The **ETbb** package—Edward Tufte's version of Bembo

Michael Sharpe

Background

The fonts in this package were derived ultimately from the collection of fonts commissioned by Edward Tufte for his own books, and released in 2015 as ET-Bembo under the MIT license. (The sources for that collection were fonts using the family name ET-book.) That collection was enhanced in 2019 under the name XETBook by Daniel Benjamin Miller, and it is his package which was the starting point for ETbb, where the bb denotes the Berry abbreviation for Bembo. The final section of this document makes a detailed comparison with the earlier fbb package, which is also Bembo-like, derived from Cardo. The most significant differences are that ETbb has a regular upright that is about 20% darker than the corresponding fbb, and its ascender height is noticeably less. These differences make ETbb have a less spindly appearance that is closer in spirit to the print produced by traditional metal versions of Bembo.

Package properties

The package makes a number of changes to the XETBook fonts:

- The released version of ET-Bembo lacks kerning tables—a serious omission—rectified in ETbb.

- The scale has been increased by 3.36% so that the x-height of the upright regular face is 431, very close to Computer Modern and Libertine.

- The lining figures in some faces were reduced so as to be a bit less than the cap-heights.

- The lining figures in XETBook were proportional rather than tabular. I've added new tabular lining and old-style figures.

- Added superior letters and figures to all faces. E.g., \textsu{ABCabc123} renders as ^{ABCabc123}.

- Added inferior figures to all faces with baseline at -112em.

- Added denominator figures to all faces with baseline at 0em.

- The originals comprised glyphs in the Adobe Standard Encoding, forming a rather sparse subset of the T1 encoding. I've added accented and composite glyphs that provide complete coverage of the T1 encoding as well as many glyphs required in the orthography of a number Eastern European countries.

- Prior to version 1.02, coverage of TS1 encoding was meager. The coverage is now close to full. (See the table at the end of this document.)

- Small caps have been added to all faces.

- There is a new glyph for the German capital sharp S (ẞ, *großes eszett*, U+1E9E), approved in 2017 for optional use in German orthography. Small cap versions are also provided.

- The glyph capital P has been changed from its default closed shape, as used in almost all modern digital renderings of Bembo, to the more historically accurate open shape. See, for example, the reproduction of Pietro Bembo's *De Aetna* at
  `https://ia601405.us.archive.org/34/items/ita-bnc-ald-00000673-001/ita-bnc-ald-00000673-001.pdf`.
  (A higher resolution rendering of a two-page sample is available from `https://upload.wikimedia.org/wikipedia/commons/8/89/De_Aetna_1495.jpg`.)

Package options and macros

This package has most of the same features and options as the `fbb` package and even includes the `altP` option, though that has no effect because the alternate P shapes in `fbb` are the default in `ETbb`.

In the original `XETBook`, the dollar and cent currency symbols were oldstyle. I've added the new style symbols and made them the default, but option `osdollar` to `ETbb` changes back to the oldstyle symbols.

New in version 1.05: A swash version of Q has been added to all faces. You may enable it globally using option `swashQ` to `ETbb`, or specify it locally with the macro `\Qswash`, which renders as Q. This document did not specify option `swashQ`. If you had enabled it globally, you have access to the ordinary Q with the macro `\Qnoswash`. You may find it simpler to use the macro `\altQ` which renders Q as ordinary Q if you had specified option `swashQ` and as Q if not.

Text figures may be selected from four types:

- Proportional lining (LF), selected by options `lining, proportional [or p]`; (`lining`, or `lf`, is the default figure style;)

- Tabular lining (TLF), selected by options `lining [or lf], tabular [or t]`; (`tabular` is the default figure alignment;)

- Proportional oldstyle (OsF), selected by option `oldstyle [or osf], proportional [or p]`;

- Tabular oldstyle (TOsF), selected by options `oldstyle [or osf], tabular [or t]`.

