefined{textlowering}{\DeclareTextAccent{\textlowering}{OT1}{999}}{}
357 \DeclareEncodedCompositeCharacter{\UTFencname}{\textlowering}{031E}{02D5} % Combining down arrow
358 \@ifundefined{textsubplus}{\DeclareTextAccent{\textsubplus}{OT1}{999}}{}
359 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubplus}{031F}{02D6} % Combining plus
360 \@ifundefined{textsubminus}{\DeclareTextAccent{\textsubminus}{OT1}{999}}{}
361 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubminus}{0320}{02D7} % Combining minus
362 \DeclareTextAccent{\textpalhookbelow}{OT1}{999}
363 \DeclareEncodedCompositeCharacter{\UTFencname}{\textpalhookbelow}{0321}{0321} % Combining combining character below
364 \@ifundefined{M}{\DeclareTextAccent{\M}{OT1}{999}}{} % more Miscellaneous IPA characters
365 \DeclareEncodedCompositeCharacter{\UTFencname}{\M}{0322}{0322} % (Combining retroflex hook)
366 \DeclareTextAccent{\textrethookbelow}{OT1}{999}
367 \DeclareEncodedCompositeCharacter{\UTFencname}{\textrethookbelow}{0322}{0322} % Combining retroflex hook
368 \DeclareEncodedCompositeCharacter{\UTFencname}{\d}{0323}{0323} % Combining dot below
369 \@ifundefined{textsubdot}{\DeclareTextAccent{\textsubdot}{OT1}{999}}{}
370 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubdot}{0323}{0323} % Combining dot below
371 \@ifundefined{textsubumlaut}{\DeclareTextAccent{\textsubumlaut}{OT1}{999}}{}
372 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubumlaut}{0324}{0324} % Combining diaeresis
373 \@ifundefined{textsubring}{\DeclareTextAccent{\textsubring}{OT1}{999}}{}
374 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubring}{0325}{02F3} % Combining ring
375 \DeclareTextAccent{\textcommabelow}{OT1}{999}
376 \DeclareEncodedCompositeCharacter{\UTFencname}{\textcommabelow}{0326}{0326} % Combining combining character below
377 \DeclareEncodedCompositeCharacter{\UTFencname}{\c}{0327}{00B8} % Combining cedilla
378 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalcedilla}{0327}{00B8} % Combining capital cedilla
379 \DeclareEncodedCompositeCharacter{\UTFencname}{\k}{0328}{02DB} % Combining ogonek
380 \DeclareEncodedCompositeCharacter{\UTFencname}{\capitalogonek}{0328}{02DB} % Combining capital ogonek
381 \@ifundefined{textpolhook}{\DeclareTextAccent{\textpolhook}{OT1}{999}}{}
382 \DeclareEncodedCompositeCharacter{\UTFencname}{\textpolhook}{0328}{02DB} % Combining ogonek
383 \@ifundefined{textsyllabic}{\DeclareTextAccent{\textsyllabic}{OT1}{999}}{}
384 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsyllabic}{0329}{02CC} % Combining vertical stroke
385 \@ifundefined{textsubbridge}{\DeclareTextAccent{\textsubbridge}{OT1}{999}}{}

