

LaTeX Support for Linux Libertine and Biolinum Fonts

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1 Introduction

This package provides support for use of the Linux Libertine and Linux Biolinum families of fonts with \LaTeX , \pdf\LaTeX , \XeTeX and \lua\LaTeX . It is intended to replace several existing packages (`libertine-type1`, `biolinum-type1`, `libertine`) and should provide partial compatibility with the obsolete `libertineotf` and `libertine-legacy` packages.

2 Installation

To install this package on a TDS-compliant \TeX system, unzip the file

```
/install/fonts/libertine.tds.zip
```

at the root of an appropriate `texmf` tree, likely a personal or local tree. If necessary, update the file-name database (e.g., `texhash`). Update the font-map files by enabling the Map file `libertine.map`.

3 Basic Usage

For most purposes, simply add

```
\usepackage{libertine}
```

to the preamble of your document. This will activate Libertine as the main (seriffed) text font and Biolinum as the sans font. It is recommended that the font encoding be set to `T1` or `LY1` but the default `OT1` encoding is also supported. Available shapes in all series include:

<code>it</code>	italic
<code>sc</code>	small caps
<code>scit</code>	italic small caps

Slanted variants are not supported; the designed italic variants will be automatically substituted. The exception is the bold series of Biolinum, for which a designed italic is not currently available. An artificially slanted variant has been generated and treated as if it were italic.

To activate Libertine without Biolinum, use the `libertine` (or `rm`) option. Similarly, to activate Biolinum without Libertine use the `biolinum` (or `sf`) option. To use Biolinum as the main text font (as well as the sans font), use the option `sfdefault` (which redefines `\familydefault`, not `\rmdefault`).

4 Advanced Usage

\LuaTeX and \XeTeX users who might prefer to use `type1` fonts or who wish to avoid `fontspec` may use the `type1` option; `libertine-type1.sty` and `biolinum-type1.sty` wrapper packages are included to provide compatibility with the older packages. For legacy documents that use only basic facilities of `libertineotf`, a similar wrapper `libertineotf.sty` is provided. The following features of the original `libertine` or `libertineotf` packages are *not* supported:

- Option `mono` and font-features such as `Ligatures` or `Scale` as option parameters

- Macro support for the Mono, Initial, Display, Outline, or Shadow fonts
- Commands `\Lnnum`, `\Lpnum`, `\Lcnum`, etc.
- Environments `Ltable` and `libertineenumerate`

If your documents use any of the features listed above, you may have to continue to use the `libertineotf` package (which is still available from CTAN) or access the opentype fonts directly using `fontspec`.

The following options are available in all styles:

<code>oldstyle (osf)</code>	old-style figures
<code>lining (nf, lf)</code>	lining figures
<code>proportional (p)</code>	varying-width figures
<code>tabular (t)</code>	fixed-width figures

The defaults are `oldstyle` and `proportional`. These apply to both font families; to change the default figure style of just the Biolinum (sans) fonts, use options

`sflining (sflf)` or `sfoldstyle (sfosf)`
`sftabular (sft)` or `sfproportional (sfp)`

The `semibold (sb)` option will set `\bfdefault` to `sb` to allow using the semi-bold series of Libertine; this has no effect on the Biolinum fonts, for which there is no semi-bold variant. The options `scale=<number>` (or `scaled=<number>`) will scale the Biolinum fonts but have no effect on the Libertine fonts.

Commands `\oldstylenums{...}` and `\oldstylenumsf{...}` are defined to allow for local use of old-style figures in Libertine and Biolinum, respectively, if lining figures is the default, and similarly `\liningnums{...}` and `\liningnumsf{...}`.

Similarly, commands `\tabularnums{...}` and `\tabularnumsf{...}` are defined to allow local use of monospaced figures in Libertine or Biolinum, respectively, if proportional figures is the default, and similarly `\proportionalnums{...}` and `\proportionalnumsf{...}`.

Superior numbers (for footnote markers) are available using `\sufigures` or `\textsu{...}`.

Macros `\libertine`, `\libertineSB`, `\libertineOsF` and `\libertineLF`, select the Libertine family, the Libertine family with the semi-bold series as the `bfdefault`, the Libertine family with OldStyle figures, and the Libertine family with Lining Figures, respectively.

Macros `\biolinum`, `\biolinumOsF`, and `\biolinumLF` select the Biolinum family, the Biolinum family with OldStyle figures, and the Biolinum family with Lining Figures, respectively.

