

Algol Revived

Michael Sharpe

July 11, 2017

AlgolRevived is a revival of the (photo)font *Algol* by Adrian Frutiger whose sole use was for printing ALGOL code in a manual. It is not meant to be a general purpose text font—the spacing is not optimized for that, being designed instead for printing computer code, where each letter should be distinct and text ligatures are banished. It seems to work well with the `listings` package, designed for exactly that purpose. Unusually for such a font, it is not monospaced, though perhaps this is no longer the issue it was in the days of FORTRAN.

Nonetheless, if you don't object to a typewritten appearance, I think the font doesn't really look as bad as you might think it should. (This document uses it as its main text font.)

Both opentype and type1 fonts are provided, along with LaTeX support files. Most characters in the T1 encoding are provided, except for f-ligatures and the Sami characters Eng, eng.

Use with fontspec

The package provides `algolrevived.fontspec`, with contents:

```
\defaultfontfeatures[algolrevived]
{
Extension = .otf,
UprightFont = AlgolRevived ,
BoldFont = AlgolRevived-Medium ,
BoldItalicFont = AlgolRevived-MediumSlanted ,
ItalicFont = AlgolRevived-Slanted ,
}
```

which allows you to set up your preamble using simply

```
...
\usepackage{fontspec}
\setmainfont{algolrevived} % for use as main font
%\setmonofont{algolrevived} % for use as typewriter font only
...
```

Creation of this package was spurred by Barbara Beeton's column in a recent TUGBoat, conveying a request from Jacques André for someone to digitize Frutiger's Algol alphabet.

Use with LaTeX

The package offers OT1, LY1, T1 and TS1 encodings, and sets T1 as the default. To change to LY1, you will need something like

```
\usepackage{algolrevived}
%\usepackage[tt]{algolrevived} for just typewriter
\usepackage[LY1]{fontenc}
```

AlgolRevived-tlf-t1.tfm:

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

'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	

The package has a few options and macros. The option `scaled=.95` or `scale=.95` renders at 95% of the default size, and option `medium` makes medium weight LaTeX's regular weight. Option `tt` species typewriter. The macros `{\sufigures 9}` (same effect as `\textsu{9}`) render the figure as a superscript,⁹ and similarly with `\infigures`, `\textin` for inferior figures.

The sty file requires `textcomp` so there is no need to load it separately. `Textcomp` adds the following glyphs. (The mathematical symbols in the otherwise vacant slots in positions 192 and up were mostly borrowed from the STIX math fonts, which use the same SIL OFL as this package. The names below were in those cases are the same as the STIX names, prefixed by "text".)

AlgolRevived-tlf-ts1.tfm:

	'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	ı ₁₅	
'02x	ı̇ ₁₆	— ₁₇	„ ₁₈	19	20	21	22	23	"1x
'03x	← ₂₄	→ ₂₅	26	27	28	29	30	31	
'04x	_ ₃₂	33	34	35	\$ ₃₆	37	38	' ₃₉	"2x
'05x	40	41	42	43	ı 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	Ü 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	99	100	101	102	103	"6x
'15x	104	105	106	107	108	109	110	111	
'20x	128	129	130	131	† ₁₃₂	‡ ₁₃₃	134	135	"8x
'21x	• ₁₃₆	137	138	139	140	141	142	143	
'22x	144	145	146	147	148	149	150	™ ₁₅₁	"9x
'23x	152	153	154	155	156	157	158	159	
'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	° ₁₈₆	187	188	189	190	€ ₁₉₁	
'30x	' ₁₉₂	" ₁₉₃	194	195	↔ ₁₉₆	↕ ₁₉₇	⇐ ₁₉₈	↑ ₁₉₉	"Cx
'31x	⇒ ₂₀₀	↓ ₂₀₁	⇔ ₂₀₂	↕ ₂₀₃	∇ ₂₀₄	∮ ₂₀₅	∂ ₂₀₆	∃ ₂₀₇	
'32x	∄ ₂₀₈	∅ ₂₀₉	Δ ₂₁₀	∇ ₂₁₁	∈ ₂₁₂	∉ ₂₁₃	× ₂₁₄	€ ₂₁₅	"Dx
'33x	∋ ₂₁₆	∄ ₂₁₇	∋ ₂₁₈	∖ ₂₁₉	• ₂₂₀	∧ ₂₂₁	∨ ₂₂₂	223	

