

Suggested improvements to the code chart annotations of all Latin blocks

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28/08/2022

Introduction. This document is the third in a series. Just like last time the objective is to improve the completeness and readability of the charts. Here I propose new annotations to the characters on all the Latin blocks. Suggestions are generally more restricted (with the only exception being Phonetic Extensions Supplement), and include the source in a few cases. They may also be better phrased/justified than last document if they are stated again. I have also simplified the notation somewhat.

Changes. Most of the proposed changes are additional cross references, as well as additional bullet notes; other changes are mere rephrasings of already existing info, or other minor edits. Only rarely do I propose new informative aliases or remove some lines outright.

Notation. In order to indicate an addition that is definite improvement a yellow highlight is used; in order to indicate deletion that is a definite improvement a red highlight is used, when minor corrections are applied light blue highlight is used along with a light red highlight on the unmodified portions where applicable (minor corrections also include the repositioning of information in order to maintain consistency) the light blue/light red highlight may also be used for additions/removals that I'm ambivalent towards.

Additionally the text (*that is formatted like this*), is used to enclose an explanation for different decisions, right next to the change in question; they are not meant to be actually included in the chart, they are just meant for the reviewers of this document.

Finally, including every character in the block, even if many of them don't need modification, isn't very efficient but not indicating omissions can be confusing for the reviewers, so I use a midline horizontal ellipsis (···) to indicate sections with no suggested modifications. The header of the characters in question is always included (even when it itself doesn't need a change), for the convenience of the reviewers.

Future plans. The original idea was to do the same for punctuation blocks as well as Greek and Cyrillic. But this has been complicated by my lack of free time. I understand that these cannot be implemented into Unicode 16 since they are already too late, but for a future version perhaps.

SUGGESTED MODIFICATIONS: C0 Controls and Basic Latin

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ASCII punctuation and symbols

Based on ISO/IEC 646.

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0021 ! EXCLAMATION MARK

= factorial

= bang

• in some technical contexts, it's placed prefixed position to indicate negation

→ 00A1 ¡ inverted exclamation mark

→ 01C3 ! latin letter retroflex click

→ 055C ʹ armenian exclamation mark

→ 203C !! double exclamation mark

→ 203D ? interrobang

→ 26A0 ⚠ warning sign

→ 2757 ! heavy exclamation mark symbol

→ 2762 ❗ heavy exclamation mark ornament

→ 2763 ❖ heavy heart exclamation mark ornament

→ 2E53 ʹ medieval exclamation mark

→ A71D ˆ modifier letter raised exclamation mark

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0026 & AMPERSAND

= and

• originally derived from a ligature of 'e' and 't'

→ 204A ɳ tironian sign et

→ 214B ɰ turned ampersand

→ 2227 ^ logical and *((the ampersand is also used in logic formulas as an operator, with the same function))*

→ 1F674 & heavy ampersand ornament

...

0024 \$ DOLLAR SIGN

= milréis, escudo

• used for many peso currencies in Latin America and elsewhere

• glyph may have one or two vertical bars

• other currency symbol characters start at 20A0 ₠

→ 00A2 ¢ cent sign

→ 00A4 ₡ currency sign

→ 00A5 ¥ yen sign *((the only other currency sign in Latin-1))*

→ 20B1 ₱ peso sign

→ A7CC § latin capital letter s with diagonal stroke

→ 1F10F Ⓢ circled dollar sign with overlaid backslash

→ 1F4B2 \$ heavy dollar sign

→ 1F4B5 Ⓜ banknote with dollar sign

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002A * ASTERISK

= star

- can have five or six spokes
- used in ASCII based representation of multiplication

- 066D * arabic five pointed star
- 156F ** canadian syllabics tth
- 2020 † dagger ((related in function))
- 203B ※ reference mark
- 2042 ✱ asterism
- 204E * low asterisk
- 2051 † two asterisks aligned vertically
- 20F0 ◌ combining asterisk above
- 2217 * asterisk operator
- 26B9 ✕ sextile
- 2731 * heavy asterisk
- A673 ☆ slavonic asterisk
- 1F7B6 * medium six spoked asterisk

ASCII math operator

002B + PLUS SIGN

- 001B ± plus-minus sign
- 02D6 · modifier letter plus sign
- 1429 † canadian syllabics final plus
- 2212 – minus sign
- 2213 ∓ minus-or-plus sign
- 2795 + heavy plus sign
- FB29 ± hebrew letter alternative plus sign
- 1F7A2 + light greek cross

ASCII punctuation

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002D - HYPHEN-MINUS

= hyphen, dash

= minus sign

- used generically for hyphen, minus sign or en dash, all of which have dedicated alternatives

- 00AD soft hyphen
- 02D7 - modifier letter minus sign
- 058A - armenian hyphen
- 2010 - hyphen
- 2011 - non-breaking hyphen
- 2012 – figure dash
- 2013 – en dash
- 2027 · hyphenation point
- 2043 - hyphen bullet
- 2212 – minus sign
- 10191 – roman uncia sign

002E . FULL STOP

= period, dot, decimal point

- the use as decimal point is locale dependent
- may be rendered as a raised decimal point in old style numbers

- 00B7 · middle dot
- 0589 : armenian full stop
- 06D4 . arabic full stop
- 2024 . one dot leader
- 2026 ... horizontal ellipsis
- 2E33 · raised dot
- 2E3C . stenographic full stop
- 3002 。 ideographic full stop

002F / SOLIDUS

- = slash, forward slash, virgule
- 0338 ϕ combining long solidus overlay
- 2044 / fraction slash
- 2215 / division slash
- 27CB / mathematical rising diagonal
- 29F6 $\overline{/}$ solidus with overbar
- 29F8 / big solidus
- 2AFD // double solidus operator
- 2E4A / dotted solidus

ASCII Digits

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0033 3 DIGIT THREE

- 01B7 3 latin capital letter ezh
- 021C 3 latin capital letter yogh
- 218B 3 turned digit three
- A7AB 3 latin capital letter reversed open e

...