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386 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubbridge}{032A}{032A} % Combining bridge
387 \let\dental\textsubbridge
388 \@ifundefined{textsubw}{\DeclareTextAccent{\textsubw}{OT1}{999}}{}
389 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubw}{032B}{032B} % Combining inverted breve
390 \@ifundefined{textsubwedge}{\DeclareTextAccent{\textsubwedge}{OT1}{999}}{}
391 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubwedge}{032C}{032C} % Combining caron
392 \@ifundefined{textsubcircum}{\DeclareTextAccent{\textsubcircum}{OT1}{999}}{}
393 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubcircum}{032D}{032D} % Combining circumflex
394 \@ifundefined{textundertie}{\DeclareTextAccent{\textundertie}{OT1}{999}}{}
395 \DeclareEncodedCompositeCharacter{\UTFencname}{\textundertie}{032E}{203F} % Combining breve
396 \@ifundefined{textsubarch}{\DeclareTextAccent{\textsubarch}{OT1}{999}}{}
397 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubarch}{032F}{032F} % Combining inverted breve
398 \let\underarch\textsubarch
399 \@ifundefined{textsubtilde}{\DeclareTextAccent{\textsubtilde}{OT1}{999}}{}
400 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubtilde}{0330}{02F7} % Combining tilde
401 \@ifundefined{textsubbar}{\DeclareTextAccent{\textsubbar}{OT1}{999}}{}
402 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubbar}{0331}{02CD} % Combining macron
403 \DeclareEncodedCompositeCharacter{\UTFencname}{\b}{0332}{005F} % Combining low line
404 \@ifundefined{subdoublebar}{\DeclareTextAccent{\subdoublebar}{OT1}{999}}{}
405 \DeclareEncodedCompositeCharacter{\UTFencname}{\subdoublebar}{0333}{0333} % ??? see x0347
406 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\subdoublebar}{0333}{0347} % Combining double bar
407 \DeclareTextAccent{\textsuperimpostilde}{OT1}{999}
408 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsuperimpostilde}{0334}{007E} % Combining superimposed tilde
409 \@ifundefined{B}{\DeclareTextAccent{\B}{OT1}{999}}{} % barred variants for TIPA
410 \DeclareEncodedCompositeCharacter{\UTFencname}{\B}{0335}{02D7} % (Combining short stroke overline
411 \DeclareTextAccent{\textsstrokethru}{OT1}{999} % stroke thru lowercase letters
412 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsstrokethru}{0335}{00AF} % Combining short stroke overline
413 \DeclareTextAccent{\textlstrokethru}{OT1}{999} % stroke thru Uppercase letters
414 \DeclareEncodedCompositeCharacter{\UTFencname}{\textlstrokethru}{0336}{0336} % Combining long stroke overline
415 \DeclareTextAccent{\textssstrukethru}{OT1}{999} % strike out lowercase letters
416 \DeclareEncodedCompositeCharacter{\UTFencname}{\textssstrukethru}{0337}{0337} % Combining long stroke overline
417 \DeclareTextAccent{\textlstrukethru}{OT1}{999} % strike out Uppercase letters
418 \DeclareEncodedCompositeCharacter{\UTFencname}{\textlstrukethru}{0338}{0338} % Combining long stroke overline
419 \@ifundefined{textsubrhalfring}{\DeclareTextAccent{\textsubrhalfring}{OT1}{999}}{}
420 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubrhalfring}{0339}{02D2} % Combining ring
421 \@ifundefined{textinvsbridge}{\DeclareTextAccent{\textinvsbridge}{OT1}{999}}{}
422 \DeclareEncodedCompositeCharacter{\UTFencname}{\textinvsbridge}{033A}{033A} % Combining ring
423 \@ifundefined{textsubsquare}{\DeclareTextAccent{\textsubsquare}{OT1}{999}}{}
424 \DeclareEncodedCompositeCharacter{\UTFencname}{\textsubsquare}{033B}{033B} % Combining square
425 \@ifundefined{textseagull}{\DeclareTextAccent{\textseagull}{OT1}{999}}{}
426 \DeclareEncodedCompositeCharacter{\UTFencname}{\textseagull}{033C}{033C} % Combining seagull
427 \@ifundefined{textovercross}{\DeclareTextAccent{\textovercross}{OT1}{999}}{}
428 \DeclareEncodedCompositeCharacter{\UTFencname}{\textovercross}{033D}{033D} % Combining x overline
429 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{033E}{} % Combining vertical tilde
430 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{033F}{} % Combining double overline
431 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0340}{} % Combining grave tone mark
432 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0341}{} % Combining acute tone mark

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433 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0342}{} % Combining greek perispomeni
434 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0343}{} % Combining greek koronis
435 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0344}{} % Combining greek dialytika to
436 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0345}{} % Combining greek ypogegrammeni
437 \@ifundefined{overbridge}{\DeclareTextAccent{\overbridge}{OT1}{999}}{}
438 \DeclareEncodedCompositeCharacter{\UTFencname}{\overbridge}{0346}{0346} % Combining bridge
439 %@ifundefined{subdoublebar}{\DeclareTextAccent{\subdoublebar}{OT1}{999}}{}
440 \%DeclareEncodedCompositeCharacter{\UTFencname}{\subdoublebar}{0347}{0347} % ??? see x033
441 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0347}{0347} % Combining equals sign be
442 \@ifundefined{subdoublevert}{\DeclareTextAccent{\subdoublevert}{OT1}{999}}{}
443 \DeclareEncodedCompositeCharacter{\UTFencname}{\subdoublevert}{0348}{0348} % Combining dou
444 \@ifundefined{subcorner}{\DeclareTextAccent{\subcorner}{OT1}{999}}{}
445 \DeclareEncodedCompositeCharacter{\UTFencname}{\subcorner}{0349}{0349} % Combining left an
446 \@ifundefined{textoverw}{\DeclareTextAccent{\textoverw}{OT1}{999}}{}
447 \DeclareEncodedCompositeCharacter{\UTFencname}{\textoverw}{034A}{034A} % ??? Combining not
448 \@ifundefined{crtilde}{\DeclareTextAccent{\crtilde}{OT1}{999}}{}
449 \DeclareEncodedCompositeCharacter{\UTFencname}{\crtilde}{034A}{034A} % Combining not tilde
450 \@ifundefined{dottedtilde}{\DeclareTextAccent{\dottedtilde}{OT1}{999}}{}
451 \DeclareEncodedCompositeCharacter{\UTFencname}{\dottedtilde}{034B}{034B} % Combining homot
452 \@ifundefined{doubletilde}{\DeclareTextAccent{\doubletilde}{OT1}{999}}{}
453 \DeclareEncodedCompositeCharacter{\UTFencname}{\doubletilde}{034C}{034C} % Combining almos
454 \@ifundefined{spreadlips}{\DeclareTextAccent{\spreadlips}{OT1}{999}}{}
455 \DeclareEncodedCompositeCharacter{\UTFencname}{\spreadlips}{034D}{034D} % Combining left r
456 \@ifundefined{whistle}{\DeclareTextAccent{\whistle}{OT1}{999}}{}
457 \DeclareEncodedCompositeCharacter{\UTFencname}{\whistle}{034E}{02F0} % Combining upwards a
458 \DeclareTextAccent{\textgraphemejoin}{OT1}{999}
459 \DeclareEncodedCompositeCharacter{\UTFencname}{\textgraphemejoin}{034F}{034F} % Combining
460 \DeclareTextAccent{\textrightarrowhead}{OT1}{999}
461 \DeclareEncodedCompositeCharacter{\UTFencname}{\textrightarrowhead}{0350}{0350} % Combining
462 \DeclareTextAccent{\textlefthalfring}{OT1}{999}
463 \DeclareEncodedCompositeCharacter{\UTFencname}{\textlefthalfring}{0351}{02D3} % Combining
464 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0352}{0352} % Combining fermata
465 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0353}{0353} % Combining x below
466 \@ifundefined{sublptr}{\DeclareTextAccent{\sublptr}{OT1}{999}}{}
467 \DeclareEncodedCompositeCharacter{\UTFencname}{\sublptr}{0354}{02F1} % Combining left arr
468 \@ifundefined{subrptr}{\DeclareTextAccent{\subrptr}{OT1}{999}}{}
469 \DeclareEncodedCompositeCharacter{\UTFencname}{\subrptr}{0355}{02F2} % Combining right arr
470 \DeclareTextAccent{\textrightuparrowarrowhead}{OT1}{999}
471 \DeclareEncodedCompositeCharacter{\UTFencname}{\textrightuparrowarrowhead}{0356}{0356} % Combining
472 \DeclareTextAccent{\textrighthalfring}{OT1}{999}
473 \DeclareEncodedCompositeCharacter{\UTFencname}{\textrighthalfring}{0357}{02D2} % Combining
474 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0358}{()} % ** unassigned **
475 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0359}{()} % ** unassigned **
476 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{035A}{()} % ** unassigned **
477 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{035B}{()} % ** unassigned **
478 \%DeclareEncodedCompositeCharacter{\UTFencname}{\?}{035C}{()} % ** unassigned **
479 \DeclareTextAccent{\textdoublebreve}{OT1}{999}

