

# Elstob: A Variable Font for Medievalists

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# I. Introduction

The Elstob font (named for the eighteenth-century medievalist Elizabeth Elstob) is based on the Double Pica typeface commissioned by Bishop John Fell in the seventeenth century and used by the Oxford University Press for many years. Though its origin is an old-style typeface, it includes many modernizing touches, and it exploits the latest in font technology so as to provide capabilities available in few other fonts. It comes in two versions: **static** and **variable**.

## I.I. The Static Font

Most of the fonts on your computer are static: that is, each file contains outlines for a single style. For example, the ubiquitous Times New Roman typically has four styles in four files: regular, bold, italic, and bold italic. Because it has more than one style, we call Times New Roman a **font family**. Think of this family as having two stylistic **axes**, one being the **roman–italic** axis, on which only two positions are available (since in serif typefaces there is no middle ground between roman and italic), and the other being the **Weight** axis, on which many positions are possible, though the Times New Roman font family provides only two—regular and bold. Some static font families come packaged in more than four files and provide both more stylistic axes and more positions on these axes.

The static version of Elstob (ElstobD, where the D stands for “Desktop”) consists of forty-eight files (don’t panic—you’re not required to install them all) and has three stylistic axes: **Roman–Italic**, **Weight**, and **Optical Size**. The weights are ExtraLight, Light, Regular, Medium, **SemiBold**, **Bold**, and **ExtraBold**.

The **Optical Size** axis varies the shapes of characters to look good at particular sizes. The static version comes in five optical sizes: 8pt, 10pt, 12pt (Regular), 14pt,

and 18pt. You should choose the one that comes as close as possible to the point size of the text you are setting—for example, “ElstobD 8pt” for footnotes and “ElstobD 14pt Medium” for subheads, depending on your stylistic preferences.

## 1.2. The Variable Font

A **variable** font packages an almost infinite number of styles into a single font file. Whereas the static version of Elstob consists of forty-eight files, the variable version consists of only two: Elstob.ttf (roman) and Elstob-Italic.ttf (italic). And yet the variable version provides many more stylistic choices than the static version because you can choose any value along any of the font’s stylistic axes. The **weight** axis runs from 200 Extra Light to **800 Extra Bold**. You can choose either of those, or one of the other standard weights: 300 for Light, 400 for Regular, 500 for Medium, 600 for **SemiBold**, or 700 for **Bold**. Or you can, if you’re so minded, choose an oddball weight like **523.45**.

In addition to the **Weight** axis, Elstob has three others, **Optical Size**, **Grade**, and **Spacing**, and the italic face has one more, **Slant**. **Optical Size** works the same in the variable version as it does in the static version, but you are not limited to five optical sizes, so you can tune your type more closely to the size of your text. This axis runs from 6 to 18 (the numbers corresponding roughly to point sizes). Some applications (like Adobe InDesign) will automatically choose the appropriate value (though you may override it if you like).

**Grade** (0–1) is like **Weight**, but it varies the weight of characters without changing their widths. This can be useful in web pages, where dynamically changing the **Weight** axis (for example, on mouseover) may cause text to reflow annoyingly. Grade will not generally be useful in printed documents.

**Spacing** (0–1) increases the width of the space character and a few related characters (such as non-breaking space). A value of zero (the default) produces the original spacing of this font. A value of one produces the wider spacing typical of documents printed in the nineteenth century and earlier. Use this axis with **ss18** (“Old-style punctuation spacing”) to adhere closely to the complex system of spacing typical of the era of metal type.

**Slant** (0–15) varies the slant of the italic from *o steeply slanted* to *15 nearly upright*. The slant of the static fonts is equivalent to a *Slant of 6 in the variable font*.

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The values of the various axes can be combined in any way you like. You will find, however, that some combinations are problematic or inadvisable. For example, you can add a little Grade to ExtraBold text to produce **even bolder text**, but if you overdo it, letters will collide and become misshapen—**like this**. You should add a Grade of no more than 0.2 to the ExtraBold face. Combining ExtraBold and maximum Slant may also produce misshapen characters. It is not unexpected that, in a three- or four-dimensional design space, some positions will be less than optimal: experiment with the Elstob specimen page to find the styles you like.

When beginning a project with Elstob, consider whether the software you’re using has adequate support for variable fonts. If not, use the static version. All of the major web browsers support variable fonts, which you can control via CSS. The major programs of the Adobe Creative Suite also support variable fonts, as does LuaTeX, used to produce this document;<sup>1</sup> but most desktop applications (such as word processors) do not. ElstobD, the static version of Elstob, should work with all applications.

Elstob aims to cover all European languages using the Latin alphabet, and it offers a curated collection of Unicode characters of interest to medievalists. It includes the basic International Phonetic Alphabet and the most commonly used mathematical symbols. Version 2 includes many stylistic revisions and a few new characters, especially letters and diacritics from the *Ornulum*, recently added to Unicode. The OpenType features of the font have been revised to match as closely as possible those of the developer’s Junicode font. Unnecessary or redundant features have been removed, and technical changes have been made to improve accessibility.

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<sup>1</sup>Make sure to use the latest version of LuaTeX, as support for variable fonts was added very recently. XeTeX does not support variable fonts.

## 2. Specimens

A B C D E F G H I  
J K L M N O P Q R S  
T U V W X Y Z Þ Ð Æ P  
a b c d e f g h i j k l m n o p q r s t u v w x  
Quousque tandem abutere,  
Catilina, patientia nostra?  
*Quousque tandem abutere,  
Catilina, patientia nostra?*  
o 1 2 3 4 5 6 7 8 9   0 1 2 3 4 5 6 7 8 9

## 2.I. Old English (regular)

Sum wer wæs geseten on þām lande þe is gehāten Hus; his nama wæs Iob. Se wer wæs swīðe bilewite and rihtwīs and ondrādende God and forbūgende yfel. Him wāron ācennede seofan suna and Ȝrēo dohtra. Hē hæfde seofon Ȑūsend scēapa and Ȝrēo Ȑūsend olfenda, fīf hund ȝetȳmu oxena and fīf hund assan and ormāte miċelne hīred. Se wer wæs swīðe māre betwux eallum ēasternum, and his suna fērdon and Ȑēnode ȝelc Ȑōrum mid his gōdum on ymbhwyrfte æt his hūse, and þārtō heora swustru ȝelaðodon.

## 2.2. Old English with insular letter-forms (light)

Hej on ðír um geare þorðrefrðe ælfzine ymma Eadraðer cýnger modorj ȝ haðacnutej cýnger. ȝ on þam rylfan geare geræðde je cýng ȝ hir ritan þ mann rceolde þorðian ut to Sandpic ȝcipu. ȝ retton paulf eopl ȝ oððan eopl to heafðodmannū þærto. Ða ȝependon Godpine eopl út frā brýcge mið hir ȝcýpum to ýrejan. and let ut ane dæge ær mið- ȝumejer mæsseæfene þ he cō to næsse. þe iſ beſuðan ȝumenea. Pa cō hit to ritenne þā eoplū ut to Sandpic. ȝ hi þa ȝependon ut æftej þam oðrum ȝcipum. ȝ beað man landfrýðe ut ongean þa ȝcipu.

## 2.3. Old English in runes (various weights)

## 2.4. Middle English: *Ancrene Wisse* (Medium)

Nan ancre bi mi read ne schal makien pfessiun. þ ifbihaten aſe heaſt: but þeo þingef. þ beoð obedieneſ. chaſtete. ⁊ ſtude ſteaðelueſtneſſe. þ ha ne ſchal þ ſtude neaū mare changin bute fo2 nede ane. aſ ſtrengðe ⁊ deaðeſ dred. obedieneſ of hire biſchop oðer of hiſ herre. fo2 hpa ſe niſeð þing on hond ⁊ bihat hit Godd aſ heaſt fo2te don hit: ha bint hire þerto. ⁊ fuſegeð deadliche i þe bꝫuche. ȝef ha hit bꝫekeð pilles. ȝef ha hit ne bihat naſt. ha hit mei do þah ⁊ leauen hpen ha pel pule. aſ of mete. of drunch. fleſch fo2gan oðer fiſch. alle oþer ſpuſche þingef. of perunge. of ligguſe. of ureſ. of oþre beoden.

## 2.5. Middle English: *The Ormulum* (SemiBold)

Nu bƿoþeƿr pallcē bƿoþeƿr min. affcē þe flæſheſſ kīde. Ȑ bƿoþeƿr min i cƿiſſtenndom. þurh fulluhht Ȑ þurh tƿoþþe. Ȑ bƿoþeƿr min i goddeſſ huf. gēt o þe þriðe riſe. Þurh þatt pit hafenn takeñ ba. an neȝell boc to follȝenn. Vnndeƿr kanunnkeſſ hað. Ȑ lif. Spa ſum ſannt appſt̄in ſette. Icc̄ hafe don spa ſum þu baðð: Ȑ forþeðð te þi pille. Ȑ Icc̄ hafe pend m̄till enngliſſh. godðspelleſſ hallȝe lápe: Affcē þ ličle pit̄ þatt me. min ðrihhtinn hafeþ lenneð.