0037 7 DIGIT SEVEN

- 204A 7 tironian sign et

0038 8 DIGIT EIGHT

- 0223 8 latin small letter ou

0039 9 DIGIT NINE

- A76E 9 latin capital letter con

...

ASCII punctuation

003F ? QUESTION MARK

- 00BF ¿ inverted question mark
- 037E ; greek question mark
- 055E ʔ armenian question mark
- 061F ۝ arabic question mark
- 1367 ፤ ethiopic question mark
- 203D ʔ interrobang
- 2047 ?? double question mark
- 2753 ？ black question mark ornament
- 2BD1 𐀀 uncertainty sign
- 2E2E ʇ reversed question mark
- 2E54 ƚ medieval question mark
- FFFD 𐀀 replacement character
- 1FBC4 𐀀 negative squared question mark

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ASCII punctuation and symbols

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005C \ REVERSE SOLIDUS

- = backslash
- 20E5 \backslash combining reverse solidus overlay
- 2216 \ set minus
- 27CD \ mathematical falling diagonal
- 29F5 \ reverse solidus operator
- 29F7 \ reverse solidus with horizontal stroke
- 29F9 \ big reverse solidus

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005E ^ CIRCUMFLEX ACCENT

- known informally as 'caret'
- this is a spacing character
- used in ASCII-based representation of exponentiation
- 02C4 ^ modifier letter up arrowhead
- 02C6 ^ modifier letter circumflex accent
- 0302 ô combining circumflex accent
- 2038 ^ caret
- 2191 ↑ upwards arrow *((this used to be in this spot in the 1963 version of ASCII and some vintage computers use it for exponentiation as well))*
- 2227 ^ logical and
- 2303 ^ up arrowhead
- ...

0060 ` GRAVE ACCENT

- = backtick, backquote
- this is a spacing character
- in some technical contexts functions as opening quote, paired with apostrophe
- 00B4 ´ acute accent
- 02CB ` modifier letter grave accent
- 02F4 ` modifier letter middle grave accent
- 0300 ò combining grave accent
- 1420 ` canadian syllabics final grave
- 1FEF ` greek varia
- 2018 ´ left single quotation mark
- 2035 ` reversed prime

SUGGESTED MODIFICATIONS: C1 Controls and Latin-1 Supplement

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Latin-1 punctuation and symbols

Based on ISO/IEC 8859-1 (aka Latin-1) from here.

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00A2 ¢ CENT SIGN

- 023C ¢ latin small letter c with stroke
- 20A1 ¯ colon sign
- 20A5 ¯ mill sign
- 20B5 ¯ cedi sign
- 1D135 ¢ musical symbol cut time

00A3 £ POUND SIGN

- = pound sterling, Irish punt, lira, etc.
- not to be confused with the unit of weight
- glyph may have one or two crossbars, in distinction from 20A4 £ that always has two
- 20A4 £ lira sign
- 20BA ₺ turkish lira sign
- 10192 ₤ roman semuncia sign
- 1F4B7 ₤ banknote with pound sign

...

00A5 ¥ YEN SIGN

- = yuan sign (renminbi)
- glyph may have one or two crossbars, but the official symbol in Japan and China has two
- in native context, specific ideographs may be used for units of these currencies
- 024E ¥ latin capital letter y with stroke
- 04B0 ¥ cyrillic capital letter straight u with stroke
- 5143 元
- 5186 円
- 1F4B4 ₤ banknote with yen sign
- 1F4B9 ₤ chart with upwards trend and yen sign

00A6 | BROKEN BAR

- = broken vertical bar (1.0)
- = parted rule (in typography)
- originally an allograph of 007C | , made in order to avoid confusability in contexts where 007C | is used as a logical operator
- 007C | vertical line

...

00B4 ´ ACUTE ACCENT

- this is a spacing character
- 0060 ` grave accent
- 02B9 ´ modifier letter prime
- 02CA ´ modifier letter acute accent
- 02DD ¨ double acute accent
- 0301 ˆ combining acute accent
- 0384 ´ greek tonos
- 141F ´ canadian syllabics final acute
- 1FFD ´ greek oxia
- 2032 ´ prime
- ≈ 0020 SP 0301 ˆ

...

00B6 ¶ PILCROW SIGN

- = paragraph sign, blind p ((source: <https://www.merriam-webster.com/dictionary/blind%20P>))
- section sign in some European usage
- 10FB ∙ georgian paragraph separator
- 204B ¶ reversed pilcrow sign
- 2761 ¶ curved stem paragraph sign ornament
- 2E3F ¶ capitulum
- 2E4D ¶ paragraphus mark

...

00B8 ˘ CEDILLA

- this is a spacing character
- other spacing accent characters: 02D8 ˘ – 02DB ˘ ((missing space))
- 02DB ˘ ogonek ((often informally considered as the 'reversed' version))
- 0326 ˘ combining comma below
- 0327 ˘ combining cedilla
- 0328 ˘ combining ogonek
- ≈ 0020 ^{sp} 0327 ˘

...

Uppercase letters

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00C6 Æ LATIN CAPITAL LETTER AE

- = latin capital ligature ae (1.1)
- 0152 Œ latin capital ligature oe
- 04D4 Æ cyrillic capital ligature a ie

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00D0 Ð LATIN CAPITAL LETTER ETH

- lowercase is 00F0 ð
- sometimes used in Spanish as a ligature of the article 'DE'
- 0110 Ð latin capital letter d with stroke
- 0189 Ð latin capital letter african d
- A7C7 Ð latin capital letter d with short stroke overlay

...