5 OpenType Fonts

The features in this section are only available to $\text{x}\text{e}\text{L}\text{A}\text{T}\text{E}\text{X}$ and $\text{lua}\text{L}\text{A}\text{T}\text{E}\text{X}$ users.

Macros `\libertineGlyph{...}` and `\biolinumGlyph{...}` produce the glyph named in the argument in the Libertine or Biolinum font, respectively; for example, in regular-weight and upright-shape, `\libertineGlyph{seven.cap}` and `\libertineGlyph{uniE10F}` both produce a lining 7 that matches the height of capital letters, as in

K7L 3N6

Similarly, `\biolinumKeyGlyph{...}` produces the named glyph in the Biolinum Keyboard font; for example: `\biolinumKeyGlyph{seven}` produces $\boxed{7}$. A large number of macros of the form `\LKey...` or `\LMouse...` are provided to simplify production of glyphs in the Biolinum Keyboard font; see Appendix A. Appendix B has a table of the entire Linux Biolinum Keyboard font, with corresponding glyph name and codepoint.

The fonts used for the features described above are in the

`/fonts/opentype/public/libertine`

directory as follows:

File name	Internal name	Description
LinBiolinum_K.otf	LinBiolinumOKb	keyboard
LinBiolinum_RB0.otf	LinBiolinumOBO	sans serif bold italic (oblique)
LinBiolinum_RB.otf	LinBiolinumOB	sans serif bold
LinBiolinum_RI.otf	LinBiolinumOI	sans serif italic
LinBiolinum_R.otf	LinBiolinumO	sans serif regular
LinLibertine_RBI.otf	LinLibertineOBI	bold italic
LinLibertine_RB.otf	LinLibertineOB	bold
LinLibertine_RI.otf	LinLibertineOI	italic
LinLibertine_R.otf	LinLibertineO	regular
LinLibertine_RZI.otf	LinLibertineOZI	semibold italic
LinLibertine_RZ.otf	LinLibertineOZ	semibold

This directory also has several additional fonts which can be activated using `fontspec` (with `xeLaTeX` or `luaLaTeX`):

File name	Internal name	Description
LinLibertine_DR.otf	LinLibertineDisplayO	a display font
LinLibertine_I.otf	LinLibertineIO	a font of large initials
LinLibertine_M.otf	LinLibertineMO	a monospaced font

6 Concluding Remarks

For compatible mathematics, it is recommended to use the `newtxmath` package with the `libertine` option.

The original opentype fonts were created by Philipp H. Poll (gillian@linuxlibertine.org) and are licensed under the terms of the GNU General Public License (Version 2, with font exception) and under the terms of the Open Font License. For details look into the `doc` directory of the distribution or at

<http://www.linuxlibertine.org/>

The Glyph and KeyCap support was taken from the original `libertine` package by Michael Niedermaier.

Three of the Libertine fonts were modified by Michael Sharpe (`msharpe@ucsd.edu`) using `fontforge` to correct minor problems, including adding three missing ligatures (***fl***, ***ffi***, ***ffi***) to the bold-italic font.























The type 1 fonts were created using `cfftot1` or `fontforge`. The internal font-family name of the type 1 fonts has been changed to `LinuxLibertineT` and `LinuxBiolinumT` to avoid interfering with `xeLTeX` users who access system fonts.

























The support files were created using `autoinst`. The support files are licensed under the terms of the LaTeX Project Public License.

Thanks to Herbert Voss, Patrick Gundlach, Silke Hofstra, Marc Penninga, Michael Sharpe, Denis Bitouzé, and Khaled Hosny for their assistance. The maintainer of this package is Bob Tennent (`rdt@cs.queensu.ca`)

A Biolinum KeyCap Macros





A.1 Special Keys

Tux	\LKeyTux	
Win	\LKeyWin	
Menu	\LKeyMenu	
Strg	\LKeyStrg	
Ctrl	\LKeyCtrl	
Alt	\LKeyAlt	
AltGr	\LKeyAltGr	
Shift	\LKeyShift	
Enter	\LKeyEnter	
Tab	\LKeyTab	
CapsLock	\LKeyCapsLock	
Pos	\LKeyPos	
Entf	\LKeyEntf	
Einf	\LKeyEinf	
Leer	\LKeyLeer	
Esc	\LKeyEsc	
Ende	\LKeyEnde	
Back	\LKeyBack	
Up	\LKeyUp	
Dwon	\LKeyDown	
Left	\LKeyLeft	
Right	\LKeyRight	












