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480 \DeclareEncodedCompositeCharacter{\UTFencname}{\textdoublebreve}{035D}{035D} % Combining double breve
481 \DeclareTextAccent{\textdoublemacron}{OT1}{999}
482 \DeclareEncodedCompositeCharacter{\UTFencname}{\textdoublemacron}{035E}{035E} % Combining double macron
483 \DeclareTextAccent{\textdoublemacronbelow}{OT1}{999}
484 \DeclareEncodedCompositeCharacter{\UTFencname}{\textdoublemacronbelow}{035F}{035F} % Combining double macron below
485 \DeclareTextAccent{\textdoubletilde}{OT1}{999}
486 \DeclareEncodedCompositeCharacter{\UTFencname}{\textdoubletilde}{0360}{0360} % Combining double tilde
487 \@ifundefined{texttoptiebar}{\DeclareTextAccent{\texttoptiebar}{OT1}{999}}{}
488 \DeclareEncodedCompositeCharacter{\UTFencname}{\texttoptiebar}{0361}{0361} % Combining double tie bar
489 \@ifundefined{sliding}{\DeclareTextAccent{\sliding}{OT1}{999}}{}
490 \DeclareEncodedCompositeCharacter{\UTFencname}{\sliding}{0362}{0362} % Combining double sliding
491 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0363}{0363} % Combining latin small letter
492 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0364}{0364} % Combining latin small letter
493 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0365}{0365} % Combining latin small letter
494 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0366}{0366} % Combining latin small letter
495 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0367}{0367} % Combining latin small letter
496 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0368}{0368} % Combining latin small letter
497 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{0369}{0369} % Combining latin small letter
498 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{036A}{036A} % Combining latin small letter
499 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{036B}{036B} % Combining latin small letter
500 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{036C}{036C} % Combining latin small letter
501 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{036D}{036D} % Combining latin small letter
502 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{036E}{036E} % Combining latin small letter
503 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\?}{036F}{036F} % Combining latin small letter

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## 5.4 Missing IPA accenting macros