## 2.6. Early Modern English (Light Italic)

*When the right vertuous E.W. and I were at the Emperours Court together, wee gave ourſelves to learne horſemanſhip of Jon Pietro Pugliano, one that with great commendation had the place of an Esquire in his ſtable: and bee according to the fertiſnes of the Italian wit, did not onely affoord us the demouſtration of his practiſe, but ſought to enrich our mindes with the contemplations therein, which he thought moſt precious. But with none I remember mine eares were at any time more loaden, then when (either angred with flow paiment, or mooved with our learnerlike admiration) bee exerciſed his ſpeech in the praife of his facultie.*

## 2.7. Latin (Italic)

*Humanas laudes et mortalium insulas uidimus aut ére inciso conscriptas· aut auro radiantib: litteris ad posteritatis memoriam cōmendatas· Et ista attendentes miror quare non erubescim⁹ militum xpī uictoriaff silentio tégere & n̄ ad laudem imperatoris eoꝝ qualit̄ pugnauerint contra hostes & uicerint· sedulissaltim uilibus tradere & ad incitandos animos bellatoꝝ diligentius explicare· Multa bona taliū narrationū scripta conuertant; Laus dei est cum ista leguntur· memoria scōꝝ excolitur: aedificacio m̄tib: traditur. honor martiribus exhibetur.*

## 2.8. Old Icelandic (Medium Italic)

*Pá mælti Hárr: Pá er þeir gengu með sævarströndu Borssynir, fundu þeir tré tvau ok tóku upp trén ok skópuðu af menn. Gaf inn fyrsti qnd ok líf, annarr vit ok hræring, þriði ásjónu, mál ok heyrn ok sjón, gáfu þeim klæði ok nqfn. Hét karlmaðrinn Askr, en konan Embla, ok ólst þaðan af mannkindin, sú er byggðin var gefinn undir Miðgarði. Þar næst gerðu þeir sér borg í miðjum heimi, er kólluð er Ásgarðr. Þat kóllum vér Trója. iocoi oicio*

## 2.9. Gothic (Medium Italic, Maximum Slant)

*Warþ þan in dagans jainans, urrann gagrefts fram kaisara Agustau, gameljan allana midjungard. soh þan gilstrameleins frumista warþ at wisandin kindina Swriais raginondin Saurim K̄reinaiau. jah id-djedun allai, ei melidai weseina, hvarjizuh in seinai baurg. Urrann þan jah Iosefus Galeilaia, us baurg Nazaraip, in Iudaian, in baurg Daweidis sei baitada Beþlaibaim, duþe ei was us garda fadreinais Daweidis, anameljan miþ Mariin sei in fragiftim was imma qeins, wisandein inkilþon.*

## 2.IO. Vietnamese (regular small caps)

BAN ĐẦU ĐỨC CHÚA TRỜI DỰNG NÊN TRỜI VÀ ĐẤT. THUỘC ĐẤT HOANG VẮNG VÀ TRỐNG KHÔNG. BÓNG TỐI BAO PHỦ TRÊN MẶT VỰC THẤM. THẦN[A] CỦA ĐỨC CHÚA TRỜI VẬN HÀNH TRÊN MẶT NUỐC. ĐỨC CHÚA TRỜI PHÁN, “PHẢI CÓ ÁNH SÁNG,” THÌ CÓ ÁNH SÁNG. ĐỨC CHÚA TRỜI THẤY ÁNH SÁNG LÀ TỐT ĐẸP. ĐỨC CHÚA TRỜI PHÂN RẼ GIỮA ÁNH SÁNG VÀ BÓNG TỐI. ĐỨC CHÚA TRỜI GỌI ÁNH SÁNG LÀ NGÀY VÀ BÓNG TỐI LÀ ĐÊM. VẬY CÓ HOÀNG HÔN VÀ BÌNH MINH – NGÀY THỨ NHẤT.

## 2.II. French (Medium, old spacing, long s)

Grandgousier était bon raillard en son temps, aimant à boire net autant qu'homme qui pour lors fût au monde, et mangeait volontiers salé. A cette fin, avait ordinairement bonne munition de jambons de Mayence et de Bayonne, force langues de bœuf fumées, abondance d'andouilles en la saison et bœuf salé à la moutarde, renfort de boutargues, provision de saucisses, non de Bologne, car il craignait li boucon de Lombard, mais de Bigorre, de Longaunay, de la Brenne et de Rouergue. En son âge virile, épousa Gargamelle, fille du roi des Parpaillos, belle gouge » et de bonne trogne, et faisaient eux deux souvent ensemble la bête à deux dos, joyeusement se frottants leur lard, tant qu'elle engrossa d'un beau fils, et le porta jusques à l'onzième mois.

## 3. OpenType features

OpenType is the format employed by most modern fonts. It enables such technical wizardry as ligatures, kerning, and several kinds of variation. OpenType features, when they can be controlled by users, can be selected via four-character tags. Some applications offer more access to these features than others. The major web browsers support all of Elstob's features, and so do LibreOffice, Affinity Publisher, XeTeX and LuaTeX. The Adobe Creative Suite supports a generous selection of them. Microsoft Word, unfortunately, supports only a few OpenType features.

Elstob's OpenType features are for the most part a subset of those of Junicode. It will be noted below when the two fonts differ. Features are presented in alphabetical order, but this is not the order in which they are executed when more than one feature has been applied.

Different applications provide different ways of accessing OpenType features. Those that are available in Microsoft Word can be accessed in the “Advanced” tab of the “Font” dialog. In the Adobe apps those features that are available can be accessed via the “Character” dialog, and in InDesign via the “O” icon that appears when text is selected (InDesign users should select the “World-Ready Paragraph Composer” when using this font). For variable font handling in LuaTeX, see the source for this document.

### 3.1. aalt (Access All Alternates)

Provides access to all variants in the font. Applications that use this feature usually do so via an element of the user interface.

### 3.2. c2sc (Small Capitals From Capitals)

Converts capitals to small caps. Every capital in the font has a corresponding small capital. ABCDPDÆ → ABCDpDæ.

### 3.3. calt (Contextual Alternates)

In most applications this feature is on by default. Provides many alternate characters that vary automatically by context.

### 3.4. case (Case-Sensitive Forms)

Mostly provides alternate diacritics for capitals, e.g. ÄÄÉËÖÖÜÜ. Also converts old-style to lining figures to harmonize with capitals. Some applications turn this feature on automatically in the vicinity of capitals.

### 3.5. ccmp (Glyph Composition/Decomposition)

In most applications this feature is on by default and cannot be turned off. In Elstob it performs (1.) removal of dot from i and j when followed by combining marks; and (2.) substituting ligatures for certain vowel + rhotic hook (U+02DE) combinations.

### 3.6. cv07 (Variants of D)

Provides insular D (Ø).

### 3.7. cv08 (Variants of d)

Provides two shapes of insular d: 1. ð; 2. ø.

3.8. cvii (Variants of F)

Provides insular F (ſ).

3.9. cvi2 (Variants of f)

Provides: 1. ſ (insular f); 2. f (narrow f).

3.10. cvi3 (Variants of G)

Provides: 1. Ȝ (insular G); 2. Ȑ (Orm's hard G).

3.11. cvi4 (Variants of g)

Provides: 1. ȝ (insular g); 2. ȝ (Orm's hard g); 3. g (script g)

3.12. cvi8 (Variants of i)

Provides dotless i (i).

3.13. cvi35 (Variants of R)

Provides insular R (ȝ).

3.14. cvi36 (Variants of r)

Provides: 1. ȝ (insular r); 2. ȝ (r rotunda).

3.15. cvi37 (Variants of S)

Provides insular S (ȝ).

### 3.16. cv38 (Variants of s)

Provides: 1. ſ (insular s); 2. f (long s); 3. ſ (narrow long s). Instances of f provided by this feature are not subject to the contextual rules followed when **ss08** is turned on. Use **cv38[1]** for f everywhere in the text, or enter **U+017F** directly for fine control over the distribution of f. Use **cv38[2]** to avoid collisions that Elstob's contextual rules have not anticipated.

### 3.17. cv39 (Variants of T)

Provides insular T (T).

### 3.18. cv40 (Variants of t)

Provides insular t (t).

### 3.19. cv57 (Variants of æ)

Italic face only. Provides an alternative (and in some contexts less ambiguous) æ (æ). This feature also affects **U+01E3** (ā) and **U+01FD** (ā).

### 3.20. cv69 (Variants of Tironian et sign Ȑ)

Provides two variants of **U+204A**: 1. ȝ; 2. ȝ.

### 3.21. cv76 (Variants of ?)

Provides the *punctus interrogativus* (?).

### 3.22. cv8o (variants of bracket characters)

In the italic face, provides upright variants of the most common bracket characters: ()[]{}<.

### 3.23. dlig (Discretionary Ligatures)

Provides ct and st ligatures, and in italic only, *as*, *is*, *us*.

### 3.24. frac (Fractions)

Elstob includes only three fractions: ¼, ½, ¾. Type as number + slash + number.

### 3.25. hlig (Historical Ligatures)

Provides several ligatures used in Orm's orthography: þ þ þ for þþ pp hh pp. The first two of these correspond to Unicode U+A7D3 and U+A7D5, but using the ligatures provides an intelligible fallback when a font with these rare Unicode characters is not available.

### 3.26. liga (Standard Ligatures)

Most of this font's ligatures are Contextual Alternates (calt), but a few are provided by this feature, which should always be on.

### 3.27. locl (Localized Forms)

In most applications this feature is on by default and cannot be turned off. It provides the English forms of thorn and eth (þ þ ð) when English is the active language.

### 3.28. ordn (Ordinals)

Provides superscript forms of **a** and **o** when preceded by a figure: **1<sup>a</sup>**, **2<sup>o</sup>**.

### 3.29. smcp (Small Capitals)

Converts lowercase letters to small capitals. abcdeþðæ → ABCDEÞÐÆ.

### 3.30. sso1 (Alternate Thorn and Eth)

Overrides any language setting to provide alternate shapes of the letters thorn and eth: Nordic shapes when the language is English, and English shapes otherwise.

### 3.31. sso2 (Insular Letter-Shapes)

Transliterates from modern to insular (Old English, Old Irish) letter-shapes: dfgirstw → ðȝȝȝȝȝȝ. Note that **calt** later changes the sequence **rt** to **fc**. You can override this behavior by placing **U+200C ZERO-WIDTH NON-JOINER** or any invisible formatting mark between the **s** and the **t**.

### 3.32. sso4 (IPA Letter-Shapes)

Changes **g** to **g̞** and (in italic only) **a** to **ɑ̞**. This feature has no counterpart in Junicode.

### 3.33. sso8 (Contextual Long s)

In English, French, Italian, and Spanish text, and in combination with **calt**, distributes **s** and **f** according to rules commonly employed by early printers in each language. For all other languages, **s** and **f** are distributed according to the following rules: **s** in word-final position and immediately before or after **f**; **f** everywhere else.

To suppress any instance of **f**, place **U+200C ZERO-WIDTH NON-JOINER** immediately after.

### 3.34. ssi2 (Early English Futhorc)

Transliterates Latin script to runic with characters from the Early English futhorc.  
fuþorc → ƿΩǷΩRh.

### 3.35. ssi3 (Elder Futhark)

Transliterates Latin script to runic with characters from the Elder futhark. fuþark  
→ ƿΩǷΩRk.

### 3.36. ssi4 (Younger Futhark)

Transliterates Latin script to runic with characters from the Younger futhark.  
fuþark → ƿΩǷΩRP.

