Elstob: A Variable Font for Medievalists

Peter S. Baker

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1. 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 flavors: **static** and **variable**.

1.1. 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 *0 steeply slanted* to *15 nearly upright*. The slant of the static fonts is equivalent to *a Slant of 6 in the variable font*.

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;[1] 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 *Ormulum*, 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.

[1] 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

ABCDEFGHI
JKLMNOPQRS
TUVWXYZÞÐÆÞ
abcdefghijklmnopqrstuvwx
Quousque tandem abutere,
Catilina, patientia nostra?
Quousque tandem abutere,
Catilina, patientia nostra?
0123456789 0123456789

2.1. Old English (Regular)

Sum wer wæs ġeseten on þām lande þe is ġehāten Hus; his nama wæs Iob. Se wer wæs swīðe bilewite and rihtwīs and ondrǣdende God and forbūgende yfel. Him wǣron ācennede seofan suna and ðrēo dohtra. Hē hæfde seofon ðūsend scēapa and ðrēo ðūsend olfenda, fīf hund ġetȳmu oxena and fīf hund assan and ormǣte miċelne hīred. Se wer wæs swīðe mǣre betwux eallum ēasternum, and his suna fērdon and ðēnode ǣlċ ōðrum mid his gōdum on ymbhwyrfte æt his hūse, and þǣrtō heora swustru ġelaðodon.

2.2. Old English with insular letter-forms (Light + ss02)

Heꞃ on ðıꞅum ᵹeaꞃe ꝼoꞃðꝼeꞃꝺe ælꝼᵹıue ẏmma Eaꝺƿaꞃꝺeꞅ cẏnᵹeꞅ moꝺoꞃ ⁊ haꞃꝺacnuꞇeꞅ cẏnᵹeꞅ. ⁊ on þam ꞅẏlꞅan ᵹeaꞃe ᵹeꞃæꝺꝺe ꞅe cẏnᵹ ⁊ hıꞅ ƿıꞇan ꝥ mann ꞅceolꝺe ꝼoꞃꝺıan uꞇ ꞇo Sanꝺƿıc ꞅcıƿu. ⁊ ꞅeꞇꞇon ꞃaulꝼ eoꞃl ⁊ oꝺꝺan eoꞃl ꞇo heaꝼoꝺmannū þæꞃꞇo. Ða ᵹeꞃenꝺe Goꝺƿıne eoꞃl úꞇ ꝼꞃā bꞃẏcᵹe mıꝺ hıꞅ ꞅcẏƿum ꞇo ẏꞅeꞃan. anꝺ leꞇ uꞇ ane ꝺæᵹe æꞃ mıꝺ-ꞅumeꞃeꞅ mæꞅꞅeæꝼene ꝥ he cō ꞇo næꞅꞅe. þe ıꞅ beꞅuðan ꞃumenea. Þa cō hıꞇ ꞇo ƿıꞇenne þā eoꞃlū uꞇ ꞇo ꞅanꝺƿıc. ⁊ hı þa ᵹeꞃenꝺon uꞇ æꝼꞇeꞃ þam oðꞃum ꞅcıƿum. ⁊ beaꝺ man lanꝺꝼẏꞃꝺe uꞇ onᵹean þa ꞅcıƿu.