PgUp	\LKeyPgUp	
PgDown	\LKeyPgDown	
At	\LKeyAt	
Fn	\LKeyFn	
Home	\LKeyHome	
Del	\LKeyDel	
Space	\LKeySpace	
ScreenUp	\LKeyScreenUp	
ScreenDown	\LKeyScreenDown	
Ins	\LKeyIns	
End	\LKeyEnd	
GNU	\LKeyGNU	
PageUp	\LKeyPageUp	
PageDown	\LKeyPageDown	
Command	\LKeyCommand	
OptionKey	\LKeyOptionKey	
F1	\LKeyF{1}	
F2	\LKeyF{2}	
F3	\LKeyF{3}	
F4	\LKeyF{4}	
F5	\LKeyF{5}	
F6	\LKeyF{6}	
F7	\LKeyF{7}	
F8	\LKeyF{8}	

F9	\LKeyF{9}	F9
F10	\LKeyF{10}	F10
F11	\LKeyF{11}	F11
F12	\LKeyF{12}	F12
F13	\LKeyF{13}	F13
F14	\LKeyF{14}	F14
F15	\LKeyF{15}	F15
F16	\LKeyF{16}	F16
PAD0	\LKeyPad{1}	Pad 0
PAD1	\LKeyPad{1}	Pad 1
PAD2	\LKeyPad{2}	Pad 2
PAD3	\LKeyPad{3}	Pad 3
PAD4	\LKeyPad{4}	Pad 4
PAD5	\LKeyPad{5}	Pad 5
PAD6	\LKeyPad{6}	Pad 6
PAD7	\LKeyPad{7}	Pad 7
PAD8	\LKeyPad{8}	Pad 8
PAD9	\LKeyPad{9}	Pad 9
PAD10	\LKeyPad{10}	Pad ÷
PAD11	\LKeyPad{11}	Pad +
PAD12	\LKeyPad{12}	Pad −
PAD13	\LKeyPad{13}	Pad ×
PAD14	\LKeyPad{14}	Pad ↵

A.2 General Keyboard

o	\LKey{zero},\LKey{0}	
9	\LKey{nine},\LKey{9}	
A	\LKey{A}	
Z	\LKey{Z}	







A.3 Keyboard Shortcuts

Strg-A	\LKeyStrgX{A}	 + 
Ctrl-A	\LKeyCtrlX{A}	 + 
Shift-A	\LKeyShiftX{A}	 + 
Alt-A	\LKeyAltX{A}	 + 
AltGr-A	\LKeyAltGrX{A}	 + 
Shift-Strg-A	\LKeyShiftStrgX{A}	 +  + 
Shift-Ctrl-A	\LKeyShiftCtrlX{A}	 +  + 
Shift-Alt-A	\LKeyShiftAltX{A}	 +  + 
Shift-AltGr-A	\LKeyShiftAltGrX{A}	 +  + 
Strg-Alt-A	\LKeyStrgAltX{A}	 +  + 
Strg-Alt-Entf	\LKeyStrgAltEnt	 +  + 
Strg-Alt-Entf	\LKeyReset	 +  + 
Ctrl-Alt-A	\LKeyCtrlAltX{A}	 +  + 
Ctrl-Alt-Entf	\LKeyCtrlAltEnt	 +  + 
Alt-F1	\LKeyAltF{1}	 + 
Alt-F2	\LKeyAltF{2}	 + 
Alt-F3	\LKeyAltF{3}	 + 






Alt-F4	\LKeyAltF{4}	Alt + F4
Alt-F5	\LKeyAltF{5}	Alt + F5
Alt-F6	\LKeyAltF{6}	Alt + F6
Alt-F7	\LKeyAltF{7}	Alt + F7
Alt-F8	\LKeyAltF{8}	Alt + F8
Alt-F9	\LKeyAltF{9}	Alt + F9
Alt-F10	\LKeyAltF{10}	Alt + F10
Alt-F11	\LKeyAltF{11}	Alt + F11
Alt-F12	\LKeyAltF{12}	Alt + F12
Alt-F13	\LKeyAltF{13}	Alt + F13
Alt-F14	\LKeyAltF{14}	Alt + F14
Alt-F15	\LKeyAltF{15}	Alt + F15
Alt-F16	\LKeyAltF{16}	Alt + F16
Strg-Alt-F1	\LKeyStrgAltF{1}	Strg + Alt + F1
Strg-Alt-F2	\LKeyStrgAltF{2}	Strg + Alt + F2
Strg-Alt-F3	\LKeyStrgAltF{3}	Strg + Alt + F3
Strg-Alt-F4	\LKeyStrgAltF{4}	Strg + Alt + F4
Strg-Alt-F5	\LKeyStrgAltF{5}	Strg + Alt + F5
Strg-Alt-F6	\LKeyStrgAltF{6}	Strg + Alt + F6
Strg-Alt-F7	\LKeyStrgAltF{7}	Strg + Alt + F7
Strg-Alt-F8	\LKeyStrgAltF{8}	Strg + Alt + F8
Strg-Alt-F9	\LKeyStrgAltF{9}	Strg + Alt + F9
Strg-Alt-F10	\LKeyStrgAltF{10}	Strg + Alt + F10
Strg-Alt-F11	\LKeyStrgAltF{11}	Strg + Alt + F11

