

# Junicode

the font for medievalists



specimens and user's guide

# 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.

Both the selection and design of the characters in Junicode reflect the needs of medievalists. However, many persons writing in ancient and modern languages have found the font useful. If you wish to see better support for any language, please leave a request at the Junicode project page (http://sourceforge.net/projects/junicode).

Junicode implements most of the recommendation of the Medieval Unicode Font Initiative (version 3.0). Look for special MUFI characters (those not in the Unicode standard) in the Private Use Area (U+E000 and above). Download the complete recommendation at http://www.mufi.info/.

Junicode is licensed under the SIL Open Font License: for the full text, go to http://scripts.sil.org/OFL. Briefly: You may use Junicode in any kind of publication, print or electronic, without fee or restriction. You may modify the font for your own use. You may distribute your modified version in accordance with the terms of the license.



# **Specimens**

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 12345 lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor in-

cididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor

sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345 Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. 12345 12345

Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt Cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt cum multa divinitus, pontifices, a maioribus nostris inventa atque instituta sunt cum multa divinitus, pontifices, a maioribus nostris inventa a

CUM MULTA DIVINITUS, PONTIFICES, A MAIORIBUS NOSTRIS INVENTA ATQUE INSTITUTA SUNT CUM MULTA DIVINITUS, PONTIFICES, A MAIORIBUS NOSTRIS INVENTA ATQUE INSTITUTA SUNT CUM MULTA DIVINITUS, PONTIFICES, A MAIORIBUS NOSTRIS INVENTA ATQUE INSTITUTA SUNT CUM MULTA DIVINITUS, PONTIFICES, A MAIORIBUS NOSTRIS INVENTA ATQUE INSTITUTA SUNT CUM MULTA DIVINITUS, PONTIFICES, A MAIORIBUS NOSTRIS INVENTA ATQUE INSTITUTA SUNT

abcdefghijklmnopqrstuvwxyz &δβ3 ABCDEFGHIJKLMNOPQRSTUVWXYZ ÆÐβ3 αβγδεζηθικλμνξοπρςστυφχψω ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ

### Old and Middle English

The default letter-shapes are suitable for setting Old and Middle English.

Wē æthrynon mid ūrum ārum þā yðan þæs dēopan wæles; wē ģesāwon ēac þā muntas ymbe þære sealtan sæ strande, and wē mid āðēnedum hræģle and ģesundfullum windum þær ģewīcodon on þām ģemærum þære fæģerestan þēode. Þā yðan ģetācniað þisne dēopan cræft, and þā muntas ģetācniað ēac þā miċelnyssa þisses cræftes.

SIPEN be sege and be assaut watz sesed at Troye, pe bor3 brittened and brent to brondez and askez, pe tulk bat be trammes of tresoun ber wro3t Watz tried for his tricherie, be trewest on erthe: Hit watz Ennias be athel, and his highe kynde, pat siben depreced prouinces, and patrounes bicome Welne3e of al be wele in be west iles.

Apply the Open Type feature ss02 (Style Set 2) for insular letter-forms.

Hen cỳnepulr benam rizebnýht hir picer J pestseaxna piotan rop unpýhtum dędū buton hamtúnscipe J he hærde þa oþ he orrloz þone aldonmon þe hī lenzest punode J hiene þa cýnepulr on andped adpærde J h þæp punade oþ þæt hine án spán orstanz æt ppýreterrlodan J he ppęc þone aldonmon cumbpan J re cýnepulr ort miclum zereohtum reaht uuib bpetpalū.

#### Old Icelandic

For Nordic shapes of  $\beta$  and  $\delta$ , specify the Icelandic language, if your application has good language support; or apply the OpenType ss01 (Style Set 1) feature.

Um haustit sendi Morðr 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

KEMBELV1 E+M KWVWBELV1 TB&XW+ XIBKEPEK ER&MME MIE BVLIE E+ KEWE KINY ELEMV EMER E+ EWKXW+BWKIX BEKEPEK ER&MME MIE BVLIE E+ KEWE

#### German

KM++// 9144 : IT 19/

Ich fag üch aber / minen fründen / Fo2chtēd üch nit vo2 denen die den lyb todend / vnd darnach nichts habennd das fy mer thugind. Ich wil üch aber zeigē vo2 welchem ir üch fo2chten follend. Fo2chtend üch vo2 dem / der / nach dem er todet hat / ouch macht hat zewerffen inn die hell: ja ich fag üch / vo2 dem felben fo2chtēd üch. Koufft man nit fünff Sparen vm zween pfennig.