2.3. Old English in runes (various weights + ss12)

ᚹᛁᛋᚳ ᚹᛚᚫᛞᚢ ᚠᚻᚫᚹ ᚫᚾ ᚹᛖᚱᚷᛖᚾᛒᛖᚱᛁᚷ ᚦᚩᚱᚦ ᚷᚩᛋᚱᛁᚳ ᚷᚱᚫᚱᚾ ᚦᚩᚱ ᚻᛖ ᚫᚾ ᚷᚱᛖᚢᛏ ᚷᛁᛋᚹᚫᛗ ᚻᚱᚫᚾᚩᛋ ᛒᚩᚾ. ᚹᛁᛋᚳ ᚹᛚᚫᛞᚢ ᚠᚻᚫᚹ ᚫᚾ ᚹᛖᚱᚷᛖᚾᛒᛖᚱᛁᚷ ᚦᚩᚱᚦ ᚷᚩᛋᚱᛁᚳ ᚷᚱᚫᚱᚾ ᚦᚩᚱ ᚻᛖ ᚫᚾ ᚷᚱᛖᚢᛏ ᚷᛁᛋᚹᚫᛗ ᚻᚱᚫᚾᚩᛋ ᛒᚩᚾ. **ᚹᛁᛋᚳ ᚹᛚᚫᛞᚢ ᚠᚻᚫᚹ ᚫᚾ ᚹᛖᚱᚷᛖᚾᛒᛖᚱᛁᚷ ᚦᚩᚱᚦ ᚷᚩᛋᚱᛁᚳ ᚷᚱᚫᚱᚾ ᚦᚩᚱ ᚻᛖ ᚫᚾ ᚷᚱᛖᚢᛏ ᚷᛁᛋᚹᚫᛗ ᚻᚱᚫᚾᚩᛋ ᛒᚩᚾ. ᚹᛁᛋᚳ ᚹᛚᚫᛞᚢ ᚠᚻᚫᚹ ᚫᚾ ᚹᛖᚱᚷᛖᚾᛒᛖᚱᛁᚷ ᚦᚩᚱᚦ ᚷᚩᛋᚱᛁᚳ ᚷᚱᚫᚱᚾ ᚦᚩᚱ ᚻᛖ ᚫᚾ ᚷᚱᛖᚢᛏ ᚷᛁᛋᚹᚫᛗ ᚻᚱᚫᚾᚩᛋ ᛒᚩᚾ. ᚹᛁᛋᚳ ᚹᛚᚫᛞᚢ ᚠᚻᚫᚹ ᚫᚾ ᚹᛖᚱᚷᛖᚾᛒᛖᚱᛁᚷ ᚦᚩᚱᚦ ᚷᚩᛋᚱᛁᚳ ᚷᚱᚫᚱᚾ ᚦᚩᚱ ᚻᛖ ᚫᚾ ᚷᚱᛖᚢᛏ ᚷᛁᛋᚹᚫᛗ ᚻᚱᚫᚾᚩᛋ ᛒᚩᚾ. ᚹᛁᛋᚳ ᚹᛚᚫᛞᚢ ᚠᚻᚫᚹ ᚫᚾ ᚹᛖᚱᚷᛖᚾᛒᛖᚱᛁᚷ ᚦᚩᚱᚦ ᚷᚩᛋᚱᛁᚳ ᚷᚱᚫᚱᚾ ᚦᚩᚱ ᚻᛖ ᚫᚾ ᚷᚱᛖᚢᛏ ᚷᛁᛋᚹᚫᛗ ᚻᚱᚫᚾᚩᛋ ᛒᚩᚾ.**

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

Nan ancre bi mi read ne ſchal makien ꝓfeſſiun. ꝥ iſ bihaten aſe heaſt⁖ but þꝛeo þingeſ. ꝥ beoð obedience. chaſtete. ⁊ ſtude ſteaðelueſtneſſe. ꝥ ha ne ſchal ꝥ ſtude neau᷑ mare changin bute foꝛ nede ane. aſ ſtrengðe ⁊ deaðeſ dred. obedience of hire biſchop oðer of hiſ herre. foꝛ hƿa ſe nimeð þing on hond ⁊ bihat hit Godd aſ heaſt foꝛte don hit⁖ ha bint hire þerto. ⁊ ſunegeð deadliche i þe bꝛuche. ȝef ha hit bꝛekeð ƿilleſ. ȝef ha hit ne bihat naƿt. ha hit mei do þah ⁊ leauen hƿen ha ƿel ƿule.