### 3.37. ssi5 (Long Branch to Short Twig)

Use with **ss14**. Converts the default (Long Branch) version of the Younger futhark  
to the Short Twig version. fuþark → ƿΩǷΩRP.

### 3.38. ssi6 (Contextual r Rotunda)

Together with **calt**, distributes **r** and **ȝ** in accordance with the rules most often  
employed in medieval manuscripts and early printed books: foȝm woȝkrooms  
pȝiest pȝayer.

### 3.39. ss18 (Old-style punctuation spacing)

Adds extra space inside paired quotation marks and before semicolons, colons, question marks and exclamation marks. The width of a space between a sentence-ending sequence (e.g. period, period + quotation mark, question mark) and a capital letter is increased. The amount of space added in these environments is governed by the Spacing (SPAC) axis, which runs from 0 (the default) to 1. When Spacing is set to 1, the spacing between words and sentences and around punctuation marks is a good match for most books printed in the late eighteenth century.

This feature will produce too much space in certain sequences that can be mistaken for the end of a sentence (like “Ofc. Smith”—though a number honorifics in various languages are accounted for in the rules. To solve this problem, place a ZERO-WIDTH NON-JOINER ([U+200C](#)) anywhere between the period and the capital or replace the space with the non-breaking space ([U+00A0](#)) or thin space ([U+2009](#)) (“Ofc. Smith,” “Ofc. Smith ”). If the rules produce a narrow space between sentences where you want a wide one, place a ZERO-WIDTH NON-JOINER before the period (“Main St. And ”). You can also override the effect of this feature by using the font’s alternative spaces : em space ([U+2003](#)), en space ([U+2002](#)), hair space ([U+200A](#)), thin space ([U+2009](#)), or three-per-em space ([U+2004](#)). Find rules for using these spaces in handbooks for compositors from the era of metal type.

[ss18](#) and the Spacing axis will fail in a few OpenType-aware applications (including Safari) that handle spaces in a non-standard way. In these applications some spaces that should be increased will remain unchanged.

### 3.40. subs (Subscripts)

Subscript numbers, both lining and old style.  $01234 \rightarrow _{01234}$ ;  $01234 \rightarrow _{01234}$ .

### 3.41. supers (Superscripts)

Superscript numbers, both lining and old style.  $56789 \rightarrow ^{56789}$ ;  $56789 \rightarrow ^{56789}$ .

### 3.42. swsh (Swash)

Italic only. Provides swash forms of certain capitals (*A D J P R T*) plus *z* and *k*.

### 3.43. tnum (Tabular Figures), onum (Old-Style Figures), pnum (Proportional Figures), lnum (Lining Figures)

In various combinations, provides figures in four styles: tabular lining (the default), tabular old-style, proportional lining, proportional old-style. The font contains variants of its mathematical operators to harmonize with the old-style figures.

### 3.44. zero (Slashed Zero)

Provides slashed zero ( $\emptyset 0$ ) in all figure styles.

## 4. Unicode character list

This is a list of characters with Unicode encodings in Elstob. In addition, the font contains more than 300 unencoded characters, including small caps, ligatures, and symbols, accessible via OpenType features (listed above).

Ø	a7co	LATIN CAPITAL LETTER OLD POLISH O
ȝ	a7do	LATIN CAPITAL LETTER CLOSED INSULAR G
A	oo4i	LATIN CAPITAL LETTER A
AA	a732	LATIN CAPITAL LETTER AA
A'	a73a	LATIN CAPITAL LETTER AV WITH HORIZONTAL BAR
A᷑	a73c	LATIN CAPITAL LETTER AY
Á	ooc1	LATIN CAPITAL LETTER A WITH ACUTE
Ã	o1o2	LATIN CAPITAL LETTER A WITH BREVE
Å	ieae	LATIN CAPITAL LETTER A WITH BREVE AND ACUTE
᷑	ieb6	LATIN CAPITAL LETTER A WITH BREVE AND DOT BELOW
᷒	iebo	LATIN CAPITAL LETTER A WITH BREVE AND GRAVE
ᷓ	ieb2	LATIN CAPITAL LETTER A WITH BREVE AND HOOK ABOVE
ᷔ	ieb4	LATIN CAPITAL LETTER A WITH BREVE AND TILDE
Â	ooc2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX
Ã	iea4	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND ACUTE
Â᷑	ieac	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND DOT BELOW
᷒	iea6	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND GRAVE
ᷓ	iea8	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND HOOK ABOVE
ᷔ	ieaa	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND TILDE

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Ä	ooc4	LATIN CAPITAL LETTER A WITH DIAERESIS
À	ieao	LATIN CAPITAL LETTER A WITH DOT BELOW
À	ooco	LATIN CAPITAL LETTER A WITH GRAVE
À	iea2	LATIN CAPITAL LETTER A WITH HOOK ABOVE
Ā	oioo	LATIN CAPITAL LETTER A WITH MACRON
AO	a734	LATIN CAPITAL LETTER AO
À	oi04	LATIN CAPITAL LETTER A WITH OGONEK
À	ooc5	LATIN CAPITAL LETTER A WITH RING ABOVE
À	oifa	LATIN CAPITAL LETTER A WITH RING ABOVE AND ACUTE
Ã	ooc3	LATIN CAPITAL LETTER A WITH TILDE
AU	a736	LATIN CAPITAL LETTER AU
AV	a738	LATIN CAPITAL LETTER AV
Æ	ooc6	LATIN CAPITAL LETTER AE
Æ	oifc	LATIN CAPITAL LETTER AE WITH ACUTE
Æ	oie2	LATIN CAPITAL LETTER AE WITH MACRON
B	oo42	LATIN CAPITAL LETTER B
C	oo43	LATIN CAPITAL LETTER C
Ć	oi06	LATIN CAPITAL LETTER C WITH ACUTE
Ć	oioc	LATIN CAPITAL LETTER C WITH CARON
Ҫ	ooc7	LATIN CAPITAL LETTER C WITH CEDILLA
Ć	oioa	LATIN CAPITAL LETTER C WITH DOT ABOVE
D	oo44	LATIN CAPITAL LETTER D
Đ	oodo	LATIN CAPITAL LETTER ETH
Đ	oioe	LATIN CAPITAL LETTER D WITH CARON
Đ	oiio	LATIN CAPITAL LETTER D WITH STROKE
O	a779	LATIN CAPITAL LETTER INSULAR D
E	oo45	LATIN CAPITAL LETTER E
É	ooc9	LATIN CAPITAL LETTER E WITH ACUTE
Ě	oii4	LATIN CAPITAL LETTER E WITH BREVE
Ě	oia	LATIN CAPITAL LETTER E WITH CARON

Ê	ooca	LATIN CAPITAL LETTER E WITH CIRCUMFLEX
��	rebe	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND ACUTE
��	iec6	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND DOT BELOW
��	reco	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND GRAVE
��	iec2	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND HOOK ABOVE
��	iec4	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND TILDE
��	oocb	LATIN CAPITAL LETTER E WITH DIAERESIS
��	oii6	LATIN CAPITAL LETTER E WITH DOT ABOVE
��	ieb8	LATIN CAPITAL LETTER E WITH DOT BELOW
��	ooc8	LATIN CAPITAL LETTER E WITH GRAVE
��	reba	LATIN CAPITAL LETTER E WITH HOOK ABOVE
��	oii2	LATIN CAPITAL LETTER E WITH MACRON
��	oii8	LATIN CAPITAL LETTER E WITH OGONEK
��	rebc	LATIN CAPITAL LETTER E WITH TILDE
F	oo46	LATIN CAPITAL LETTER F
��	a77b	LATIN CAPITAL LETTER INSULAR F
G	oo47	LATIN CAPITAL LETTER G
��	o122	LATIN CAPITAL LETTER G WITH CEDILLA
��	o120	LATIN CAPITAL LETTER G WITH DOT ABOVE
��	a77d	LATIN CAPITAL LETTER INSULAR G
��	o21c	LATIN CAPITAL LETTER YOGH
H	oo48	LATIN CAPITAL LETTER H
H	o126	LATIN CAPITAL LETTER H WITH STROKE
��	oif6	LATIN CAPITAL LETTER HWAIR
I	oo49	LATIN CAPITAL LETTER I
IJ	o132	LATIN CAPITAL LIGATURE IJ
��	oocd	LATIN CAPITAL LETTER I WITH ACUTE
��	o12c	LATIN CAPITAL LETTER I WITH BREVE
��	ooce	LATIN CAPITAL LETTER I WITH CIRCUMFLEX
��	oocf	LATIN CAPITAL LETTER I WITH DIAERESIS

## 22 UNICODE CHARACTER LIST

Í	0130	LATIN CAPITAL LETTER I WITH DOT ABOVE
Í	1eca	LATIN CAPITAL LETTER I WITH DOT BELOW
Ì	0occ	LATIN CAPITAL LETTER I WITH GRAVE
Ì	1ec8	LATIN CAPITAL LETTER I WITH HOOK ABOVE
Ï	012a	LATIN CAPITAL LETTER I WITH MACRON
Ï	012e	LATIN CAPITAL LETTER I WITH OGONEK
Ï	0128	LATIN CAPITAL LETTER I WITH TILDE
J	004a	LATIN CAPITAL LETTER J
K	004b	LATIN CAPITAL LETTER K
Ķ	0136	LATIN CAPITAL LETTER K WITH CEDILLA
L	004c	LATIN CAPITAL LETTER L
Ĺ	0139	LATIN CAPITAL LETTER L WITH ACUTE
Ľ	023d	LATIN CAPITAL LETTER L WITH BAR
Ľ	013d	LATIN CAPITAL LETTER L WITH CARON
Ľ	013b	LATIN CAPITAL LETTER L WITH CEDILLA
Ľ	a748	LATIN CAPITAL LETTER L WITH HIGH STROKE
Ľ	2c62	LATIN CAPITAL LETTER L WITH MIDDLE TILDE
Ľ	0141	LATIN CAPITAL LETTER L WITH STROKE
M	004d	LATIN CAPITAL LETTER M
N	004e	LATIN CAPITAL LETTER N
Ń	0143	LATIN CAPITAL LETTER N WITH ACUTE
Ń	0147	LATIN CAPITAL LETTER N WITH CARON
Ń	0145	LATIN CAPITAL LETTER N WITH CEDILLA
Ń	0odi	LATIN CAPITAL LETTER N WITH TILDE
Ń	014a	LATIN CAPITAL LETTER ENG
O	004f	LATIN CAPITAL LETTER O
ꝑ	a74e	LATIN CAPITAL LETTER OO
Ó	0od3	LATIN CAPITAL LETTER O WITH ACUTE
Ӧ	014e	LATIN CAPITAL LETTER O WITH BREVE
Ӧ	0od4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX

Ó	redo	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND ACUTE
Ô	red8	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND DOT BELOW
Ӧ	ied2	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND GRAVE
Ӧ	ied4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND HOOK ABOVE
Ӧ	ied6	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND TILDE
Ӧ	ood6	LATIN CAPITAL LETTER O WITH DIAERESIS
Ӧ	iecc	LATIN CAPITAL LETTER O WITH DOT BELOW
Ӯ	ood2	LATIN CAPITAL LETTER O WITH GRAVE
Ӯ	iece	LATIN CAPITAL LETTER O WITH HOOK ABOVE
Ӯ	orao	LATIN CAPITAL LETTER O WITH HORN
Ӯ	reda	LATIN CAPITAL LETTER O WITH HORN AND ACUTE
Ӯ	iee2	LATIN CAPITAL LETTER O WITH HORN AND DOT BELOW
Ӯ	iedc	LATIN CAPITAL LETTER O WITH HORN AND GRAVE
Ӯ	rede	LATIN CAPITAL LETTER O WITH HORN AND HOOK ABOVE
Ӯ	ieeo	LATIN CAPITAL LETTER O WITH HORN AND TILDE
Ӯ	oiso	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
Ӫ	a74a	LATIN CAPITAL LETTER O WITH LONG STROKE OVERLAY
Ӯ	o14c	LATIN CAPITAL LETTER O WITH MACRON
Ӯ	olea	LATIN CAPITAL LETTER O WITH OGONEK
Ӯ	ood8	LATIN CAPITAL LETTER O WITH STROKE
Ӯ	oife	LATIN CAPITAL LETTER O WITH STROKE AND ACUTE
Ӯ	ood5	LATIN CAPITAL LETTER O WITH TILDE
OE	o152	LATIN CAPITAL LIGATURE OE
P	oo50	LATIN CAPITAL LETTER P
Ԁ	oode	LATIN CAPITAL LETTER THORN
Ӯ	oo51	LATIN CAPITAL LETTER Q
Ӯ	a758	LATIN CAPITAL LETTER Q WITH DIAGONAL STROKE
R	oo52	LATIN CAPITAL LETTER R
҆	o154	LATIN CAPITAL LETTER R WITH ACUTE
҆	o158	LATIN CAPITAL LETTER R WITH CARON

## 24 UNICODE CHARACTER LIST

Ŕ	0156	LATIN CAPITAL LETTER R WITH CEDILLA
Ŗ	a782	LATIN CAPITAL LETTER INSULAR R
Ŗ	0053	LATIN CAPITAL LETTER S
Ŗ	015a	LATIN CAPITAL LETTER S WITH ACUTE
Ŗ	0160	LATIN CAPITAL LETTER S WITH CARON
Ŗ	015e	LATIN CAPITAL LETTER S WITH CEDILLA
Ŗ	1e9e	LATIN CAPITAL LETTER SHARP S
Ŗ	a784	LATIN CAPITAL LETTER INSULAR S
Ŗ	0054	LATIN CAPITAL LETTER T
Ŗ	0166	LATIN CAPITAL LETTER T WITH STROKE
Ŗ	0164	LATIN CAPITAL LETTER T WITH CARON
Ŗ	0162	LATIN CAPITAL LETTER T WITH CEDILLA
Ŗ	a786	LATIN CAPITAL LETTER INSULAR T
Ŗ	0055	LATIN CAPITAL LETTER U
Ŗ	0oda	LATIN CAPITAL LETTER U WITH ACUTE
Ŗ	016c	LATIN CAPITAL LETTER U WITH BREVE
Ŗ	0odb	LATIN CAPITAL LETTER U WITH CIRCUMFLEX
Ŗ	0odc	LATIN CAPITAL LETTER U WITH DIAERESIS
Ŗ	1ee4	LATIN CAPITAL LETTER U WITH DOT BELOW
Ŗ	0odg	LATIN CAPITAL LETTER U WITH GRAVE
Ŗ	1ee6	LATIN CAPITAL LETTER U WITH HOOK ABOVE
Ŗ	0iaf	LATIN CAPITAL LETTER U WITH HORN
Ŗ	1ee8	LATIN CAPITAL LETTER U WITH HORN AND ACUTE
Ŗ	1efo	LATIN CAPITAL LETTER U WITH HORN AND DOT BELOW
Ŗ	1eea	LATIN CAPITAL LETTER U WITH HORN AND GRAVE
Ŗ	1eec	LATIN CAPITAL LETTER U WITH HORN AND HOOK ABOVE
Ŗ	1eee	LATIN CAPITAL LETTER U WITH HORN AND TILDE
Ŗ	0170	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
Ŗ	016a	LATIN CAPITAL LETTER U WITH MACRON
Ŗ	0172	LATIN CAPITAL LETTER U WITH OGONEK

Ü	016e	LATIN CAPITAL LETTER U WITH RING ABOVE
Ü	0168	LATIN CAPITAL LETTER U WITH TILDE
V	0056	LATIN CAPITAL LETTER V
W	0057	LATIN CAPITAL LETTER W
W	a760	LATIN CAPITAL LETTER VY
W	ie82	LATIN CAPITAL LETTER W WITH ACUTE
W	0174	LATIN CAPITAL LETTER W WITH CIRCUMFLEX
W	ie84	LATIN CAPITAL LETTER W WITH DIAERESIS
W	ie80	LATIN CAPITAL LETTER W WITH GRAVE
P	0if7	LATIN CAPITAL LETTER WYNN
X	0058	LATIN CAPITAL LETTER X
Y	0059	LATIN CAPITAL LETTER Y
Y	0odd	LATIN CAPITAL LETTER Y WITH ACUTE
Y	0176	LATIN CAPITAL LETTER Y WITH CIRCUMFLEX
Y	0178	LATIN CAPITAL LETTER Y WITH DIAERESIS
Y	ie8e	LATIN CAPITAL LETTER Y WITH DOT ABOVE
Y	ief4	LATIN CAPITAL LETTER Y WITH DOT BELOW
Y	ief2	LATIN CAPITAL LETTER Y WITH GRAVE
Y	ief6	LATIN CAPITAL LETTER Y WITH HOOK ABOVE
Y	0232	LATIN CAPITAL LETTER Y WITH MACRON
Y	ief8	LATIN CAPITAL LETTER Y WITH TILDE
Z	005a	LATIN CAPITAL LETTER Z
Ž	0179	LATIN CAPITAL LETTER Z WITH ACUTE
Ž	017d	LATIN CAPITAL LETTER Z WITH CARON
Ž	017b	LATIN CAPITAL LETTER Z WITH DOT ABOVE
Z	0ib5	LATIN CAPITAL LETTER Z WITH STROKE
o	a7c1	LATIN SMALL LETTER OLD POLISH O
g	a7d1	LATIN SMALL LETTER CLOSED INSULAR G
þ	a7d3	LATIN SMALL LETTER DOUBLE THORN data
þ	a7d5	LATIN SMALL LETTER DOUBLE WYNN

## 26 UNICODE CHARACTER LIST

B	0299	LATIN LETTER SMALL CAPITAL B
G	0262	LATIN LETTER SMALL CAPITAL G
Ḡ	029b	LATIN LETTER SMALL CAPITAL G WITH HOOK
H	029c	LATIN LETTER SMALL CAPITAL H
I	026a	LATIN LETTER SMALL CAPITAL I
L	029f	LATIN LETTER SMALL CAPITAL L
N	0274	LATIN LETTER SMALL CAPITAL N
Œ	0276	LATIN LETTER SMALL CAPITAL OE
R	0280	LATIN LETTER SMALL CAPITAL R
ꝛ	0281	LATIN LETTER SMALL CAPITAL INVERTED R
Y	028f	LATIN LETTER SMALL CAPITAL Y
a	0061	LATIN SMALL LETTER A
aa	a733	LATIN SMALL LETTER AA
á	00e1	LATIN SMALL LETTER A WITH ACUTE
ă	0103	LATIN SMALL LETTER A WITH BREVE
á̄	1eaf	LATIN SMALL LETTER A WITH BREVE AND ACUTE
ă̄	1eb7	LATIN SMALL LETTER A WITH BREVE AND DOT BELOW
ă̄̄	1eb1	LATIN SMALL LETTER A WITH BREVE AND GRAVE
ă̄̄̄	1eb3	LATIN SMALL LETTER A WITH BREVE AND HOOK ABOVE
ă̄̄̄̄	1eb5	LATIN SMALL LETTER A WITH BREVE AND TILDE
â	00e2	LATIN SMALL LETTER A WITH CIRCUMFLEX
á̄̄̄̄̄	1ea5	LATIN SMALL LETTER A WITH CIRCUMFLEX AND ACUTE
â̄̄̄̄̄̄	1ead	LATIN SMALL LETTER A WITH CIRCUMFLEX AND DOT BELOW
ă̄̄̄̄̄̄̄	1ea7	LATIN SMALL LETTER A WITH CIRCUMFLEX AND GRAVE
ă̄̄̄̄̄̄̄̄	1ea9	LATIN SMALL LETTER A WITH CIRCUMFLEX AND HOOK ABOVE
ă̄̄̄̄̄̄̄̄̄	1eab	LATIN SMALL LETTER A WITH CIRCUMFLEX AND TILDE
ä	00e4	LATIN SMALL LETTER A WITH DIAERESIS
ǟ̄̄̄̄̄̄̄̄̄	1ear	LATIN SMALL LETTER A WITH DOT BELOW
à̄̄̄̄̄̄̄̄̄̄̄	00eo	LATIN SMALL LETTER A WITH GRAVE
å̄̄̄̄̄̄̄̄̄̄̄̄	1ea3	LATIN SMALL LETTER A WITH HOOK ABOVE