The package also defines macros that allow you use alternate figure styles locally:

Macro	result	comment
`\textlf{0123456789}`	0123456789	print 0123456789 in proportional lining figures
`\texttlf{0123456789}`	0123456789	print 0123456789 in tabular lining figures
`\textosf{0123456789}`	0123456789	print 0123456789 in proportional oldstyle figures
`\texttosf{0123456789}`	0123456789	print 0123456789 in tabular oldstyle figures
`\textsu{0123456789}`	0123456789	print 0123456789 in superior figures
`\textinf{0123456789}`	0123456789	print 0123456789 in inferior figures
`\textde{0123456789}`	0123456789	print 0123456789 in denominator figures

The macro `\textlf{123}` is identical in effect to `{\lfstyle 123}`, and similarly for the other lining and oldstyle macros, while `\textsu{123}` has the same effect as `{\sufigures 123}` and `\textinf{123}` has the same effect as `{\infigures 123}`. If you prefer typing longer names, you may use `\textinferior`

as a synonym for \textinf, and similarly for \textsu. Likewise, \textde{123} has the same effect as {\defigures 123} or {\denomfigures 123}, and you may use \textdenom as a synonym for \textde. Note the difference in baseline between \textinf and \textde: ₁₂₃ versus ₁₂₃.

The \textfrac macro constructs fractions using \textsu and \textde with baseline aligned with the text baseline. The behavior is somewhat configurable, there being two parameters available to control the kerns before and after the fraction solidus. The two parameters are passed as options to ETbb, named

```
foresolidus % default value -.05em
aftsolidus  % default value -.05em
```

(The values should always be em or ex units in order to behave correctly with respect to scaling.)

Example:
• \textfrac[2]{17}{32} renders as 2¹⁷⁄₃₂ with default settings. (The optional argument 2 will always print in lining figures, no matter the choice of the text figure style.)

If you load the ETbb package by means of option etbb to the newtx package, version 1.71 or higher, there is a stacked fraction construction available using the macro \textsfrac which behaves like \textfrac except with the fractional part stacked vertically rather than diagonally. See the newtx documentation for details and examples.

Option sups changes the form of footnote markers to use ETbb's superior figures, unless you have redefined the meaning of \thefootnote prior to loading ETbb. For more control over size, spacing and position of footnote markers, use the superiors package: E.g.,

```
\usepackage[supstfm=ETbb-Regular-sup-t1]{superiors}
```

Option sharpS replaces SS in the T1 encoding by the new U+1E9E glyph and replaces the small cap ss by the small cap version of U+1E9E. Only figure-styles TLF, LF, OsF and TOsF are handled, and only in the T1 encoding.

Option scosf forces the use of OsF figures in a small caps block, no matter what the default figure settings.

There is a scaled [or scale] option (*e.g.*, scaled=.97) that allow you to adjust the text size against, say, a math package.

A suggested math companion

This text package works well with newtxmath with the libertine option, because the latter has italics of the same italic angle as ETbb and of very similar xheight and weight. If you have the MinionPro fonts (version 2.0 or higher) and have set them up with FontPro and the minion2newtx CTAN package, then the minion option to newtxmath provides a very good math companion with better Greek letters than libertine. The suggested invocation for libertine math is:

```
% load babel package and options here
\usepackage[p,osf]{ETbb} % osf in text, tabular lining figures in math
\usepackage[scaled=.95,type1]{cabin} % sans serif in style of Gill Sans
\usepackage[varqu,varl]{zi4}% inconsolata typewriter
\usepackage[T1]{fontenc} % LY1 also works
\usepackage[libertine,vvarbb]{newtxmath}
```

```
%\usepackage[cal=boondoxo,bb=boondox,frak=boondox]{mathalfa}
```

Here is a short sample based on this preamble:

The typeset math below follows the ISO recommendations that only variables be set in italic. Note the use of upright shapes for d, e and π. (The first two are entered as `\mathrm{d}` and `\mathrm{e}`, and in fonts derived from `newtxmath` or `mtpro2`, the latter is entered as `\uppi`.)

Simplest form of the *Central Limit Theorem*: *Let* $X_1, X_2, \cdots$ *be a sequence of iid random variables with mean* 0 *and variance* 1 *on a probability space* $(\Omega, \mathcal{F}, \mathbb{P})$. *Then*

$$\mathbb{P}\left(\frac{X_1 + \cdots + X_n}{\sqrt{n}} \le y\right) \to \mathfrak{N}(y) := \int_{-\infty}^{y} \frac{\mathrm{e}^{-t^2/2}}{\sqrt{2\pi}}\, \mathrm{d}t \quad \text{as } n \to \infty,$$

or, equivalently, letting $S_n := \sum_1^n X_k$,

$$\mathbb{E}f(S_n/\sqrt{n}) \to \int_{-\infty}^{\infty} f(t)\frac{\mathrm{e}^{-t^2/2}}{\sqrt{2\pi}}\, \mathrm{d}t \quad \text{as } n \to \infty, \text{ for every } f \in \mathrm{b}C(\mathbb{R}).$$

Glyphs in TS1 encoding

The layout of the TS1 encoded Text Companion font, which is rendered *in regular style only*, is as follows.