2.5. Middle English: *The Ormulum* (SemiBold + cv8[1], cv38[2], cv40[1], cv36[1])

Nu bꞃoþeꞃꞃ ƿallꞇḗ bꞃoþeͬꞃ mın. afftḗ þe flæſheſſ kīꝺe. ⁊ bꞃoþeͬꞃ mın ı cꞃıſſtennꝺom. þuꞃꞃh fulluhhꞇ ⁊ þuꞃꞃh ꞇꞃoꞵþe. ⁊ bꞃoþeꞃꞃ mın ı ᵹoꝺꝺeſſ huſ. ᵹe̋ꞇ o þe þꞃıꝺe ƿıſe. Þuꞃꞃh þaꞇꞇ ƿıꞇ hafenn ꞇakeᷠ ba. an ꞃeᵹͪell boc ꞇo follᵹͪenn. Vnnꝺeꞃꞃ kanunnkeſſ haꝺ. ⁊ lıf. Sƿa ſuͫ ſannꞇ aƿƿſtın ſeꞇꞇe. Icͨcͨ hafe ꝺon ſƿa ſuͫ þu baꝺꝺ⁖ ⁊ foꞃþeꝺꝺ ꞇe þıᷠ ƿılle. ⸿ Icͨcͨ hafe ƿenꝺ ıᷠꞇıll ennᵹlıſſh. ᵹoꝺꝺſƿelleſſ hallᵹͪe láꞃe⁖ Afftḗ ꝥ lıꞇͨle ƿıꞇꞇ þaꞇꞇ me. mın ꝺꞃıhhꞇınn hafeꞵ lenneꝺ.

2.6. Early Modern English (Light Italic)

When the right vertuous E.W. and I were at the Emperours Court togither, wee gave our ſelves to learne horſemanſhip of Jon Pietro Pugliano, one that with great commendation had the place of an Eſquire in his ſtable: and hee according to the fertilnes of the Italian wit, did not onely affoord us the demonſtration 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 ſlow paiment, or mooved with our learnerlike admiration) hee exerciſed his ſpeech in the praiſe of his facultie.

2.7. Latin (Italic + cv38[2])

Humanaſ laudeſ et mortalium ınſulaſ uıdımuſ aut ére ıncıſo conſcrıptaſ· aut auro radıantıb: lıtterıſ· ad poſterıtatıſ memorıam cōmendataſ· Et ıſta attendenteſ mıror quare non erubeſcım⁹ mılıtum xpı uıctorıaſ ſılentıo tégere & n̄ ad laudem ımperatorıſ eo2 qualıt̄ pugnauerınt contra hoſteſ & uıcerınt· ſeduliſ ſaltım uılıbuſ tradere & ad ıncıtandoſ anımoſ bellato2 dılıgentıuſ explıcare· Multa bona talıū narratıonū ſcrıpta conuertant; Lauſ deı eſt cum ıſta leguntur· memorıa ſcō2 excolıtur: aedıfıcacıo mtıb: tradıtur. honor martırıbuſ exhıb&ur·

2.8. Old Icelandic (Medium Italic)

Þá mælti Hárr: Þá er þeir gengu með sævarstrǫndu Borssynir, fundu þeir tré tvau ok tóku upp trén ok skǫpuðu af menn. Gaf inn fyrsti ǫnd ok líf, annarr vit ok hræring, þriði ásjónu, mál ok heyrn ok sjón, gáfu þeim klæði ok nǫfn. 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 kǫlluð er Ásgarðr. Þat kǫllum vér Trója.

2.9. Gothic (Medium Italic + Slant=0)

Warþ þan in dagans jainans, urrann gagrefts fram kaisara Agustau, gameljan allana midjungard. soh þan gilstrameleins frumista warþ at wisandin kindina Swriais raginondin Saurim Kwreinaiau. jah iddjedun allai, ei melidai weseina, harjizuh in seinai baurg. Urrann þan jah Iosef us Galeilaia, us baurg Nazaraiþ, in Iudaian, in baurg Daweidis sei haitada Beþlaihaim, duþe ei was us garda fadreinais Daweidis, anameljan miþ Mariin sei in fragiftim was imma qeins, wisandein inkilþon.