Lowercase letters

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00E6 æ LATIN SMALL LETTER AE

- = latin small ligature ae (1.1)
- = ash (from Old English [æsc]) ((put the term between single quotes))
- Danish, Norwegian, Icelandic, Faroese, Old English, French, IPA
- 0153 œ latin small ligature oe
- 04D5 æ cyrillic small ligature a ie
- 1D02 æ latin small letter turned ae
- 1D6B ʷ latin small letter ue ((related in shape))
- AB31 æ latin small letter a reversed-schwa

00E7 ç LATIN SMALL LETTER C WITH CEDILLA

- derived from A763 ŷ
- A763 ŷ latin small letter visigothic z
- A794 ç latin small letter c with palatal hook
- ≡ 0063 c 0327 ˘

...

00FE þ LATIN SMALL LETTER THORN

- Icelandic, Old English, phonetics
- Runic letter borrowed into Latin script
- replaced by 'th' in modern English
- 01BF þ latin letter wynn ((the only other Latin letter to be borrowed from Runic))
- 03F8 þ greek small letter sho
- 16A6 Þ runic letter thurisaz thurs thorn
- A7D3 þ latin small letter double thorn

SUGGESTED MODIFICATIONS: Latin Extended-A

European Latin

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0131 ĩ LATIN SMALL LETTER DOTLESS I

- Turkish, Azerbaijani
- uppercase is 0049 I
- 0069 ĩ latin small letter i
- 0237 ĵ latin small letter dotless j
- 0269 ĩ latin small letter iota
- 026A Ĩ latin letter small capital i
- 0456 ĭ cyrillic small letter byelorussian-ukrainian i
- 1D6A4 ı mathematical italic small dotless i

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0138 κ LATIN SMALL LETTER KRA

- Greenlandic (old orthography), Labrador Inuttut
- the uppercase is 'K' which consists of the letter 'K' followed by the modifier letter apostrophe (02BC ')
- 03BA κ greek small letter kappa
- 043A κ cyrillic small letter ka
- 1D0B κ latin letter small capital k

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0142 ł LATIN SMALL LETTER L WITH STROKE

- Polish, Sorbian, Iñupiaq...
- also used for Latin based orthographies for Belarusian and Ukrainian
- 019A ł latin small letter l with bar
- 026B ł latin small letter l with middle tilde
- 2224 ł does not divide ((confusable in sans serif presentation))

...

014B ņ LATIN SMALL LETTER ENG

- = engma, angma
- Sami, Mende, Lakota, IPA, ...
- velar nasal, nasalization
- Lithuanian dialectology uses a variant where the hook goes above the baseline ((source: <http://www.unicode.org/L2/L2011/11191-lithuanian.pdf>))
- 019E ņ latin small letter n with long right leg
- 04C8 ѱ cyrillic small letter en with hook ((Cyrillic version for the same function))
- 1D87 ņ latin small letter n with palatal hook
- 0271 ņ latin small letter m with hook ((related in sound and in shape))
- A791 ņ latin small letter n with descender
- 1DF14 ņ̊ latin small letter eng with palatal hook

...

0153 œ LATIN SMALL LIGATURE OE

- = ethel (from Old English *ēðel*) ((added single quotes))
- French, IPA, Old Icelandic, Old English, ...
- 00E6 æ latin small letter ae
- 0276 Œ latin letter small capital oe
- 029A ⓪ latin small letter closed open e ((non-IPA alternate))
- 1D14 ø latin small letter turned oe
- A7F9 œ modifier letter small ligature oe
- AB40 œ latin small letter inverted oe
- AB62 æ latin small letter open oe

...

017F ſ LATIN SMALL LETTER LONG S

- variant of small s, in common use in Roman types until the 18th century
 - in current use in Fraktur and Gaelic types
 - uppercase is 0053 S
- 00DF ß latin small letter sharp s
- 027E ʀ latin small letter r with fishhook
- A785 ʀ latin small letter insular s
- FB05 ſt latin small ligature long s t
- ≈ 0073 s latin small letter s

SUGGESTED MODIFICATIONS: Latin Extended-B

Non-European and historic Latin

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0188 ċ LATIN SMALL LETTER C WITH HOOK

- African languages

...

018D ǫ LATIN SMALL LETTER TURNED DELTA

- = reversed Polish-hook o
- archaic phonetic for labialized alveolar fricative
- recommended spellings are 007A z 02B7 w or 007A z 032B ǫ

→ 1E9F δ latin small letter delta

...

0192 ƒ LATIN SMALL LETTER F WITH HOOK

- = script f
 - = Florin currency symbol (Netherlands)
 - = function symbol
 - used as abbreviation convention for folder
 - glyph may be confusable to an italicized letter 'f'
- 1D82 ƒ latin small letter f with palatal hook

...

019B λ̄ LATIN SMALL LETTER LAMBDA WITH STROKE

- = barred lambda, lambda bar
 - = running man ((source: https://en.wikipedia.org/wiki/Barred_lambda#cite_note-1))
 - uppercase is A7DC λ̄
- 03BB λ̄ greek small letter lamda ((this reference is now more fitting with A7DE))
- A7DE λ̄ latin small letter lambda

...

019E η LATIN SMALL LETTER N WITH LONG RIGHT LEG

- archaic phonetic for Japanese 3093 ん
 - recommended spelling for syllabic n is 006E n 0329 ɲ
 - Lakota (indicates nasalization of vowel), superseded by 014B ɲ
 - uppercase is 0220 Ɔ
- 014B ɲ latin small letter eng
- 03B7 η greek small letter eta
- 3093 ん hiragana letter n
- A791 ɳ latin small letter n with descender

...

01AD ƒ LATIN SMALL LETTER T WITH HOOK

→ 1DF09 ƒ latin small letter t with hook and retroflex hook

...

01BB 2 LATIN LETTER TWO WITH STROKE

- archaic phonetic for [dz] affricate
- recommended spellings 0292 ʒ or 0064 d 007A z

→ 0032 2 digit two

→ 01A7 2 latin capital letter tone two

01BC 5 LATIN CAPITAL LETTER TONE FIVE

→ 0035 5 digit five

...

