

# Fira Sans Thin Italic

## Technical Documentation

| A-z |     |     |     | € | Lat | ŁłŤ                           | Ext            | Ελ             | Κιρ             |
|-----|-----|-----|-----|---|-----|-------------------------------|----------------|----------------|-----------------|
|     |     |     |     |   |     | 2 <sub>2</sub> 2 <sup>2</sup> | b↻B            | B↻B            | ia              |
|     |     |     |     |   |     |                               |                | fi             | st              |
| 619 | 123 | 123 | 123 | 0 | 7/  | /8                            | 7/8            |                |                 |
|     |     |     |     |   |     |                               | x <sup>2</sup> | x <sub>2</sub> | 1 <sup>st</sup> |
|     |     |     |     |   |     |                               | (G}            | Œ↻Œ            | g↻g             |
|     |     |     |     |   |     |                               | [1]            | [2]            | [3]             |
|     |     |     |     |   |     |                               |                |                | Σ↻Σ             |
|     |     |     |     |   |     | N↻E                           | T↻o            | ◌◌◌            | ◌◌◌             |

## Copyright © 2015 by Carrois Type Design

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written consent of the publisher.

This publication and the information herein is furnished AS IS, is subject to change without notice, and should not be construed as a commitment by Carrois Type Design. Carrois Type Design assumes no responsibility for any errors or inaccuracies, makes no warranty of any kind (express, implied or statutory) with respect to this publication, and expressly disclaims any and all warranties of merchantability, fitness for particular purposes and noninfringement of third party rights.

Brand or product names, used in this publication, are the trademarks or registered trademarks of their respective holders.

For questions and comments please contact:

Carrois Type Design GbR  
Simplonstr. 54  
10245 Berlin  
Germany  
Tel.: +49 (30) 920 389 66  
e-Mail: [post@carrois.com](mailto:post@carrois.com)  
Internet: [www.carrois.com](http://www.carrois.com)

Document generated 2015/09/09-21:21:23  
with e-font PDF Generator

# Table of Content

|   |    |
|---|----|
| Encoded Characters  | 5  |
| Basic Latin   | 5  |
| Latin-1 Supplement  | 5  |
| Latin Extended-A  | 6  |
| Latin Extended-B  | 6  |
| IPA Extensions  | 7  |
| Spacing Modifier Letters  | 8  |
| Combining Diacritical Marks   | 8  |
| Greek and Coptic  | 8  |
| Cyrillic  | 9  |
| Cyrillic Supplement   | 10 |
| Phonetic Extensions   | 10 |
| Phonetic Extensions Supplement                                      | 10 |
| Combining Diacritical Marks Supplement                              | 10 |
| Latin Extended Additional   | 11 |
| Greek Extended  | 11 |
| General Punctuation   | 12 |
| Superscripts and Subscripts   | 13 |
| Currency Symbols  | 13 |
| Letterlike Symbols  | 13 |
| Number Forms  | 13 |
| Arrows  | 13 |
| Mathematical Operators  | 13 |
| Miscellaneous Technical   | 14 |
| Geometric Shapes  | 14 |
| Dingbats  | 14 |
| Miscellaneous Symbols and Arrows                                    | 14 |
| Latin Extended-C  | 14 |
| Latin Extended-D  | 14 |
| unassigned Block  | 15 |
| Private Use Area  | 15 |
| Alphabetic Presentation Forms                                       | 15 |
| Arabic Presentation Forms-B   | 15 |
| Unencoded Glyphs  | 16 |
| Small Capitals From Capitals  | 16 |
| Small Capitals From Capitals, Contextual Alternates, Small Capitals | 16 |
| Small Capitals From Capitals, Small Capitals                        | 16 |
| Contextual Alternates, Stylistic Set 3                              | 18 |
| Case-Sensitive Forms  | 19 |
| Discretionary Ligatures   | 19 |
| Denominators  | 19 |
| Denominators, Fractions   | 19 |
| Fractions, Numerators   | 19 |
| Localized Forms   | 19 |
| Numerators  | 20 |
| Old Style Figures, Proportional Figures                             | 20 |
| Old Style Figures, Tabular Figures                                  | 20 |
| Stylistic Alternates, Stylistic Set 1                               | 20 |
| Small Capitals  | 20 |
| Stylistic Set 2   | 21 |
| Tabular Figures   | 21 |
| Slashed Zero  | 21 |
| Other   | 21 |
| OpenType Layout Features  | 22 |

|                       |    |
|-----------------------|----|
| Substitution Features | 22 |
| Positioning Features  | 24 |
| Codepages             | 25 |
| MacOS                 | 25 |
| MS Windows            | 25 |
| ISO                   | 25 |
| Languages             | 26 |
| Latin                 | 26 |
| Cyrillic              | 26 |
| Greek                 | 27 |

# Encoded Characters

All encoded characters should be accessible with every unicode capable application.  
For details about Unicode Blocks visit the [Unicode Website](#).

## Basic Latin

Block from 0000 to 007F

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 000D | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 002A | 002B | 002C | 002D | 002E |
|      |      | !    | "    | #    | \$   | %    | &    | '    | (    | )    | *    | +    | ,    | -    | .    |
| 002F | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | 003A | 003B | 003C | 003D | 003E |
| /    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | :    | ;    | <    | =    | >    |
| 003F | 0040 | 0041 | 0042 | 0043 | 0044 | 0045 | 0046 | 0047 | 0048 | 0049 | 004A | 004B | 004C | 004D | 004E |
| ?    | @    | A    | B    | C    | D    | E    | F    | G    | H    | I    | J    | K    | L    | M    | N    |
| 004F | 0050 | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 005A | 005B | 005C | 005D | 005E |
| O    | P    | Q    | R    | S    | T    | U    | V    | W    | X    | Y    | Z    | [    | \    | ]    | ^    |
| 005F | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 006A | 006B | 006C | 006D | 006E |
| _    | `    | a    | b    | c    | d    | e    | f    | g    | h    | i    | j    | k    | l    | m    | n    |
| 006F | 0070 | 0071 | 0072 | 0073 | 0074 | 0075 | 0076 | 0077 | 0078 | 0079 | 007A | 007B | 007C | 007D | 007E |
| o    | p    | q    | r    | s    | t    | u    | v    | w    | x    | y    | z    | {    |      | }    | ~    |