Die straße ist zu schmal für autos. Wohin fährt dieser Zug? DIE STRAßE IST ZU SCHMAL FÜR AUTOS. DIE STRAßE IST ZU SCHMAL FÜR AUTOS. DIE STRAßE IST ZU SCHMAL FÜR AUTOS. DIE STRAßE IST ZU SCHMAL FÜR AUTOS.

Die strasse ist zu schmal für autos. **Die strasse ist zu schmal für autos.** *Use c2sc for small cap Eszett:* die straße ist zu schmal für autos. **Die straße ist zu schmal für autos.** 

#### Latin

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

Adiuuanos df falutarif noster & ppt głam nominis tui dnē libanos & ppitius esto peccatis nostris ppter nomen tuum. Ne forte dicant ingentib: ubi est df eorum & innotescat innationib: corā oculis nēis.

Posuerunt mosticina seruorū ruorū escas uolatilib: celi carnes scō2 tuo2 bestiis tenice· Facti sum³ obpbrium uicinis nris·

#### Gothic

jabai auk has gasaihiþ þuk þana habandan kunþi in galiuge stada anakumbjandan, 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.

Use ss19 to produce Gothic letters automatically from transliterated text and ss20 to produce Latin letters from Gothic. Available in all four faces.

GABAI ANK OAS FASAIOIŲ ŲNK ŲANA HABANDAN KNNŲI IN FAAINTE STADA ANAKNMBGANDAN, NIN MIŲVISSEI IS SINKIS VISANDINS TIMKGADA DIN FAAINFATNDAM FASAAIŲ MATGAN? GABAI ANK OAS FASAIOIŲ ŲNK ŲANA HABANDAN KNNŲI IN FAAINTE STADA ANAKNMBGANDAN, NIN MIŲVISSEI IS SINKIS VISANDINS TIMKGADA DN FAAINFATNDAM FASAAIŲ MATGAN? ABFDEUZH

#### Sanskrit Transliteration

mānam dvividham viṣayadvai vidyātśaktyaśaktitaḥ arthakriyāyām keśadirnārtho 'narthādhimokṣataḥ sadṛśāsadṛśatvācca viṣayāviṣayatvataḥ śabdasyānyanimittānām bhāve dhīsadasattvataḥ

# International Phonetic Alphabet

hwan  $\theta$ at a:pril wi $\theta$  is  $\int u:r r s$  so:tr0 r0 druxt of marth ha $\theta$  pe:rsr0 to:  $\theta$ 2 ro:te and ba: $\delta$ 2 evri væin in swith liku:r of hwith vertiu endzendrad is  $\theta$ 3 flu:r hwan zefirus e:k wi $\theta$ 4 his swe:tr3 bræ: $\theta$ 

#### Greek

The Greek typeface (available only in the regular face) is based on the Greek Double Pica cut by Alexander Wilson of Glasgow in the eighteenth century. It is not really suitable for setting modern Greek; those who want a more modern Greek face that harmonizes well with Junicode should consider GFS Didot Classic or GFS Porson.

βίβλος γενέσεως ἰησοῦ χριστοῦ υἰοῦ δαυίδ υἰοῦ ἀβραάμ. ἀβραὰμ ἐγέννησεν τὸν ἰσαάκ, ἰσαὰκ δὲ ἐγέννησεν τὸν ἰακώβ, ἰακώβ δὲ ἐγέννησεν τὸν ἰούδαν καὶ τοὺς ἀδελφοὺς αὐτοῦ, ἰούδας δὲ ἐγέννησεν τὸν φάρες καὶ τὸν ζάρα ἐκ τῆς θαμάρ, φάρες δὲ ἐγέννησεν τὸν ἑσρώμ, ἑσρώμ δὲ ἐγέννησεν τὸν ἀράμ, ἀρὰμ δὲ ἐγέννησεν τὸν ἀμιναδάβ, ἀμιναδὰβ δὲ ἐγέννησεν τὸν ναασσών, ναασσών δὲ ἐγέννησεν τὸν σαλμών, σαλμών δὲ ἐγέννησεν τὸν βόες ἐκ τῆς ἑαχάβ, βόες δὲ ἐγέννησεν

Use the Open Type feature blig and salt for old-style ligatures and alternative letter-shapes:

βίδλος γενέσεως ἰησε χρισίε υίε δαυίδ υίε ἀδραάμ. ἀδραάμ ἐγέννησεν τὸν ἰσαάκ, ἰσαὰκ δὲ ἐγέννησεν τὸν ἰακώδ, ἰακώδ δὲ ἐγέννησεν τὸν ἰέδαν καὶ τες ἀδελφες αὐτε, ἰεδας δὲ ἐγέννησεν τὸν φάρες καὶ τὸν ζάρα ἐκ τῆς θαμάρ, φάρες δὲ ἐγέννησεν τὸν ἑσρώμ, ἑσρώμ δὲ ἐγέννησεν τὸν ἀράμ, ἀρὰμ δὲ ἐγέννησεν τὸν ἀμιναδάδ, ἀμιναδὰδ δὲ ἐγέννησεν τὸν ναασσών, ναασσών δὲ ἐγέννησεν τὸν σαλμών, σαλμών δὲ ἐγέννησεν τὸν βόες ἐκ τῆς ἑαχάδ, βόες δὲ ἐγέννησεν

#### Lithuanian

Lithuanian poses several typographical challenges. An accented i retains its dot: i; and certain characters with ogonek must avoid colliding with a following j: ej ųj. Make sure Contextual Alternates (calt) is turned on; for i, use i followed by non-spacing dot accent (0307) and acute (0301).

Visa žemė turėjo vieną kalbą ir tuos pačius žodžius. Kai žmonės kėlėsi iš rytų, jie rado slėnį Šinaro krašte ir ten įsikūrė. Vieni kitiems sakė: Eime, pasidirbkime plytų ir jas išdekime. – Vietoj akmens jie naudojo plytas, o vietoj kalkių – bitumą. Eime, – jie sakė, – pasistatykime mi-

estą ir bokštą su dangų siekiančia viršūne ir pasidarykime sau vardą, kad nebūtume išblaškyti po visą žemės veidą.

#### **Polish**

The default shape and position of ogonek in Junicode are suitable for modern Polish. For the medieval Latin e-caudata, consider using ss15.

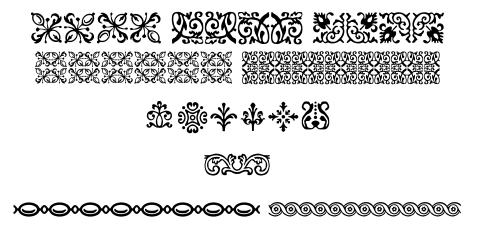
Mieszkańcy całej ziemi mieli jedną mowę, czyli jednakowe słowa. A gdy wędrowali ze wschodu, napotkali równinę w kraju Szinear i tam zamieszkali. I mówili jeden do drugiego: Chodźcie, wyrabiajmy cegłę i wypalmy ją w ogniu. A gdy już mieli cegłę zamiast kamieni i smołę zamiast zaprawy murarskiej, rzekli: Chodźcie, zbudujemy sobie miasto i wieżę, której wierzchołek będzie sięgał nieba, i w ten sposób uczynimy sobie znak, abyśmy się nie rozproszyli po całej ziemi.

#### Czech

Special care has recently been taken to improve handling of Eastern European languages. The developer solicits suggestions for further improvement.

Pojďme do Betléma a přesvědčme se o tom, co nám anděl oznámil. Mojžíšův Zákon přikazoval, aby každá žena čtyřicátý den po narození chlapce přinesla oběť do chrámu. Pojďme do Betléma a přesvědčme se o tom, co nám anděl oznámil. Mojžíšův Zákon přikazoval, aby každá žena čtyřicátý den po narození chlapce přinesla oběť do chrámu. Pojďme do Betléma a přesvědčme se o tom, co nám anděl oznámil. Mojžíšův Zákon přikazoval, aby každá žena čtyřicátý den po narození chlapce přinesla oběť do chrámu. Pojčme do Betléma a přesvědčme se o tom, co nám Apřesvědčme se o tom, co ná

### **Fleurons**



# OpenType Features

Following is a list of the OpenType features in Junicode. For instructions on applying OpenType features, consult the documentation for your preferred application. Note that you should turn on the following features, if they are not on by default: liga (Standard Ligatures), ccmp (Glyph Composition/Decomposition), calt (Contextual Alternates), kern (Horizontal Kerning).

## Standard Ligatures (liga)

Like many old-style fonts, Junicode contains the most common fligatures (first flight offer office afflict fjord) and some that are less common (e.g. thrift fifty afraid für fördern). It also has long-s ligatures (e.g. affert flart flick omiffion).