a	0251	LATIN SMALL LETTER ALPHA
d	0252	LATIN SMALL LETTER TURNED ALPHA
ā	0101	LATIN SMALL LETTER A WITH MACRON
œ	a735	LATIN SMALL LETTER AO
ą	0105	LATIN SMALL LETTER A WITH OGONEK
å	00e5	LATIN SMALL LETTER A WITH RING ABOVE
ã	01fb	LATIN SMALL LETTER A WITH RING ABOVE AND ACUTE
ā	00e3	LATIN SMALL LETTER A WITH TILDE
҃	0250	LATIN SMALL LETTER TURNED A
au	a737	LATIN SMALL LETTER AU
av	a739	LATIN SMALL LETTER AV
ጀ	a73b	LATIN SMALL LETTER AV WITH HORIZONTAL BAR
ጀ	a73d	LATIN SMALL LETTER AY
æ	00e6	LATIN SMALL LETTER AE
ጀ	01fd	LATIN SMALL LETTER AE WITH ACUTE
ጀ	01e3	LATIN SMALL LETTER AE WITH MACRON
b	0062	LATIN SMALL LETTER B
ጀ	0253	LATIN SMALL LETTER B WITH HOOK
ጀ	02ad	LATIN LETTER BIDENTAL PERCUSSIVE
ʘ	0298	LATIN LETTER BILABIAL CLICK
ጀ	02ac	LATIN LETTER BILABIAL PERCUSSIVE
ጀ	0180	LATIN SMALL LETTER B WITH STROKE
c	0063	LATIN SMALL LETTER C
ć	0107	LATIN SMALL LETTER C WITH ACUTE
č	010d	LATIN SMALL LETTER C WITH CARON
ç	00e7	LATIN SMALL LETTER C WITH CEDILLA
ጀ	0255	LATIN SMALL LETTER C WITH CURL
ጀ	010b	LATIN SMALL LETTER C WITH DOT ABOVE
ጀ	a76f	LATIN SMALL LETTER CON
ጀ	0297	LATIN LETTER STRETCHED C

## 28 UNICODE CHARACTER LIST

d	0064	LATIN SMALL LETTER D
ð	00f0	LATIN SMALL LETTER ETH
đ	010f	LATIN SMALL LETTER D WITH CARON
đ	0131	LATIN SMALL LETTER D WITH STROKE
đ	02a4	LATIN SMALL LETTER DEZH DIGRAPH
đ	0257	LATIN SMALL LETTER D WITH HOOK
ð	a77a	LATIN SMALL LETTER INSULAR D
đ	0256	LATIN SMALL LETTER D WITH TAIL
đ	02a3	LATIN SMALL LETTER DZ DIGRAPH
đ	02a5	LATIN SMALL LETTER DZ DIGRAPH WITH CURL
e	0065	LATIN SMALL LETTER E
é	00e9	LATIN SMALL LETTER E WITH ACUTE
ě	0115	LATIN SMALL LETTER E WITH BREVE
ě	011b	LATIN SMALL LETTER E WITH CARON
ê	00ea	LATIN SMALL LETTER E WITH CIRCUMFLEX
�	1ebf	LATIN SMALL LETTER E WITH CIRCUMFLEX AND ACUTE
�	1ec7	LATIN SMALL LETTER E WITH CIRCUMFLEX AND DOT BELOW
�	1ec1	LATIN SMALL LETTER E WITH CIRCUMFLEX AND GRAVE
�	1ec3	LATIN SMALL LETTER E WITH CIRCUMFLEX AND HOOK ABOVE
�	1ec5	LATIN SMALL LETTER E WITH CIRCUMFLEX AND TILDE
�	00eb	LATIN SMALL LETTER E WITH DIAERESIS
�	0117	LATIN SMALL LETTER E WITH DOT ABOVE
�	1eb9	LATIN SMALL LETTER E WITH DOT BELOW
�	00e8	LATIN SMALL LETTER E WITH GRAVE
�	1ebb	LATIN SMALL LETTER E WITH HOOK ABOVE
�	0113	LATIN SMALL LETTER E WITH MACRON
�	0119	LATIN SMALL LETTER E WITH OGONEK
�	025b	LATIN SMALL LETTER OPEN E
�	025c	LATIN SMALL LETTER REVERSED OPEN E
�	025e	LATIN SMALL LETTER CLOSED REVERSED OPEN E

ȝ	o25d	LATIN SMALL LETTER REVERSED OPEN E WITH HOOK
ȝ	o258	LATIN SMALL LETTER REVERSED E
ȝ	o283	LATIN SMALL LETTER ESH
ȝ	o286	LATIN SMALL LETTER ESH WITH CURL
ȝ	o285	LATIN SMALL LETTER SQUAT REVERSED ESH
ȝ	a76b	LATIN SMALL LETTER ET
ẽ	iebd	LATIN SMALL LETTER E WITH TILDE
ə	o259	LATIN SMALL LETTER SCHWA
ə	o25a	LATIN SMALL LETTER SCHWA WITH HOOK
ȝ	o292	LATIN SMALL LETTER EZH
ȝ	o293	LATIN SMALL LETTER EZH WITH CURL
f	oo66	LATIN SMALL LETTER F
fiŋ	o2a9	LATIN SMALL LETTER FENG DIGRAPH
ſ	a77c	LATIN SMALL LETTER INSULAR F
g	oo67	LATIN SMALL LETTER G
ȝ	o263	LATIN SMALL LETTER GAMMA
ȝ	o123	LATIN SMALL LETTER G WITH CEDILLA
ȝ	o121	LATIN SMALL LETTER G WITH DOT ABOVE
ȝ	o260	LATIN SMALL LETTER G WITH HOOK
ȝ	id79	LATIN SMALL LETTER INSULAR G
ȝ	o294	LATIN LETTER GLOTTAL STOP
ȝ	o296	LATIN LETTER INVERTED GLOTTAL STOP
ȝ	o295	LATIN LETTER PHARYNGEAL VOICED FRICATIVE
ȝ	o2a1	LATIN LETTER GLOTTAL STOP WITH STROKE
ȝ	o2a2	LATIN LETTER REVERSED GLOTTAL STOP WITH STROKE
ȝ	o261	LATIN SMALL LETTER SCRIPT G
ȝ	o21d	LATIN SMALL LETTER YOGH
h	oo68	LATIN SMALL LETTER H
ȝ	o127	LATIN SMALL LETTER H WITH STROKE
ȝ	o267	LATIN SMALL LETTER HENG WITH HOOK

## 30 UNICODE CHARACTER LIST

h	0266	LATIN SMALL LETTER H WITH HOOK
ɥ	0265	LATIN SMALL LETTER TURNED H
߄	02ae	LATIN SMALL LETTER TURNED H WITH FISHHOOK
߄	02af	LATIN SMALL LETTER TURNED H WITH FISHHOOK AND TAIL
߄	0195	LATIN SMALL LETTER HV
i	0069	LATIN SMALL LETTER I
߄	0131	LATIN SMALL LETTER DOTLESS I
߄	00ed	LATIN SMALL LETTER I WITH ACUTE
߄	012d	LATIN SMALL LETTER I WITH BREVE
߄	00ee	LATIN SMALL LETTER I WITH CIRCUMFLEX
߄	00ef	LATIN SMALL LETTER I WITH DIAERESIS
߄	1ecb	LATIN SMALL LETTER I WITH DOT BELOW
߄	00ec	LATIN SMALL LETTER I WITH GRAVE
߄	1ec9	LATIN SMALL LETTER I WITH HOOK ABOVE
ij	0133	LATIN SMALL LIGATURE IJ
߄	012b	LATIN SMALL LETTER I WITH MACRON
߄	012f	LATIN SMALL LETTER I WITH OGONEK
߄	a76d	LATIN SMALL LETTER IS
߄	0268	LATIN SMALL LETTER I WITH STROKE
߄	0129	LATIN SMALL LETTER I WITH TILDE
j	006a	LATIN SMALL LETTER J
߄	0237	LATIN SMALL LETTER DOTLESS J
߄	029d	LATIN SMALL LETTER J WITH CROSS-TAIL
߄	025f	LATIN SMALL LETTER DOTLESS J WITH STROKE
߄	0284	LATIN SMALL LETTER DOTLESS J WITH STROKE AND HOOK
k	006b	LATIN SMALL LETTER K
߄	0137	LATIN SMALL LETTER K WITH CEDILLA
߄	a741	LATIN SMALL LETTER K WITH STROKE
߄	006c	LATIN SMALL LETTER L
߄	013a	LATIN SMALL LETTER L WITH ACUTE

ł	019a	LATIN SMALL LETTER L WITH BAR
ł	026c	LATIN SMALL LETTER L WITH BELT
ł	013e	LATIN SMALL LETTER L WITH CARON
ł	013c	LATIN SMALL LETTER L WITH CEDILLA
ł	026e	LATIN SMALL LETTER LEZH
ł	a749	LATIN SMALL LETTER L WITH HIGH STROKE
ł	026d	LATIN SMALL LETTER L WITH RETROFLEX HOOK
ł	026b	LATIN SMALL LETTER L WITH MIDDLE TILDE
ſ	1e9c	LATIN SMALL LETTER LONG S WITH DIAGONAL STROKE
łs	02aa	LATIN SMALL LETTER LS DIGRAPH
ł	0142	LATIN SMALL LETTER L WITH STROKE
łz	02ab	LATIN SMALL LETTER LZ DIGRAPH
m	006d	LATIN SMALL LETTER M
mj	0271	LATIN SMALL LETTER M WITH HOOK
wj	0270	LATIN SMALL LETTER TURNED M WITH LONG LEG
wu	026f	LATIN SMALL LETTER TURNED M
n	006e	LATIN SMALL LETTER N
ń	0144	LATIN SMALL LETTER N WITH ACUTE
ń	0148	LATIN SMALL LETTER N WITH CARON
ń	0146	LATIN SMALL LETTER N WITH CEDILLA
ń	0272	LATIN SMALL LETTER N WITH LEFT HOOK
ń	0273	LATIN SMALL LETTER N WITH RETROFLEX HOOK
ń	00f1	LATIN SMALL LETTER N WITH TILDE
ń	014b	LATIN SMALL LETTER ENG
o	006f	LATIN SMALL LETTER O
ó	00f3	LATIN SMALL LETTER O WITH ACUTE
ø	0275	LATIN SMALL LETTER BARRED O
ó	014f	LATIN SMALL LETTER O WITH BREVE
ó	00f4	LATIN SMALL LETTER O WITH CIRCUMFLEX
ó	red1	LATIN SMALL LETTER O WITH CIRCUMFLEX AND ACUTE