## Latin-1 Supplement

Block from 0080 to 00FF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 00A0 | 00A1 | 00A2 | 00A3 | 00A4 | 00A5 | 00A6 | 00A7 | 00A8 | 00A9 | 00AA | 00AB | 00AC | 00AD | 00AE | 00AF |
|      | ı    | ç    | £    | ¤    | ¥    | ¦    | §    | ¨    | ©    | ª    | «    | ¬    | ­    | ®    | ¯    |
| 00B0 | 00B1 | 00B2 | 00B3 | 00B4 | 00B5 | 00B6 | 00B7 | 00B8 | 00B9 | 00BA | 00BB | 00BC | 00BD | 00BE | 00BF |
| °    | ±    | ²    | ³    | ´    | µ    | ¶    | ·    | ¸    | ¹    | º    | »    | ¼    | ½    | ¾    | ¿    |
| 00C0 | 00C1 | 00C2 | 00C3 | 00C4 | 00C5 | 00C6 | 00C7 | 00C8 | 00C9 | 00CA | 00CB | 00CC | 00CD | 00CE | 00CF |
| À    | Á    | Â    | Ã    | Ä    | Å    | Æ    | Ç    | È    | É    | Ê    | Ë    | Ì    | Í    | Î    | Ï    |
| 00D0 | 00D1 | 00D2 | 00D3 | 00D4 | 00D5 | 00D6 | 00D7 | 00D8 | 00D9 | 00DA | 00DB | 00DC | 00DD | 00DE | 00DF |
| Ð    | Ñ    | Ò    | Ó    | Ô    | Õ    | Ö    | ×    | Ø    | Ù    | Ú    | Û    | Ü    | Ý    | Þ    | ß    |
| 00E0 | 00E1 | 00E2 | 00E3 | 00E4 | 00E5 | 00E6 | 00E7 | 00E8 | 00E9 | 00EA | 00EB | 00EC | 00ED | 00EE | 00EF |
| à    | á    | â    | ã    | ä    | å    | æ    | ç    | è    | é    | ê    | ë    | ì    | í    | î    | ï    |
| 00F0 | 00F1 | 00F2 | 00F3 | 00F4 | 00F5 | 00F6 | 00F7 | 00F8 | 00F9 | 00FA | 00FB | 00FC | 00FD | 00FE | 00FF |
| ð    | ñ    | ò    | ó    | ô    | õ    | ö    | ÷    | ø    | ù    | ú    | û    | ü    | ý    | þ    | ÿ    |

## Latin Extended-A

Block from 0100 to 017F

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0100 | 0101 | 0102 | 0103 | 0104 | 0105 | 0106 | 0107 | 0108 | 0109 | 010A | 010B | 010C | 010D | 010E | 010F |
| Ā    | ā    | Ă    | ă    | Ą    | ą    | Ć    | ć    | Ĉ    | ĉ    | Ċ    | ċ    | Č    | č    | Ď    | ď    |
| Ď    | ď    | Ē    | ē    | Ě    | ě    | Ė    | ė    | Ę    | ę    | Ě    | ě    | Ĝ    | ĝ    | Ğ    | ğ    |
| Ġ    | ġ    | Ģ    | ģ    | Ĥ    | ĥ    | Ħ    | ħ    | Ĩ    | ĩ    | Ī    | ī    | Ĵ    | ĵ    | Ĵ    | ĵ    |
| İ    | ı    | Ĳ    | ıĳ   | Ĵ    | ĵ    | Ķ    | ķ    | Ķ    | Ķ    | Ļ    | ļ    | Ļ    | ļ    | Ļ    | ļ    |
| Ł    | ł    | Ł    | ł    | Ń    | ń    | Ń    | ń    | Ń    | ń    | Ń    | ń    | Ō    | ō    | Ō    | ō    |
| Ŏ    | ŏ    | Œ    | œ    | Ŕ    | ŕ    | Ŗ    | ŗ    | Ř    | ř    | Ś    | ś    | Ŝ    | ŝ    | Ş    | ş    |
| Š    | š    | Ţ    | ţ    | Ť    | ť    | Ŧ    | ŧ    | Ũ    | ũ    | Ū    | ū    | Ŭ    | ŭ    | Ů    | ů    |
| Ů    | ů    | Ů    | ů    | Ŵ    | ŵ    | Ŷ    | ŷ    | Ÿ    | Ž    | ž    | Ž    | ž    | Ž    | ž    | ƒ    |

## Latin Extended-B

Block from 0180 to 024F

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0180 | 0181 | 0182 | 0183 | 0184 | 0185 | 0186 | 0187 | 0188 | 0189 | 018A | 018B | 018C | 018D | 018E | 018F |
| Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    | Ħ    |
| Ɛ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    |
| 01A0 | 01A1 | 01A2 | 01A3 | 01A4 | 01A5 | 01A6 | 01A7 | 01A8 | 01A9 | 01AA | 01AB | 01AC | 01AD | 01AE | 01AF |
| Ō    | σ    | Ō    | σ    | Ō    | σ    | Ō    | σ    | Ō    | σ    | Ō    | σ    | Ō    | σ    | Ō    | σ    |
| 01B0 | 01B1 | 01B2 | 01B3 | 01B4 | 01B5 | 01B6 | 01B7 | 01B8 | 01B9 | 01BA | 01BB | 01BC | 01BD | 01BE | 01BF |
| Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    | Ů    |
| 01C0 | 01C1 | 01C2 | 01C3 | 01C4 | 01C5 | 01C6 | 01C7 | 01C8 | 01C9 | 01CA | 01CB | 01CC | 01CD | 01CE | 01CF |
| Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    |
| 01D0 | 01D1 | 01D2 | 01D3 | 01D4 | 01D5 | 01D6 | 01D7 | 01D8 | 01D9 | 01DA | 01DB | 01DC | 01DD | 01DE | 01DF |
| Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    | Ĵ    |

|      |       |      |       |      |       |       |       |       |       |       |       |       |       |       |       |
|------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 01E0 | 01E1  | 01E2 | 01E3  | 01E4 | 01E5  | 01E6  | 01E7  | 01E8  | 01E9  | 01EA  | 01EB  | 01EC  | 01ED  | 01EE  | 01EF  |
| Ā ā  | Ē ē   | Ĝ ĝ  | Ĥ ĥ   | Q q  | Q̇ q̇ | Q̈ q̈ | Q̉ q̉ | Q̊ q̊ | Q̋ q̋ | Q̌ q̌ | Q̍ q̍ | Q̎ q̎ | Q̏ q̏ | Q̐ q̐ | Q̑ q̑ |
| Ĵ ĵ  | DZ dz | Ġ ġ  | Hu hu | Ñ ñ  | Å å   | Æ æ   | Ø ø   |       |       |       |       |       |       |       |       |
| 0200 | 0201  | 0202 | 0203  | 0204 | 0205  | 0206  | 0207  | 0208  | 0209  | 020A  | 020B  | 020C  | 020D  | 020E  | 020F  |
| Ä ä  | Â â   | Ë ë  | Ê ê   | Ï ï  | Î î   | Ï ï   | Ï ï   | Ï ï   | Ï ï   | Ï ï   | Ï ï   | Ï ï   | Ï ï   | Ï ï   | Ï ï   |
| 0210 | 0211  | 0212 | 0213  | 0214 | 0215  | 0216  | 0217  | 0218  | 0219  | 021A  | 021B  | 021C  | 021D  | 021E  | 021F  |
| Ř ř  | Ŕ ŕ   | Ů ů  | Ű ű   | Ş ş  | Ş ş   | Ş ş   | Ş ş   | Ş ş   | Ş ş   | Ş ş   | Ş ş   | Ş ş   | Ş ş   | Ş ş   | Ş ş   |
| 0220 | 0221  | 0222 | 0223  | 0224 | 0225  | 0226  | 0227  | 0228  | 0229  | 022A  | 022B  | 022C  | 022D  | 022E  | 022F  |
| Ŋ ŋ  | Ɔ ɔ   | Ɔ ɔ  | Ɔ ɔ   | Ɔ ɔ  | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   | Ɔ ɔ   |
| 0230 | 0231  | 0232 | 0233  | 0234 | 0235  | 0236  | 0237  | 0238  | 0239  | 023A  | 023B  | 023C  | 023D  | 023E  | 023F  |
| Ō ō  | Ō ō   | Ō ō  | Ō ō   | Ō ō  | Ō ō   | Ō ō   | Ō ō   | Ō ō   | Ō ō   | Ō ō   | Ō ō   | Ō ō   | Ō ō   | Ō ō   | Ō ō   |
| 0240 | 0241  | 0242 | 0243  | 0244 | 0245  | 0246  | 0247  | 0248  | 0249  | 024A  | 024B  | 024C  | 024D  | 024E  | 024F  |
| Ź ź  | Ź ź   | Ź ź  | Ź ź   | Ź ź  | Ź ź   | Ź ź   | Ź ź   | Ź ź   | Ź ź   | Ź ź   | Ź ź   | Ź ź   | Ź ź   | Ź ź   | Ź ź   |