Strg-Alt-F12	\LKeyStrgAltF{12}	Strg + Alt + F12
Strg-Alt-F13	\LKeyStrgAltF{13}	Strg + Alt + F13
Strg-Alt-F14	\LKeyStrgAltF{14}	Strg + Alt + F14
Strg-Alt-F15	\LKeyStrgAltF{15}	Strg + Alt + F15
Strg-Alt-F16	\LKeyStrgAltF{16}	Strg + Alt + F16
Ctrl-Alt-F1	\LKeyCtrlAltF{1}	Ctrl + Alt + F1
Ctrl-Alt-F2	\LKeyCtrlAltF{2}	Ctrl + Alt + F2
Ctrl-Alt-F3	\LKeyCtrlAltF{3}	Ctrl + Alt + F3
Ctrl-Alt-F4	\LKeyCtrlAltF{4}	Ctrl + Alt + F4
Ctrl-Alt-F5	\LKeyCtrlAltF{5}	Ctrl + Alt + F5
Ctrl-Alt-F6	\LKeyCtrlAltF{6}	Ctrl + Alt + F6
Ctrl-Alt-F7	\LKeyCtrlAltF{7}	Ctrl + Alt + F7
Ctrl-Alt-F8	\LKeyCtrlAltF{8}	Ctrl + Alt + F8
Ctrl-Alt-F9	\LKeyCtrlAltF{9}	Ctrl + Alt + F9
Ctrl-Alt-F10	\LKeyCtrlAltF{10}	Ctrl + Alt + F10
Ctrl-Alt-F11	\LKeyCtrlAltF{11}	Ctrl + Alt + F11
Ctrl-Alt-F12	\LKeyCtrlAltF{12}	Ctrl + Alt + F12
Ctrl-Alt-F13	\LKeyCtrlAltF{13}	Ctrl + Alt + F13
Ctrl-Alt-F14	\LKeyCtrlAltF{14}	Ctrl + Alt + F14
Ctrl-Alt-F15	\LKeyCtrlAltF{15}	Ctrl + Alt + F15
Ctrl-Alt-F16	\LKeyCtrlAltF{16}	Ctrl + Alt + F16





A.4 Mouse Buttons (Three-Button Mice)

Empty	\LMouseEmpty	
No	\LMouseN	
Left	\LMouseL	
Middle	\LMouseM	
Right	\LMouseR	
LeftRight	\LMouseLR	

A.5 Mouse Buttons (Two-Button Mice)

Empty	\LMouseIIEmpy	
No	\LMouseIIN	
Left	\LMouseIIL	
Right	\LMouseIIR	
LeftRight	\LMouseIILR	

B Linux Biolinum Keyboard Glyphs

	space		plus
	unioo20		unioo2B
	exclam		comma
	unioo21		unioo2C
	quotedbl		hyphen
	unioo22		unioo2D
	numbersign		period
	unioo23		unioo2E
	dollar		slash
	unioo24		unioo2F
	percent		zero
	unioo25		unioo30
	ampersand		one
	unioo26		unioo31
	quotesingle		two
	unioo27		unioo32
	parenleft		three
	unioo28		unioo33
	parenright		four
	unioo29		unioo34
	asterisk		five
	unioo2A		unioo35

6	six
6	unioo36
7	seven
7	unioo37
8	eight
8	unioo38
9	nine
9	unioo39
:	colon
:	unioo3A
;	semicolon
;	unioo3B
<	less
<	unioo3C
=	equal
=	unioo3D
>	greater
>	unioo3E
?	question
?	unioo3F
@	at
@	unioo40
A	A

A	unioo41
B	B
B	unioo42
C	C
C	unioo43
D	D
D	unioo44
E	E
E	unioo45
F	F
F	unioo46
G	G
G	unioo47
H	H
H	unioo48
I	I
I	unioo49
J	J
J	unioo4A
K	K
K	unioo4B
L	L
L	unioo4C