01BF ꝥ LATIN LETTER WYNN

= wen

- Runic letter borrowed into Latin script
- replaced by “w” in modern transcriptions of Old English
- uppercase is 01F7 ꝥ

→ 00FE ꝥ latin small letter thorn ((the only other Latin letter to be borrowed from Runic))

→ 16B9 ꝥ runic letter wunjo wynn w

→ A7D5 ꝥ latin small letter double wynn

African letters for clicks

These click letters are from the Khoisan tradition. See also the bilabial click 0298 ǀ and the velar click 029E ǁ.

...

01C2 Ꞥ LATIN LETTER ALVEOLAR CLICK

= double-barred pipe

- palatoalveolar click (IPA)

→ 2260 Ꞥ not equal to ((not that related))

→ 29E7 Ꞥ thermodynamic

→ 2C61 Ꞥ latin small letter l with double bar ((confusable in sans serif presentation))

...

Miscellaneous additions

...

0220 Ŋ LATIN CAPITAL LETTER N WITH LONG RIGHT LEG

- Lakota (nasalization); superseded by 014A Ŋ

- lowercase is 019E ŋ

→ 014A Ŋ latin capital letter eng

→ A790 Ŋ latin letter capital letter n with descender

...

0224 Ź LATIN CAPITAL LETTER Z WITH HOOK

→ 2C6B Ź latin capital letter z with descender

→ A7C6 Ź latin capital letter z with palatal hook

0225 ƶ LATIN SMALL LETTER Z WITH HOOK

- Middle High German

→ 1D8E ƶ latin small letter z with palatal hook

→ 2C6C ƶ latin small letter z with descender

...

Miscellaneous addition

0237 j LATIN SMALL LETTER DOTLESS J

- this is a non-casing letter

→ 0131 ı latin small letter dotless i

→ 025F j latin small letter dotless j with stroke

→ 03F3 j greek letter yot

→ 0458 j cyrillic small letter je

→ 1D6A5 j mathematical italic small dotless j

...

Additions for Sencoten

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023B Ɔ LATIN CAPITAL LETTER C WITH STROKE

→ 20A1 Ɔ colon sign

→ 20B5 Ɔ cedi sign

023C ɕ LATIN SMALL LETTER C WITH STROKE

- also used in Americanist linguistics

→ 00A2 ɕ cent sign

→ 1D135 ɕ musical symbol cut time

...

Miscellaneous additions

...

0249 j̄ LATIN SMALL LETTER J WITH STROKE

→ 025F j̄ latin small letter dotless j with stroke

SUGGESTED MODIFICATIONS: IPA Extensions

IPA extensions

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0251 **ɑ** LATIN SMALL LETTER ALPHA

- = latin small letter script a (1.0)
- low back unrounded vowel
- the representative glyph appears like an allograph of Latin "a", but sometimes the character is rendered more like a Greek "α"
- uppercase is 2C6D **Α**
- 0061 **a** latin small letter a
- 03B1 **α** greek small letter alpha
- AB30 **α** latin small letter barred alpha

...

0257 **ɖ** LATIN SMALL LETTER D WITH HOOK

- implosive dental or alveolar stop
- Ewe, Pan-Nigerian alphabet
- uppercase is 018A **Ḑ**
- 1D91 **ɖ** latin small letter d with hook and tail

...

025A **ɶ** LATIN SMALL LETTER SCHWA WITH HOOK

- 1D95 **ɶ** latin small letter schwa with retroflex hook

...

025C **ɜ** LATIN SMALL LETTER REVERSED OPEN E

- = reversed epsilon
- lower-mid central unrounded vowel
- uppercase is A7AB **Ƶ**
- 0437 **з** cyrillic small letter ze
- 1D08 **ɜ** latin small letter turned open e
- 1D23 **ɜ** latin letter small capital ezh

025D **ɜ̣** LATIN SMALL LETTER REVERSED OPEN E WITH HOOK

- 1D94 **ɜ̣** latin small letter reversed open e with retroflex hook

...

025F **ɶ̣** LATIN SMALL LETTER DOTLESS J WITH STROKE

- voiced palatal stop
- typographically a turned f, but better thought of as a form of j
- "gy" in Hungarian orthography
- also archaic phonetic for palatoalveolar affricate 02A4 **ɟ**
- 0237 **ɶ̣** latin small letter dotless j
- 0249 **ɶ̣** latin small letter j with stroke
- 0284 **ɶ̣** latin small letter dotless j with stroke and hook

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0260 **ɡ̊** LATIN SMALL LETTER G WITH HOOK

- a glyph similar to 0261 **g** is preferred
- 1D83 **ɡ̊** latin small letter g with palatal hook

0261 **g** LATIN SMALL LETTER SCRIPT G

- voiced velar stop
- not to be confused with the allograph of lowercase 'g'
- uppercase is A7AC **Ḡ**
- 0067 **g** latin small letter g
- 210A **ȝ** script small g

...

0269 ɪ LATIN SMALL LETTER IOTA

- semi-high front unrounded vowel
- obsoleted by IPA in 1989, in favor of 026A ɪ
- preferred use is 026A ɪ latin letter small capital i ((consolidated above))
- uppercase is 0196 ɪ
- 0131 ɪ latin small letter dotless i
- 03B9 ɪ greek small letter iota
- 1D7C ɪ latin small letter iota with stroke
- A647 ɪ cyrillic small letter iota
- 1D6A4 ɪ mathematical italic small dotless i

026A ɪ LATIN LETTER SMALL CAPITAL I

- semi-high front unrounded vowel
- preferred IPA alternate for 0269 ɪ
- uppercase is A7AE ɪ
- ISO 6438 gives this letter as the lowercase of 0197 ɪ instead of 0268 ɪ
- glyph should have top and bottom serifs even in sans serif IPA fonts designs, to avoid confusion with lowercase l or small dotless i (0131 ɪ) ((the small l is always taller than this letter; so the true confusable is i; it is also unnecessary to specify that the requirement applies to IPA fonts, when it should apply to ALL fonts))
- 0131 ɪ latin small letter dotless i
- 1D7B ɪ latin letter small capital i with stroke
- A7AE ɪ latin capital letter small capital i

026B ɺ LATIN SMALL LETTER L WITH MIDDLE TILDE

- velarized voiced alveolar lateral approximant
- uppercase is 2C62 ɺ
- 0142 ɺ latin small letter l with stroke
- 236D ɺ apl functional symbol stile tilde
- AB37 ɺ latin small letter l with inverted lazy s
- AB38 ɺ latin small letter l with double middle tilde

...