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504 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\partvoiceless}{????} % Combining (o) below
505 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\inipartvoiceless}{????} % Combining (o before)
506 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\finpartvoiceless}{????} % Combining o before
507 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\partvoice}{????} % Combining (v) below
508 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\inipartvoice}{????} % Combining (v before)
509 \% \DeclareEncodedCompositeCharacter{\UTFencname}{\finpartvoice}{????} % Combining v before
510
511 \@ifundefined{bibridge}{\DeclareTextAccent{\bibridge}{OT1}{999}}{}
512 \DeclareEncodedCompositeAccents{\UTFencname}{\bibridge}{032A}{0346} % IPA bi-bridge
513 \@ifundefined{textmidacute}{\DeclareTextAccent{\textmidacute}{OT1}{999}}{}
514 \DeclareEncodedCompositeAccents{\UTFencname}{\textmidacute}{0304}{0301} % macron-acute ligature
515 \@ifundefined{textgravemid}{\DeclareTextAccent{\textgravemid}{OT1}{999}}{}
516 \DeclareEncodedCompositeAccents{\UTFencname}{\textgravemid}{0300}{0304} % grave-macron ligature
517 \@ifundefined{textgravecircum}{\DeclareTextAccent{\textgravecircum}{OT1}{999}}{}
518 \DeclareEncodedCompositeAccents{\UTFencname}{\textgravecircum}{0300}{0302} % grave-circumflex
519 \@ifundefined{textcircumacute}{\DeclareTextAccent{\textcircumacute}{OT1}{999}}{}
520 \DeclareEncodedCompositeAccents{\UTFencname}{\textcircumacute}{0301}{0302} % circumflex-acute
521 \@ifundefined{textgravedot}{\DeclareTextAccent{\textgravedot}{OT1}{999}}{}
522 \DeclareEncodedCompositeAccents{\UTFencname}{\textgravedot}{0300}{0307} % grave-dot ligature
523 \@ifundefined{textdotacute}{\DeclareTextAccent{\textdotacute}{OT1}{999}}{}
524 \DeclareEncodedCompositeAccents{\UTFencname}{\textdotacute}{0307}{0301} % dot-acute ligature

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525 \@ifundefined{textacutemacron}{\DeclareTextAccent{\textacutemacron}{OT1}{999}}{}}
526 \DeclareEncodedCompositeAccents{\UTFencname}{\textacutemacron}{0301}{0304} % acute-macron
527 \@ifundefined{textgravemacron}{\DeclareTextAccent{\textgravemacron}{OT1}{999}}{}}
528 \DeclareEncodedCompositeAccents{\UTFencname}{\textgravemacron}{0300}{0304} % grave-macron
529 \@ifundefined{textacutewedge}{\DeclareTextAccent{\textacutewedge}{OT1}{999}}{}}
530 \DeclareEncodedCompositeAccents{\UTFencname}{\textacutewedge}{0301}{030C} % acute-wedge li
531 \@ifundefined{textcircumdot}{\DeclareTextAccent{\textcircumdot}{OT1}{999}}{}}
532 \DeclareEncodedCompositeAccents{\UTFencname}{\textcircumdot}{0302}{0307} % circumflex-dot
533 \@ifundefined{texttildedot}{\DeclareTextAccent{\texttildedot}{OT1}{999}}{}}
534 \DeclareEncodedCompositeAccents{\UTFencname}{\texttildedot}{0303}{0307} % tilde-dot ligatu
535 \@ifundefined{textringmacron}{\DeclareTextAccent{\textringmacron}{OT1}{999}}{}}
536 \DeclareEncodedCompositeAccents{\UTFencname}{\textringmacron}{030A}{0304} % ring-macron li
537 \@ifundefined{textbrevemacron}{\DeclareTextAccent{\textbrevemacron}{OT1}{999}}{}}
538 \DeclareEncodedCompositeAccents{\UTFencname}{\textbrevemacron}{0306}{0304} % breve-macron
539
540 \DeclareTextAccent{\texthookcircum}{OT1}{999}
541 \DeclareEncodedCompositeAccents{\UTFencname}{\texthookcircum}{0309}{0302}
542 \DeclareTextAccent{\texttildecircum}{OT1}{999}
543 \DeclareEncodedCompositeAccents{\UTFencname}{\texttildecircum}{0303}{0302}
544 \DeclareTextAccent{\textdieresisoverline}{OT1}{999}
545 \DeclareEncodedCompositeAccents{\UTFencname}{\textdieresisoverline}{0304}{0308}
546 \DeclareTextAccent{\textdieresisacute}{OT1}{999}
547 \DeclareEncodedCompositeAccents{\UTFencname}{\textdieresisacute}{0301}{0308}
548 \DeclareTextAccent{\textdieresisgrave}{OT1}{999}
549 \DeclareEncodedCompositeAccents{\UTFencname}{\textdieresisgrave}{0300}{0308}
550 \DeclareTextAccent{\textdieresiscaron}{OT1}{999}
551 \DeclareEncodedCompositeAccents{\UTFencname}{\textdieresiscaron}{030C}{0308}
552 \DeclareTextAccent{\texttildeoverline}{OT1}{999}
553 \DeclareEncodedCompositeAccents{\UTFencname}{\texttildeoverline}{0303}{0304}
554 \DeclareTextAccent{\textdotoverline}{OT1}{999}
555 \DeclareEncodedCompositeAccents{\UTFencname}{\textdotoverline}{0304}{0307}
556 \DeclareTextAccent{\textringacute}{OT1}{999}
557 \DeclareEncodedCompositeAccents{\UTFencname}{\textringacute}{0301}{030A}
558 \DeclareTextAccent{\textcircumdotbelow}{OT1}{999}
559 \DeclareEncodedCompositeAccents{\UTFencname}{\textcircumdotbelow}{0302}{0323}
560 \DeclareTextAccent{\textbreveacute}{OT1}{999}
561 \DeclareEncodedCompositeAccents{\UTFencname}{\textbreveacute}{0301}{0306}
562 \DeclareTextAccent{\textbrevegrave}{OT1}{999}
563 \DeclareEncodedCompositeAccents{\UTFencname}{\textbrevegrave}{0300}{0306}
564 \DeclareTextAccent{\textbrevehook}{OT1}{999}
565 \DeclareEncodedCompositeAccents{\UTFencname}{\textbrevehook}{0309}{0306}
566 \DeclareTextAccent{\textbrevetilde}{OT1}{999}
567 \DeclareEncodedCompositeAccents{\UTFencname}{\textbrevetilde}{0303}{0306}
568 \DeclareTextAccent{\textbrevedotbelow}{OT1}{999}
569 \DeclareEncodedCompositeAccents{\UTFencname}{\textbrevedotbelow}{0323}{0306}
570 \DeclareTextAccent{\textacutehorn}{OT1}{999}
571 \DeclareEncodedCompositeAccents{\UTFencname}{\textacutehorn}{0301}{031B}