## 32 UNICODE CHARACTER LIST

ô	ied9	LATIN SMALL LETTER O WITH CIRCUMFLEX AND DOT BELOW
ò	ied3	LATIN SMALL LETTER O WITH CIRCUMFLEX AND GRAVE
ð	ied5	LATIN SMALL LETTER O WITH CIRCUMFLEX AND HOOK ABOVE
õ	ied7	LATIN SMALL LETTER O WITH CIRCUMFLEX AND TILDE
ö	oof6	LATIN SMALL LETTER O WITH DIAERESIS
ø	iecd	LATIN SMALL LETTER O WITH DOT BELOW
ò	oof2	LATIN SMALL LETTER O WITH GRAVE
ó	iecf	LATIN SMALL LETTER O WITH HOOK ABOVE
σ	oiai	LATIN SMALL LETTER O WITH HORN
ó	iedb	LATIN SMALL LETTER O WITH HORN AND ACUTE
ø	iee3	LATIN SMALL LETTER O WITH HORN AND DOT BELOW
ð	iedd	LATIN SMALL LETTER O WITH HORN AND GRAVE
ð	iedf	LATIN SMALL LETTER O WITH HORN AND HOOK ABOVE
ð	ieei	LATIN SMALL LETTER O WITH HORN AND TILDE
ő	o151	LATIN SMALL LETTER O WITH DOUBLE ACUTE
ø	a74b	LATIN SMALL LETTER O WITH LONG STROKE OVERLAY
ð	o14d	LATIN SMALL LETTER O WITH MACRON
ѡ	a74f	LATIN SMALL LETTER OO
ӫ	o1eb	LATIN SMALL LETTER O WITH OGONEK
ӫ	o254	LATIN SMALL LETTER OPEN O
ӫ	oof8	LATIN SMALL LETTER O WITH STROKE
ӫ	oiff	LATIN SMALL LETTER O WITH STROKE AND ACUTE
ӫ	oof5	LATIN SMALL LETTER O WITH TILDE
œ	o153	LATIN SMALL LIGATURE OE
ҩ	oo70	LATIN SMALL LETTER P
ҩ	a753	LATIN SMALL LETTER P WITH FLOURISH
߮	o278	LATIN SMALL LETTER PHI
߯	oofe	LATIN SMALL LETTER THORN
߯	a751	LATIN SMALL LETTER P WITH STROKE THROUGH DESCENDER
߯	oo71	LATIN SMALL LETTER Q

ꝑ	a759	LATIN SMALL LETTER Q WITH DIAGONAL STROKE
ꝑ	o2ao	LATIN SMALL LETTER Q WITH HOOK
ꝑ	a757	LATIN SMALL LETTER Q WITH STROKE THROUGH DESCENDER
r	oo72	LATIN SMALL LETTER R
ŕ	o155	LATIN SMALL LETTER R WITH ACUTE
ꝑ	o264	LATIN SMALL LETTER RAMS HORN
ꝑ	o159	LATIN SMALL LETTER R WITH CARON
ꝑ	o157	LATIN SMALL LETTER R WITH CEDILLA
ꝑ	o27e	LATIN SMALL LETTER R WITH FISHHOOK
ꝑ	o27f	LATIN SMALL LETTER REVERSED R WITH FISHHOOK
ꝑ	o27b	LATIN SMALL LETTER TURNED R WITH HOOK
ꝑ	a783	LATIN SMALL LETTER INSULAR R
ꝑ	o27a	LATIN SMALL LETTER TURNED R WITH LONG LEG
ꝑ	a75b	LATIN SMALL LETTER R ROTUNDA
ꝑ	o27d	LATIN SMALL LETTER R WITH TAIL
ꝑ	o279	LATIN SMALL LETTER TURNED R
ꝑ	a75d	LATIN SMALL LETTER RUM ROTUNDA
s	oo73	LATIN SMALL LETTER S
ꝑ	o15b	LATIN SMALL LETTER S WITH ACUTE
ꝑ	o161	LATIN SMALL LETTER S WITH CARON
ꝑ	o15f	LATIN SMALL LETTER S WITH CEDILLA
ꝑ	oodf	LATIN SMALL LETTER SHARP S
ꝑ	o282	LATIN SMALL LETTER S WITH HOOK
ꝑ	a785	LATIN SMALL LETTER INSULAR S
f	o17f	LATIN SMALL LETTER LONG S
t	oo74	LATIN SMALL LETTER T
ꝑ	o167	LATIN SMALL LETTER T WITH STROKE
ꝑ	o165	LATIN SMALL LETTER T WITH CARON
ꝑ	o2a8	LATIN SMALL LETTER TC DIGRAPH WITH CURL
ꝑ	o163	LATIN SMALL LETTER T WITH CEDILLA

## 34 UNICODE CHARACTER LIST

ſ	02a7	LATIN SMALL LETTER TESH DIGRAPH
þ	a765	LATIN SMALL LETTER THORN WITH STROKE
ȝ	a787	LATIN SMALL LETTER INSULAR T
Ӄ	0288	LATIN SMALL LETTER T WITH RETROFLEX HOOK
ӄ	02a6	LATIN SMALL LETTER TS DIGRAPH
Ӄ	0287	LATIN SMALL LETTER TURNED T
Ӂ	0075	LATIN SMALL LETTER U
ӂ	oofa	LATIN SMALL LETTER U WITH ACUTE
Ӄ	0289	LATIN SMALL LETTER U BAR
Ӂ	016d	LATIN SMALL LETTER U WITH BREVE
Ӂ	oofb	LATIN SMALL LETTER U WITH CIRCUMFLEX
Ӂ	oofc	LATIN SMALL LETTER U WITH DIAERESIS
Ӂ	iee5	LATIN SMALL LETTER U WITH DOT BELOW
Ӂ	oof9	LATIN SMALL LETTER U WITH GRAVE
Ӂ	iee7	LATIN SMALL LETTER U WITH HOOK ABOVE
Ӂ	oibo	LATIN SMALL LETTER U WITH HORN
Ӂ	iee9	LATIN SMALL LETTER U WITH HORN AND ACUTE
Ӂ	iefi	LATIN SMALL LETTER U WITH HORN AND DOT BELOW
Ӂ	ieeb	LATIN SMALL LETTER U WITH HORN AND GRAVE
Ӂ	ieed	LATIN SMALL LETTER U WITH HORN AND HOOK ABOVE
Ӂ	ieef	LATIN SMALL LETTER U WITH HORN AND TILDE
Ӂ	0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE
Ӂ	016b	LATIN SMALL LETTER U WITH MACRON
Ӂ	0173	LATIN SMALL LETTER U WITH OGONEK
Ӂ	028a	LATIN SMALL LETTER UPSILON
Ӂ	016f	LATIN SMALL LETTER U WITH RING ABOVE
Ӂ	0169	LATIN SMALL LETTER U WITH TILDE
Ӂ	0076	LATIN SMALL LETTER V
Ӂ	028b	LATIN SMALL LETTER V WITH HOOK
Ӂ	2c71	LATIN SMALL LETTER V WITH RIGHT HOOK

À	o28c	LATIN SMALL LETTER TURNED V
Ẁ	oo77	LATIN SMALL LETTER W
Ẁ	ie83	LATIN SMALL LETTER W WITH ACUTE
Ẅ	o175	LATIN SMALL LETTER W WITH CIRCUMFLEX
ẅ	ie85	LATIN SMALL LETTER W WITH DIAERESIS
Ẅ	ie81	LATIN SMALL LETTER W WITH GRAVE
ڻ	o28d	LATIN SMALL LETTER TURNED W
ڻ	a761	LATIN SMALL LETTER VY
ڦ	o1bf	LATIN LETTER WYNN
ڦ	oo78	LATIN SMALL LETTER X
ڦ	oo79	LATIN SMALL LETTER Y
ڦ	oofd	LATIN SMALL LETTER Y WITH ACUTE
ڦ	o177	LATIN SMALL LETTER Y WITH CIRCUMFLEX
ڦ	ooff	LATIN SMALL LETTER Y WITH DIAERESIS
ڦ	ie8f	LATIN SMALL LETTER Y WITH DOT ABOVE
ڦ	ief5	LATIN SMALL LETTER Y WITH DOT BELOW
ڦ	ief3	LATIN SMALL LETTER Y WITH GRAVE
ڦ	ief7	LATIN SMALL LETTER Y WITH HOOK ABOVE
ڦ	o233	LATIN SMALL LETTER Y WITH MACRON
ڦ	ief9	LATIN SMALL LETTER Y WITH TILDE
ڻ	o28e	LATIN SMALL LETTER TURNED Y
ڙ	oo7a	LATIN SMALL LETTER Z
ڙ	o17a	LATIN SMALL LETTER Z WITH ACUTE
ڙ	o17e	LATIN SMALL LETTER Z WITH CARON
ڙ	o291	LATIN SMALL LETTER Z WITH CURL
ڙ	o17c	LATIN SMALL LETTER Z WITH DOT ABOVE
ڙ	o290	LATIN SMALL LETTER Z WITH RETROFLEX HOOK
ڙ	o1b6	LATIN SMALL LETTER Z WITH STROKE
ڻ	fboo	LATIN SMALL LIGATURE FF
ڻ	fbo4	LATIN SMALL LIGATURE FFL