## IPA Extensions

Block from 0250 to 02AF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0250 | 0251 | 0252 | 0253 | 0254 | 0255 | 0256 | 0257 | 0258 | 0259 | 025A | 025B | 025C | 025D | 025E | 025F |
| ɐ    | ɑ    | ɒ    | ɓ    | ɔ    | ɔ̃   | ɔ̄   | ɔ̅   | ɔ̆   | ɔ̇   | ɔ̈   | ɔ̉   | ɔ̊   | ɔ̋   | ɔ̌   | ɔ̍   |
| 0260 | 0261 | 0262 | 0263 | 0264 | 0265 | 0266 | 0267 | 0268 | 0269 | 026A | 026B | 026C | 026D | 026E | 026F |
| ɔ̎   | ɔ̏   | ɔ̐   | ɔ̑   | ɔ̒   | ɔ̓   | ɔ̔   | ɔ̕   | ɔ̖   | ɔ̗   | ɔ̘   | ɔ̙   | ɔ̚   | ɔ̛   | ɔ̜   | ɔ̝   |
| 0270 | 0271 | 0272 | 0273 | 0274 | 0275 | 0276 | 0277 | 0278 | 0279 | 027A | 027B | 027C | 027D | 027E | 027F |
| ɔ̞   | ɔ̟   | ɔ̠   | ɔ̡   | ɔ̢   | ɔ̣   | ɔ̤   | ɔ̥   | ɔ̦   | ɔ̧   | ɔ̨   | ɔ̩   | ɔ̪   | ɔ̫   | ɔ̬   | ɔ̭   |
| 0280 | 0281 | 0282 | 0283 | 0284 | 0285 | 0286 | 0287 | 0288 | 0289 | 028A | 028B | 028C | 028D | 028E | 028F |
| ɔ̮   | ɔ̯   | ɔ̰   | ɔ̱   | ɔ̲   | ɔ̳   | ɔ̴   | ɔ̵   | ɔ̶   | ɔ̷   | ɔ̸   | ɔ̹   | ɔ̺   | ɔ̻   | ɔ̼   | ɔ̽   |
| 0290 | 0291 | 0292 | 0293 | 0294 | 0295 | 0296 | 0297 | 0298 | 0299 | 029A | 029B | 029C | 029D | 029E | 029F |
| ɔ̾   | ɔ̿   | ɔ̻   | ɔ̼   | ɔ̽   | ɔ̾   | ɔ̿   | ɔ̻   | ɔ̼   | ɔ̽   | ɔ̾   | ɔ̿   | ɔ̻   | ɔ̼   | ɔ̽   | ɔ̾   |
| 02A0 | 02A1 | 02A2 | 02A3 | 02A4 | 02A5 | 02A6 | 02A7 | 02A8 | 02A9 | 02AA | 02AB | 02AC | 02AD | 02AE | 02AF |
| ɔ̿   | ɔ̻   | ɔ̼   | ɔ̽   | ɔ̾   | ɔ̿   | ɔ̻   | ɔ̼   | ɔ̽   | ɔ̾   | ɔ̿   | ɔ̻   | ɔ̼   | ɔ̽   | ɔ̾   | ɔ̿   |

## Spacing Modifier Letters

Block from 02B0 to 02FF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 02B0 | 02B1 | 02B2 | 02B4 | 02B7 | 02B8 | 02B9 | 02BA | 02BB | 02BC | 02BF | 02C0 | 02C6 | 02C7 | 02C8 | 02CA |
| h    | h̃   | j    | j̃   | w    | y    | /    | //   | ‘    | ’    | ¢    | ?    | ^    | ✓    | !    | ✓    |
| 02CB | 02CC | 02CE | 02CF | 02D0 | 02D1 | 02D4 | 02D6 | 02D7 | 02D8 | 02D9 | 02DA | 02DB | 02DC | 02DD | 02DE |
| ˘    |      |      |      | ˙    | ˙    | ±    | +    | —    | ˘    | ˙    | ◊    |      | ˘    | ”    | ˘    |
| 02E0 | 02E1 | 02E2 | 02E3 | 02E4 | 02E5 | 02E6 | 02E7 | 02E8 | 02E9 | 02EE |      |      |      |      |      |
| Ÿ    | l    | s    | x    | Ÿ    | 7    | 7    | 7    | 7    | 7    | ”    |      |      |      |      |      |

## Combining Diacritical Marks

Block from 0300 to 036F

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0300 | 0301 | 0302 | 0303 | 0304 | 0306 | 0307 | 0308 | 0309 | 030A | 030B | 030C | 030D | 030F | 0311 | 0312 |
| ˘    | ˘    | ˘    | ˘    | —    | ˘    | ˙    | ˙    | ?    | ◊    | //   | ˘    | !    | ”    | ˘    | !    |
| 0313 | 0316 | 0317 | 0318 | 0319 | 031A | 031B | 031C | 031D | 031E | 031F | 0320 | 0321 | 0323 | 0324 | 0325 |
| !    |      |      |      |      | 7    | 7    |      |      |      |      |      |      |      |      |      |
| 0326 | 0327 | 0328 | 0329 | 032A | 032B | 032C | 032D | 032F | 0330 | 0331 | 0332 | 0334 | 0335 | 0336 | 0339 |
| ˘    | ˘    | ˘    | ˘    | ˘    |      |      | ˘    | ±    | ±    | +    | —    | ˘    | ˙    | ˙    | ◊    |
| 033A | 033B | 033C | 033D | 0342 | 0345 | 035C | 0361 |      |      |      |      |      |      |      |      |
| ˘    | ˘    | ˘    | ˘    | ˘    | ˘    | ˘    | ˘    |      |      |      |      |      |      |      |      |
| ˘    | ˘    | ˘    |      |      |      |      |      |      |      |      |      |      |      |      |      |

