# Junicode

The Junicode font is designed to meet the needs of medieval scholars; however, it has a large enough character set to be useful to the general user. It comes in Regular, Italic, Bold and Bold Italic faces. The Regular face has the fullest character set, and is richest in OpenType features.

Because Junicode has been designed for medievalists, some of the default letter-shapes are wrong for modern languages: for example, eogonek (ę) is correctly shaped for medieval Latin but looks poor in Polish. It is possible to add language-specific letter-shapes, but this has not always been done. If you wish to see better support for any modern, medieval or ancient language, please leave a request at the Junicode project page (http://sourceforge.net/projects/junicode).

Junicode partially implements the recommendation of the Medieval Unicode Font Initiative. Look for special MUFI characters in the Private Use Area (U+E000 and above). Download the complete recommendation at http://gandalf.aksis.uib.no/mufi/.

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The Macintosh version of Junicode is packaged in a dfont archive. As the fonts themselves are still OpenType, you will not see advanced typographical features in any version of OS X before 10.4 ("Tiger"). The Macintosh version is functionally identical to the Windows/Linux version, except that instructions, which are not needed for Mac font rendering, have been omitted.

## OpenType Features

*Only OpenType-aware applications can make use of OpenType features. Among these are Adobe InDesign, Mellel, and (to a limited extent) Microsoft Word. XeTeX, a typesetting program built on top of TeX, has especially good support. The following are standard OpenType features (not all available in all faces). For OpenType features especially for medievalists, see the next section.*

Like many old-style fonts, Junicode contains several f-ligatures (first flight offer office afflict fjord). It also has a number of other standard ligatures, e.g. thrift fifty afraid für fördern. It also has long-s ligatures (aſſert ſtart ſlick omiſſion and more). Most OpenType-aware applications will use these by default. You can disable them by turning off the liga feature. *All faces.*

If Contextual Alternates (calt) and kerning are on (as they should be by default), Junicode will avoid collisions between f and vowels with diacritics, e.g. fêler fíf fŭl.

For circled numbers and letters, use dlig (Discretionary Ligatures): [1] = ①; [A] = Ⓐ; [a] = ⓐ; [[1]] = ⓵; <1> = ❶. The same feature also gives you connected Roman numbers (I II III IV V VI VII VIII IX X XI XII), and fancy ligatures, e.g. act ſtar track bitten attract. *Regular face only.*

With ccmp (Glyph Composition/Decomposition), a base character followed by one or more combining diacritical marks is replaced with a precomposed character when one is available: A + U+301 makes Á; a + U+301 makes á. Notice that although the combining acute character (U+301) is the same, the A actually has a special capital form of the acute. *All faces, depending on the availability of composed characters and combining diacritics.*

Where no precomposed character is available, combining marks should still be correctly positioned, and marks can be "stacked" via the mark and mkmk features: ő (o + U+306 + U+301); ῐ̆ (i + U+304 + U+306). The dot of an i or j followed by a diacritic should always be removed: ῐ. *All faces; anchors less plentiful in bold and italic faces than in regular; diacritic stacking not available in bold italic.*

Use smcp (Small Caps) to change lower-case letters to small caps; c2sc changes upper-case letters to small caps. JUNICODE HAS TRUE SMALL CAPS RATHER THAN SCALED CAPITALS. Common combining diacritical marks should be positioned correctly relative to small caps: ÄÇÉ. *Regular face only.*

You have a choice of either standard "lining" figures or old-style figures, selected by onum (Old-Style Numbers): 0123456789 0123456789. *All faces.*

Superscript numbers are rendered with sups (Superscripts): $^{0123456789}$. Subscript numbers are rendered with subs (Subscripts): $_{0123456789}$. *Regular only.*

A sequence of number + slash + number is rendered by a fraction if the fraction has a Unicode encoding and frac (Fractions) is on: ½ ¼ ⅔ ¾. *All faces, but fullest in regular and bold.*

**Notes on Junicode and MUFI**

The MUFI specification defines a great many characters of interest to medievalists; of these, the current version of Junicode contains nearly all. While many MUFI characters have Unicode encodings, many others have MUFI-recommended encodings in the "Private Use Area" (PUA) of the Unicode standard—that is, a range of code points not assigned to Unicode characters and available for use in fonts for specialized purposes. Use of the PUA allows MUFI to include many characters that are not part of the Unicode standard.