## 36 UNICODE CHARACTER LIST

fi	fbo1	LATIN SMALL LIGATURE FI
fl	fbo2	LATIN SMALL LIGATURE FL
ft	fbo5	LATIN SMALL LIGATURE LONG S T
st	fbo6	LATIN SMALL LIGATURE ST
h	o2b1	MODIFIER LETTER SMALL H WITH HOOK
h	o2b0	MODIFIER LETTER SMALL H
j	o2b2	MODIFIER LETTER SMALL J
l	o2e1	MODIFIER LETTER SMALL L
n	207f	SUPERSCRIPT LATIN SMALL LETTER N
w	o2b7	MODIFIER LETTER SMALL W
‡	o1c2	LATIN LETTER ALVEOLAR CLICK
l	o1co	LATIN LETTER DENTAL CLICK
ll	o1ci	LATIN LETTER LATERAL CLICK
ª	ooaa	FEMININE ORDINAL INDICATOR
º	ooba	MASCULINE ORDINAL INDICATOR
β	o3b2	GREEK SMALL LETTER BETA
θ	o3b8	GREEK SMALL LETTER THETA
π	o3co	GREEK SMALL LETTER PI
χ	o3c7	GREEK SMALL LETTER CHI
Ϲ	o37c	GREEK SMALL DOTTED LUNATE SIGMA SYMBOL
ƿ	i6ao	RUNIC LETTER FEHU FEOH FE F
ƿ	i6a1	RUNIC LETTER V
ᚢ	i6a2	RUNIC LETTER URUZ UR U
ᚦ	i6a3	RUNIC LETTER YR
ᚦ	i6a4	RUNIC LETTER Y
ᚧ	i6a5	RUNIC LETTER W
ᚫ	i6a6	RUNIC LETTER THURISAZ THURS THORN
ᛄ	i6a7	RUNIC LETTER ETH
᷃	i6a8	RUNIC LETTER ANSUZA
᷄	i6a9	RUNIC LETTER OS O

ᚠ	16aa	RUNIC LETTER AC A
ᚢ	16ab	RUNIC LETTER AESC
ᚦ	16ac	RUNIC LETTER LONG-BRANCH-OSS O
ᚩ	16ad	RUNIC LETTER SHORT-TWIG-OSS O
ᚦ	16ae	RUNIC LETTER O
ᚦ	16af	RUNIC LETTER OE
ᚦ	16bo	RUNIC LETTER ON
ᚱ	16b1	RUNIC LETTER RAIDO RAD REID R
ᚲ	16b2	RUNIC LETTER KAUNA
ᚷ	16b3	RUNIC LETTER CEN
ᚴ	16b4	RUNIC LETTER KAUN K
ᚻ	16b5	RUNIC LETTER G
ᚻ	16b6	RUNIC LETTER ENG
ᚹ	16b7	RUNIC LETTER GEBO GYFUG
ᚫ	16b8	RUNIC LETTER GAR
ᚮ	16b9	RUNIC LETTER WUNJO WYNN W
ᚷ	16ba	RUNIC LETTER HAGLAZ H
ᚷ	16bb	RUNIC LETTER HAEGL H
*	16bc	RUNIC LETTER LONG-BRANCH-HAGALL H
ᚫ	16bd	RUNIC LETTER SHORT-TWIG-HAGALL H
ᚦ	16be	RUNIC LETTER NAUDIZ NYD NAUD N
ᚦ	16bf	RUNIC LETTER SHORT-TWIG-NAUD N
ᚦ	16co	RUNIC LETTER DOTTED-N
ᛁ	16ci	RUNIC LETTER ISAZ IS ISS I
ᛁ	16c2	RUNIC LETTER E
ጀ	16c3	RUNIC LETTER JERAN J
ጀ	16c4	RUNIC LETTER GER
ጀ	16c5	RUNIC LETTER LONG-BRANCH-AR AE
ጀ	16c6	RUNIC LETTER SHORT-TWIG-AR A
ጀ	16c7	RUNIC LETTER IWAZ EOH

38 UNICODE CHARACTER LIST

ᚠ	16c8	RUNIC LETTER PERTHO PEORTH P
ᚢ	16c9	RUNIC LETTER ALGIZ EOLHX
ᚦ	16ca	RUNIC LETTER SOWILO S
ᚪ	16cb	RUNIC LETTER SIGEL LONG-BRANCH-SOL S
ᚫ	16cc	RUNIC LETTER SHORT-TWIG-SOL S
ᚬ	16cd	RUNIC LETTER C
ᚷ	16ce	RUNIC LETTER Z
ᛏ	16cf	RUNIC LETTER TIWAZ TIR TYR T
ᛏ	16d0	RUNIC LETTER SHORT-TWIG-TYR T
ᛏ	16d1	RUNIC LETTER D
ᛒ	16d2	RUNIC LETTER BERKANAN BEORC BJARKAN B
ᛖ	16d3	RUNIC LETTER SHORT-TWIG-BJARKAN B
ᛖ	16d4	RUNIC LETTER DOTTED-P
ᛑ	16d5	RUNIC LETTER OPEN-P
ᛘ	16d6	RUNIC LETTER EHWAZ EH E
ᛘ	16d7	RUNIC LETTER MANNAZ MAN M
ᛝ	16d8	RUNIC LETTER LONG-BRANCH-MADR M
ᛁ	16d9	RUNIC LETTER SHORT-TWIG-MADR M
ᛚ	16da	RUNIC LETTER LAUKAZ LAGU LOGR L
ᚩ	16db	RUNIC LETTER DOTTED-L
ᛞ	16dc	RUNIC LETTER INGWAZ
ᛇ	16dd	RUNIC LETTER ING
ᚾ	16de	RUNIC LETTER DAGAZ DAEG D
ᛟ	16df	RUNIC LETTER OTHALAN ETHEL O
ᛏ	16eo	RUNIC LETTER EAR
ᛙ	16ei	RUNIC LETTER IOR
ᛚ	16e2	RUNIC LETTER CWEORTH
ᛈ	16e3	RUNIC LETTER CALC
ᛚ	16e4	RUNIC LETTER CEALC
ᛝ	16e5	RUNIC LETTER STAN

ᚠ	16e6	RUNIC LETTER LONG-BRANCH-YR
ᚢ	16e7	RUNIC LETTER SHORT-TWIG-YR
ᚦ	16e8	RUNIC LETTER ICELANDIC-YR
ᚦ	16e9	RUNIC LETTER Q
ᚫ	16ea	RUNIC LETTER X
ᛄ	a770	MODIFIER LETTER US
ᚐ	oo30	DIGIT ZERO
ᚑ	oo31	DIGIT ONE
ᚒ	oo32	DIGIT TWO
ᚓ	oo33	DIGIT THREE
ᚔ	oo34	DIGIT FOUR
ᚕ	oo35	DIGIT FIVE
ᚖ	oo36	DIGIT SIX
ᚗ	oo37	DIGIT SEVEN
ᚘ	oo38	DIGIT EIGHT
ᚙ	oo39	DIGIT NINE
/	2044	FRACTION SLASH
½	oobd	VULGAR FRACTION ONE HALF
¼	oobc	VULGAR FRACTION ONE QUARTER
¾	oobe	VULGAR FRACTION THREE QUARTERS
ᚐ	2080	SUBSCRIPT ZERO
ᚑ	2081	SUBSCRIPT ONE
ᚒ	2082	SUBSCRIPT TWO
ᚓ	2083	SUBSCRIPT THREE
ᚔ	2084	SUBSCRIPT FOUR
ᚕ	2085	SUBSCRIPT FIVE
ᚖ	2086	SUBSCRIPT SIX
ᚗ	2087	SUBSCRIPT SEVEN
ᚘ	2088	SUBSCRIPT EIGHT
ᚙ	2089	SUBSCRIPT NINE

## 40 UNICODE CHARACTER LIST

o	<code>2070</code>	SUPERSCRIPT ZERO
1	<code>00b9</code>	SUPERSCRIPT ONE
2	<code>00b2</code>	SUPERSCRIPT TWO
3	<code>00b3</code>	SUPERSCRIPT THREE
4	<code>2074</code>	SUPERSCRIPT FOUR
5	<code>2075</code>	SUPERSCRIPT FIVE
6	<code>2076</code>	SUPERSCRIPT SIX
7	<code>2077</code>	SUPERSCRIPT SEVEN
8	<code>2078</code>	SUPERSCRIPT EIGHT
9	<code>2079</code>	SUPERSCRIPT NINE
	<code>2060</code>	WORD JOINER
	<code>200c</code>	ZERO WIDTH NON-JOINER
	<code>000d</code>	<Carriage Return> (CR)
	<code>2001</code>	EM QUAD
	<code>2003</code>	EM SPACE
	<code>2000</code>	EN QUAD
	<code>2002</code>	EN SPACE
	<code>2007</code>	FIGURE SPACE
	<code>2005</code>	FOUR-PER-EM SPACE
	<code>200a</code>	HAIR SPACE
	<code>202f</code>	NARROW NO-BREAK SPACE
	<code>2008</code>	PUNCTUATION SPACE
	<code>2006</code>	SIX-PER-EM SPACE
	<code>0020</code>	SPACE
	<code>00ao</code>	NO-BREAK SPACE
	<code>2009</code>	THIN SPACE
	<code>2004</code>	THREE-PER-EM SPACE
	<code>200b</code>	ZERO WIDTH SPACE
/	<code>2e4a</code>	DOTTED SOLIDUS
?	<code>2e4c</code>	MEDIEVAL COMMA

¶	2e4d	PARAGRAPHUS MARK
:	2e4e	PUNCTUS ELEVATUS MARK
<	27e8	MATHEMATICAL LEFT ANGLE BRACKET
>	27e9	MATHEMATICAL RIGHT ANGLE BRACKET
.	16eb	RUNIC SINGLE PUNCTUATION
:	16ec	RUNIC MULTIPLE PUNCTUATION
+	16ed	RUNIC CROSS PUNCTUATION
.	002e	FULL STOP
,	002c	COMMA
:	003a	COLON
;	003b	SEMICOLON
...	2026	HORIZONTAL ELLIPSIS
!	0021	EXCLAMATION MARK
¡	00a1	INVERTED EXCLAMATION MARK
?	003f	QUESTION MARK
¿	00bf	INVERTED QUESTION MARK
.	00b7	MIDDLE DOT
•	2022	BULLET
*	002a	ASTERISK
	2016	DOUBLE VERTICAL LINE
]	204a	TIRONIAN SIGN ET
#	0023	NUMBER SIGN
/	002f	SOLIDUS
	005c	REVERSE SOLIDUS
-	002d	HYPHEN-MINUS
	0oad	SOFT HYPHEN
-	2013	EN DASH
--	2014	EM DASH
--	2012	FIGURE DASH
--	2015	HORIZONTAL BAR