'34x	\cap ²²⁴	\cup ²²⁵	$:=$ ²²⁶	$=:$ ²²⁷	\neq ²²⁸	\equiv ²²⁹	\neq ²³⁰	\leq ²³¹	"Ex
'35x	\geq ²³²	\subset ²³³	\supset ²³⁴	$\not\subset$ ²³⁵	$\not\supset$ ²³⁶	\subseteq ²³⁷	\supseteq ²³⁸	$\not\subseteq$ ²³⁹	
'36x	$\not\neq$ ²⁴⁰	\sqsubset ²⁴¹	\sqsupset ²⁴²	\sqsubseteq ²⁴³	\sqsupseteq ²⁴⁴	\sqcap ²⁴⁵	\sqdiv ²⁴⁶	\sqcup ²⁴⁷	"Fx
'37x	²⁴⁸	²⁴⁹	²⁵⁰	²⁵¹	²⁵²	²⁵³	²⁵⁴	²⁵⁵	
	"8	"9	"A	"B	"C	"D	"E	"F	

List of LaTeX macros to access the TS1 symbols in text mode:

11 \capitalcedilla
12 \capitalogonek
24 \textleftarrow
25 \textrightarrow
36 \textdollar
39 \textquotesingle
42 \textasteriskcentered
47 \textfractionsolidus
61 \textminus
77 \textmho
79 \textbigcircle
87 \textohm
91 \textlbrackdbl
93 \textrbrackdbl
94 \textuparrow
95 \textdownarrow
96 \textasciigrave
132 \textdagger
133 \textdaggerdbl
134 \textbardbl
136 \textbullet
151 \texttrademark
162 \textcent
163 \textsterling
164 \textcurrency
165 \textyen
166 \textbrokenbar
167 \textsection
169 \textcopyright
170 \textordfeminine
172 \textlnot
174 \textregistered
176 \textdegree
177 \textpm
178 \texttwosuperior
179 \textthreesuperior
181 \textmu
182 \textparagraph
183 \textperiodcentered
184 \textreferencemark
185 \textonesuperior
186 \textordmasculine
191 \texteuro
192 \textprime
193 \textdprime
196 \textleftrightharrow

197 \textupdownarrow
198 \textLeftarrow
199 \textUparrow
200 \textrightarrow
201 \textDownarrow
202 $\text{\textLeftrightarrow}$
203 \textUpdownarrow
204 \textforall
205 \textcomplement
206 \textpartial
207 \textexists
208 \textnexists
209 \textvarepsilon
210 \textincrement
211 \textnabla
212 \textin
213 \textnotin
214 \texttimes
215 \textsmallin
216 \textni
217 \textnni
218 \textsmallni
219 $\text{\textsmallsetminus}$
220 \textlargebullet
221 \textland
222 \textlor
224 \textcap
225 \textcup
226 \textcoloneq
227 \texteqcolon
228 \textneq
229 \textequiv
230 \textnequiv
231 \textleq
232 \textgeq
233 \textsubset
234 \textsupset
235 \textnsubset
236 \textnsupset
237 \textsubseteq
238 \textsupseteq
239 \textnsubseteq
240 \textnsupseteq
241 \textsqsubset
242 \textsqsubset
243 \textsqsupset
244 \textsqsubseteq
245 \textsqcap

246 `\textdiv`
247 `\textscup`

For example, typing in `A\coloneq B` results in $A:=B$.