There are risks with this approach. First, use of the PUA is deprecated by Adobe and Microsoft (major players in fonts and type rendering), and it is uncertain whether applications will continue to support it indefinitely. Second, and probably more important, MUFI characters are regularly accepted by the Unicode Consortium, whereupon they lose their PUA encodings and receive Unicode encodings—breaking any application that uses them.

To minimize these risks, the MUFI specification strongly recommends "that PUA characters should be encoded with mark-up or entities, and that PUA characters should be used for the final display only, whether on screen or in print." An alternative to entities is the use of OpenType features. If you are using an OpenType-aware application (e.g. XeTeX, InDesign, Mellel, and to a limited extent MS Word), many or all of the OpenType features of Junicode can help you avoid using PUA characters directly.

**Characters with diacritics.** Both Unicode and MUFI contain large numbers of characters with diacritics. Make it a habit never to use these "precomposed" characters directly; rather use the "plain" character followed by a character from the Unicode "Combining Diacritics" range. (This works with Word for Windows when Uniscribe is enabled, and also with other OpenType-aware applications.) In almost all cases the application will either substitute the correct precomposed character or position the diacritic correctly. For characters with more than one diacritic, follow these rules: when diacritics are stacked vertically, insert the one closest to the base character first; when diacritics are arranged horizontally, insert the leftmost one first. Examples: a + macron + acute = ā́; o + dot + acute = ő. Remember that Unicode has both spacing and combining diacritics; only the combining diacritics will work correctly. If any combination fails to work for you, please leave a bug report at the Junicode website.

**Small caps.** Make it a hard-and-fast rule *never* to insert any small cap character into your documents. The encoding of small caps is inherently unstable and non-portable. MUFI recommends using small cap-like characters

from the Unicode phonetic ranges, but this would be an error with many fonts, including Junicode, which size phonetic "small caps" to harmonize with lower-case characters, whereas true small caps are somewhat larger. Always use the small caps command provided by the application you are using. If the application is able, it will use Junicode's true small caps.

You may use the "small caps" in the phonetic ranges to set IPA text. The "small cap" ʀ is also recommended for setting transliterations of early Norse runic texts.

**Nordic letter-forms.** The default shape of ð and þ in Junicode is English: this is unusual in modern fonts. For the shapes used in Icelandic, specify the Icelandic language, if your application has good language support, or select Style Set 1 (ss01): ðþ.

**Insular letter-forms.** Insular letter-forms have recently been accepted by Unicode, and therefore their encodings will change. For Junicode, use Style Set 2 (ss02) for insular letter-forms if your application supports it: abcðeꝼꝣ. Turn off Standard Ligatures (liga) for best results.

**Old English typography.** When Old English is set with Junicode, some letter combinations can produce unattractive collisions. To avoid this, make sure that Contextual Alternates (calt) and Standard Ligatures (liga) are on (as they should be by default): hæfð hæfþ fūl nīð.

**Enlarged minuscules.** In Junicode, Style Set 6 produces enlarged minuscules, thus: abcdefg. Since the underlying text remains unchanged, enlarged text can be searched like normal text.

**Overlined characters.** The MUFI specification envisions a font-based mechanism for producing text with overlines. Probably this will not be practical in the near future; rather, use your application's line-drawing facilities to produce text with overlines. For Junicode, roman numbers are an exception. Use Style Set 4 for roman numbers with high overline ($\overline{\text{viii}}$ $\overline{\text{XCXV}}$) and Style Set 5 for lower-case roman numbers with medium-high overline ($\overline{\text{viii}}$ $\overline{\text{dclx}}$).

**Letters with flourishes.** For letters with flourishes (sometimes used for setting Middle English texts), use swsh (Swash): ꜳ dꞇ fꞇ gꞇ ꝁ ꞁ ꝛ.

**Ligatures.** Nearly all of MUFI's ligatures are accessible via hlig (Historical Ligatures). Even if you are not a medievalist, you may still be amused by the strange effects you can achieve by turning on this feature: egg track caught fan sock book Aa aa AO ao AU au N a.

**Deleted text.** In medieval manuscripts, text is often deleted by placing a dot under each letter. Both Unicode and MUFI define many characters with dots below: if possible, you should avoid hard-coding these and instead use Style Set 7.