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572 \DeclareTextAccent{\textgravehorn}{OT1}{999}
573 \DeclareEncodedCompositeAccents{\UTFencname}{\textgravehorn}{0300}{031B}
574 \DeclareTextAccent{\texthookhorn}{OT1}{999}
575 \DeclareEncodedCompositeAccents{\UTFencname}{\texthookhorn}{0309}{031B}
576 \DeclareTextAccent{\texttildehorn}{OT1}{999}
577 \DeclareEncodedCompositeAccents{\UTFencname}{\texttildehorn}{0303}{031B}
578 \DeclareTextAccent{\textdotbelowhorn}{OT1}{999}
579 \DeclareEncodedCompositeAccents{\UTFencname}{\textdotbelowhorn}{0323}{031B}
580 \DeclareTextAccent{\textogonekoverline}{OT1}{999}
581 \DeclareEncodedCompositeAccents{\UTFencname}{\textogonekoverline}{0328}{0304}
582
583 \DeclareTextAccent{\textmiddledot}{OT1}{999}
584 \DeclareEncodedCompositeCharacter{\UTFencname}{\textmiddledot}{05BC}{05BC}

```

## 5.5 Rare definitions

Not many fonts support these code-points yet.

```

585 \DeclareUTFcharacter[\UTFencname]{x3008}{\textlangle}
586 \DeclareUTFcharacter[\UTFencname]{x3009}{\textrangle}
587 \DeclareUTFcharacter[\UTFencname]{x301A}{\textlbrackdbl}
588 \DeclareUTFcharacter[\UTFencname]{x301B}{\textrbrackdbl}

```

### 5.5.1 Old-style numbers

```

589 \DeclareUTFcharacter[\UTFencname]{xFF10}{\textzerooldstyle}
590 \DeclareUTFcharacter[\UTFencname]{xFF11}{\textoneoldstyle}
591 \DeclareUTFcharacter[\UTFencname]{xFF12}{\texttwooldstyle}
592 \DeclareUTFcharacter[\UTFencname]{xFF13}{\textthreeoldstyle}
593 \DeclareUTFcharacter[\UTFencname]{xFF14}{\textfouroldstyle}
594 \DeclareUTFcharacter[\UTFencname]{xFF15}{\textfiveoldstyle}
595 \DeclareUTFcharacter[\UTFencname]{xFF16}{\textsixoldstyle}
596 \DeclareUTFcharacter[\UTFencname]{xFF17}{\textsevenoldstyle}
597 \DeclareUTFcharacter[\UTFencname]{xFF18}{\texteightoldstyle}
598 \DeclareUTFcharacter[\UTFencname]{xFF19}{\textnineoldstyle}

```

### 5.5.2 Circled letters and small numbers

```

599 \DeclareEncodedCompositeCharacter{\UTFencname}{\textcircled}{20DD}{25EF}
600 \DeclareUTFcomposite[\UTFencname]{x2460}{\textcircled}{1}
601 \DeclareUTFcomposite[\UTFencname]{x2461}{\textcircled}{2}
602 \DeclareUTFcomposite[\UTFencname]{x2462}{\textcircled}{3}
603 \DeclareUTFcomposite[\UTFencname]{x2463}{\textcircled}{4}
604 \DeclareUTFcomposite[\UTFencname]{x2464}{\textcircled}{5}
605 \DeclareUTFcomposite[\UTFencname]{x2465}{\textcircled}{6}
606 \DeclareUTFcomposite[\UTFencname]{x2466}{\textcircled}{7}
607 \DeclareUTFcomposite[\UTFencname]{x2467}{\textcircled}{8}
608 \DeclareUTFcomposite[\UTFencname]{x2468}{\textcircled}{9}
609 \DeclareUTFcomposite[\UTFencname]{x2469}{\textcircled}{10}

```