	′0	′1	′2	′3	′4	′5	′6	′7	
′00x	0	1	2	3	4	5	6	7	″0x
′01x	8	9	10	، 11	، 12	، 13	14	15	
′02x	16	17	„ 18	19	20	— 21	— 22	23	″1x
′03x	← 24	→ 25	⌢ 26	⌢ 27	⌢ 28	⌢ 29	30	31	
′04x	ƀ 32	33	34	35	$ 36	37	38	' 39	″2x
′05x	40	41	∗ 42	43	, 44	= 45	. 46	/ 47	
′06x	48	49	50	51	52	53	54	55	″3x
′07x	56	57	58	59	⟨ 60	— 61	⟩ 62	63	
′10x	64	65	66	67	68	69	70	71	″4x
′11x	72	73	74	75	76	℧ 77	78	○ 79	
′12x	80	81	82	83	84	85	86	Ω 87	″5x
′13x	88	89	90	⟦ 91	92	⟧ 93	↑ 94	↓ 95	
′14x	` 96	97	★ 98	o|o 99	† 100	101	102	103	″6x
′15x	104	105	106	107	✿ 108	∞ 109	110	111	
′16x	112	113	114	115	116	117	118	119	″7x
′17x	120	121	122	123	124	125	∼ 126	= 127	
′20x	128	129	130	131	† 132	‡ 133	‖ 134	‰ 135	″8x
′21x	• 136	°C 137	$ 138	139	ƒ 140	₡ 141	₩ 142	₦ 143	
′22x	₲ 144	₽ 145	₤ 146	147	₱ 148	à 149	đ 150	™ 151	″9x
′23x	‰₀ 152	¶ 153	฿ 154	№ 155	⅟ 156	℮ 157	° 158	SM 159	

4

	"8	"9	"A	"B	"C	"D	"E	"F	
'24x	[160	] 161	¢ 162	£ 163	¤ 164	¥ 165	¦ 166	§ 167	*"Ax*
'25x	¨ 168	© 169	ª 170	Ⓢ 171	¬ 172	Ⓟ 173	® 174	¯ 175	
'26x	° 176	± 177	² 178	³ 179	´ 180	µ 181	¶ 182	· 183	*"Bx*
'27x	※ 184	¹ 185	º 186	√ 187	¼ 188	½ 189	¾ 190	€ 191	
'32x	208	209	210	211	212	213	× 214	215	*"Dx*
'33x	216	217	218	219	220	221	222	223	
'36x	240	241	242	243	244	245	÷ 246	247	*"Fx*
'37x	248	249	250	251	252	253	254	255	
	"8	"9	"A	"B	"C	"D	"E	"F	