M	M
M	unioo4D
N	N
N	unioo4E
O	O
O	unioo4F
P	P
P	unioo50
Q	Q
Q	unioo51
R	R
R	unioo52
S	S
S	unioo53
T	T
T	unioo54
U	U
U	unioo55
V	V
V	unioo56
W	W
W	unioo57
X	X

X	unioo58
Y	Y
Y	unioo59
Z	Z
Z	unioo5A
[bracketleft
[unioo5B
\	backslash
\	unioo5C
]	bracketright
]	unioo5D
^	asciicircum
^	unioo5E
_	underscore
_	unioo5F
`	grave
`	unioo60
a	a
a	unioo61
b	b
b	unioo62
c	c
c	unioo63

d	d
d	unioo64
e	e
e	unioo65
f	f
f	unioo66
g	g
g	unioo67
h	h
h	unioo68
i	i
i	unioo69
j	j
j	unioo6A
k	k
k	unioo6B
l	l
l	unioo6C
m	m
m	unioo6D
n	n
n	unioo6E
o	o

o	unioo6F
p	p
p	unioo70
q	q
q	unioo71
r	r
r	unioo72
s	s
s	unioo73
t	t
t	unioo74
u	u
u	unioo75
v	v
v	unioo76
w	w
w	unioo77
x	x
x	unioo78
y	y
y	unioo79
z	z
z	unioo7A

{	braceleft
{	unioo7B
	bar
	unioo7C
}	braceright
}	unioo7D
~	asciitilde
~	unioo7E
¡	exclamdown
¡	uniooA1
¢	cent
¢	uniooA2
£	sterling
£	uniooA3
¤	currency
¤	uniooA4
¥	yen
¥	uniooA5
	brokenbar
	uniooA6
§	section
§	uniooA7
¨	dieresis

¨	uniooA8
«	guillemotleft
«	uniooAB
-	uniooAD
°	degree
°	uniooBo
±	plusminus
±	uniooB1
´	acute
´	uniooB4
μ	uniooB5
•	periodcentered
•	uniooB7
¸	cedilla
¸	uniooB8
»	guillemotright
»	uniooBB
À	Agrave
À	uniooCo
Á	Aacute
Á	uniooC1
Â	Acircumflex
Â	uniooC2

Ã	Atilde
Ã	uniooC3
Ä	Adieresis
Ä	uniooC4
Å	Aring
Å	uniooC5
Ç	Ccedilla
Ç	uniooC7
È	Egrave
È	uniooC8
É	Eacute
É	uniooC9
Ê	Ecircumflex
Ê	uniooCA
Ë	Edieresis
Ë	uniooCB
Ì	Igrave
Ì	uniooCC
Í	Iacute
Í	uniooCD
Î	Icircumflex
Î	uniooCE
Ï	Idieresis

Ï	uniooCF
Ð	Eth
Ð	uniooDo
Ñ	Ntilde
Ñ	uniooD1
Ò	Ograve
Ò	uniooD2
Ó	Oacute
Ó	uniooD3
Ô	Ocircumflex
Ô	uniooD4
Õ	Otilde
Õ	uniooD5
Ö	Odieresis
Ö	uniooD6
×	multiply
×	uniooD7
Ø	Oslash
Ø	uniooD8
Ù	Ugrave
Ù	uniooD9
Ú	Uacute
Ú	uniooDA

Ũ	Ucircumflex
Ů	uniooDB
Ü	Udieresis
Ů	uniooDC
Ÿ	Yacute
Ÿ	uniooDD
Þ	Thorn
Þ	uniooDE
ß	germandbls
ß	uniooDF
à	agrave
à	uniooEo
á	aacute
á	uniooE1
â	acircumflex
â	uniooE2
ã	atilde
ã	uniooE3
ä	adieresis
ä	uniooE4
å	aring
å	uniooE5
æ	ae

æ	uniooE6
ç	ccedilla
ç	uniooE7
è	egrave
è	uniooE8
é	eacute
é	uniooE9
ê	ecircumflex
ê	uniooEA
ë	edieresis
ë	uniooEB
ì	igrave
ì	uniooEC
í	iacute
í	uniooED
î	icircumflex
î	uniooEE
ï	idieresis
ï	uniooEF
ǒ	eth
ǒ	uniooFo
ñ	ntilde
ñ	uniooF1