```

610 \DeclareUTFcomposite[\UTFencname]{x246A}{\textcircled}{11}
611 \DeclareUTFcomposite[\UTFencname]{x246B}{\textcircled}{12}
612 \DeclareUTFcomposite[\UTFencname]{x246C}{\textcircled}{13}
613 \DeclareUTFcomposite[\UTFencname]{x246D}{\textcircled}{14}
614 \DeclareUTFcomposite[\UTFencname]{x246E}{\textcircled}{15}
615 \DeclareUTFcomposite[\UTFencname]{x246F}{\textcircled}{16}
616 \DeclareUTFcomposite[\UTFencname]{x2470}{\textcircled}{17}
617 \DeclareUTFcomposite[\UTFencname]{x2471}{\textcircled}{18}
618 \DeclareUTFcomposite[\UTFencname]{x2472}{\textcircled}{19}
619 \DeclareUTFcomposite[\UTFencname]{x2473}{\textcircled}{20}
620
621 \DeclareUTFcomposite[\UTFencname]{x24B6}{\textcircled}{A}
622 \DeclareUTFcomposite[\UTFencname]{x24B7}{\textcircled}{B}
623 \DeclareUTFcomposite[\UTFencname]{x24B8}{\textcircled}{C}
624 \DeclareUTFcomposite[\UTFencname]{x24B9}{\textcircled}{D}
625 \DeclareUTFcomposite[\UTFencname]{x24BA}{\textcircled}{E}
626 \DeclareUTFcomposite[\UTFencname]{x24BB}{\textcircled}{F}
627 \DeclareUTFcomposite[\UTFencname]{x24BC}{\textcircled}{G}
628 \DeclareUTFcomposite[\UTFencname]{x24BD}{\textcircled}{H}
629 \DeclareUTFcomposite[\UTFencname]{x24BE}{\textcircled}{I}
630 \DeclareUTFcomposite[\UTFencname]{x24BF}{\textcircled}{J}
631 \DeclareUTFcomposite[\UTFencname]{x24C0}{\textcircled}{K}
632 \DeclareUTFcomposite[\UTFencname]{x24C1}{\textcircled}{L}
633 \DeclareUTFcomposite[\UTFencname]{x24C2}{\textcircled}{M}
634 \DeclareUTFcomposite[\UTFencname]{x24C3}{\textcircled}{N}
635 \DeclareUTFcomposite[\UTFencname]{x24C4}{\textcircled}{O}
636 \DeclareUTFcomposite[\UTFencname]{x24C5}{\textcircled}{P}
637 \DeclareUTFcomposite[\UTFencname]{x24C6}{\textcircled}{Q}
638 \DeclareUTFcomposite[\UTFencname]{x24C7}{\textcircled}{R}
639 \DeclareUTFcomposite[\UTFencname]{x24C8}{\textcircled}{S}
640 \DeclareUTFcomposite[\UTFencname]{x24C9}{\textcircled}{T}
641 \DeclareUTFcomposite[\UTFencname]{x24CA}{\textcircled}{U}
642 \DeclareUTFcomposite[\UTFencname]{x24CB}{\textcircled}{V}
643 \DeclareUTFcomposite[\UTFencname]{x24CC}{\textcircled}{W}
644 \DeclareUTFcomposite[\UTFencname]{x24CD}{\textcircled}{X}
645 \DeclareUTFcomposite[\UTFencname]{x24CE}{\textcircled}{Y}
646 \DeclareUTFcomposite[\UTFencname]{x24CF}{\textcircled}{Z}
647 \DeclareUTFcomposite[\UTFencname]{x24D0}{\textcircled}{a}
648 \DeclareUTFcomposite[\UTFencname]{x24D1}{\textcircled}{b}
649 \DeclareUTFcomposite[\UTFencname]{x24D2}{\textcircled}{c}
650 \DeclareUTFcomposite[\UTFencname]{x24D3}{\textcircled}{d}
651 \DeclareUTFcomposite[\UTFencname]{x24D4}{\textcircled}{e}
652 \DeclareUTFcomposite[\UTFencname]{x24D5}{\textcircled}{f}
653 \DeclareUTFcomposite[\UTFencname]{x24D6}{\textcircled}{g}
654 \DeclareUTFcomposite[\UTFencname]{x24D7}{\textcircled}{h}
655 \DeclareUTFcomposite[\UTFencname]{x24D8}{\textcircled}{i}
656 \DeclareUTFcomposite[\UTFencname]{x24D9}{\textcircled}{j}

```