List of macros to access the TS1 symbols in text mode:
(The commented lines are in fbb but not ETbb.)

```
 0 \capitalgrave
 1 \capitalacute
 2 \capitalcircumflex
 3 \capitaltilde
 4 \capitaldieresis
 5 \capitalhungarumlaut
 6 \capitalring
 7 \capitalcaron
 8 \capitalbreve
 9 \capitalmacron
10 \capitaldotaccent
11 \capitalcedilla
12 \capitalogonek
13 \textquotestraightbase
18 \textquotestraightdblbase
21 \texttwelveudash
22 \textthreequartersemdash
23 \textcapitalcompwordmark
24 \textleftarrow
25 \textrightarrow
26 \t % tie accent, skewed right
27 \capitaltie % skewed right
28 \newtie % tie accent centered
29 \capitalnewtie % ditto
31 \textascendercompwordmark
32 \textblank
36 \textdollar
39 \textquotesingle
42 \textasteriskcentered
45 \textdblhyphen
47 \textfractionsolidus
48 \textzerooldstyle
49 \textoneoldstyle
50 \texttwooldstyle
```

```
 49 \textthreeoldstyle
 50 \textfouroldstyle
 51 \textfiveoldstyle
 52 \textsixoldstyle
 53 \textsevenoldstyle
 54 \texteightoldstyle
 55 \textnineoldstyle
 60 \textlangle
 61 \textminus
 62 \textrangle
 77 \textmho
 79 \textbigcircle
 87 \textohm
 91 \textlbrackdbl
 93 \textrbrackdbl
 94 \textuparrow
 95 \textdownarrow
 96 \textasciigrave
 98 \textborn
 99 \textdivorced
100 \textdied
108 \textleaf
109 \textmarried
%110 \textmusicalnote
126 \texttildelow
127 \textdblhyphenchar
128 \textasciibreve
129 \textasciicaron
%130 \textacutedbl
%131 \textgravedbl
132 \textdagger
133 \textdaggerdbl
134 \textbardbl
135 \textperthousand
136 \textbullet
137 \textcelsius
138 \textdollaroldstyle
139 \textcentoldstyle
140 \textflorin
141 \textcolonmonetary
142 \textwon
143 \textnaira
144 \textguarani
145 \textpeso
146 \textlira
147 \textrecipe
148 \textinterrobang
149 \textinterrobangdown
```

```
150 \textdong
151 \texttrademark
152 \textpertenthousand
153 \textpilcrow
154 \textbaht
155 \textnumero
156 \textdiscount
157 \textestimated
158 \textopenbullet
159 \textservicemark
160 \textlquill
161 \textrquill
162 \textcent
163 \textsterling
164 \textcurrency
165 \textyen
166 \textbrokenbar
167 \textsection
168 \textasciidieresis
169 \textcopyright
170 \textordfeminine
171 \textcopyleft
172 \textlnot
173 \textcircledP
174 \textregistered
175 \textasciimacron
176 \textdegree
177 \textpm
178 \texttwosuperior
179 \textthreesuperior
180 \textasciiacute
181 \textmu
182 \textparagraph
183 \textperiodcentered
184 \textreferencemark
185 \textonesuperior
186 \textordmasculine
187 \textsurd
188 \textonequarter
189 \textonehalf
190 \textthreequarters
191 \texteuro
214 \texttimes
246 \textdiv
%
```

There is a macro \textcircled that may be used to construct a circled version of a single letter using \textbigcircle. The letter is always constructed from the small cap version, so, in effect, you can

only construct circled uppercase letters: \textcircled{M} and \textcircled{m} have the same effect, namely Ⓜ.

Usage with fontspec

Because the package supplies a file named ETbb.fontspec whose contents list the otf files that correspond to each of Regular, Bold, Italic and BoldItalic, you may load ETbb with just

```
\usepackage{fontspec}
\setmainfont{ETbb}
```

Other than the usual choices of figure style, the only remaining choice available is through StylisticSet=2, which substitutes the new Sharp S glyphs in place of the familiar ß, SS and ss. See the table in the next section for details.

Selection of the new Sharp S in LaTeX

There is now an ETbb option sharpS whose effect in legacy LaTeX is summarized below.

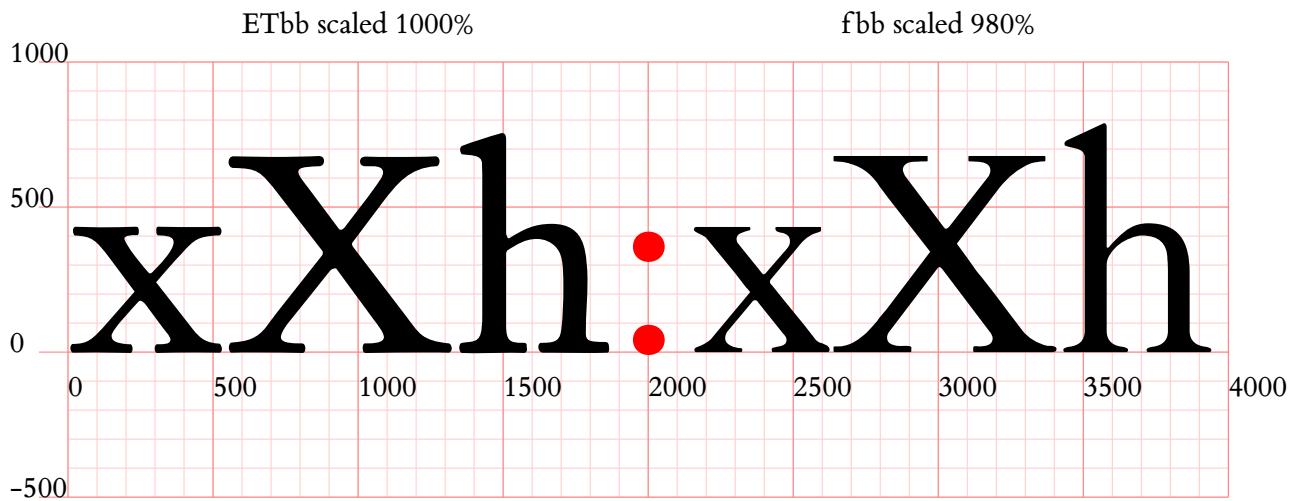Behavior of the text macros \SS, \ss and the macro \MakeUppercase.

sharpS option	\ss	\SS	\MakeUppercase{\ss}	\textsc{\ss}
Not set	ß	SS	SS	ss
sharpS	ß	ẞ	ẞ	ß

In unicode TeX, the behavior laid out in the table above is achieved using StylisticSet=2.