2.10. Vietnamese (Regular + ss09)

Ban đầu Đức Chúa Trời dựng nên trời và đất. Thuở ấy đất hoang vắng và trống không. Bóng tối bao phủ trên mặt vực thẳm. Thần[a] của Đức Chúa Trời vận hành trên mặt nước. 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.

2.11. French (Medium + Spacing=1, ss08, ss18)

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. ABCDÞÐÆ → ABCDÞÐÆ.

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. ÂÄÉËÒÕŰŪ. 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 (Ꝺ).

3.7. cv08 (Variants of d)

Provides two shapes of insular d: 1. ᵭ; 2. ꝺ.

3.8. cv11 (Variants of F)

Provides insular F (ꟻ).

3.9. cv12 (Variants of f)

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

3.10. cv13 (Variants of G)

Provides: 1. Ᵹ (insular G); 2. Ꝿ (Orm's hard G).

3.11. cv14 (Variants of g)

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

3.12. cv18 (Variants of i)

Provides dotless i (ı).

3.13. cv35 (Variants of R)

Provides insular R (ꟼ).

3.14. cv36 (Variants of r)

Provides: 1. ꝛ (insular r); 2. ɾ (r rotunda).

3.15. cv37 (Variants of S)

Provides insular S (ꟽ).

3.16. cv38 (Variants of s)

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

3.17. cv39 (Variants of T)

Provides insular T (Ꞇ).

3.18. cv40 (Variants of t)

Provides insular t (ꞇ).

3.19. cv57 (Variants of æ)

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

3.20. cv69 (Variants of Tironian et sign ⁊)

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

3.21. cv76 (Variants of ʔ)

Provides the *punctus interrogativus* (ʕ).

3.22. cv80 (variants of bracket characters)

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

3.23. dlig (Discretionary Ligatures)

Provides ꞓ 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: ƀ ƥ ƕ ƣ 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 (**ꝑ þ ð**) when English is the active language.

3.28. ordn (Ordinals)

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

3.29. smcp (Small Capitals)

Converts lowercase letters to small capitals. abcdeþðæ → ABCDEÞÐÆ.

3.30. ss01 (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. ss02 (Insular Letter-Shapes)

Transliterates from modern to insular (Old English, Old Irish) letter-shapes: dfgirstw → ꝺꝼᵹıꞃꞅꞇƿ. Note that `calt` later changes the sequence **ꞅꞇ** to **ſꞇ**. 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. ss04 (IPA Letter-Shapes)

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

3.33. ss08 (Contextual Long s)

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

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

3.34. ss09 (Language-specific variants)

This feature is reserved for stylistic variants that occur in particular language systems. At present only two languages are supported here: in English the feature selects an alternative form of **insular d**, and in Vietnamese it selects forms of accented **i** that retain the dot.

3.35. ss12 (Early English Futhorc)

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

3.36. ss13 (Elder Futhark)

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

3.37. ss14 (Younger Futhark)

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

3.38. ss15 (Long Branch to Short Twig)

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

3.39. ss16 (Contextual r Rotunda)

Together with calt, distributes **r** and **ꝛ** in accordance with the rules most often employed in medieval manuscripts and early printed books: foꝛm woꝛkrooms pꝛiest pꝛayer.

3.40. 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.

3.41. subs (Subscripts)

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

3.42. sups (Superscripts)

Superscript numbers, both lining and old style. 56789 → ^{56789}; 56789 → ^{56789}.

3.43. swsh (Swash)

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

3.44. 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.

3.45. zero (Slashed Zero)

Provides slashed zero (0 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).

Code points for which Elstob has no glyphs are represented in the table by blue bullets (the actual bullet at U+2022 is black). Many of Elstob's glyphs (e.g. spaces, formatting marks) are invisible: these are represented by blanks in the table. A few glyphs are too large for their table cells, and these spill out on one or more sides.