## Greek and Coptic

Block from 0370 to 03FF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0370 | 0371 | 0372 | 0373 | 0374 | 0375 | 0376 | 0377 | 037A | 037B | 037C | 037D | 037E | 037F | 0384 | 0385 |
| Ƨ    | Ƨ    | Ƨ    | Ƨ    | ‘    | ‘    | И    | И    | ˘    | ˘    | ˘    | ˘    | ˘    | ˘    | ˘    | ˘    |
| 0386 | 0387 | 0388 | 0389 | 038A | 038C | 038E | 038F | 0390 | 0391 | 0392 | 0393 | 0394 | 0395 | 0396 | 0397 |
| À    | ˙    | È    | Η    | Ι    | Ο    | Υ    | Ω    | İ    | Α    | Β    | Γ    | Δ    | Ε    | Ζ    | Η    |
| 0398 | 0399 | 039A | 039B | 039C | 039D | 039E | 039F | 03A0 | 03A1 | 03A3 | 03A4 | 03A5 | 03A6 | 03A7 | 03A8 |
| Θ    | Ι    | Κ    | Λ    | Μ    | Ν    | Ξ    | Ο    | Π    | Ρ    | Σ    | Τ    | Υ    | Φ    | Χ    | Ψ    |
| 03A9 | 03AA | 03AB | 03AC | 03AD | 03AE | 03AF | 03B0 | 03B1 | 03B2 | 03B3 | 03B4 | 03B5 | 03B6 | 03B7 | 03B8 |
| Ω    | İ    | ÿ    | ά    | έ    | ή    | ί    | ü    | α    | β    | γ    | δ    | ε    | ζ    | η    | θ    |
| 03B9 | 03BA | 03BB | 03BC | 03BD | 03BE | 03BF | 03C0 | 03C1 | 03C2 | 03C3 | 03C4 | 03C5 | 03C6 | 03C7 | 03C8 |
| ι    | κ    | λ    | μ    | ν    | ξ    | ο    | π    | ρ    | ς    | σ    | τ    | υ    | φ    | χ    | ψ    |



|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 03C9 | 03CA | 03CB | 03CC | 03CD | 03CE | 03CF | 03D0 | 03D1 | 03D2 | 03D3 | 03D4 | 03D5 | 03D6 | 03D7 | 03D8 |
| ω    | ï    | ü    | ó    | ú    | ώ    | κ    | β    | θ    | Υ    | Υ    | ÿ    | φ    | ω    | ι    | ρ    |
| 03D9 | 03DA | 03DB | 03DC | 03DD | 03DE | 03DF | 03E0 | 03E1 | 03F0 | 03F1 | 03F2 | 03F3 | 03F4 | 03F5 | 03F6 |
| ρ    | ς    | ς    | ƒ    | ƒ    | ς    | ς    | λ    | λ    | и    | ρ    | с    | ј    | Θ    | ε    | э    |
| 03F7 | 03F8 | 03F9 | 03FA | 03FB | 03FC | 03FD | 03FE | 03FF |      |      |      |      |      |      |      |
| ρ    | ρ    | с    | М    | М    | ρ    | с    | с    | с    |      |      |      |      |      |      |      |

## Cyrillic

### Block from 0400 to 04FF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0400 | 0401 | 0402 | 0403 | 0404 | 0405 | 0406 | 0407 | 0408 | 0409 | 040A | 040B | 040C | 040D | 040E | 040F |
| È    | Ë    | Ĥ    | Ħ    | Є    | Ɔ    | І    | İ    | Ј    | Љ    | Њ    | Ћ    | Ќ    | Й    | Ў    | Ц    |
| 0410 | 0411 | 0412 | 0413 | 0414 | 0415 | 0416 | 0417 | 0418 | 0419 | 041A | 041B | 041C | 041D | 041E | 041F |
| А    | Б    | В    | Г    | Д    | Е    | Ж    | З    | И    | Й    | К    | Л    | М    | Н    | О    | П    |
| 0420 | 0421 | 0422 | 0423 | 0424 | 0425 | 0426 | 0427 | 0428 | 0429 | 042A | 042B | 042C | 042D | 042E | 042F |
| Р    | С    | Т    | У    | Ф    | Х    | Ц    | Ч    | Ш    | Щ    | Ъ    | Ы    | Ь    | Э    | Ю    | Я    |
| 0430 | 0431 | 0432 | 0433 | 0434 | 0435 | 0436 | 0437 | 0438 | 0439 | 043A | 043B | 043C | 043D | 043E | 043F |
| а    | б    | в    | г    | д    | е    | ж    | з    | и    | й    | к    | л    | м    | н    | о    | п    |
| 0440 | 0441 | 0442 | 0443 | 0444 | 0445 | 0446 | 0447 | 0448 | 0449 | 044A | 044B | 044C | 044D | 044E | 044F |
| р    | с    | т    | у    | ф    | х    | ц    | ч    | ш    | щ    | ъ    | ы    | ь    | э    | ю    | я    |
| 0450 | 0451 | 0452 | 0453 | 0454 | 0455 | 0456 | 0457 | 0458 | 0459 | 045A | 045B | 045C | 045D | 045E | 045F |
| è    | ë    | ĥ    | ĥ    | є    | Ɔ    | і    | ï    | ј    | љ    | њ    | ћ    | ќ    | ѐ    | љ    | џ    |
| 0460 | 0461 | 0462 | 0463 | 0464 | 0465 | 0466 | 0467 | 0468 | 0469 | 046A | 046B | 046C | 046D | 046E | 046F |
| ω    | ω    | Ѡ    | ѡ    | Ѐ    | Ё    | Ђ    | Ѓ    | Є    | Ѕ    | І    | Ї    | Ј    | Љ    | Њ    | Ћ    |
| 0470 | 0471 | 0472 | 0473 | 0474 | 0475 | 0476 | 0477 | 0478 | 0479 | 048A | 048B | 048C | 048D | 048E | 048F |
| Ψ    | ψ    | Θ    | θ    | Ʋ    | υ    | Ų    | ų    | Оу   | оу   | Й    | ѐ    | ё    | ѡ    | Ѣ    | ѣ    |
| 0490 | 0491 | 0492 | 0493 | 0494 | 0495 | 0496 | 0497 | 0498 | 0499 | 049A | 049B | 049C | 049D | 049E | 049F |
| Г    | г    | Ƒ    | Ƒ    | Ѓ    | Ѓ    | Ж    | ж    | З    | з    | К    | к    | К    | к    | К    | к    |
| 04A0 | 04A1 | 04A2 | 04A3 | 04A4 | 04A5 | 04A6 | 04A7 | 04A8 | 04A9 | 04AA | 04AB | 04AC | 04AD | 04AE | 04AF |
| К    | к    | Н    | н    | Н    | н    | П    | п    | Q    | q    | С    | с    | Т    | т    | У    | у    |
| 04B0 | 04B1 | 04B2 | 04B3 | 04B4 | 04B5 | 04B6 | 04B7 | 04B8 | 04B9 | 04BA | 04BB | 04BC | 04BD | 04BE | 04BF |
| У    | у    | Х    | х    | Ц    | ц    | Ч    | ч    | Ч    | ч    | h    | h    | е    | е    | е    | е    |
| 04C0 | 04C1 | 04C2 | 04C3 | 04C4 | 04C5 | 04C6 | 04C7 | 04C8 | 04C9 | 04CA | 04CB | 04CC | 04CD | 04CE | 04CF |
| І    | Ж    | ж    | К    | к    | Л    | л    | Н    | н    | Н    | н    | Ч    | ч    | М    | м    | І    |