Detailed comparison with fbb

The following picture, in which the units are approximately in bp, shows some of the differences between ETbb-Regular and fbb-Regular, the first scaled up by 10 and the second by 9.8 so that their x-heights (and Cap-heights) are the same. From the picture below you can note the following.

- The serifs are much more substantial in ETbb.

- The ascenders a considerably higher in fbb—in fact, by 50 em units. Those very tall ascenders make for poor positioning of quotes, superscripts and the like.

- Stems are a little thicker (by about 10%) in ETbb.

- There is a slight bowing out in the letter h and similar letters like n of ETbb that is not present in fbb, making for more visual interest, IMO. This would not be of any importance at small print sizes.

- Overall, ETbb has lower contrast (ratio of thickest to thinnest strokes) than fbb, making for a more uniform gray appearance on the printed page.

ETbb scaled 1000%   fbb scaled 980%

xXh:xXh

The following page presents a comparison of a ETbb and fbb with identical text rendered in two columns. For me, there is no question that ETbb is the preferable font for document text.

ETbb on left, fbb on right, normalized to same x-height

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ac tortor dignissim convallis aenean. Adipiscing elit duis tristique sollicitudin nibh. At imperdiet dui accumsan sit. Posuere sollicitudin aliquam ultrices sagittis. In hac habitasse platea dictumst quisque sagittis purus sit. Vulputate mi sit amet mauris commodo quis imperdiet. Vel risus commodo viverra maecenas accumsan lacus vel facilisis volutpat. Tortor vitae purus faucibus ornare suspendisse. Non consectetur a erat nam at lectus. Curabitur gravida arcu ac tortor. Tempus urna et pharetra pharetra massa massa ultricies mi quis. Nisl nisi scelerisque eu ultrices vitae auctor eu. A lacus vestibulum sed arcu non odio euismod lacinia at. Ut venenatis tellus in metus vulputate eu. Ornare massa eget egestas purus viverra accumsan in nisl. Mauris augue neque gravida in fermentum et sollicitudin ac orci. Turpis egestas sed tempus urna et pharetra pharetra. Nunc lobortis mattis aliquam faucibus.

Nulla facilisi morbi tempus iaculis urna id volutpat lacus. Est ultricies integer quis auctor elit. Risus quis varius quam quisque id. Mus mauris vitae ultricies leo integer malesuada nunc vel risus. Sit amet purus gravida quis blandit turpis cursus in hac. Nam at lectus urna duis convallis convallis tellus. Amet dictum sit amet justo. Tortor consequat id porta nibh venenatis cras. Ante metus dictum at tempor. Senectus et netus et malesuada fames ac turpis.

Non tellus orci ac auctor augue mauris augue neque gravida. Bibendum at varius vel pharetra vel turpis nunc. Pellentesque adipiscing commodo elit at imperdiet dui accumsan sit. Quis enim lobortis scelerisque fermentum dui faucibus in. Scelerisque eu ultrices vitae auctor. Blandit volutpat maecenas volutpat blandit. Morbi leo urna molestie at elementum eu. Tristique magna sit amet purus gravida quis blandit. Felis eget nunc lobortis mattis aliquam faucibus purus in. Pharetra diam sit amet nisl suscipit. Odio pellentesque diam volutpat commodo sed egestas egestas fringilla phasellus. Vitae nunc sed velit dignissim. Nulla pellentesque dignissim enim sit. Sem viverra aliquet eget sit amet tellus.