## 42 UNICODE CHARACTER LIST

-	2010	HYPHEN
-	2011	NON-BREAKING HYPHEN
—	005f	LOW LINE
=	2017	DOUBLE LOW LINE
(	0028	LEFT PARENTHESIS
)	0029	RIGHT PARENTHESIS
{	007b	LEFT CURLY BRACKET
}	007d	RIGHT CURLY BRACKET
[	005b	LEFT SQUARE BRACKET
]	005d	RIGHT SQUARE BRACKET
<	2329	LEFT-POINTING ANGLE BRACKET
>	232a	RIGHT-POINTING ANGLE BRACKET
,	201a	SINGLE LOW-9 QUOTATION MARK
„	201e	DOUBLE LOW-9 QUOTATION MARK
“	201c	LEFT DOUBLE QUOTATION MARK
”	201d	RIGHT DOUBLE QUOTATION MARK
‘	2018	LEFT SINGLE QUOTATION MARK
’	2019	RIGHT SINGLE QUOTATION MARK
‘	201b	SINGLE HIGH-REVERSED-9 QUOTATION MARK
”	201f	DOUBLE HIGH-REVERSED-9 QUOTATION MARK
«	00ab	LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
»	00bb	RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
⟨	2039	SINGLE LEFT-POINTING ANGLE QUOTATION MARK
⟩	203a	SINGLE RIGHT-POINTING ANGLE QUOTATION MARK
”	0022	QUOTATION MARK
,	0027	APOSTROPHE
ȝ	02eo	MODIFIER LETTER SMALL GAMMA
ᚠ	16ee	RUNIC ARLAUG SYMBOL
ጀ	16ef	RUNIC TVIMADUR SYMBOL
ᚦ	16fo	RUNIC BELGTHOR SYMBOL

~	02f7	MODIFIER LETTER LOW TILDE
˥	02e5	MODIFIER LETTER EXTRA-HIGH TONE BAR
˩	02e9	MODIFIER LETTER EXTRA-LOW TONE BAR
˧	02e6	MODIFIER LETTER HIGH TONE BAR
˨	02e8	MODIFIER LETTER LOW TONE BAR
˧	02e7	MODIFIER LETTER MID TONE BAR
~":"	02de	MODIFIER LETTER RHOtic HOOK
@	0040	COMMERCIAL AT
&	0026	AMPERSAND
¶	00b6	PILCROW SIGN
§	00a7	SECTION SIGN
©	00a9	COPYRIGHT SIGN
®	00ae	REGISTERED SIGN
™	2122	TRADE MARK SIGN
°	00bo	DEGREE SIGN
'	2032	PRIME
"	2033	DOUBLE PRIME
	007c	VERTICAL LINE
፣	00a6	BROKEN BAR
†	2020	DAGGER
‡	2021	DOUBLE DAGGER
₹	211f	RESPONSE
ঃ	2123	VERSICLE
€	20ac	EURO SIGN
₵	00a2	CENT SIGN
₵	00a4	CURRENCY SIGN
\$	0024	DOLLAR SIGN
£	00a3	POUND SIGN
¥	00a5	YEN SIGN
/	2215	DIVISION SLASH

## 44 UNICODE CHARACTER LIST

+	002b	PLUS SIGN
-	2212	MINUS SIGN
×	00d7	MULTIPLICATION SIGN
÷	00f7	DIVISION SIGN
=	003d	EQUALS SIGN
≠	2260	NOT EQUAL TO
>	003e	GREATER-THAN SIGN
<	003c	LESS-THAN SIGN
≥	2265	GREATER-THAN OR EQUAL TO
≤	2264	LESS-THAN OR EQUAL TO
±	00b1	PLUS-MINUS SIGN
≈	2248	ALMOST EQUAL TO
	007e	TILDE
¬	00ac	NOT SIGN
^	005e	CIRCUMFLEX ACCENT
∞	221e	INFINITY
∅	2205	EMPTY SET
∫	222b	INTEGRAL
Ω	2126	OHM SIGN
Δ	2206	INCREMENT
Π	220f	N-ARY PRODUCT
Σ	2211	N-ARY SUMMATION
√	221a	SQUARE ROOT
μ	00b5	MICRO SIGN
δ	2202	PARTIAL DIFFERENTIAL
+	207a	SUPERSCRIPT PLUS SIGN
∴	2234	THEREFORE
→	2192	RIGHTWARDS ARROW
←	2190	LEFTWARDS ARROW
○	25cc	DOTTED CIRCLE

◊	25ca	LOZENGE
◊	o363	COMBINING LATIN SMALL LETTER A
◊	1dd4	COMBINING LATIN SMALL LETTER AE
◊	1dd5	COMBINING LATIN SMALL LETTER AO
◊	1dd6	COMBINING LATIN SMALL LETTER AV
◊	1dd7	COMBINING LATIN SMALL LETTER C CEDILLA
◊	o368	COMBINING LATIN SMALL LETTER C
◊	o369	COMBINING LATIN SMALL LETTER D
◊	o364	COMBINING LATIN SMALL LETTER E
◊	1dd9	COMBINING LATIN SMALL LETTER ETH
◊	1dd3	COMBINING LATIN SMALL LETTER FLATTENED OPEN A ABOVE
◊	1dda	COMBINING LATIN SMALL LETTER G
◊	o36a	COMBINING LATIN SMALL LETTER H
◊	o365	COMBINING LATIN SMALL LETTER I
◊	1dd8	COMBINING LATIN SMALL LETTER INSULAR D
◊	1ddc	COMBINING LATIN SMALL LETTER K
◊	1ddd	COMBINING LATIN SMALL LETTER L
◊	1des	COMBINING LATIN SMALL LETTER LONG S
◊	o36b	COMBINING LATIN SMALL LETTER M
◊	1deo	COMBINING LATIN SMALL LETTER N
◊	o366	COMBINING LATIN SMALL LETTER O
◊	o36c	COMBINING LATIN SMALL LETTER R
◊	1de3	COMBINING LATIN SMALL LETTER R ROTUNDA
◊	1de4	COMBINING LATIN SMALL LETTER S
◊	o36d	COMBINING LATIN SMALL LETTER T
◊	o367	COMBINING LATIN SMALL LETTER U
◊	1acd	COMBINING LATIN SMALL LETTER INSULAR R
◊	o36e	COMBINING LATIN SMALL LETTER V
◊	o36f	COMBINING LATIN SMALL LETTER X
◊	1de6	COMBINING LATIN SMALL LETTER Z

## 46 UNICODE CHARACTER LIST

ö	0308	COMBINING DIAERESIS
ö	0307	COMBINING DOT ABOVE
ö	0300	COMBINING GRAVE ACCENT
ó	0301	COMBINING ACUTE ACCENT
ő	030b	COMBINING DOUBLE ACUTE ACCENT
ô	0302	COMBINING CIRCUMFLEX ACCENT
њ	030c	COMBINING CARON
њ	0306	COMBINING BREVE
њ	030a	COMBINING RING ABOVE
њ	0303	COMBINING TILDE
њ	0304	COMBINING MACRON
њ	0305	COMBINING OVERLINE
њ	0309	COMBINING HOOK ABOVE
њ	0312	COMBINING TURNED COMMA ABOVE
њ	0315	COMBINING COMMA ABOVE RIGHT
њ	0318	COMBINING LEFT TACK BELOW
њ	0319	COMBINING RIGHT TACK BELOW
њ	031a	COMBINING LEFT ANGLE ABOVE
њ	031c	COMBINING LEFT HALF RING BELOW
њ	031d	COMBINING UP TACK BELOW
њ	031e	COMBINING DOWN TACK BELOW
њ	031f	COMBINING PLUS SIGN BELOW
њ	0320	COMBINING MINUS SIGN BELOW
њ	0323	COMBINING DOT BELOW
њ	0324	COMBINING DIAERESIS BELOW
њ	0325	COMBINING RING BELOW
њ	0326	COMBINING COMMA BELOW
њ	0327	COMBINING CEDILLA
њ	0328	COMBINING OGONEK
њ	0329	COMBINING VERTICAL LINE BELOW

ꝑ	o32a	COMBINING BRIDGE BELOW
ꝑ	o32c	COMBINING CARON BELOW
ꝑ	o32f	COMBINING INVERTED BREVE BELOW
ꝑ	o33o	COMBINING TILDE BELOW
ꝑ	o334	COMBINING TILDE OVERLAY
ꝑ	o335	COMBINING SHORT STROKE OVERLAY
ꝑ	o337	COMBINING SHORT SOLIDUS OVERLAY
ꝑ	o338	COMBINING LONG SOLIDUS OVERLAY
ꝑ	o339	COMBINING RIGHT HALF RING BELOW
ꝑ	o33a	COMBINING INVERTED BRIDGE BELOW
ꝑ	o33b	COMBINING SQUARE BELOW
ꝑ	o33c	COMBINING SEAGULL BELOW
ꝑ	o33d	COMBINING X ABOVE
ꝑ	o34f	COMBINING GRAPHEME JOINER
ꝑ	o35b	COMBINING ZIGZAG ABOVE
ꝑ	o35c	COMBINING DOUBLE BREVE BELOW
ꝑ	o35e	COMBINING DOUBLE MACRON
ꝑ	o36i	COMBINING DOUBLE INVERTED BREVE
ꝑ	idce	COMBINING OGONEK ABOVE
ꝑ	iacb	COMBINING TRIPLE ACUTE ACCENT
ꝑ	iacc	COMBINING LATIN SMALL LETTER INSULAR G
ꝑ	iace	COMBINING LATIN SMALL LETTER INSULAR T
ꝑ	iddi	COMBINING UR ABOVE
ꝑ	idd2	COMBINING US ABOVE
ꝑ	idcf	COMBINING ZIGZAG BELOW
ꝑ	ooa8	DIAERESIS
·	o2d9	DOT ABOVE
‘	oo6o	GRAVE ACCENT
‘	oob4	ACUTE ACCENT
^	o2c6	MODIFIER LETTER CIRCUMFLEX ACCENT

## 48 UNICODE CHARACTER LIST

ˇ	02c7	CARON
˘	02d8	BREVE
˙	02da	RING ABOVE
˜	02dc	SMALL TILDE
ˉ	00af	MACRON
ˊ	00b8	CEDILLA
‘	02db	OGONEK
’	02bc	MODIFIER LETTER APOSTROPHE
‘	02bd	MODIFIER LETTER REVERSED COMMA
ˇ	02d1	MODIFIER LETTER HALF TRIANGULAR COLON
˸	02d0	MODIFIER LETTER TRIANGULAR COLON
˸	02c1	MODIFIER LETTER REVERSED GLOTTAL STOP
ˎ	02cc	MODIFIER LETTER LOW VERTICAL LINE
ˎ	02c8	MODIFIER LETTER VERTICAL LINE