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 04D0 | 04D1 | 04D2 | 04D3 | 04D4 | 04D5 | 04D6 | 04D7 | 04D8 | 04D9 | 04DA | 04DB | 04DC | 04DD | 04DE | 04DF |
| Ă    | ă    | Ä    | ä    | Æ    | æ    | Ě    | ě    | Ə    | ə    | Ë    | ë    | Ж    | ж    | З    | з    |
| 04E0 | 04E1 | 04E2 | 04E3 | 04E4 | 04E5 | 04E6 | 04E7 | 04E8 | 04E9 | 04EA | 04EB | 04EC | 04ED | 04EE | 04EF |
| З    | з    | Й    | й    | Ï    | ï    | Ö    | ö    | Θ    | θ    | Ө    | ө    | Э    | э    | Ÿ    | ÿ    |
| 04F0 | 04F1 | 04F2 | 04F3 | 04F4 | 04F5 | 04F6 | 04F7 | 04F8 | 04F9 | 04FA | 04FB | 04FC | 04FD | 04FE | 04FF |
| Ÿ    | ÿ    | Ÿ    | ÿ    | Ч    | ч    | Г    | г    | Б    | б    | Ф    | ф    | Х    | х    | Ж    | ж    |

## Cyrillic Supplement

Block from 0500 to 052F

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0500 | 0501 | 0502 | 0503 | 0504 | 0505 | 0506 | 0507 | 0508 | 0509 | 050A | 050B | 050C | 050D | 050E | 050F |
| đ    | đ    | đ    | đ    | ѐ    | ѐ    | ѐ    | ѐ    | љ    | љ    | ћ    | ћ    | Г    | Г    | Љ    | Љ    |
| 0510 | 0511 | 0512 | 0513 | 0514 | 0515 | 0516 | 0517 | 0518 | 0519 | 051A | 051B | 051C | 051D | 051E | 051F |
| Е    | е    | Ј    | ј    | Љ    | љ    | Р    | р    | Ѧ    | Ѧ    | Q    | q    | W    | w    | К    | к    |
| 0520 | 0521 | 0522 | 0523 | 0524 | 0525 | 0526 | 0527 | 0528 | 0529 | 052A | 052B | 052C | 052D | 052E | 052F |
| Љ    | љ    | Њ    | њ    | П    | п    | ћ    | ћ    | Ј    | ј    | Д    | Д    | Д    | Д    | Л    | л    |

## Phonetic Extensions

Block from 1D00 to 1D7F

|      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1D4A | 1D6C | 1D6D | 1D6E | 1D6F | 1D70 | 1D71 | 1D72 | 1D73 | 1D74 | 1D75 | 1D76 |
| ə    | ɸ    | ɸ    | ɸ    | ɸ    | ɸ    | ɸ    | ɸ    | ɸ    | ɸ    | ɸ    | ɸ    |

## Phonetic Extensions Supplement

Block from 1D80 to 1DBF

|      |      |
|------|------|
| 1D91 | 1DBF |
| ɸ    | ɸ    |

## Combining Diacritical Marks Supplement

Block from 1DC0 to 1DFF

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 1DC4 | 1DC5 | 1DC6 | 1DC7 | 1DC8 | 1DC9 |
| ˘    | ˘    | ˘    | ˘    | ˘    | ˘    |

## Latin Extended Additional

Block from 1E00 to 1EFF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1E02 | 1E03 | 1E04 | 1E05 | 1E0A | 1E0B | 1E0C | 1E0D | 1E0E | 1E0F | 1E12 | 1E13 | 1E1E | 1E1F | 1E24 | 1E25 |
| Ĭ    | ĭ    | Ḃ    | ḃ    | Ḑ    | ḑ    | Ḍ    | ḍ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1E2E | 1E2F | 1E36 | 1E37 | 1E3C | 1E3D | 1E3E | 1E3F | 1E40 | 1E41 | 1E44 | 1E45 | 1E46 | 1E47 | 1E4A | 1E4B |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1E4C | 1E4D | 1E50 | 1E51 | 1E52 | 1E53 | 1E54 | 1E55 | 1E56 | 1E57 | 1E5A | 1E5B | 1E60 | 1E61 | 1E62 | 1E63 |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1E6A | 1E6B | 1E6C | 1E6D | 1E6E | 1E6F | 1E70 | 1E71 | 1E78 | 1E79 | 1E80 | 1E81 | 1E82 | 1E83 | 1E84 | 1E85 |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1E92 | 1E93 | 1E9E | 1EA0 | 1EA1 | 1EA2 | 1EA3 | 1EA4 | 1EA5 | 1EA6 | 1EA7 | 1EA8 | 1EA9 | 1EAA | 1EAB | 1EAC |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1EAD | 1EAE | 1EAF | 1EB0 | 1EB1 | 1EB2 | 1EB3 | 1EB4 | 1EB5 | 1EB6 | 1EB7 | 1EB8 | 1EB9 | 1EBA | 1EBB | 1EBC |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1EBD | 1EBE | 1EBF | 1EC0 | 1EC1 | 1EC2 | 1EC3 | 1EC4 | 1EC5 | 1EC6 | 1EC7 | 1EC8 | 1EC9 | 1ECA | 1ECB | 1ECC |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1ECD | 1ECE | 1ECF | 1ED0 | 1ED1 | 1ED2 | 1ED3 | 1ED4 | 1ED5 | 1ED6 | 1ED7 | 1ED8 | 1ED9 | 1EDA | 1EDB | 1EDC |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1EDD | 1EDE | 1EDF | 1EE0 | 1EE1 | 1EE2 | 1EE3 | 1EE4 | 1EE5 | 1EE6 | 1EE7 | 1EE8 | 1EE9 | 1EEA | 1EEB | 1EEC |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1EED | 1EEE | 1EEF | 1EF0 | 1EF1 | 1EF2 | 1EF3 | 1EF4 | 1EF5 | 1EF6 | 1EF7 | 1EF8 | 1EF9 |      |      |      |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    |      |      |      |

## Greek Extended

Block from 1F00 to 1FFF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1F00 | 1F01 | 1F02 | 1F03 | 1F04 | 1F05 | 1F06 | 1F07 | 1F08 | 1F09 | 1F0A | 1F0B | 1F0C | 1F0D | 1F0E | 1F0F |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1F10 | 1F11 | 1F12 | 1F13 | 1F14 | 1F15 | 1F18 | 1F19 | 1F1A | 1F1B | 1F1C | 1F1D | 1F20 | 1F21 | 1F22 | 1F23 |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1F24 | 1F25 | 1F26 | 1F27 | 1F28 | 1F29 | 1F2A | 1F2B | 1F2C | 1F2D | 1F2E | 1F2F | 1F30 | 1F31 | 1F32 | 1F33 |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |
| 1F34 | 1F35 | 1F36 | 1F37 | 1F38 | 1F39 | 1F3A | 1F3B | 1F3C | 1F3D | 1F3E | 1F3F | 1F40 | 1F41 | 1F42 | 1F43 |
| Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    | Ḑ    | ḑ    |