0271 ɱ LATIN SMALL LETTER M WITH HOOK

- = emg, meng ((source: <https://en.wikipedia.org/wiki/%E2%B1%AE>))
- voiced labiodental nasal
- uppercase is 2C6E ɱ
- 014B ɱ latin small letter eng ((related in sound and in shape))
- 1D86 ɱ latin small letter m with palatal hook

...

0277 ɯ LATIN SMALL LETTER CLOSED OMEGA

- near-close near-back rounded vowel
- former IPA alternate, superseded by 028A ɯ in 1989 ((consolidated both lines below, in a single note))
- obsoleted by IPA in 1989
- preferred use is 028A ɯ latin small letter epsilon
- 028A ɯ latin small letter epsilon
- 03D6 ɯ greek pi symbol
- A7B7 ɯ latin small letter omega
- AB65 ɯ greek letter small capital omega

...

0279 ɣ LATIN SMALL LETTER TURNED R

- voiced alveolar approximant
- 02B4 ɣ modifier letter small turned r
- 1D1A ɣ latin letter small capital turned r
- AB68 ɣ latin small letter turned r with middle tilde

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027E ɾ LATIN SMALL LETTER R WITH FISHHOOK

- voiced alveolar flap or tap
- 017F ɿ latin small letter long s
- 1DF11 ɿ latin small letter l with fishhook

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0289 ʉ LATIN SMALL LETTER U BAR

- high central rounded vowel
- uppercase is 0244 ʉ
- 1D7E ʉ latin small capital letter u with stroke
- 1D7F ʉ latin small letter upsilon with stroke

028A ʊ LATIN SMALL LETTER UPSILON

- near-close near-back rounded vowel
- typographically a turned Greek small capital omega (AB65 Ω)
- preferred IPA alternate to 0277 ω
- uppercase is 01B1 ʊ
- 0277 ω latin small letter closed omega
- 03C5 υ greek small letter upsilon
- AB65 Ω greek letter small capital omega

...

028E λ LATIN SMALL LETTER TURNED Y

- voiced lateral approximant
- this is a non-casing letter ((this note became necessary due to the introduction of A7DA that looks like a turned capital Y))
- 2144 λ turned sans-serif capital y
- A7DA λ latin capital letter lambda

...

0295 ʎ LATIN LETTER PHARYNGEAL VOICED FRICATIVE

- = reversed glottal stop
- = ain
- this is a non-casing letter ((this note will soon be necessary with the introduction of the cased variants))
- voiced pharyngeal fricative
- ain ((turn in into an informative alias))
- 01B9 ʎ latin small letter ezh reversed
- 02C1 ʎ modifier letter reversed glottal stop
- 1D25 ʎ latin letter ain

0298 ʘ LATIN LETTER BILABIAL CLICK

- = bullseye
- this is a non-casing letter
- 01C0 ʘ latin letter dental click ((to find the rest of the set))
- 2299 ʘ circled dot operator
- 2609 ʘ sun ((this character is confusable and more common))
- A668 ʘ cyrillic capital letter monocular o

029A ɐ LATIN SMALL LETTER CLOSED OPEN E

- = closed epsilon
- lower-mid front rounded vowel
- non-IPA alternate for the preferred 0153 œ
- 025E ɐ latin small letter closed reversed open e
- A79D ɐ latin small letter volapuk oe ((confusable in some typefaces))

...

029C ʰ LATIN LETTER SMALL CAPITAL H

- voiceless epiglottal fricative
- 043D ʰ cyrillic small letter en
- 1D34 ʰ modifier letter capital h
- A7F8 ʰ modifier letter capital h with stroke ((not that related))
- 10796 ʰ modifier letter small capital h

...

029E ꝥ LATIN SMALL LETTER TURNED K

- proposed for velar click but withdrawn from IPA in 1970
- now used for its original sound in para-linguistics *((this note is important to clarify its current use))*
- uppercase is A7B0 Ꝧ
- withdrawn by IPA in 1970 *((consolidated above))*
- 01C0 ꝫ latin letter dental click *((to find the rest of the set))*
- 1DF03 Ꝭ latin small letter reversed k *((related in shape and sound))*
- 1DF10 ꝭ latin letter small capital turned k

...

02A6 Ꞥ LATIN SMALL LETTER TS DIGRAPH

- voiceless dental affricate
- 01BE ꞥ latin letter inverted glottal stop with stroke *((related in sound))*
- AB67 Ꞧ latin small letter ts digraph with retroflex hook

02A7 ꞧ LATIN SMALL LETTER TESH DIGRAPH

- voiceless post-alveolar affricate
- A729 Ꞩ latin small letter tz *((related in sound and shape))*
- 1DF17 ꞩ latin small letter tesh digraph with palatal hook *((completes the set along with AB67 Ꞧ above))*
- 1DF1C Ɦ latin small letter tesh digraph with retroflex hook *((ditto))*

...

IPA characters for disordered speech

02A9 Ɜ LATIN SMALL LETTER FENG DIGRAPH

- velopharyngeal fricative
- 1DF00 Ɡ latin small letter feng digraph with trill

...

Additions for Sinology

02AE ꝰ LATIN SMALL LETTER TURNED H WITH FISHHOOK

- 0265 ꝱ latin small letter turned small h

SUGGESTED MODIFICATIONS: Phonetic Extensions

Latin letters

...