## Glyph Composition/Decomposition (ccmp)

A base character followed by one or more combining diacritical marks is replaced with a precomposed character when that would look different from the character + diacritic sequence: for example A + U+301 makes  $\acute{A}$ , where a special upper-case form of the diacritic is used.

# Contextual Alternates (calt)

When this feature is on (as it should be by default), Junicode will avoid unsightly collisions between neighboring characters such as f and vowels with diacritics, e.g. fêler fíf ful. If you find that f collides with some

other character, you can select the narrower f via the OpenType salt feature.

### Stylistic Alternates (salt)

This feature gives you direct access to a number of alternates that are available via other features. Some of these (for example the narrow f) may be useful to avoid collisions that the font designer has not anticipated. In Greek script, alternative letter shapes should be accessed via salt: e.g.  $\beta \delta \gamma \int \rho e^{-\gamma} \phi \Phi$ . It may be necessary to set the script to Greek explicitly to access Greek alternates.

### Kerning (kern)

Junicode uses class-based kerning. A few applications are unable to use it.

# Discretionary Ligatures (dlig)

This feature will give you fancy ligatures, e.g. act star track bitten attract, and also connected Roman numbers (I II III IV V VII VIII IX X XI XII). Use it also for circled numbers and letters: [1] = (1); [A] = (A); [a] = (a); [a] = (1); [A

## Historical Ligatures (hlig)

Nearly all of MUFI's ligatures are accessible via "Historical Ligatures" (hlig). Even if you are not a medievaist, you may still be amused by the strange effects you can achieve by turning on this feature: egg track caught fan sock book save ardvak chaos Al Al Al. This feature will also permit you to access a large number of historical Greek ligatures that appear in the Foulis Homer, e.g. ἐφθίμες ἐτελείε διας ήτην μάχεθαι χρώσμη. You may have to set the script to Greek explicitly to access Greek historical ligatures.

### Mark Positioning (mark and mkmk)

Where no precomposed character is available, combining marks should still be correctly positioned, and marks can be "stacked" via "Mark to Base" (mark) and "Mark to Mark" (mkmk):  $\acute{o}$  (o + U+306 + U+301);  $\breve{i}$  (i + U+304 + U+306). The dot of an i or j followed by a diacritic will generally be removed:  $\breve{i}$ . If your application supports these features, they are probably on by default.

### Small Capitals (smcp and c2sc)

Use "Small Caps" (smcp) to change lower-case letters to small caps; add "Caps to Small Caps" (c2sc) for text entirely in small caps. Junicode has true small caps rather than scaled capitals. Special small cap versions of common combining diacritics are available, and these should be positioned correctly relative to the base characters: Äçé. *Regular face only*.

# Old-Style Numbers (onum)

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

## Superscripts and Subscripts (sups, subs)

Superscript numbers are rendered with "Superscripts" (sups): 0123456789. Subscript numbers are rendered with "Subscripts" (subs): 0123456789. In the regular and italic styles there is a complete alphabet of superscripts (e.g. abcxyz).

# Fractions (frac)

A sequence of number + slash + number is rendered by a fraction if the fraction has a Unicode encoding and this feature is on: ½ ¼ ¾ ¾.

### Letters with flourishes (swsh)

For letters with flourishes (sometimes used for setting Middle English texts), use "Swash" (swsh): ca da fa ga ka nd r. Some capital swashes are also available in the italic face, based on those in Hickes's *Thesaurus*: ADFQAE.

### Mirrored runes (rtlm)

In the regular face Junicode contains mirrored versions of runes. To access these, use Right-to-Left Mirroring (rtlm): † 131914 MM.

### Greek letters in IPA (mgrk)

Greek  $\beta$  and  $\theta$  are needed for phonetic work, but the Greek of Junicode does not harmonize with other characters in the IPA range. To solve the problem, use mgrk:  $\beta\theta$ . Alternatively, both characters are available in the Private Use Area: U+F701, U+F702.

# Nordic letter-shapes (ss01)

The default shape of  $\delta$  and  $\beta$  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):  $\delta \beta$ .

## Insular letter-shapes (ss02)

Use "Style Set 2" (ss02) for insular letter-forms: abcdept. Turn off "Standard Ligatures" (liga) for best results.