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1F44 | 1F45 | 1F48 | 1F49 | 1F4A | 1F4B | 1F4C | 1F4D | 1F50 | 1F51 | 1F52 | 1F53 | 1F54 | 1F55 | 1F56 | 1F57 |
| Ō    | ō    | Ŏ    | ŏ    | Ɔ    | Ɔ    | Ɔ    | Ɔ    | Ú    | ú    | Û    | û    | Ŭ    | ŭ    | Ű    | ű    |
| 1F59 | 1F5B | 1F5D | 1F5F | 1F60 | 1F61 | 1F62 | 1F63 | 1F64 | 1F65 | 1F66 | 1F67 | 1F68 | 1F69 | 1F6A | 1F6B |
| Ƴ    | ƴ    | ƶ    | Ʒ    | Ų    | ų    | Ŵ    | ŵ    | Ŷ    | ŷ    | Ź    | ź    | Ɔ    | Ɔ    | Ɔ    | Ɔ    |
| 1F6C | 1F6D | 1F6E | 1F6F | 1F70 | 1F71 | 1F72 | 1F73 | 1F74 | 1F75 | 1F76 | 1F77 | 1F78 | 1F79 | 1F7A | 1F7B |
| Ɔ    | Ɔ    | Ɔ    | Ɔ    | à    | á    | è    | é    | ê    | ë    | ì    | í    | ò    | ó    | ù    | ú    |
| 1F7C | 1F7D | 1F80 | 1F81 | 1F82 | 1F83 | 1F84 | 1F85 | 1F86 | 1F87 | 1F88 | 1F89 | 1F8A | 1F8B | 1F8C | 1F8D |
| ŵ    | ŵ    | à    | à    | à    | à    | à    | à    | à    | à    | À    | À    | À    | À    | À    | À    |
| 1F8E | 1F8F | 1F90 | 1F91 | 1F92 | 1F93 | 1F94 | 1F95 | 1F96 | 1F97 | 1F98 | 1F99 | 1F9A | 1F9B | 1F9C | 1F9D |
| À    | À    | à    | à    | à    | à    | à    | à    | à    | à    | À    | À    | À    | À    | À    | À    |
| 1F9E | 1F9F | 1FA0 | 1FA1 | 1FA2 | 1FA3 | 1FA4 | 1FA5 | 1FA6 | 1FA7 | 1FA8 | 1FA9 | 1FAA | 1FAB | 1FAC | 1FAD |
| À    | À    | à    | à    | à    | à    | à    | à    | à    | à    | À    | À    | À    | À    | À    | À    |
| 1FAE | 1FAF | 1FB0 | 1FB1 | 1FB2 | 1FB3 | 1FB4 | 1FB6 | 1FB7 | 1FB8 | 1FB9 | 1FBA | 1FBB | 1FBC | 1FBD | 1FBE |
| À    | À    | à    | à    | à    | à    | à    | à    | à    | à    | À    | À    | À    | À    | À    | À    |
| 1FBF | 1FC0 | 1FC1 | 1FC2 | 1FC3 | 1FC4 | 1FC6 | 1FC7 | 1FC8 | 1FC9 | 1FCA | 1FCB | 1FCC | 1FCD | 1FCE | 1FCF |
| À    | À    | à    | à    | à    | à    | à    | à    | à    | à    | À    | À    | À    | À    | À    | À    |
| 1FD0 | 1FD1 | 1FD2 | 1FD3 | 1FD6 | 1FD7 | 1FD8 | 1FD9 | 1FDA | 1FDB | 1FDD | 1FDE | 1FDF | 1FE0 | 1FE1 | 1FE2 |
| À    | À    | à    | à    | à    | à    | à    | à    | À    | À    | À    | À    | À    | À    | À    | À    |
| 1FE3 | 1FE4 | 1FE5 | 1FE6 | 1FE7 | 1FE8 | 1FE9 | 1FEA | 1FEB | 1FEC | 1FED | 1FEE | 1FEF | 1FF2 | 1FF3 | 1FF4 |
| À    | À    | à    | à    | à    | à    | à    | à    | À    | À    | À    | À    | À    | À    | À    | À    |
| 1FF6 | 1FF7 | 1FF8 | 1FF9 | 1FFA | 1FFB | 1FFC | 1FFD | 1FFE |      |      |      |      |      |      |      |
| À    | À    | À    | À    | À    | À    | À    | À    | À    |      |      |      |      |      |      |      |

## General Punctuation

### Block from 2000 to 206F

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 2007 | 2008 | 200B | 200C | 200D | 200E | 200F | 2012 | 2013 | 2014 | 2015 | 2016 | 2018 | 2019 | 201A | 201C |
|      |      |      |      | ↑    | ↑    | ↑    | —    | —    | —    | —    |      | ‘    | ’    | ,    | “    |
| 201D | 201E | 2020 | 2021 | 2022 | 2026 | 2030 | 2039 | 203A | 203F | 2044 | 204A |      |      |      |      |
| ”    | „    | †    | ‡    | •    | ...  | ‰    | <    | >    | „    | /    | 7    |      |      |      |      |

## Superscripts and Subscripts

Block from 2070 to 209F

|      |      |      |      |      |      |      |      |      |      |      |      |              |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|--------------|------|------|------|
| 2070 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 207A | 207B | 207C | 207D | 207E | 207F         | 2080 | 2081 | 2082 |
| 0    | 4    | 5    | 6    | 7    | 8    | 9    | +    | -    | =    | (    | )    | <sup>n</sup> | 0    | 1    | 2    |
| 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 208A | 208B | 208C | 208D | 208E |              |      |      |      |
| 3    | 4    | 5    | 6    | 7    | 8    | 9    | +    | -    | =    | (    | )    |              |      |      |      |

## Currency Symbols

Block from 20A0 to 20CF

|      |      |      |      |      |
|------|------|------|------|------|
| 20AC | 20AF | 20B9 | 20BA | 20BD |
| €    | ₤    | ₹    | ₧    | ₦    |

## Letterlike Symbols

Block from 2100 to 214F

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 210A | 2113 | 2116 | 2122 | 2126 | 212E |
| g    | ℓ    | №    | ™    | Ω    | e    |

## Number Forms

Block from 2150 to 218F

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 2153 | 2154 | 2155 | 2156 | 2157 | 2158 | 2159 | 215A | 215B | 215C | 215D | 215E | 215F |
| 1/3  | 2/3  | 1/5  | 2/5  | 3/5  | 4/5  | 1/6  | 5/6  | 1/8  | 3/8  | 5/8  | 7/8  | 1/   |

## Arrows

Block from 2190 to 21FF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 2190 | 2191 | 2192 | 2193 | 2194 | 2195 | 2196 | 2197 | 2198 | 2199 | 21E6 | 21E7 | 21E8 | 21E9 | 21EA |
| ←    | ↑    | →    | ↓    | ↔    | ↕    | ↖    | ↗    | ↘    | ↙    | ↩    | ↗    | ↪    | ↩    | ↗    |

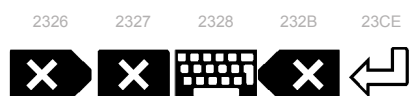
## Mathematical Operators

Block from 2200 to 22FF

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 2202 | 2205 | 2206 | 220F | 2211 | 2212 | 2215 | 2219 | 221A | 221E | 222B | 2248 | 2260 | 2264 | 2265 | 22C5 |
| ∂    | ∅    | Δ    | ∏    | Σ    | -    | /    | ·    | √    | ∞    | ∫    | ≈    | ≠    | ≤    | ≥    | ·    |