```

657 \DeclareUTFcomposite[\UTFencname]{x24DA}{\textcircled}{k}
658 \DeclareUTFcomposite[\UTFencname]{x24DB}{\textcircled}{l}
659 \DeclareUTFcomposite[\UTFencname]{x24DC}{\textcircled}{m}
660 \DeclareUTFcomposite[\UTFencname]{x24DD}{\textcircled}{n}
661 \DeclareUTFcomposite[\UTFencname]{x24DE}{\textcircled}{o}
662 \DeclareUTFcomposite[\UTFencname]{x24DF}{\textcircled}{p}
663 \DeclareUTFcomposite[\UTFencname]{x24E0}{\textcircled}{q}
664 \DeclareUTFcomposite[\UTFencname]{x24E1}{\textcircled}{r}
665 \DeclareUTFcomposite[\UTFencname]{x24E2}{\textcircled}{s}
666 \DeclareUTFcomposite[\UTFencname]{x24E3}{\textcircled}{t}
667 \DeclareUTFcomposite[\UTFencname]{x24E4}{\textcircled}{u}
668 \DeclareUTFcomposite[\UTFencname]{x24E5}{\textcircled}{v}
669 \DeclareUTFcomposite[\UTFencname]{x24E6}{\textcircled}{w}
670 \DeclareUTFcomposite[\UTFencname]{x24E7}{\textcircled}{x}
671 \DeclareUTFcomposite[\UTFencname]{x24E8}{\textcircled}{y}
672 \DeclareUTFcomposite[\UTFencname]{x24E9}{\textcircled}{z}
673 \DeclareUTFcomposite[\UTFencname]{x24EA}{\textcircled}{0}
674
675 \DeclareUTFcomposite[\UTFencname]{x3251}{\textcircled}{21}
676 \DeclareUTFcomposite[\UTFencname]{x3252}{\textcircled}{22}
677 \DeclareUTFcomposite[\UTFencname]{x3253}{\textcircled}{23}
678 \DeclareUTFcomposite[\UTFencname]{x3254}{\textcircled}{24}
679 \DeclareUTFcomposite[\UTFencname]{x3255}{\textcircled}{25}
680 \DeclareUTFcomposite[\UTFencname]{x3256}{\textcircled}{26}
681 \DeclareUTFcomposite[\UTFencname]{x3257}{\textcircled}{27}
682 \DeclareUTFcomposite[\UTFencname]{x3258}{\textcircled}{28}
683 \DeclareUTFcomposite[\UTFencname]{x3259}{\textcircled}{29}
684 \DeclareUTFcomposite[\UTFencname]{x325A}{\textcircled}{30}
685 \DeclareUTFcomposite[\UTFencname]{x325B}{\textcircled}{31}
686 \DeclareUTFcomposite[\UTFencname]{x325C}{\textcircled}{32}
687 \DeclareUTFcomposite[\UTFencname]{x325D}{\textcircled}{33}
688 \DeclareUTFcomposite[\UTFencname]{x325E}{\textcircled}{34}
689 \DeclareUTFcomposite[\UTFencname]{x325F}{\textcircled}{35}
690
691 \DeclareUTFcomposite[\UTFencname]{x32B1}{\textcircled}{36}
692 \DeclareUTFcomposite[\UTFencname]{x32B2}{\textcircled}{37}
693 \DeclareUTFcomposite[\UTFencname]{x32B3}{\textcircled}{38}
694 \DeclareUTFcomposite[\UTFencname]{x32B4}{\textcircled}{39}
695 \DeclareUTFcomposite[\UTFencname]{x32B5}{\textcircled}{40}
696 \DeclareUTFcomposite[\UTFencname]{x32B6}{\textcircled}{41}
697 \DeclareUTFcomposite[\UTFencname]{x32B7}{\textcircled}{42}
698 \DeclareUTFcomposite[\UTFencname]{x32B8}{\textcircled}{43}
699 \DeclareUTFcomposite[\UTFencname]{x32B9}{\textcircled}{44}
700 \DeclareUTFcomposite[\UTFencname]{x32BA}{\textcircled}{45}
701 \DeclareUTFcomposite[\UTFencname]{x32BB}{\textcircled}{46}
702 \DeclareUTFcomposite[\UTFencname]{x32BC}{\textcircled}{47}
703 \DeclareUTFcomposite[\UTFencname]{x32BD}{\textcircled}{48}

```

```
704 \DeclareUTFcomposite[\UTFencname]{x32BE}{\textcircled}{49}
705 \DeclareUTFcomposite[\UTFencname]{x32BF}{\textcircled}{50}
```

## 6 Latin Modern test file

Adapted and improved from my PracTeX Journal article on the Latin Modern fonts.

```
706 \documentclass[12pt]{article}
707 \usepackage[margin=2.5cm]{geometry}
708 \newenvironment{vrb}
709         {\begin{tabular}{@{}p{7cm}l@{}}}
710         {\end{tabular}}
711
712 \usepackage{fancyvrb}
713 \DefineShortVerb{\| }
714
715 \usepackage{slantsc}
716 \usepackage{ifluatex}
717 \usepackage{ifxetex}
718 \ifxetex
719     \def\EU{\EU}
720 \else
721     \ifluatex
722         \usepackage{luatofload}
723         \def\EU{\EU}
724     \else
725         \def\EU{\T1}
726     \fi
727 \fi
728 \usepackage[\EU]{fontenc}
729 \usepackage{lmodern}
730 \begin{document}
731
732 \title{Testing the Latin Modern \texttt{\{EU\}} encoding}
733 \author{Will Robertson}
734 \maketitle
735 \thispagestyle{empty}
736 \pagestyle{empty}
737
738 \section*{Roman}
739
740 \fontfamily{lmr}\selectfont
741 \begin{vrb}
742 | \rmdefault | & {\selectfont Latin Modern Roman} \\
743 |   \itshape | & {\itshape Latin Modern Roman Italic} \\
744 |   \slshape | & {\slshape Latin Modern Roman Oblique} \\
745 |   \scshape | & {\scshape Latin Modern Roman Small Caps} \\
```