Table 4.1: Encoded Glyphs in Elstob

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Basic Latin																
U+0000 – 000F	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•
U+0020 – 002F		!	"	#	$	%	&	'	(	)	*	+	,	-	.	/
U+0030 – 003F	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
U+0040 – 004F	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
U+0050 – 005F	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
U+0060 – 006F	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
U+0070 – 007F	p	q	r	s	t	u	v	w	x	y	z	{	|	}	~	•

Table 4.1: Encoded Glyphs in Elstob, *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Latin-1 Supplement																
U+00A0 – 00AF		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬		®	¯
U+00B0 – 00BF	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
U+00C0 – 00CF	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
U+00D0 – 00DF	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
U+00E0 – 00EF	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
U+00F0 – 00FF	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ
Latin Extended-A																
U+0100 – 010F	Ā	ā	Ă	ă	Ą	ą	Ć	ć	•	•	Ċ	ċ	Č	č	Ď	ď
U+0110 – 011F	Đ	đ	Ē	ē	Ĕ	ĕ	Ė	ė	Ę	ę	Ě	ě	•	•	Ğ	ğ
U+0120 – 012F	Ġ	ġ	Ģ	ģ	•	•	Ħ	ħ	Ĩ	ĩ	Ī	ī	Ĭ	ĭ	Į	į
U+0130 – 013F	İ	ı	IJ	ij	•	•	Ķ	ķ	•	Ĺ	Í	Ļ	ļ	Ľ	ľ	Ŀ
U+0140 – 014F	l·	Ł	ł	Ń	ń	Ņ	ņ	Ň	ň	•	Ŋ	ŋ	Ō	ō	Ŏ	ŏ
U+0150 – 015F	Ő	ő	Œ	œ	Ŕ	ŕ	Ŗ	ŗ	Ř	ř	Ś	ś	•	•	Ş	ş
U+0160 – 016F	Š	š	Ţ	ţ	Ť	ť	Ŧ	ŧ	Ũ	ũ	Ū	ū	Ŭ	ŭ	Ů	ů
U+0170 – 017F	Ű	ű	Ų	ų	Ŵ	ŵ	Ŷ	ŷ	Ÿ	Ź	ź	Ż	ż	Ž	ž	ſ
Latin Extended-B																
U+0180 – 018F	ƀ	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
U+0190 – 019F	•	•	•	•	•	ɦ	•	•	•	•	ɬ	•	•	•	•	•
U+01A0 – 01AF	Ơ	ơ	•	•	•	•	•	•	•	•	•	•	•	•	•	Ư
U+01B0 – 01BF	ư	•	•	•	•	Ƶ	ƶ	•	•	•	•	•	•	•	•	ƿ
U+01C0 – 01CF	ǀ	ǁ	ǂ	•	•	•	•	•	•	•	•	•	•	Ǎ	ǎ	•

Table 4.1: Encoded Glyphs in Elstob, *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+01E0 – 01EF	•	•	Ǣ	ǣ	•	•	•	•	•	•	Ǫ	ǫ	•	•	•	•
U+01F0 – 01FF	•	•	•	•	•	•	Ƕ	Ƿ	•	•	Ǎ	ǎ	Ǽ	ǽ	Ǿ	ǿ
U+0210 – 021F	•	•	•	•	•	•	•	•	Ș	ș	Ț	ț	Ȝ	ȝ	•	•
U+0230 – 023F	•	•	Ȳ	ȳ	•	•	•	ɟ	•	•	•	•	•	Ł	•	•