ETbb–Regular–tlf–t1

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	` 0	´ 1	^ 2	~ 3	¨ 4	″ 5	° 6	ˇ 7	″0x
´01x	˘ 8	¯ 9	˙ 10	¸ 11	˛ 12	‚ 13	‹ 14	› 15	
´02x	" 16	" 17	„ 18	« 19	» 20	– 21	— 22	23	″1x
´03x	24	1 25	ȷ 26	ff 27	fi 28	fl 29	ffi 30	ffl 31	
´04x	32	! 33	" 34	# 35	$ 36	% 37	& 38	' 39	″2x
´05x	(40	) 41	* 42	+ 43	, 44	- 45	. 46	/ 47	
´06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	″3x
´07x	8 56	9 57	: 58	; 59	< 60	= 61	> 62	? 63	
´10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	″4x
´11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	
´12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	″5x
´13x	X 88	Y 89	Z 90	[91	\ 92	] 93	^ 94	_ 95	
´14x	' 96	a 97	b 98	c 99	d 100	e 101	f 102	g 103	″6x
´15x	h 104	i 105	j 106	k 107	l 108	m 109	n 110	o 111	
´16x	p 112	q 113	r 114	s 115	t 116	u 117	v 118	w 119	″7x
´17x	x 120	y 121	z 122	{ 123	| 124	} 125	~ 126	– 127	
´20x	Ă 128	Ą 129	Ć 130	Č 131	Ď 132	Ě 133	Ę 134	Ğ 135	″8x
´21x	Ĺ 136	Ľ 137	Ł 138	Ń 139	Ň 140	Ŋ 141	Ő 142	Ŕ 143	
´22x	Ř 144	Ś 145	Š 146	Ş 147	Ť 148	Ţ 149	Ű 150	Ů 151	″9x
´23x	Ÿ 152	Ź 153	Ž 154	Ż 155	IJ 156	İ 157	đ 158	§ 159	
´24x	ă 160	ą 161	ć 162	č 163	ď 164	ě 165	ę 166	ğ 167	″Ax
´25x	ĺ 168	ľ 169	ł 170	ń 171	ň 172	ŋ 173	ő 174	ŕ 175	
´26x	ř 176	ś 177	š 178	ş 179	ť 180	ţ 181	ű 182	ů 183	″Bx
´27x	ÿ 184	ź 185	ž 186	ż 187	ij 188	¡ 189	¿ 190	£ 191	
´30x	À 192	Á 193	Â 194	Ã 195	Ä 196	Å 197	Æ 198	Ç 199	″Cx
´31x	È 200	É 201	Ê 202	Ë 203	Ì 204	Í 205	Î 206	Ï 207	
´32x	Đ 208	Ñ 209	Ò 210	Ó 211	Ô 212	Õ 213	Ö 214	Œ 215	″Dx
´33x	Ø 216	Ù 217	Ú 218	Û 219	Ü 220	Ý 221	Þ 222	SS 223	
´34x	à 224	á 225	â 226	ã 227	ä 228	å 229	æ 230	ç 231	″Ex
´35x	è 232	é 233	ê 234	ë 235	ì 236	í 237	î 238	ï 239	
´36x	ð 240	ñ 241	ò 242	ó 243	ô 244	õ 245	ö 246	œ 247	″Fx
´37x	ø 248	ù 249	ú 250	û 251	ü 252	ý 253	þ 254	ß 255	
	″8	″9	″A	″B	″C	″D	″E	″F	

