

Using Junicode 2 to reproduce the abbreviations in Martin, *The Record Interpreter*, and *Statutes of the Realm*.

1. Common combining marks

A **combining mark** is a character that combines with another character (called the **base**) to form a character with accent (e.g. é) or an abbreviation (e.g. ꝑ for *prae*). Unicode and the Medieval Unicode Font Initiative (MUFI) offer code points for many precomposed combinations of base + combining mark, but it is also possible to place any mark over any base character by entering first the base and then the combining mark. It is also possible to place a combining mark over another combining mark. For example, to produce q̄, enter this sequence: q (U+0071) + U+0363 + U+0304.

Junicode 2 contains many variants of combining marks: for example the curly zigzag Ϳ is a variant of Unicode's angular zigzag Ϳ (U+035B), produced by applying the OpenType feature **cv81[2]** to **both the base character and the combining mark**. Sometimes the combination of base + combining mark + OpenType feature will not produce the desired effect. When this happens, place U+034F (a special invisible combining mark, included in Unicode for exactly this purpose) between the base and the (visible) mark.

- a. For a straight stroke over any letter, use the COMBINING MACRON (U+0304):

ōnis *omnis*; oñis *omnis*; dāpna *dampna*; damp̄a *dampna*.

The combining macron can also be applied above superscripts and combining marks. Apply the OpenType feature **cv84[39]** for a narrower macron:

antiquā *antiquam*; q̄ *quam*.

For the superscript *a*, use the OpenType feature **sup**s (see r. below).

- b. For a straight stroke through a tall letter, use the COMBINING SHORT STROKE OVERLAY (U+0335): f̄ d̄ l̄. But Unicode also has precomposed versions of d, l and other characters with stroke, e.g. đ (U+0111), ł (U+019A).

- c. For ~ above any character, use the COMBINING TILDE (U+0303):

ā *ac*, *apud*; ā *alias*.

dñs *dominus*; carīna *carmina*; f̄cis *factis*.

pōita *posita*.

- d. For ~ through a vertical stroke, use the TILDE OVERLAY (U+0334): **ḧ ḥ** (U+0303 would be positioned above the letter, e.g. **ĩ, ð**).
- e. For the tilde positioned above two letters, use COMBINING DOUBLE TILDE (U+0360) between the letters. It is automatically repositioned to clear tall characters: **ṽ ṽ ḏ ṽ ṽ**. The same is true of DOUBLE BREVE (U+035D) **ḿ ḿ**, DOUBLE MACRON (U+035E) **ṁ ṁ**, DOUBLE INVERTED BREVE (U+0361) **ṡ ṡ**, and DOUBLE CIRCUMFLEX (U+1DCD) **ṛ ṛ**.
- f. The figure used to represent *er* (and other similar combinations) is a common medieval abbreviation which takes many forms. The semantically correct Unicode character is the COMBINING ZIGZAG (Ṿ, U+035B), but the best match in Junicode 2 for the figure as it appears in the *Record Interpreter* and the *Statutes* is a gothic variant of this, which MUFI encodes as U+F1C8 (the curly form zigzag). However, because for technical reasons many applications will not position the MUFI character correctly over the base, that code point should be avoided. The best way to access this variant is to apply **cv81[2]** to U+035B, as here:

deṽe debere; inṽ inter; frū ferrum; gṽo generatio; pṽ; prae; serṽe servire.

The curly form of the combining zigzag may be attached to any letter, and it may change shape depending on the letter it is attached to (including caps, for which use the **case** feature, and small caps: **Ṽ Ṽ Ṽ Ṽ**).

- g. All letters a–z, and several others too, have combining forms. You must access these via their code points or Junicode’s special entity references. For details, see the document *Di-acritics_guide.pdf*.

q̇ quo; q̇ qui; quatt̃ quattuor.

2. Spacing characters

- h. The symbol for *is*, *es* and a number of other abbreviations is the IS-SIGN (U+A76D):

forʃ foris; om̃ʃ omnes; 9tʃ competentes; infʃ infortunium.

- i. There are two characters for *-us* in Unicode: SPACING US U+A770 (do not confuse this with CON U+A76F) and COMBINING US U+1DD2. The *Record Interpreter* and *Statutes* appear to use only the spacing character:

iṗiʳ ipsius; ũsʳ uersus; pʳtea postea; pʳ post.

- j. The three-like sign is the ET SIGN (◌₃, U+A76B, also used for *us*—do not confuse this with Middle English yogh: ȝ, U+021D):

quib₃ *quibus*; lic₃ *licet*; s₃ *sed*.