1D09 † LATIN SMALL LETTER TURNED I

→ 1D4E † modifier letter small turned i *((to acknowledge the lack of a proper decomposition))*

...

1D0B κ LATIN LETTER SMALL CAPITAL K

→ 0138 κ latin small letter kra

→ 03BA κ greek small letter kappa

→ 043A κ cyrillic small letter ka

...

1D0E ι LATIN LETTER SMALL CAPITAL REVERSED N

→ 0377 ι greek small letter pamphylian digamma

→ 0438 ι cyrillic small letter i

→ 1D3B ι modifier letter capital reversed n

...

1D14 œ LATIN SMALL LETTER TURNED OE

• glyph can also have sideways orientation

→ AB41 œ latin small letter turned oe with stroke

→ AB42 œ latin small letter turned oe with horizontal stroke

...

1D19 я LATIN LETTER SMALL CAPITAL REVERSED R

→ 044F я cyrillic small letter ya

...

1D25 ʒ LATIN LETTER AIN

→ 01B9 ʒ latin small letter ezh reversed

→ 0295 ʒ latin letter pharyngeal voiced fricative

→ 05E2 ʒ hebrew letter ayin

→ 0639 ʒ arabic letter ain

→ A724 ʒ latin capital letter egyptological ain

Greek letters

An additional Greek small capital is at AB65 Ω.

1D26 Ϛ GREEK LETTER SMALL CAPITAL GAMMA

→ 0433 Ϛ cyrillic small letter ghe

1D27 λ GREEK LETTER SMALL CAPITAL LAMDA

→ 028C λ latin small letter turned v

...

Cyrillic letter

1D2B ѡ CYRILLIC LETTER SMALL CAPITAL EL

• in italic style, the glyph is merely made oblique; not italicized it doesn't change shape *((rephrased the note to be clearer))*

→ 043B ѡ cyrillic small letter el

Modifier letters

Other modifier letters can be found in the Spacing Modifier Letters, Phonetic Extensions, as well as Superscripts and Subscripts blocks.

...

1D4E † MODIFIER LETTER SMALL TURNED I

→ 1D09 † latin small letter turned i *((to acknowledge the lack of a proper decomposition))*

...

Latin letter for American lexicography

1D6B ʷ LATIN SMALL LETTER UE

→ 00E6 æ latin small letter ae

→ 0153 œ latin small ligature oe

→ AB62 œ latin small letter open oe

→ AB63 ʷ latin small letter uo

...

Letter for Caucasian linguistics

1D77 ǰ LATIN SMALL LETTER TURNED G

- Georgian transcription
- 10F9 ǰ georgian letter turned gan
- A7FF ǰ latin small letter turned insular g
- 1DF02 ǰ latin letter small capital turned g

...

Other phonetic symbols

1D7B ǀ LATIN SMALL CAPITAL LETTER I WITH STROKE

- used with different meanings by Americanists and Oxford dictionaries
- 0197 ǀ latin capital letter I with stroke
- 0268 ǀ latin small letter i with stroke
- 026A ǀ latin letter small capital i

1D7C ǃ LATIN SMALL LETTER IOTA WITH STROKE

- used by Russianists
- 0269 ǃ latin small letter iota

SUGGESTED MODIFICATIONS: Phonetic Extensions Supplement

Latin letters with palatal hook

...

1D82 **f̃** LATIN SMALL LETTER F WITH PALATAL HOOK

→ 0192 **f̃** latin small letter f with hook

1D83 **g̃** LATIN SMALL LETTER G WITH PALATAL HOOK

• representative glyph is similar to 0261 **g̃**
but versions similar to 0067 **g̃** are attested

1D84 **ḳ** LATIN SMALL LETTER K WITH PALATAL HOOK

→ 2C6A **ḳ** latin small letter k with descender

1D85 **ḷ** LATIN SMALL LETTER L WITH PALATAL HOOK

→ 013C **ḷ** latin small letter l with cedilla

1D86 **ṃ** LATIN SMALL LETTER M WITH PALATAL HOOK

• Lithuanian dialectology uses a variant where
the hook goes above the baseline ((source: <http://www.unicode.org/L2/L2011/11191-lithuanian.pdf>)
→ 0271 **ṃ** latin small letter m with hook

1D87 **ŋ̣** LATIN SMALL LETTER N WITH PALATAL HOOK

• in Lithuanian dialectology, this character appears
like the representative glyph of 014B **ŋ̣** ((source: <http://www.unicode.org/L2/L2011/11191-lithuanian.pdf>)
→ 014B **ŋ̣** latin small letter eng
→ 1DF14 **ŋ̣** latin small letter eng with palatal hook

...

1D8A **ṣ̌** LATIN SMALL LETTER S WITH PALATAL HOOK

→ 015F **ṣ̌** latin small letter s with cedilla

...

1D8E **ẓ** LATIN SMALL LETTER Z WITH PALATAL HOOK

• uppercase is A7C6 **Ẓ**
→ 0225 **ẓ** latin small letter z with hook
→ 2C6C **ẓ** latin small letter z with descender

Latin letters with retroflex hook

...

1D91 **ḍ** LATIN SMALL LETTER D WITH HOOK AND TAIL

→ 0257 **ḍ** latin small letter d with hook

1D92 **ẹ** LATIN SMALL LETTER E WITH RETROFLEX HOOK

→ 0119 **ẹ** latin small letter e with ogonek
→ 2C78 **ẹ** latin small letter e with notch

...

1D96 **ị** LATIN SMALL LETTER I WITH RETROFLEX HOOK

→ 012F **ị** latin small letter i with ogonek

...

1D99 **ụ** LATIN SMALL LETTER U WITH RETROFLEX HOOK

→ 0173 **ụ** latin small letter u with ogonek

SUGGESTED MODIFICATIONS: Latin Extended Additional

Latin general use extensions

...