ETbb1–Regular–tlf–t1

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	` 0	´ 1	ˆ 2	˜ 3	¨ 4	˝ 5	° 6	ˇ 7	″0x
´01x	˘ 8	¯ 9	˙ 10	¸ 11	˛ 12	‚ 13	‹ 14	› 15	
´02x	" 16	" 17	„ 18	« 19	» 20	– 21	— 22	23	″1x
´03x	24	1 25	J 26	ff 27	fi 28	fl 29	ffi 30	ffl 31	
´04x	32	! 33	" 34	# 35	$ 36	% 37	& 38	’ 39	″2x
´05x	(40	) 41	* 42	+ 43	, 44	- 45	. 46	/ 47	
´06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	″3x
´07x	8 56	9 57	: 58	; 59	< 60	= 61	> 62	? 63	
´10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	″4x
´11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	
´12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	″5x
´13x	X 88	Y 89	Z 90	[91	\ 92	] 93	^ 94	_ 95	
´14x	' 96	a 97	b 98	c 99	d 100	e 101	f 102	g 103	″6x
´15x	h 104	i 105	j 106	k 107	l 108	m 109	n 110	o 111	
´16x	p 112	q 113	r 114	s 115	t 116	u 117	v 118	w 119	″7x
´17x	x 120	y 121	z 122	{ 123		124	} 125	~ 126	– 127	
´20x	Ă 128	Ą 129	Ć 130	Č 131	Ď 132	Ě 133	Ę 134	Ğ 135	″8x
´21x	Ĺ 136	Ľ 137	Ł 138	Ń 139	Ň 140	Ŋ 141	Ő 142	Ŕ 143	
´22x	Ř 144	Ś 145	Š 146	Ş 147	Ť 148	Ţ 149	Ű 150	Ů 151	″9x
´23x	Ÿ 152	Ź 153	Ž 154	Ż 155	IJ 156	İ 157	đ 158	§ 159	
´24x	ă 160	ą 161	ć 162	č 163	ď 164	ě 165	ę 166	ğ 167	″Ax
´25x	Í 168	ľ 169	ł 170	ń 171	ň 172	ŋ 173	ő 174	ŕ 175	
´26x	ř 176	ś 177	š 178	ş 179	ť 180	ţ 181	ű 182	ů 183	″Bx
´27x	ÿ 184	ź 185	ž 186	ż 187	ij 188	¡ 189	¿ 190	£ 191	
´30x	À 192	Á 193	Â 194	Ã 195	Ä 196	Å 197	Æ 198	Ç 199	″Cx
´31x	È 200	É 201	Ê 202	Ë 203	Ì 204	Í 205	Î 206	Ï 207	
´32x	Đ 208	Ñ 209	Ò 210	Ó 211	Ô 212	Õ 213	Ö 214	Œ 215	″Dx
´33x	Ø 216	Ù 217	Ú 218	Û 219	Ü 220	Ý 221	Þ 222	ß 223	
´34x	à 224	á 225	â 226	ã 227	ä 228	å 229	æ 230	ç 231	″Ex
´35x	è 232	é 233	ê 234	ë 235	ì 236	í 237	î 238	ï 239	
´36x	ð 240	ñ 241	ò 242	ó 243	ô 244	õ 245	ö 246	œ 247	″Fx
´37x	ø 248	ù 249	ú 250	û 251	ü 252	ý 253	þ 254	ß 255	
	″8	″9	″A	″B	″C	″D	″E	″F	

ETbb–Regular–tlf–sc–t1

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	` 0	´ 1	^ 2	~ 3	¨ 4	″ 5	° 6	ˇ 7	″0x
´01x	˘ 8	¯ 9	˙ 10	¸ 11	˛ 12	‚ 13	‹ 14	› 15	
´02x	" 16	" 17	„ 18	« 19	» 20	— 21	— 22	23	″1x
´03x	24	1 25	J 26	FF 27	FI 28	FL 29	FFI 30	FFL 31	
´04x	32	! 33	" 34	# 35	$ 36	% 37	& 38	' 39	″2x
´05x	(40	) 41	* 42	+ 43	, 44	- 45	. 46	/ 47	
´06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	″3x
´07x	8 56	9 57	: 58	; 59	< 60	= 61	> 62	? 63	
´10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	″4x
´11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	
´12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	″5x
´13x	X 88	Y 89	Z 90	[91	\ 92	] 93	^ 94	_ 95	
´14x	' 96	A 97	B 98	C 99	D 100	E 101	F 102	G 103	″6x
´15x	H 104	I 105	J 106	K 107	L 108	M 109	N 110	O 111	
´16x	P 112	Q 113	R 114	S 115	T 116	U 117	V 118	W 119	″7x
´17x	X 120	Y 121	Z 122	{ 123	| 124	} 125	~ 126	– 127	
´20x	Ă 128	Ą 129	Ć 130	Č 131	Ď 132	Ě 133	Ę 134	Ğ 135	″8x
´21x	Ĺ 136	Ľ 137	Ł 138	Ń 139	Ň 140	Ŋ 141	Ő 142	Ŕ 143	
´22x	Ř 144	Ś 145	Š 146	Ş 147	Ť 148	Ţ 149	Ű 150	Ů 151	″9x
´23x	Ÿ 152	Ź 153	Ž 154	Ż 155	IJ 156	İ 157	đ 158	§ 159	
´24x	ă 160	ą 161	ć 162	č 163	ď 164	ě 165	ę 166	ğ 167	″Ax
´25x	ĺ 168	ľ 169	ł 170	ń 171	ň 172	ŋ 173	ő 174	ŕ 175	
´26x	ř 176	ś 177	š 178	ş 179	ť 180	ţ 181	ű 182	ů 183	″Bx
´27x	ÿ 184	ź 185	ž 186	ż 187	ij 188	¡ 189	¿ 190	£ 191	
´30x	À 192	Á 193	Â 194	Ã 195	Ä 196	Å 197	Æ 198	Ç 199	″Cx
´31x	È 200	É 201	Ê 202	Ë 203	Ì 204	Í 205	Î 206	Ï 207	
´32x	Đ 208	Ñ 209	Ò 210	Ó 211	Ô 212	Õ 213	Ö 214	Œ 215	″Dx
´33x	Ø 216	Ù 217	Ú 218	Û 219	Ü 220	Ý 221	Þ 222	SS 223	
´34x	à 224	á 225	â 226	ã 227	ä 228	å 229	æ 230	ç 231	″Ex
´35x	è 232	é 233	ê 234	ë 235	ì 236	í 237	î 238	ï 239	
´36x	đ 240	ñ 241	ò 242	ó 243	ô 244	õ 245	ö 246	œ 247	″Fx
´37x	ø 248	ù 249	ú 250	û 251	ü 252	ý 253	þ 254	SS 255	
	″8	″9	″A	″B	″C	″D	″E	″F	