**Alternate yogh.** For Middle English, always use the yogh at U+021C and U+021D (Ȝȝ). Unicode also has an alternative yogh, which in Junicode has a flat top. If you prefer this, leave the underlying text the same and specify Style Set 8: Ȝȝ.

**Other alternates.** Use Style Set 9 (ss09) to produce alternates for MUFI characters in the Private Use Area. At present there is only one: ꝋ for ð.

One conflict between MUFI and Junicode has been handled as follows: MUFI assigns LATIN LETTER LONG S DESCENDING to U+127, where Junicode has LATIN LETTER SMALL INSULAR S, and insular s to U+F22E. To maintain compatibility with earlier versions, Junicode has insular s at both code points.

## Old and Middle English

Wē æthrynon mid ūrum ārum þā ȳðan þæs dēopan wæles; wē ġesāwon ēac þā muntas ymbe þǣre sealtan sǣ strande, and wē mid āðēnedum hræġle and ġesundfullum windum þǣr ġewīcodon on þām ġemǣrum þǣre fæġerestan þēode. Þā ȳðan ġetācniað þisne dēopan cræft, and þā muntas ġetācniað ēac þā miċelnyssa þisses cræftes.

Heꝛ cẏnepulꝼ benam ꞃiᵹebꞃẏht hiꞅ ꝛiceꞅ ⁊ peꞅtꞃeaxna ꝛioꞏan ꝼoꞃ unꞃẏhꞏum ðæðum buꞏon hamꞏunꞃciꞃe ⁊ he hæꝼðe þa oþ he oꝼꞅloᵹ þone aldoꞃman þe him lenᵹeꞅꞏ ꝛunoðe ⁊ hiene þa cẏnepulꝼ on anðꞃeð aðꞃæꝼðe ⁊ he þæꞃ ꝛunaðe oþ þæꞏ hine an ꞅꝛan oꝼꞅꞏanᵹ æt pꝛẏꝼeꞏeꞅꝼloðan ⁊ he pꞃæc þone aldoꞃman cumbꞃan ⁊ ꞅe cẏnepulꝼ oꝼꞏ miclum ᵹeꝼeohꞏum ꝼeahꞏ uuiþ bꞃeꞏpalum.

SIÞEN þe sege and þe assaut watz sesed at Troye,
Þe borȝ brittened and brent to brondez and askez,
Þe tulk þat þe trammes of tresoun þer wroȝt
Watz tried for his tricherie, þe trewest on erthe:
Hit watz Ennias þe athel, and his highe kynde,
Þat siþen depreced prouinces, and patrounes bicome
Welneȝe of al þe wele in þe west iles.

## Old Icelandic

Um haustit sendi Mǫrðr Valgarðsson orð at Gunnarr myndi vera einn heimi, en lið alt myndi vera niðri í eyjum at lúka heyverkum. Riðu þeir Gizurr Hvíti ok Geirr Goði austr yfir ár, þegar þeir spurðu þat, ok austr yfir sanda til Hofs. Þá sendu þeir orð Starkaði undir Þríhyrningi; ok fundusk þeir þar allir er at Gunnari skyldu fara, ok réðu hversu at skyldi fara.

## Runic

ᚠᛁᛋᛣ ᚠᛚᚨᚹᛞ ᚠᚾᚨᚠ ᚨᛏ ᚠᛖᚱᚷᛖᛒᛖᚱᛁ� ᚠᚨᚱᚦ ᚷᚨ:ᛋᚱᛁᛣ ᚷᚱᚨᚱᛏ ᚦᚨᚱ ᛖᛗ ᚨᛏ ᚷᚱᛖᚨᛏ
ᚷᛁᛋᚠᚠᛖ ᚾᚱᚨᛏᚨᛋ ᛒᚨᛏ
ᚱᛖᛗᛖᚠᛏᚨᛋ ᚠᛏᛗ ᚱᛖᛚᛖᚠᛏᚨᛋ ᛏᚹᚩᚷᛖ ᚷᛁᛒᚱᛖᚦᚨᚱ ᚠᛖᚩᛗᛗᚠ �ᛁᚠ ᚦᚨᛏᛁᚠ ᚨᛏ ᚱᛖᛗᚨᛣᚨᛋᛏᛁ:
ᚠᚦᚱᚠ ᛋᛏᛏᛖᚷ

## Latin

*Junicode contains the most common Latin abbreviations, making it suitable for diplomatic editions of Latin texts.*