IPA Extensions

U+0250 – 025F	ɐ	ɑ	ɒ	ɓ	ɔ	ɕ	ɖ	ɗ	ɘ	ə	ɚ	ɛ	ɜ	ɝ	ɞ	ɟ
U+0260 – 026F	ɠ	ɡ	ɢ	ɣ	ɤ	ɥ	ɦ	ɧ	ɨ	•	ɪ	ɬ	ɮ	ɭ	ɯ	ɯ
U+0270 – 027F	ɰ	ɱ	ɲ	ɳ	ɴ	ɵ	ɶ	•	ɸ	ɹ	ɺ	ɻ	•	ɽ	ɾ	ɿ
U+0280 – 028F	ʀ	ʁ	ʂ	ʃ	ʄ	ʅ	ʆ	ʇ	ʈ	ʉ	ʊ	ʋ	ʌ	ʍ	ʎ	ʏ
U+0290 – 029F	ʐ	ʑ	ʒ	ʓ	ʔ	ʕ	ʖ	ʗ	ʘ	ʙ	•	ʛ	ʜ	ʝ	•	ʟ
U+02A0 – 02AF	ʠ	ʡ	ʢ	ʣ	ʤ	ʥ	ʦ	ʧ	ʨ	ʩ	ʪ	ʫ	ʬ	ʭ	ʮ	ʯ

Spacing Modifier Letters

U+02B0 – 02BF	ʰ	ʱ	ʲ	•	•	•	•	ʷ	•	•	•	•	ʾ	ʿ	•	•
U+02C0 – 02CF	•	ˁ	•	•	•	•	ˆ	ˇ	ˈ	•	•	•	ˌ	•	•	•
U+02D0 – 02DF	ː	ˑ	•	•	•	•	•	•	˘	˙	˚	˛	˜	˝	˞	•
U+02E0 – 02EF	ˠ	ˡ	•	•	•	˧	˨	˩	˪	˫	•	•	•	•	•	•
U+02F0 – 02FF	•	•	•	•	•	•	•	˷	•	•	•	•	•	•	•	•

Combining Diacritical Marks

U+0300 – 030F	◌̀	◌́	◌̂	◌̃	◌̄	◌̅	◌̆	◌̇	◌̈	◌̉	◌̊	◌̋	◌̌	•	•	•
U+0310 – 031F	•	•	◌̐	•	•	◌̓	•	•	◌̔	◌̕	◌̖	◌̗	•	◌̙	◌̚	◌̛
U+0320 – 032F	◌̠	•	•	◌̣	◌̤	◌̥	◌̦	◌̧	◌̨	◌̩	◌̪	◌̫	•	◌̭	•	•
U+0330 – 033F	◌̰	•	•	•	◌̱	◌̲	•	◌̴	◌̵	◌̶	◌̷	◌̸	◌̹	◌̺	•	•

Table 4.1: Encoded Glyphs in Elstob, *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+0340 – 034F	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
U+0350 – 035F	•	•	•	•	•	•	•	•	•	•	•	͛	͜	•	͞	•
U+0360 – 036F	•	͡	•	a	e	i	o	u	c	d	h	m	r	t	v	x

Greek and Coptic

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+0370 – 037F	•	•	•	•	•	•	•	•	•	•	•	•	ͼ	•	•	•
U+03B0 – 03BF	•	•	β	•	•	•	•	•	θ	•	•	•	•	•	•	•
U+03C0 – 03CF	π	•	•	•	•	•	•	χ	•	•	•	•	•	•	•	•

Runic

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+16A0 – 16AF	ᚠ	ᚡ	ᚢ	ᚣ	ᚤ	ᚥ	ᚦ	ᚧ	ᚨ	ᚩ	ᚪ	ᚫ	ᚬ	ᚭ	ᚮ	ᚯ
U+16B0 – 16BF	ᚰ	ᚱ	ᚲ	ᚳ	ᚴ	ᚵ	ᚶ	ᚷ	ᚸ	ᚹ	ᚺ	ᚻ	ᚼ	ᚽ	ᚾ	ᚿ
U+16C0 – 16CF	ᛀ	ᛁ	ᛂ	ᛃ	ᛄ	ᛅ	ᛆ	ᛇ	ᛈ	ᛉ	ᛊ	ᛋ	ᛌ	ᛍ	ᛎ	ᛏ
U+16D0 – 16DF	ᛐ	ᛑ	ᛒ	ᛓ	ᛔ	ᛕ	ᛖ	ᛗ	ᛘ	ᛙ	ᛚ	ᛛ	ᛜ	ᛝ	ᛞ	ᛟ
U+16E0 – 16EF	ᛠ	ᛡ	ᛢ	ᛣ	ᛤ	ᛥ	ᛦ	ᛧ	ᛨ	ᛩ	ᛪ	᛫	᛬	᛭	ᛮ	ᛯ
U+16F0 – 16FF	ᛰ	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Buginese