1E61 ſ LATIN SMALL LETTER S WITH DOT ABOVE

- Irish Gaelic (old orthography)

→ 1E9B ẛ latin small letter long s with dot above

≡ 0073 s 0307 ẛ

...

Medievalist addition

1E9C ſ̅ LATIN SMALL LETTER LONG S WITH DIAGONAL STROKE

- medievalist use for several abbreviations
- used in pre-1921 Latvian orthography
- used in Blackletter types of pre-1950 Lower Sorbian orthography

→ A7A9 ſ̅ latin small letter s with oblique stroke

→ A7CD ſ̅̅ latin small letter s with diagonal stroke

...

Medievalist addition

1E9F δ LATIN SMALL LETTER DELTA

- this is a non-casing letter

→ 018D Ϸ latin small letter turned delta

→ 03B4 δ greek small letter delta

→ A77A δ̇ latin small letter insular d

...

Medievalist additions

...

1EFB ð LATIN SMALL LETTER MIDDLE-WELSH LL

→ A749 ð̇ latin small letter l with high stroke

SUGGESTED MODIFICATIONS: Latin Extended-C

Orthographic Latin additions

...

2C61 ĺ LATIN SMALL LETTER L WITH DOUBLE BAR

→ 019A ĺ latin small letter l with bar

→ 01C2 ꞥ latin letter alveolar click *((confusable in sans serif presentation))*

→ AB38 ꞥ latin small letter l with double middle tilde

...

Additions for Uighur

...

2C6C z LATIN SMALL LETTER Z WITH DESCENDER

→ 0225 z latin small letter z with hook

→ 1D8E z latin small letter z with palatal hook

Miscellaneous additions

2C6D α LATIN CAPITAL LETTER ALPHA

= capital script a

• lowercase is 0251 α

• the glyph is an enlarged version of the lowercase, so it may also appear as an enlarged small letter alpha (03B1 α) if the lowercase assumes this form

2C6E M LATIN CAPITAL LETTER M WITH HOOK

= emg, meng *((source: <https://en.wikipedia.org/wiki/%E2%B1%AE>)*

• lowercase is 0271 m̂

...

Additions for UPA

2C77 φ LATIN SMALL LETTER TAILLESS PHI

→ 0278 φ latin small letter phi

→ 03C6 φ greek small letter phi

2C78 e LATIN SMALL LETTER E WITH NOTCH

→ 1D92 e latin small letter e with retroflex hook

SUGGESTED MODIFICATIONS: Latin Extended-D

...

Egyptological additions

These letters are always shown in italic style for their actual use in transliteration.

...

Mayanist additions

These are used for Mayan orthographies of the colonial period.

...

A729 ʈ LATIN SMALL LETTER TZ

= tezh digraph

- palato-alveolar affricate [ts]

- the representative glyph consists of a 'tz' ligature, but a 'z' ligature form is also attested

→ 02A6 ʈ latin small letter ts digraph

→ 02A7 ʈ̣ latin small letter tesh digraph

A72A ɛ LATIN CAPITAL LETTER TRESILLO

→ 0190 ɛ latin capital letter open e

...

Medievalist additions

...

A749 ǀ LATIN SMALL LETTER L WITH HIGH STROKE

→ 019A ǀ latin small letter l with bar

→ 1EFB ǀ̇ latin small letter middle-welsh ll

A74A Ɔ LATIN CAPITAL LETTER O WITH LONG STROKE OVERLAY

→ 00D8 Ɔ latin capital letter o with stroke

→ 019F Ɔ latin capital letter o with middle tilde

...

A763 ȡ LATIN SMALL LETTER VISIGOTHIC Z

- ancestor of 00E7 ȡ

→ 00E7 ȡ latin small letter c with cedilla

...

Additional letter

A78D Ҁ LATIN CAPITAL LETTER TURNED H

- used in the Dan/Gio orthography in Liberia

- also historically used in Latin-based orthographies for Abaza and Abkhaz

- lowercase is 0265 Ҁ

- a glyph variant has a rounded hump like 0427 Ҁ

→ 0427 Ҁ cyrillic capital letter che

Phonetic symbol

A78E ɭ LATIN SMALL LETTER L WITH RETROFLEX HOOK AND BELT

- voiceless lateral retroflex fricative

- used to transcribe Toda

→ 026C ɭ latin small letter l with belt

→ 1079D ɭ̣ modifier letter small l with retroflex hook and belt

Transliteration letter for Sinology (*Sinology is a proper noun so it should be uppercase*)

...

Archaic letters for Volapük

...

A79D ɐ LATIN SMALL LETTER VOLAPUK OE

→ 029A ɐ latin small letter closed open e (*confusable in some typefaces*)

...

A79F ʉ LATIN SMALL LETTER VOLAPUK UE

- also used in German dialectology (*this character was meant to have this note,*

source: <https://www.unicode.org/L2/L2011/11137-n4031-teuthonista.pdf>)

...

Letters for pre-1921 Latvian orthography

...

A7A9 ſ LATIN SMALL LETTER S WITH OBLIQUE STROKE

- also used in pre-1950 Lower Sorbian orthography
- 1E9C ſ latin small letter long s with diagonal stroke
- A7CA s latin small letter s with short stroke overlay
- A7CD ſ latin small letter s with diagonal stroke

...

Letter for West African languages

A7AE ĩ LATIN CAPITAL LETTER SMALL CAPITAL I

- lowercase is 026A ĩ
- also used in Unifon
- in order to avoid confusability with 0049 I, this letter has top and bottom serifs even in sans serif presentation and is overall wider
- 0049 I latin capital letter i
- 026A ĩ latin letter small capital i
- 2336 ĩ apl functional symbol i-beam *((confusable in sans serif presentation))*

...

Letters for Americanist orthographies

...

A7B0 ƙ LATIN CAPITAL LETTER TURNED K

- lowercase is 029E ƙ
- 1DF03 ƙ latin small letter reversed k
- 1DF10 ƙ latin letter small capital turned k

...