Adiuuanos dī ſalutariſ noſter & ꝓpī głam nominiſ tui dnē lïbanoſ· & ꝓpitiuſ eſto peccatiſ noſtriſ ꝓpter nomen tuum· Ne forte dicant ingentib: ubi eſt dī eorum & innoteſcat innationib: corā oculiſ nr̄iſ· Poſuerunt moſticina ſeruorū ruorū eſcaſ uolatilib: cęli carneſ ſcōꝛ tuoꝛ beſtiiſ tenice· Facti ſu+m oþꝓbrium uiciniſ nr̄iſ·

## Gothic Transliteration

jabai auk hᴠas gasaihᴠiþ þuk þana habandan kunþi in galiuge stada anakumb-jandan, niu miþwissei is siukis wisandins timrjada du galiugagudam gasaliþ matjan? fraqistniþ auk sa unmahteiga ana þeinamma witubnja broþar in þize Xristus gaswalt. swaþ þan frawaurkjandans wiþra broþruns, slahandans ize gahugd siuka, du Xristau frawaurkeiþ.

## Sanskrit Transliteration

mānaṃ dvividhaṃ viṣayadvai vidyātśaktyaśaktitaḥ
arthakriyāyāṃ keśadirnārtho 'narthādhimokṣataḥ

sadṛśāsadṛśatvācca viṣayāviṣayatvataḥ
śabdasyānyanimittānāṃ bhāve dhīsadasattvataḥ

arthakriyāsamarthaṃ yat tadatra paramārthasat
anyat saṃvṛtisat proktam te svasāmānyalakṣaṇe

## German

*In German, which uses many capitals, Junicode's broad T can be distracting. Apply OpenType feature ss03 (Style Set 3) to narrow it.*

Ein weit schwereres Tagewerk übernehmen diejenigen, deren lebhafter Trieb nach Kenntnis die Gegenstände der Natur an sich selbst und in ihren Ver-hältnissen untereinander zu beobachten strebt: denn sie vermissen bald den Maßstab, der ihnen zu Hilfe kam, wenn sie als Menschen die Dinge in bezug auf sich betrachteten.

## International Phonetic Alphabet

hwan θat ɑːprɪl wiθ is ʃuːrəs soːtə θə drʊxt of martʃ haθ peːrsəd toː θə roːte and baːðəd ɛvrɪ væɪn ɪn swɪtʃ lɪkuːr of hwɪtʃ vɛrtɪu ɛndʒendrəd ɪs θə fluːr hwan zɛfɪrʊs eːk wɪθ hɪs sweːtə bræːθ

# Greek

*The Greek typeface (new in version 0.6.12) is based on the Greek Double Pica cut by Alexander Wilson of Glasgow in the eighteenth century; in future releases it is likely to undergo revisions to adapt it for modern use.*

βίβλος γενέσεως ἰησοῦ χριστοῦ υἱοῦ δαυὶδ υἱοῦ ἀβραάμ. ἀβραὰμ ἐγέννησεν τὸν ἰσαάκ, ἰσαὰκ δὲ ἐγέννησεν τὸν ἰακώβ, ἰακὼβ δὲ ἐγέννησεν τὸν ἰούδαν καὶ τοὺς ἀδελφοὺς αὐτοῦ, ἰούδας δὲ ἐγέννησεν τὸν φάρες καὶ τὸν ζάρα ἐκ τῆς θαμάρ, φάρες δὲ ἐγέννησεν τὸν ἑσρώμ, ἑσρὼμ δὲ ἐγέννησεν τὸν ἀράμ, ἀρὰμ δὲ ἐγέννησεν τὸν ἀμιναδάβ, ἀμιναδὰβ δὲ ἐγέννησεν τὸν ναασσών, ναασσὼν δὲ ἐγέννησεν τὸν σαλμών, σαλμὼν δὲ ἐγέννησεν τὸν βόες ἐκ τῆς ῥαχάβ, βόες δὲ ἐγέννησεν

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ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ

The Junicode font is available at http://junicode.sourceforge.net/. Click the Project Page link to leave feature requests and bug reports. Contributions are welcome: if you wish to contribute to Junicode, leave a patch at the Project Page or contact the Developer.

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And thanks to the many users who have submitted feature requests and bug reports.

This document was set with X∃TEX.