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+1AC0 – 1ACF	•	•	•	•	•	•	•	•	•	•	•	᫋	ᫌ	ᫍ	ᫎ	•

Phonetic Extensions

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+1D70 – 1D7F	•	•	•	•	•	•	•	•	•	ᵹ	•	•	•	•	•	•

Combining Diacritical Marks Supplement

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+1DC0 – 1DCF	•	•	•	•	•	•	•	•	•	•	•	•	•	•	᷎	᷏
U+1DD0 – 1DDF	•	᷑	᷒	ᷓ	ᷔ	ᷕ	ᷖ	ᷗ	ᷘ	ᷙ	ᷚ	•	ᷜ	ᷝ	•	•

Table 4.1: Encoded Glyphs in Elstob, *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+1DE0 – 1DEF	ⁿ	•	•	ᶻ	ˢ	ᶠ	ᶻ	•	•	•	•	•	•	•	•	•

Latin Extended Additional

U+1E80 – 1E8F	Ẁ	ẁ	Ẃ	ẃ	Ẅ	ẅ	•	•	•	•	•	•	•	•	Ẏ	ẏ
U+1E90 – 1E9F	•	•	•	•	•	•	•	•	•	•	•	•	ſ	•	ß	•
U+1EA0 – 1EAF	Ạ	ạ	Ả	ả	Ấ	ấ	Ầ	ầ	Ẩ	ẩ	Ẫ	ẫ	Ậ	ậ	Ắ	ắ
U+1EB0 – 1EBF	Ằ	ằ	Ẳ	ẳ	Ẵ	ẵ	Ặ	ặ	Ẹ	ẹ	Ẻ	ẻ	Ẽ	ẽ	Ế	ế
U+1EC0 – 1ECF	Ề	ề	Ể	ể	Ễ	ễ	Ệ	ệ	Ỉ	ỉ	Ị	ị	Ọ	ọ	Ỏ	ỏ
U+1ED0 – 1EDF	Ố	ố	Ồ	ồ	Ổ	ổ	Ỗ	ỗ	Ộ	ộ	Ớ	ớ	Ờ	ờ	Ở	ở
U+1EE0 – 1EEF	Ỡ	ỡ	Ợ	ợ	Ụ	ụ	Ủ	ủ	Ứ	ứ	Ừ	ừ	Ử	ử	Ữ	ữ
U+1EF0 – 1EFF	Ự	ự	Ỳ	ỳ	Ỵ	ỵ	Ỷ	ỷ	Ỹ	ỹ	•	•	•	•	•	•

General Punctuation

U+2000 – 200F														•	•	•
U+2010 – 201F	‐	‑	‒	–	—	―	‖	‗	‘	’	‚	‛	“	”	„	‟
U+2020 – 202F	†	‡	•	‣	‧	‰	…	‱	′	″	‴	⁗	⁅	⁆	⁇	
U+2030 – 203F	‰	‱	′	″	‴	⁗	⁎	⁏	‹	›	※	‼	⁈	⁉	⁊	⁋
U+2040 – 204F	⁀	⁁	⁂	⁃	⁄	⁅	⁆	⁇	⁈	⁉	⁊	⁋	⁌	⁍	⁎	⁏
U+2060 – 206F			⁡	⁢	⁣	⁤	⁥	⁦	⁧	⁨	⁩	⁪	⁫	⁬	⁭	⁮

Superscripts and Subscripts

U+2070 – 207F	⁰	ⁱ	⁲	⁳	⁴	⁵	⁶	⁷	⁸	⁹	⁺	⁻	⁼	⁽	⁾	ⁿ
U+2080 – 208F	₀	₁	₂	₃	₄	₅	₆	₇	₈	₉	₊	₋	₌	₍	₎	₏