Letters for Ugaritic and Egyptological transliteration

These letters are always shown in italic style *in* for their actual use *for* in transliteration.

A7BA Ἀ LATIN CAPITAL LETTER GLOTTAL A

- 1F08 Ἀ greek capital letter alpha with psili

...

A7BC Ἰ LATIN CAPITAL LETTER GLOTTAL I

- 1F38 Ἰ greek capital letter iota with psili

A7BD ἰ LATIN SMALL LETTER GLOTTAL I

- = egyptological yod
- 05D9 ἰ hebrew letter yod
- 064A ﻱ arabic letter yeh
- A723 ɛ latin small letter egyptological alef
- A725 ɛ latin small letter egyptological ain

...

A7BF ὐ LATIN SMALL LETTER GLOTTAL

- 1F50 ὐ greek small letter upsilon with psili

...

Additional letters for Gaulish

...

A7C8 ḋ LATIN SMALL LETTER D WITH SHORT STROKE OVERLAY

- = tau gallicum
- indicates a dental affricate
- also used in a Moro orthography for a voiced dental
- ((source: <https://www.unicode.org/L2/L2019/19179-n5044-tau-gallicum.pdf>)*
- 0111 ḋ latin small letter d with stroke

...

A7CA ſ LATIN SMALL LETTER S WITH SHORT STROKE OVERLAY

- attested in handwritten documents used in pairs as an alternate tau gallicum
- A7A9 s latin small letter s with oblique stroke

Letter for Eastern Dan

A7CB ☐ LATIN CAPITAL LETTER RAMS HORN

- lowercase is 0264 ɣ

→ 0194 Ƴ latin capital letter gamma

Letters for Luiseño

A7CC § LATIN CAPITAL LETTER S WITH DIAGONAL STROKE

→ 0024 \$ dollar sign

A7CF § LATIN SMALL LETTER S WITH DIAGONAL STROKE

→ 1E9C ƒ latin small letter long s with diagonal stroke

...

Letters used in Wakashan and Salishan languages

A7DA λ LATIN CAPITAL LETTER LAMBDA

→ 2144 λ turned sans-serif capital y

A7DB λ LATIN SMALL LETTER LAMBDA

→ 028E Ɣ latin small letter turned y

→ 03BB λ greek small letter lamda

...

Ancient **Gaulish and Celtic** epigraphic letters *((made redundant by the already existing notes below the letters))*

A7F5 Ɔ LATIN CAPITAL LETTER REVERSED HALF H

= H dimidié

- appears in inscriptions from the Roman provinces of Gaul

• typical in ancient Roman inscriptions from Gaul

→ 2C75 Ɔ latin capital letter half h

...

A7F7 ⇨ LATIN EPIGRAPHIC LETTER SIDEWAYS I

- Celtic inscriptions

• the letter should retain its serifs in sans serif fonts, in order to avoid confusion with punctuation marks, like the em dash (2014 —)

...

Addition for UPA

A7FA Ƶ LATIN LETTER SMALL CAPITAL TURNED M

- voiceless closed central vowel

• the glyph may also have the expected zig-zag shape of the regular capital 'M'

→ 026F Ƶ latin small letter turned m

→ 0488 Ƶ cyrillic small letter sha

Ancient Roman epigraphic letters

A7FB Ɔ LATIN EPIGRAPHIC LETTER REVERSED F

= filia (daughter), femina (woman, female)

→ 2132 Ɔ turned capital f

...

A7FD Ɔ LATIN EPIGRAPHIC LETTER INVERTED M

= mulier, matrona (married woman)

- a glyph variant consists of an 'M' rotated 90° clockwise

→ 019C Ɔ latin capital letter turned m

A7FE Ɔ LATIN EPIGRAPHIC LETTER I LONGA

- used for /i:/

SUGGESTED MODIFICATIONS: Latin Extended-E

Letters for German Dialectology

Teuthonista

...

Modifier letters for German Dialectology ((see header above))

Teuthonista

...

Letters for Sinological and Tibetanist

phonetic transcription ((*Sinology is a proper noun and so should be capitalized*))

⋮

SUGGESTED MODIFICATIONS: Latin Extended-F

Modifier letter for VoQS

10780 ^{AA} **MODIFIER LETTER SMALL CAPITAL AA**

- **aryepiglottic phonation**
- actually a small capital in VoQS (voice quality symbol) usage, with no semantic distinction from a full capital
- A732 ^{AA} latin capital letter aa

⋮

SUGGESTED MODIFICATIONS: Latin Extended-G

Extended IPA for disordered speech

...

1DF01 **ɀ** **LATIN SMALL LETTER REVERSED SCRIPT G**

- **oral stop**

...

1DF03 **Ɂ** **LATIN SMALL LETTER REVERSED K**

- **velodorsal stop**
- 029E **Ɂ** latin small letter turned k ((*related in both shape and sound*))

...

1DF07 **Ɂ̃** **LATIN SMALL LETTER REVERSED ENG**

- **nasal stop**

IPA extensions

...

1DF09 **Ʉ** **LATIN SMALL LETTER T WITH HOOK AND RETROFLEX HOOK**

- 01AD **Ʉ** latin small letter t with hook
- 0288 **Ʉ̠** latin small letter t with retroflex hook

1DF0A **Ʉ̠̠** **LATIN LETTER RETROFLEX CLICK WITH RETROFLEX HOOK**

- 01C3 **Ʉ̠̠** latin letter retroflex click
- A71D **Ʉ̠̠** modifier letter raised exclamation mark
- 107B9 **Ʉ̠̠̠** modifier letter retroflex click with retroflex hook

...

Letters with palatal hooks

...

1DF14 **Ʉ̠̠̠** **LATIN SMALL LETTER ENG WITH PALATAL HOOK**

- 014B **Ʉ̠̠̠** latin small letter eng
- 1D87 **Ʉ̠̠̠** latin small letter n with palatal hook

###