ETbb1-Regular-tlf-sc-t1

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	` 0	´ 1	^ 2	~ 3	¨ 4	″ 5	° 6	ˇ 7	″0x
´01x	˘ 8	¯ 9	˙ 10	, 11	˛ 12	, 13	‹ 14	› 15	
´02x	" 16	" 17	,, 18	« 19	» 20	— 21	— 22	23	″1x
´03x	24	1 25	J 26	27	28	29	30	31	
´04x	32	! 33	" 34	# 35	$ 36	% 37	& 38	’ 39	″2x
´05x	(40	) 41	* 42	+ 43	, 44	- 45	. 46	/ 47	
´06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	″3x
´07x	8 56	9 57	: 58	; 59	< 60	= 61	> 62	? 63	
´10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	″4x
´11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	
´12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	″5x
´13x	X 88	Y 89	Z 90	[91	\ 92	] 93	^ 94	_ 95	
´14x	' 96	A 97	B 98	C 99	D 100	E 101	F 102	G 103	″6x
´15x	H 104	I 105	J 106	K 107	L 108	M 109	N 110	O 111	
´16x	P 112	Q 113	R 114	S 115	T 116	U 117	V 118	W 119	″7x
´17x	X 120	Y 121	Z 122	{ 123	| 124	} 125	~ 126	− 127	
´20x	Ă 128	Ą 129	Ć 130	Č 131	Ď 132	Ě 133	Ę 134	Ğ 135	″8x
´21x	Ĺ 136	Ľ 137	Ł 138	Ń 139	Ň 140	Ŋ 141	Ő 142	Ŕ 143	
´22x	Ř 144	Ś 145	Š 146	Ş 147	Ť 148	Ţ 149	Ű 150	Ů 151	″9x
´23x	Ÿ 152	Ź 153	Ž 154	Ż 155	IJ 156	İ 157	đ 158	§ 159	
´24x	ă 160	ą 161	ć 162	č 163	ď 164	ě 165	ę 166	ğ 167	″Ax
´25x	ĺ 168	ľ 169	ł 170	ń 171	ň 172	ŋ 173	ő 174	ŕ 175	
´26x	ř 176	ś 177	š 178	ş 179	ť 180	ţ 181	ű 182	ů 183	″Bx
´27x	ÿ 184	ź 185	ž 186	ż 187	ij 188	¡ 189	¿ 190	£ 191	
´30x	À 192	Á 193	Â 194	Ã 195	Ä 196	Å 197	Æ 198	Ç 199	″Cx
´31x	È 200	É 201	Ê 202	Ë 203	Ì 204	Í 205	Î 206	Ï 207	
´32x	Đ 208	Ñ 209	Ò 210	Ó 211	Ô 212	Õ 213	Ö 214	Œ 215	″Dx
´33x	Ø 216	Ù 217	Ú 218	Û 219	Ü 220	Ý 221	Þ 222	ß 223	
´34x	à 224	á 225	â 226	ã 227	ä 228	å 229	æ 230	ç 231	″Ex
´35x	è 232	é 233	ê 234	ë 235	ì 236	í 237	î 238	ï 239	
´36x	đ 240	ñ 241	ò 242	ó 243	ô 244	õ 245	ö 246	œ 247	″Fx
´37x	ø 248	ù 249	ú 250	û 251	ü 252	ý 253	þ 254	ß 255	
	″8	″9	″A	″B	″C	″D	″E	″F	