```

746 |      \slshape| & {\scshape\slshape Latin Modern Roman Oblique Small Caps} \\
747 |      \bfseries| & {\bfseries Latin Modern Roman Bold Extended} \\
748 |          \itshape| & {\bfseries\itshape Latin Modern Roman Bold Italic Extended} \\
749 |          \slshape| & {\bfseries\slshape Latin Modern Roman Bold Oblique Extended} \\
750 |      \fontseries{b}| & {\fontseries{b}\selectfont Latin Modern Roman Bold} \\
751 |      \fontseries{b}\slshape| & {\fontseries{b}\slshape Latin Modern Roman Bold Oblique} \\
752 \end{vrb}
753
754 \section*{Dunhill}
755
756 \fontfamily{lmdh}\selectfont
757 \begin{vrb}
758 |\fontfamily{lmdh}\selectfont| & {Latin Modern Dunhill} \\
759 |      \slshape| & {\slshape Latin Modern Dunhill Oblique} \\
760 \end{vrb}
761
762 \section*{Sans}
763
764 \fontfamily{lmss}\selectfont
765 \begin{vrb}
766 |\sffamily| & {\selectfont Latin Modern Sans} \\
767 |      \slshape| & {\slshape Latin Modern Sans Oblique} \\
768 |      \bfseries| & {\bfseries Latin Modern Sans Bold} \\
769 |          \slshape| & {\bfseries\slshape Latin Modern Sans Bold Oblique} \\
770 |      \fontseries{sbc}\selectfont| & {\fontseries{sbc}\selectfont Latin Modern Sans Demi Condensed} \\
771 |          \slshape| & {\fontseries{sbc}\selectfont\slshape Latin Modern Sans Demi Condensed Oblique} \\
772 \end{vrb}
773
774 \section*{Sans Quotation}
775
776 \fontfamily{lmssq}\selectfont
777 \begin{vrb}
778 |\renewcommand\sfdefault{lmssq}| \\
779 |\sffamily| & {\selectfont Latin Modern Sans Extended} \\
780 |      \slshape| & {\slshape Latin Modern Sans Extended Oblique} \\
781 |      \bfseries| & {\bfseries Latin Modern Sans Bold Extended} \\
782 |          \slshape| & {\bfseries\slshape Latin Modern Sans Bold Extended Oblique} \\
783 \end{vrb}
784
785 \section*{Typewriter}
786
787 \fontfamily{lmtt}\selectfont
788 \begin{vrb}
789 |\ttfamily| & {\selectfont Latin Modern Typewriter} \\
790 |      \itshape| & {\itshape Latin Modern Typewriter Italic} \\
791 |      \slshape| & {\slshape Latin Modern Typewriter Oblique} \\
792 |      \scshape| & {\scshape Latin Modern Typewriter Small Caps} \\

```

```

793 | \scshape\slshape | & {\scshape\slshape Latin Modern Typewriter Oblique Small Caps} \\
794 | \bfseries | & {\bfseries Latin Modern Typewriter Dark} \\
795 | \slshape | & {\bfseries\slshape Latin Modern Typewriter Dark Oblique} \\
796 | \fontseries{b}\selectfont | & {\fontfamily{lmtt}\fontseries{b}\selectfont Latin Modern \\
797 | \fontseries{b}\slshape | & {\fontfamily{lmtt}\fontseries{b}\slshape Latin Modern Typewriter \\
798 | \fontseries{l}\selectfont | & {\fontfamily{lmtt}\fontseries{l}\selectfont Latin Modern \\
799 | \fontseries{l}\slshape | & {\fontfamily{lmtt}\fontseries{l}\slshape Latin Modern Typewriter \\
800 | \fontseries{lc}\selectfont | & {\fontfamily{lmtt}\fontseries{lc}\selectfont Latin Modern \\
801 | \fontseries{lc}\slshape | & {\fontfamily{lmtt}\fontseries{lc}\slshape Latin Modern Typewriter \\
802 \end{vrb}
803
804 \section*[Variable-width Typewriter]
805
806 \fontfamily{lmvtt}\selectfont
807 \def\fixedspacing{\fontdimen3\font0pt\fontdimen4\font0pt}
808 \begin{vrb}
809 |\renewcommand\ttdefault{lmvtt}| \\
810 |\ttfamily | & {\selectfont \fixedspacing Latin Modern Typewriter Proprietary} \\
811 | \slshape | & {\slshape \fixedspacing Latin Modern Typewriter Proprietary} \\
812 | \fontseries{l}\selectfont | & {\fontseries{l}\selectfont \fixedspacing Latin Modern Typewriter} \\
813 | \fontseries{l}\slshape | & {\mbox{\fontseries{l}\slshape \fixedspacing Latin Modern Typewriter}} \\
814 | \fontseries{b}\selectfont | & {\fontseries{b}\selectfont \fixedspacing Latin Modern Typewriter} \\
815 | \fontseries{b}\slshape | & {\mbox{\fontseries{b}\slshape \fixedspacing Latin Modern Typewriter}} \\
816 \end{vrb}
817
818 \end{document}

```