Table 4.1: Encoded Glyphs in Elstob, *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Currency Symbols																
U+20A0 – 20AF	•	•	•	•	•	•	•	•	•	•	•	•	€	•	•	•
Letterlike Symbols																
U+2110 – 211F	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	℞
U+2120 – 212F	•	•	™	℣	•	•	Ω	•	•	•	•	•	•	•	•	•
Arrows																
U+2190 – 219F	←	•	→	•	•	•	•	•	•	•	•	•	•	•	•	•
Mathematical Operators																
U+2200 – 220F	•	•	∂	•	•	∅	Δ	•	•	•	•	•	•	•	•	∏
U+2210 – 221F	•	∑	−	•	•	/	•	•	•	•	√	•	•	•	∞	•
U+2220 – 222F	•	•	•	•	•	•	•	•	•	•	•	∫	•	•	•	•
U+2230 – 223F	•	•	•	•	∴	•	•	•	•	•	•	•	•	•	•	•
U+2240 – 224F	•	•	•	•	•	•	•	•	≈	•	•	•	•	•	•	•
U+2260 – 226F	≠	•	•	•	≤	≥	•	•	•	•	•	•	•	•	•	•
Miscellaneous Technical																
U+2320 – 232F	•	•	•	•	•	•	•	•	•	⟨	⟩	•	•	•	•	•
Geometric Shapes																
U+25C0 – 25CF	•	•	•	•	•	•	•	•	•	•	◊	•	◌	•	•	•
Dingbats																
U+2720 – 272F	✠	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Table 4.1: Encoded Glyphs in Elstob, *cont.*

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Miscellaneous Mathematical Symbols-A																
U+27E0 – 27EF	•	•	•	•	•	•	•	•	⟨	⟩	•	•	•	•	•	•
Latin Extended-C																
U+2C60 – 2C6F	•	•	Ł	•	•	•	•	•	•	•	•	•	•	•	•	•
U+2C70 – 2C7F	•	ⱱ	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Supplemental Punctuation																
U+2E40 – 2E4F	•	•	•	•	•	•	•	•	•	•	⸗	•	⸮	⸢	⸬	•
Latin Extended-D																
U+A730 – A73F	•	•	Ꜫ	ꜫ	Ꜭ	ꜭ	Ꜯ	ꜯ	ꜱ	ꜱ	Ꜳ	ꜳ	Ꜵ	ꜵ	•	•
U+A740 – A74F	•	ƙ	•	•	•	•	•	•	Ł	ł	Ɵ	ɵ	•	•	Ꝏ	ꝏ
U+A750 – A75F	•	ꝑ	•	ꝑ	•	•	•	ꝗ	Ꝙ	ꝙ	•	ꝛ	•	ꝛ	•	•
U+A760 – A76F	Ꝟ	ꝟ	•	•	•	ꝺ	•	•	•	•	•	ꝫ	•	ſ	•	ꝯ
U+A770 – A77F	ꝰ	•	•	•	•	•	•	•	•	Ꝺ	ꝺ	Ꝼ	ꝼ	Ᵹ	•	•
U+A780 – A78F	•	•	Ꞅ	ꞅ	Ꞇ	ꞇ	ꞈ	ꞈ	•	•	•	•	•	•	•	•
U+A7C0 – A7CF	Ꟁ	ꟁ	•	•	•	•	•	•	•	•	•	•	•	•	•	•
U+A7D0 – A7DF	Ꟈ	ꟈ	•	ƀ	•	ƥ	•	•	•	•	•	•	•	•	•	•
Alphabetic Presentation Forms																
U+FB00 – FB0F	ﬀ	ﬁ	ﬂ	ﬃ	ﬄ	ﬅ	ﬆ	•	•	•	•	•	•	•	•	•

Total number of glyphs shown from Elstob.ttf: 887