ò	ograve
ò	uniooF2
ó	oacute
ó	uniooF3
ô	ocircumflex
ô	uniooF4
õ	otilde
õ	uniooF5
ö	odieresis
ö	uniooF6
÷	divide
÷	uniooF7
ø	oslash
ø	uniooF8
ù	ugrave
ù	uniooF9
ú	uacute
ú	uniooFA
û	ucircumflex
û	uniooFB
ü	udieresis
ü	uniooFC
ý	yacute

ý	uniooFD
þ	thorn
þ	uniooFE
ÿ	ydieresis
ÿ	uniooFF
Ā	Amacron
Ā	unio100
ā	amacron
ā	unio101
Ă	Abreve
Ă	unio102
ă	abreve
ă	unio103
Ą	Aogonek
Ą	unio104
ą	aogonek
ą	unio105
Ć	Cacute
Ć	unio106
ć	cacute
ć	unio107
Ĉ	Ccircumflex
Ĉ	unio108

ĉ	ccircumflex
ĉ	unio109
Ĉ	Cdotaccent
Ĉ	unio10A
ċ	cdotaccent
ċ	unio10B
Č	Ccaron
Č	unio10C
č	ccaron
č	unio10D
Ď	Dcaron
Ď	unio10E
ď	dcaron
ď	unio10F
Đ	Dcroat
Đ	unio110
đ	dcroat
đ	unio111
Ē	Emacron
Ē	unio112
ē	emacron
ē	unio113
Ĕ	Ebreve

Ė	unio114
ė	ebreve
ě	unio115
Ě	Edotaccent
Ě	unio116
ě	edotaccent
ě	unio117
Ę	Eogonek
Ę	unio118
ę	eogonek
ę	unio119
Ě	Ecaron
Ě	unio11A
ě	ecaron
ě	unio11B
Ĝ	Gcircumflex
Ĝ	unio11C
ĝ	gcircumflex
ĝ	unio11D
Ġ	Gbreve
Ġ	unio11E
ğ	gbreve
ğ	unio11F

Ġ	Gdotaccent	ī	unio12B
Ģ	unio120	İ	Ibreve
ḡ	gdotaccent	İ̇	unio12C
ḡ	unio121	ı̇	ibreve
Ḣ	Gcommaaccent	ı̈	unio12D
Ḣ	unio122	Į	Iogonek
ḣ	gcommaaccent	Į	unio12E
ḣ	unio123	į	iogonek
Ĥ	Hcircumflex	į	unio12F
Ĥ	unio124	İ̇	Idotaccent
ĥ	hcircumflex	ı̇	unio130
ĥ	unio125	ı̈	dotlessi
Ħ	Hbar	ı̈	unio131
Ħ	unio126	IJ	IJ
ħ	hbar	IJ	unio132
ħ	unio127	ij	ij
İ̇	Itilde	ij	unio133
İ̇	unio128	Ĵ	Jcircumflex
ĩ	itilde	Ĵ	unio134
ĩ	unio129	ĵ	jcircumflex
İ̄	Imacron	ĵ	unio135
İ̄	unio12A	Ḳ	Kcommaaccent
ī	imacron	Ḳ	unio136

k	kcommaaccent
k	unio137
K	kgreenlandic
K	unio138
Ĳ	Lacute
Ĳ	unio139
Ĳ	lacute
Ĳ	unio13A
Ł	Lcommaaccent
Ł	unio13B
Ł	lcommaaccent
Ł	unio13C
Ł	Lcaron
Ł	unio13D
Ł	lcaron
Ł	unio13E
Ł	Ldot
Ł	unio13F
Ł	ldot
Ł	unio140
Ł	Lslash
Ł	unio141
ł	lslash

ı	unio142
Ń	Nacute
Ń	unio143
ń	nacute
ń	unio144
Ŋ	Ncommaaccent
Ŋ	unio145
ŋ	ncommaaccent
ŋ	unio146
Ñ	Ncaron
Ñ	unio147
ň	ncaron
ň	unio148
’n	napostrophe
n	unio149
Ō	Omacron
Ō	unio14C
ō	omacron
ō	unio14D
Ŏ	Obreve
Ŏ	unio14E
ö	obreve
ö	unio14F