## Miscellaneous Technical

Block from 2300 to 23FF



## Geometric Shapes

Block from 25A0 to 25FF



## Dingbats

Block from 2700 to 27BF

27A1



## Miscellaneous Symbols and Arrows

Block from 2B00 to 2BFF



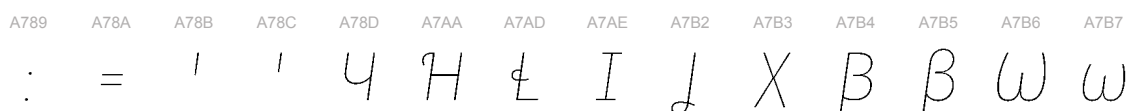
## Latin Extended-C

Block from 2C60 to 2C7F



## Latin Extended-D

Block from A720 to A7FF



## unassigned Block

Block from AB30 to ABBF

AB53



## Private Use Area

Block from E000 to F8FF

E000

E001

E002

E003



## Alphabetic Presentation Forms

Block from FB00 to FB4F

FB01

FB02



## Arabic Presentation Forms-B

Block from FE70 to FEFF

FEFF

# Unencoded Glyphs

All unencoded glyphs are accessible with OpenType layout feature capable applications. For a complete list of supported OpenType layout features see the next section.

## Small Capitals From Capitals

a d f y h y l t p u y ý ÿ

## Small Capitals From Capitals, Contextual Alternates, Small Capitals

$$\ddot{I} \quad \ddot{Y}$$

## Small Capitals From Capitals, Small Capitals

R A Á Ă Ą Ą Ą Ą Ą Ą Ą Ą Ą Ą Ą Ą Ą  
 Ä Ä Ä Ä Ä Ä Ä Ä Ä Ä Ä Ä Ä Ä Ä  
 É Ê Ë Ë Ë Ë Ë Ë Ë Ë Ë Ë Ë Ë Ë  
 Đ Ď Ď Ď Ď Ď Ď Ď Ď Ď Ď Ď Ď Ď Ď  
 Ě Ě Ě Ě Ě Ě Ě Ě Ě Ě Ě Ě Ě Ě  
 Σ ∅ Ē 3 Ǿ Σ F G Ġ Ġ Ġ Ġ Ġ Ġ Ġ  
 G H H Ĥ Ĥ Ĥ I Í Ĩ Ĩ Ĩ Ĩ Ĩ Ĩ Ĩ  
 Ì Í Î Ĵ Ĵ Ĵ Ĵ Ĵ Ĵ Ĵ Ĵ Ĵ Ĵ Ĵ Ĵ  
 Ł ł Ł Ł Ł Ł Ł Ł Ł Ł Ł Ł Ł Ł Ł



Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ Ñ  
 Ò Ò Ò Ò Ò Ò Ò Ò Ò Ò Ò Ò Ò Ò Ò Ò  
 Õ Õ Õ Õ Õ Õ Õ Õ Õ Õ Õ Õ Õ Õ Õ Õ  
 Ö Ö Ö Ö Ö Ö Ö Ö Ö Ö Ö Ö Ö Ö Ö Ö  
 Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø  
 Š Š Š Š Š Š Š Š Š Š Š Š Š Š Š Š  
 Ť Ť Ť Ť Ť Ť Ť Ť Ť Ť Ť Ť Ť Ť Ť Ť  
 Û Û Û Û Û Û Û Û Û Û Û Û Û Û Û Û  
 Ü Ü Ü Ü Ü Ü Ü Ü Ü Ü Ü Ü Ü Ü Ü Ü  
 Ý Ý Ý Ý Ý Ý Ý Ý Ý Ý Ý Ý Ý Ý Ý Ý  
 Ž Ž Ž Ž Ž Ž Ž Ž Ž Ž Ž Ž Ž Ž Ž Ž  
 à à à à à à à à à à à à à à à à  
 á á á á á á á á á á á á á á á á  
 â â â â â â â â â â â â â â â â  
 ã ã ã ã ã ã ã ã ã ã ã ã ã ã ã ã  
 ä ä ä ä ä ä ä ä ä ä ä ä ä ä ä ä  
 å å å å å å å å å å å å å å å å

[illegible]

## Contextual Alternates, Stylistic Set 3

e

## Case-Sensitive Forms

*ı ċ { } [ ] ( ) — — — — « » ‹ ›*  
*∞ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘*  
*˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘*  
*˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘ ˘*

## Discretionary Ligatures

*fi fl*

## Denominators

*( ) = - +*

## Denominators, Fractions

*0 1 2 3 4 5 6 7 8 9*

## Fractions, Numerators

*0 1 2 3 4 5 6 7 8 9*

## Localized Forms

*Ć Ń Ó Ś Ź ı f ć ń ó ś ź fi fl fi fl*  
*Ć Ń Ó Ś Ź ‘ ’ ’*

## Numerators

( ) = - +

## Old Style Figures, Proportional Figures

0 1 2 3 4 5 6 7 8 9 # − ¢ ¤ \$ ™  
 € ₧ ₨ ₹ £ ¥ ≈ ~ ÷ = > ≥ ∞ ∫ < ≤  
 ¬ − × ≠ ∂ ‰ ‰ + ± ∏ √ ∑ ∔ ∘ †  
 ‡

## Old Style Figures, Tabular Figures

0 1 2 3 4 5 6 7 8 9 # − ¢ ¤ \$ ™  
 € ₧ ₨ ₹ £ ¥ ≈ ~ ÷ = > ≥ ∞ ∫ < ≤  
 ¬ − × ≠ ∂ ‰ ‰ + ± ∏ √ ∑ ∔ ∘ †  
 ‡

## Stylistic Alternates, Stylistic Set 1

ŋ ƚ ɿ ƀ ɿ ŋ ƚ

## Small Capitals

À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò  
 Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã

l l P Y Y Y Y Y Y Y Y Y Q Q Q Q

## Stylistic Set 2

Б Ч Ч Б

## Tabular Figures

0 1 2 3 4 5 6 7 8 9 # − ¢ ¤ \$ ¤  
 € ₧ ₨ ₹ £ ¥ ≈ ~ ÷ = > ≥ ∞ ∫ < ≤  
 ¬ − × ≠ ∂ ‰ ‰ + ± ∏ √ ∑ ∅ § ° †  
 ‡

## Slashed Zero

0 0 0 0

## Other

/?/ 🌐 , ~

# OpenType Layout Features

For details about OpenType Layout Features see the [OpenType Layout tag registry](#).

## Substitution Features



### Access All Alternates

This feature makes all variations of a selected character accessible.



### Small Capitals

This feature turns lowercase characters into small capitals. This corresponds to the common SC font layout. It is generally used for display lines set in Large and small caps, such as titles. Forms related to small capitals, such as oldstyle figures, may be included.



### Small Capitals From Capitals

This feature turns capital characters into small capitals.



### Contextual Alternates

In specified situations, replaces default glyphs with alternate forms which provide better joining behavior.