# Overlined characters (ss04, ss05)

Use "Style Set 4" (ss04) for roman numbers with high overline ( $\overline{\text{viii}}$   $\overline{\text{XCXV}}$ ) and "Style Set 5" (ss05) for lower-case roman numbers with

medium-high overline ( $\overline{viii}$  dcl $\overline{x}$ ). These Stylistic Sets will work only with letters used in Roman numbers.

### Enlarged minuscules (ss06)

"Style Set 6" (ss06) produces enlarged minuscules, thus: abcdefg. Since the underlying text remains unchanged, enlarged text can be searched like normal text.

### Deleted text (ss07)

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" (ss07).

## Alternate yogh (ss08)

For Middle English, always use the yogh at U+021C and U+021D (3<sub>3</sub>). 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" (ss08): 3<sub>3</sub>.

## Retired letter-shapes (ss09)

The design of a few Junicode characters has changed since the font was introduced. The original designs, if you prefer them, will always be available via "Style Set 9" (ss09). Currently there are just a few such alternates: o for o, T for T, T for T.

## Letters with hook above (ss14)

The Unicode standard contains several precomposed characters with combining hook above in the Latin Extended Additional range (e.g. ÅÖ). These are used automatically when a vowel is followed by the

diacritic U+0309. However, MUFI contains a series of precomposed characters in which the hook differs in shape and position. Use "Style Set 14" (ss14) for the MUFI characters (e.g. ÅO).

### E caudata (ss15)

Medieval Latin texts often use an *e* with tail, called *e caudata*; this represents Latin *ae* or *oe*. Polish, Lithuanian, and several other languages also use this letter. While in modern editions of medieval texts the *cauda* (or in Polish, the *ogonek*) is often attached to the very bottom of the letter, in modern Polish and Lithuanian printing it is attached to the end of the bottom stroke: Polish ę, medieval Latin ę. The modern Polish version of the letter is acceptable for medieval Latin; however, if you prefer a centered *cauda*, use "Style Set 15" (ss15).

## Old-Style Punctuation (ss18)

Old books generally set extra space before the heavier punctuation marks (; :!?); they also leave extra space inside quotation marks and parentheses (e.g. "here"). For a similar effect, use Stylistic Set 18 (ss18). Make sure that Contextual Alternates are also on so that Junicode can correct the spacing in certain environments (but you will have to kern the English plural possessive apostrophe manually).

## Latin-to-Gothic Transliteration (ss19)

As transliteration of Latin to Gothic characters is straightforward, it can easily be handled with OpenType features. Note that the Gothic alphabet has no distinction between upper- and lower-case, so capitals and lower-case letters are transliterated the same way: Μλητελί syeψληη βλη ίνη μλης λείκ.

#### JUNICODE 17

# Gothic-to-Latin Transliteration (ss20)

The same as ss19, but in reverse. It produces all lower-case letters. Thus γλλς nn γλς mais φans syesyamma becomes 'gadob nu was mais þans sweswamma'.



# Other Features

#### Treatment of Obsolete Characters

A number of medieval characters originally assigned by MUFI to the Unicode Private Use Area have been accepted into the Unicode standard. For several years Junicode retained the obsolete characters, adding a mark to warn document maintainers to reencode their documents. Beginning with version 0.7.3 obsolete MUFI characters have been removed from the font.

#### Character Protrusion

For XeLaTeX users who use the Microtype package for character protrusion, a configuration file (mt-Junicode.cfg) is provided for Junicode. Users of XeLaTeX will need Microtype version 2.5 (currently beta). The configuration file will work only with XeLaTeX, though it can probably be made to work with LuaTeX by commenting out the last five lines of the \DeclareCharacterInheritance command.

#### **Fleurons**

Junicode contains a number of fleurons (floral ornaments) copied from a 1785 Caslon specimen book. This book contains a number of examples. Fleurons may be found at these code-points: E270, E27D, E670, E67D, E68A, E736, E8B0, E8B1, EF90–EF9C, EF9F, F011, F014, F018, F019, F01B, F01D, F01E.

# Miscellanea

The Junicode font is available at http://junicode.sourceforge.net/. You can also find it in the repositories of many Linux distributions, and also via CTAN. Visit the Junicode Project Page at SourceForge 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.

### Developer

Peter S. Baker, University of Virginia

#### Contributors

Denis Moyogo Jacquerye Adam Buchbinder Pablo Rodriguez

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

This document was set with X<sub>3</sub>T<sub>2</sub>X.