Ŏ	Ohungarumlaut	Ŝ	unio15D
Ŏ	unio150	Ș	Scedilla
ő	ohungarumlaut	Ș	unio15E
ő	unio151	ș	scedilla
Ŕ	Racute	ș	unio15F
Ŕ	unio154	Š	Scaron
ŕ	racute	Š	unio160
ŕ	unio155	š	scaron
Ŗ	Rcommaaccent	š	unio161
Ŗ	unio156	Ț	Tcedilla
ŗ	rcommaaccent	Ț	unio162
ŗ	unio157	ț	tcedilla
Ř	Rcaron	ț	unio163
Ř	unio158	Ț	Tcaron
ř	rcaron	Ț	unio164
ř	unio159	ť	tcaron
Ŝ	Sacute	ť	unio165
Ŝ	unio15A	Ț	Tbar
ś	sacute	Ț	unio166
ś	unio15B	Ț	tbar
Ŝ	Scircumflex	ț	unio167
Ŝ	unio15C	Ũ	Utilde
ŝ	scircumflex	Ũ	unio168

ũ	utilde
ũ	unio169
Ū	Umacron
Ū	unio16A
ū	umacron
ū	unio16B
Ů	Ubreve
Ů	unio16C
ů	ubreve
ů	unio16D
Ů	Uring
Ů	unio16E
ů	uring
ů	unio16F
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Ű	unio170
ű	uhungarumlaut
ű	unio171
Ų	Uogonek
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ų	unio173
Ŵ	Wcircumflex

Ŷ	unio174
ŵ	wcircumflex
ŵ	unio175
Ŷ	Ycircumflex
Ŷ	unio176
ŷ	ycircumflex
ŷ	unio177
ÿ	Ydieresis
ÿ	unio178
Ẑ	Zacute
Ẑ	unio179
ẑ	zacute
ẑ	unio17A
Ẓ	Zdotaccent
Ẓ	unio17B
ẓ	zdotaccent
ẓ	unio17C
Ž	Zcaron
Ž	unio17D
ž	zcaron
Ž	unio17E
h	h.superior
h	unio2Bo

fi	hhook.superior	˘	unio2BE
fi	unio2B1	˘	unio2BF
j	j.superior	˘	unio2Co
j	unio2B2	˘	unio2C1
r	r.superior	<	unio2C2
r	unio2B3	>	unio2C3
ı	rturned.superior	^	unio2C4
ı	unio2B4	v	unio2C5
ı	rhookturned.superior	^	circumflex
ı	unio2B5	^	unio2C6
ı	Rsmallinverted.superior	v	caron
ı	unio2B6	v	unio2C7
w	w.superior	ı	unio2C8
w	unio2B7	ı	unio2C9
y	y.superior	ı	unio2CA
y	unio2B8	ı	unio2CB
ı	unio2B9	ı	unio2CC
ı	unio2BA	ı	unio2CD
ı	unio2BB	ı	unio2CE
ı	afii57929	ı	unio2CF
ı	unio2BC	ı	unio2Do
ı	afii64937	ı	unio2D1
ı	unio2BD	ı	unio2D2

˘	unio2D3	s	s.superior
˙	unio2D4	s	unio2E2
˚	unio2D5	x	x.superior
˛	unio2D6	x	unio2E3
˜	unio2D7	ʃ	glottalstopreversed.superior
˘	breve	ʃ	unio2E4
˙	unio2D8	√	unio2EC
•	dotaccent	=	unio2ED
•	unio2D9	”	unio2EE
◦	ring	`	gravecomb
◦	unio2DA	`	unio300
˛	ogonek	’	acutecomb
˛	unio2DB	’	unio301
˜	tilde	^	unio302
˜	unio2DC	˜	tildecomb
”	hungarumlaut	˜	unio303
”	unio2DD	—	unio304
˚	unio2DE	—	unio305
×	unio2DF	˘	unio306
ⱥ	gammalatin.superior	•	unio307
ⱥ	unio2Eo	••	unio308
l	l.superior	’	hookabovecomb
l	unio2E1	’	unio309
























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✓	unio30C	.	dotbelowcomb
‘	unio30D	.	unio323
”	unio30E	..	unio324
“	unio30F	°	unio325
	unio310	,	unio326
ˆ	unio311		unio327
‘	unio312		unio328
’	unio313		unio329
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’	unio315		unio32B
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	unio317	ˆ	unio32D
	unio318		unio32E
	unio319	ˆ	unio32F
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	unio31C	/	unio338
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













































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˘	unio35B	ˆ	afii57795
˘	unio35C	ˆ	unio5B6
”	unio35D	_	afii57798
“	unio35E	_	unio5B7
ˆ	unio35F	τ	afii57797
˘	unio360	τ	unio5B8
˘	unio361	˙	afii57806
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”	unio363	˙	unio5BA
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:	afii57799	˙	afii57807
:	unio5Bo	˙	unio5BC
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˘:	unio5B1	˙	unio5BD
-:	afii57800	-	afii57645
-:	unio5B2	-	unio5BE
τ:	afii57802	-	afii57841
τ:	unio5B3	-	unio5BF
.	afii57793		afii57842