### Standard Ligatures

Replaces a sequence of glyphs with a single glyph which is preferred for typographic purposes. This feature covers the ligatures which the designer/manufacturer judges should be used in normal conditions.



### Discretionary Ligatures

Replaces a sequence of glyphs with a single glyph which is preferred for typographic purposes. This feature covers those ligatures which may be used for special effect, at the user's preference.



### Old Style Figures

This feature changes selected figures from the default lining style to oldstyle form.



### Lining Figures

This feature changes selected figures from oldstyle to the default lining form.



### Proportional Figures

Replaces figure glyphs set on uniform (tabular) widths with corresponding glyphs set on glyph-specific (proportional) widths.



### Tabular Figures

Replaces figure glyphs set on proportional widths with corresponding glyphs set on uniform (tabular) widths.



### Slashed Zero

Some fonts contain both a default form of zero, and an alternative form which uses a diagonal slash through the counter. This feature allows the user to change from the default 0 to a slashed form.

7/

### Numerators

Replaces selected figures which precede a slash with numerator figures, and replaces the typographic slash with the fraction slash.

/8

### Denominators

Replaces selected figures which follow a slash with denominator figures.

7/8

### Fractions

Replaces figures separated by a slash with 'common' (diagonal) fractions.

x<sup>2</sup>

### Superscript

Replaces lining or oldstyle figures with superior figures (primarily for footnote indication), and may replace lowercase letters with superior letters (primarily for abbreviated French titles).

x<sub>2</sub>

### Subscript

The "subs" feature may replace a default glyph with a subscript glyph.

1<sup>st</sup>

### Ordinals

Replaces default alphabetic glyphs with the corresponding ordinal forms for use after figures.

(G)

### Case-Sensitive Forms

Shifts various punctuation marks up to a position that works better with all-capital sequences or sets of lining figures; also changes oldstyle figures to lining figures.

ſſ

### Localized Forms

This feature enables localized forms of glyphs to be substituted for default forms.

g·g

### Stylistic Alternates

Many fonts contain alternate glyph designs for a purely esthetic effect; these don't always fit into a clear category like swash or historical. This feature replaces the default forms with the stylistic alternates.

[1]

### Stylistic Set 1

Glyphs in stylistic sets may be designed to harmonise visually, interact in particular ways, or otherwise work together.

[2]

### Stylistic Set 2

[3]

### Stylistic Set 3

Σ&gt;Σ

### Mathematical Greek

Replaces standard typographic forms of Greek glyphs with corresponding forms commonly used in mathematical notation (which are a subset of the Greek alphabet).

## Positioning Features



### Capital Spacing

Globally adjusts inter-glyph spacing for all-capital text. Most typefaces contain capitals and lowercase characters, and the capitals are positioned to work with the lowercase. When capitals are used for words, they need more space between them for legibility and esthetics.



### Kerning

Adjusts amount of space between glyphs, generally to provide optically consistent spacing between glyphs.



### Mark Positioning

Positions mark glyphs with respect to base glyphs.



### Mark to Mark Positioning

Positions marks with respect to other marks. Required in various non-Latin scripts like Arabic.



# Codepages

## MacOS

MacOS Central Europe  
MacOS Croatian  
MacOS Cyrillic  
MacOS Greek

MacOS Icelandic  
MacOS Roman  
MacOS Romanian  
MacOS Turkish

## MS Windows

MS Windows 1250 Central European  
MS Windows 1251 Cyrillic  
MS Windows 1252 Western (ANSI)

MS Windows 1253 Greek  
MS Windows 1254 Turkish  
MS Windows 1257 Baltic

## ISO

ISO 8859- 1 Latin 1 (Western)  
ISO 8859- 2 Latin 2 (Central Europe)  
ISO 8859- 3 Latin 3 (Tu, Malt, Gal, Esp)  
ISO 8859- 4 Latin 4 (Baltic)  
ISO 8859- 5 Cyrillic  
ISO 8859- 7 Greek

ISO 8859- 9 Latin 5 (Turkish)  
ISO 8859-10 Latin 6 (Scandinavian)  
ISO 8859-13 Latin 7 (Baltic 2)  
ISO 8859-14 Latin 8 (Celtic)  
ISO 8859-15 Latin 9  
ISO 8859-16 Latin 10

# Languages

Information about languages is mainly based on the Unicode Common Locale Data Repository. For details visit the [Unicode CLDR Project](#).

## Latin

|                           |                 |                   |                 |
|---------------------------|-----------------|-------------------|-----------------|
| Afar                      | Ga              | Machame           | Slovak          |
| Afrikaans                 | Galician        | Makonde           | Slovenian       |
| Akan                      | Ganda           | Malagasy          | Soga            |
| Albanian                  | German          | Malay             | Somali          |
| Asu                       | Gusii           | Maltese           | Sorbian, Lower  |
| Azerbaijani               | Hausa           | Manx              | Sorbian, Upper  |
| Bambara                   | Hawaiian        | Maori             | Sotho, Northern |
| Basque                    | Hungarian       | Masai             | Sotho, Southern |
| Bemba                     | Icelandic       | Meru              | South Ndebele   |
| Bena                      | Igbo            | Moldavian         | Spanish         |
| Bosnian                   | Indonesian      | Morisyen          | Swahili         |
| Breton                    | Interlingua     | Nama              | Swati           |
| Catalan                   | Irish           | North Ndebele     | Swedish         |
| Central Morocco Tamazight | Italian         | Norwegian Bokmål  | Swiss German    |
| Chiga                     | Jju             | Norwegian Nynorsk | Tachelhit       |
| Cognian                   | Kabuverdianu    | Nyanja            | Taita           |
| Cornish                   | Kabyle          | Nyankole          | Taroko          |
| Crimean Tatar             | Kalaallisut     | Occitan           | Teso            |
| Croatian                  | Kalenjin        | Oromo             | Tonga           |
| Czech                     | Kamba           | Polish            | Tsonga          |
| Danish                    | Kikuyu          | Portuguese        | Tswana          |
| Dutch                     | Kinyarwanda     | Romanian          | Turkish         |
| Embu                      | Koro            | Romansh           | Tyap            |
| English                   | Koyra Chiini    | Rombo             | Venda           |
| Esperanto                 | Koyraboro Senni | Rwa               | Vietnamese      |
| Estonian                  | Kpelle          | Saho              | Vunjo           |
| Ewe                       | Kurdish         | Samburu           | Welsh           |
| Faroese                   | Langi           | Sami Northern     | Wolof           |
| Filipino                  | Latvian         | Sango             | Xhosa           |
| Finnish                   | Lingala         | Sena              | Yoruba          |
| French                    | Lithuanian      | Serbian           | Zulu            |
| Frisian West              | Low German      | Shambala          |                 |
| Friulian                  | Luo             | Shona             |                 |
| Fulah                     | Luyia           | Sidamo            |                 |

## Cyrillic

|             |            |           |           |
|-------------|------------|-----------|-----------|
| Azerbaijani | Chechen    | Mongolian | Uighur    |
| Bashkir     | Kazakh     | Russian   | Ukrainian |
| Belarusian  | Kirghiz    | Serbian   | Uzbek     |
| Bulgarian   | Macedonian | Tajik     |           |
| Buriat      | Mari       | Tatar     |           |

# Greek

Greek