- k. For *-rum* the Unicode RUM ROTUNDA (U+A75D) is like the one in MUFJ/Junicode. The one in the *Record Interpreter* and *Statutes* is a late stylized version of this. Use U+A75D and apply OpenType feature **cv80** to obtain the correct shape:

aīaꝛ *animarum*; coꝛꝑere *corrumpere*; beatoꝛ *beatorum*.

- l. For *cum*, *con*, etc. use SMALL LETTER CON (U+A76F):

ꝑꝑꝑꝑꝑ *computus*; ꝑa *contra*; ꝑnouit *cognouit*.

- m. For *per* (or sometimes *par* and other similar sequences), use P WITH STROKE U+A751:

ꝑsōa *persona*; ꝑꝑet *comparet*.

- n. For *pro*, use P WITH FLOURISH U+A753:

ꝑꝑꝑꝑꝑ *proceres*.

- o. For *prae*, *præ*, *pre*, there is no separate character; use a variant of the ZIGZAG (f. above) with **p**:

ꝑꝑꝑꝑꝑ *praesens*.

- p. For **q** with stroke through the descender, there are two Unicode points: U+A757 for a straight stroke, and U+A759 for a diagonal stroke (the *Record Interpreter* appears to use only the former, and neither is listed among the *Statutes* abbreviations):

ꝑ ꝑꝑꝑꝑꝑ; ꝑꝑ ꝑꝑꝑꝑꝑ; ꝑꝑꝑ ꝑꝑꝑꝑꝑ.

- q. For *quae*, *que*, use **q** followed by ET (U+A76B) with or without **hlig**: **ꝑꝑ ꝑꝑꝑ**. For the semi-colon-like ET sign (**ꝑꝑ;**), use **cv83[1]**; for the subscripted version (which can also form a ligature via **hlig**), use **cv83[2]**: **ꝑꝑ ꝑꝑꝑ**.

- r. All of the letters a–z are available in superscript form. Access with the **sup**s OpenType feature:

ꝑꝑꝑꝑꝑ *quos*; ꝑꝑꝑꝑꝑ *circulo*; ꝑꝑꝑꝑꝑ *capituli*.

The basic Latin letters a–z have anchors that allow you to position combining marks over them (see a. above)

- s. Tironian ET sign ꝛ U+204A, cap Ꝛ U+2E52. With `cv69[1]` ꝛꝚ; with `cv69[2]` ꝛꝛ.
- t. For *est*, use ÷ U+223B HOMOTHETIC. Use of a mathematical sign for this purpose is not ideal, but Unicode offers no better solution.
- u. For *tz* (Old French), use z U+01B6 Z WITH STROKE.

3. Other formatting

- v. For underdotted text, use Stylistic Set 7, Underdotted. For letters that lack an underdotted form, use U+0323 COMBINING DOT BELOW.

4. Junicode on the web

Because Junicode is a very large font, web pages should use a subsetted version to speed loading. The process of making a subsetted font is explained in the Feature Reference. The variable version of the font is better for web use than the static fonts, since one variable font file can do the work of many static font files.

All major web browsers (Firefox, Chrome, Safari, Edge) are capable of accessing all of Junicode's characters via OpenType features, use of which promotes accessibility and searchability. When building a web page, study which features will be needed and write them into the appropriate element or class definition of the page's CSS style sheet. For example, if you use the curly form of the zigzag (U+035B) anywhere, you are likely to want it everywhere, and so it should be included in the CSS styling for the `<body>` element:

```
body {
  font-family: Junicode;
  font-feature-settings: "cv81" 2;
}
```

But the **hlig** feature, if applied to the whole text, will produce many unwanted effects, so it should be included in a class definition to be used in a `` applied just to the target sequence:

```
.que {
  font-feature-settings: "hlig" on;
}
filio<span class="que">q3</span>
```

The illustrations here use the low-level CSS `font-feature-settings` property. There are higher-level properties for some OpenType features, but as these are not (yet) universally

supported by browsers, and some implementations are buggy, it is best to stick with font-feature-settings for now.

For the purposes addressed in this document, the font-feature-settings for the <body> element should probably be as follows:

```
font-feature-settings: 'cv69' 2, 'cv80' 1, 'cv81' 2;
```

And the following classes should be defined:

```
.super {  
  font-feature-settings: 'sups' on, 'cv84' 39;  
}  
.que {  
  font-feature-settings: 'hlig' on;  
}  
.deleted {  
  font-feature-settings: 'ss07' on;  
}
```