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.	afii578o4
.	unio5C1
.	afii578o3
.	unio5C2
:	afii57658
:	unio5C3
£	unio5C6
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ℵ	unio5Do
ב	afii57665
ב	unio5D1
ג	afii57666
ג	unio5D2
ד	afii57667
ד	unio5D3
ה	afii57668
ה	unio5D4
ו	afii57669
ו	unio5D5
ז	afii57670
ז	unio5D6
ח	afii57671















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ט	unio5D8
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י	unio5D9
ך	afii57674
ך	unio5DA
כ	afii57675
כ	unio5DB
ל	afii57676
ל	unio5DC
ם	afii57677
ם	unio5DD
נ	afii57678
נ	unio5DE
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ע	unio5E2
























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





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	arrowboth
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	uni2196
	uni2197
	uni2198
	uni2199
	uni219A
	uni219B
	uni21A5
	uni21A7
	uni21BC
	uni21BD
	uni21Co
	uni21C1



	arrowdblleft		uni232B
	uni21D0		uni237D
	arrowdblup		uni2380
	uni21D1		uni2423
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	uni21D2		uni25A0
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	uni21D3		uni25A1
	arrowdblboth		triagup
	uni21D4		uni25B2
	uni21D5		uni25B3
	Nwarrow		uni25B6
	uni21D6		uni25B7
	Nearrow		triagdn
	uni21D7		uni25BC
	Searrow		uni25BD
	uni21D8		uni25C0
	Swarrow		uni25C1
	uni21D9		uni25C6
	uni2318		uni25C7
	uni2325		uni25C9
	uni2326		lozenge
	uni2327		uni25CA

○	circle	☼	uni263B
○	uni25CB	⚙	uni263C
◯	uni25CE))	uni263D
●	H18533	☾	uni263E
●	uni25CF	♀	uni263F
◐	uni25Do	♀	female
◑	uni25D1	♀	uni2640
◒	uni25D2	♂	uni2641
◓	uni25D3	♂	male
◔	uni25D4	♂	uni2642
◕	uni25D5	ㄥ	uni2643
◖	uni25D6	ħ	uni2644
◗	uni25D7	℥	uni2645
◦	openbullet	Ψ	uni2646
◦	uni25E6	℔	uni2647
★	uni2605	Υ	uni2648
🌀	uni2619	♊	uni2649
👉	uni261B	Ⅱ	uni264A
👈	uni261E	☾	uni264B
℔	uni2627	♊	uni264C
☯	uni262F	♎	uni264D
☺	uni2639	⚖	uni264E
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♥	uni2665	⑧	uni277D
♦	uni2666	⑨	uni277E
♪	uni2669	⑩	uni277F
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⌘	uni2695		uniE12A
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F15	uniE186
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Home	uniE189
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Ins	uniE18B
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End	uniE18E
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Einf	uniE193
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Esc	E_s_c
Esc	uniE195
Ende	E_n_d_e
Ende	uniE196
Bild↑	uniE198
Bild↓	uniE199
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Page↓	uniE19B
Pad 0	uniE1A0
Pad 1	uniE1A1
Pad 2	uniE1A2
Pad 3	uniE1A3
Pad 4	uniE1A4
Pad 5	uniE1A5
Pad 6	uniE1A6
Pad 7	uniE1A7
Pad 8	uniE1A8
Pad 9	uniE1A9

Pad ÷	uniE1AA	˘	uniE35C
Pad +	uniE1AB	”	hungarumlaut.cap
Pad −	uniE1AC	”	uniE35D
Pad ×	uniE1AD	“	space_unio3oF.cap
Pad ↵	uniE1AE	“	uniE35E
+	uniE1Bo	ˆ	breveinvertedcmb.cap
-	uniE1B1	ˆ	uniE35F
`	grave.cap	˘	breve.cyr
`	uniE358	˘	uniE360
´	acute.cap	˘	breve.cyr
´	uniE359	˘	uniE361
ˆ	circumflex.cap	¨	dieresis.cap
ˆ	uniE35A	¨	uniE362
ˇ	caron.cap	”	hookabovecomb.cap
ˇ	uniE35B	”	uniE363
˘	breve.cap	◆?	uniFFFD