0. Summary. This proposal requests the encoding of three new casing letters used in medieval European texts. If this proposal is accepted, the following characters will exist:

\[ \gamma \] \text{A7F0} \quad \text{LATIN CAPITAL LETTER TIRONIAN ET}
\[ \vargamma \] \text{A7F1} \quad \text{LATIN SMALL LETTER TIRONIAN ET}
  
  - Old and Middle English, …
  
  → 204A tironian sign et
\[ \varepsilon \] \text{A7F2} \quad \text{LATIN CAPITAL LETTER TIRONIAN ET WITH HOOK}
\[ \varv \] \text{A7F3} \quad \text{LATIN SMALL LETTER TIRONIAN ET WITH HOOK}
  
  - Middle English, Latin, …
\[ \varv \text{CF} \] \text{A7F4} \quad \text{LATIN CAPITAL LETTER TIRONIAN ET WITH HOOK AND STROKE}
\[ \varepsilon \text{CF} \] \text{A7F5} \quad \text{LATIN SMALL LETTER TIRONIAN ET WITH HOOK AND STROKE}
  
  - Middle English, Latin, French, …

1. Background. A punctuation character chiefly for Irish use was added in Unicode 3.0 in 1999. Its current entry in the standard reads:

\[ \gamma \text{CF} \] \text{204A} \quad \text{TIRONIAN SIGN ET}
  
  - Irish Gaelic, Old English, …
  
  → 0026 & ampersand
  
  → 1F670 \text{ CFR} \text{ script ligature et ornament}

A variety of medieval English manuscripts across a number of centuries treat the Tironian sign as an actual letter of the alphabet, and case it when in sentence-initial position. Modern transcribers of documents containing these letters have distinguished them as casing, sometimes using the digit 7 as a font workaround. The original simple two-stroke shape of the character \[ \gamma \] as used in the Insular tradition (for Irish and Old English) was replaced by Carolingian character with a hooked base \[ \varv \], which had a range of glyph variants including a long extension of the top-bar descending to the left
and sometimes even encircling the glyph. Yet another modification of the Carolingian character has
the same basic hooked form but with a strong horizontal stroke through it ε; this may or may not
have the long leftward extension, or it may have a very short top stroke entirely. Perhaps it is the
ancestor of the + sign. It may occur alongside the hooked form without the horizontal stroke. Modern
editors and publishers regularly distinguish the he Insular, hooked, and hooked-with-stroke charac-
ters even in a single publication. This is a simple plain-text distinction which cannot be represented
in the UCS at present.

2. Option 2: Property changes for U+204A. One option for dealing with these character additions
would be not to add a new LATIN SMALL LETTER TIRONIAN ET, but rather to change the property of
U+204A from “Other Punctuation” to “Lowercase Letter”. We give below the changes which would
be needed in that case for such a proposal to be successful. The current property values for U+204A
are:

```
gc=Po, Other_Punctuation
ccc=0, Not_Reordered
bc=N, Other_Neutral
lb=AL (Alphabetic)
Mirrored=No
Script=Common
Grapheme_Base=Y [derived]
```

Proposed property values for U+204A are:

```
gc=Ll, Lowercase_Letter
ccc=0, Not_Reordered
bc=L, Left_To_Right
lb=AL (Alphabetic)
Mirrored=No
Script=Latin
Changes_When_Uppercased=Y [derived]
Alphabetic=Y [derived]
Changes_When_Titlecased=Y [derived]
Lowercase=Y [derived]
Grapheme_Base=Y [derived]
Changes_When_Casemapped=Y [derived]
Cased=Y [derived]
```

With regard to the Pattern_Syntax value, it is True for U+204A because it is in the General Punctua-
tion block. This value cannot be changed due to stability policy. Because of the Pattern_Syntax value
for U+204A, even after the change of General_Category to Ll, U+204A will not be usable in
identifiers.

2.1. Pros for Option 2. This alternative leaves the punctuation character alone, to let users continue
to use it as they have been for many years, and adding new characters for the case-pairing letter-
usage now known to be attested for medieval specialists. Preliminary feedback has suggested that
some implementers may be uncomfortable changing the category of the existing character.

2.2. Cons against Option 2. The disadvantage to not changing the properties of the existing
character is that there would be two characters in the standard that would look similar and have
similar usage: γ TIRONIAN SIGN ET and γ LATIN SMALL LETTER TIRONIAN ET. But it should be noted that
the standard already lives with U+0021 ! EXCLAMATION MARK and U+01C3 ǃ LATIN LETTER
RETROFLEX CLICK and this evidently causes no insurmountable trouble.

3. Option 3: Add a non-casing capital version of U+204A. This option has been discussed with
some members of the user community and they consider it no option at all. Letters are letters, and
casing letters need to behave correctly and automatically. We can live with two new casing Insular TIRONIAN ET characters for medievalist use alongside an existing invariable punctuation character for modern Irish use. We can live with changing the properties of U+204A and adding its capital equivalent. We see no genuine technical argument against either of those options. This Option 3 is just a hack which will leave the medievalist community unable to use this letter in the same way we use other abbreviation letters. There is no advantage to us for that, and we see no actual danger to vendors of either of our two preferred options.

4. Usage and distribution. These characters are typically used to represent the Latin or French word et, the Old English word ond, and the Irish word agus, all of which mean ‘and’. In Irish only the paradigmatic Insular glyph γ is used—by modern Irish users, not just by medievalists—and the hooked glyphs and barred glyphs of ꟲ and ꟳ are unknown in Ireland and simply would not be recognized by anyone. Unification of the hooked characters with or without bars would result in illegibility in Irish texts (and public signage), and is therefore inappropriate. It is also anachronistic; see 4.1 below.

Medieval Irish manuscripts also make specific alphabetic use of the Tironian sign. The phrase nó ro-fetatar connachta ‘or the Connachtmen found out’ could be written in a manuscript as:

\[ ꧉ rofꜱatq ꡬa \]

here I Latin vel ‘or’ is used for Irish nó ‘or’, the Tironian sign γ is used for et, q is used for ar (as it is on its own in the preposition ‘on’), ɔ is used for conn (= coṁ), and ꡬ Latin sed ‘but’ is used for Irish acht ‘but’. It should be noted that this string could be capitalized, but capitalization can be achieved correctly only if the Tironian sign is encoded as a casing letter:

\[ ꧉ ROFꜱATQ ꡬA (not ROFꜱATQ) \]

Just as significant, however, is the distinction university presses like Oxford and Cambridge have made of the three letters, particularly where discussion the provenance and age of a manuscript in palaeographic studies is relevant. Glyphic variation in the hooked glyphs includes swash forms like ꡲ and ꡳ (both forms occurring also with the horizontal stroke), or like ꡂ, but modern editors do not distinguish these from the regular hooked glyphs without swash.

4.1 Etymology of the characters in the Insular and Carolingian traditions. Some observers may suggest that the hooked characters could be considered glyph variants of the Tironian sign. This would not be correct. The original Tironian sign was borrowed into the Insular scribal tradition, but it was also borrowed into the Carolingian, the Beneventan, and other scribal traditions throughout Europe. The correct analogy between Insular ꧉ and the Carolingian ꡲ which came to England with the Normans is the same as that between Insular ꡲ and Carolingian Gg. And the distinction between ordinary ꡲ and barred ꡳ is one of tradition as well. It is notable that we see the barred form used for the local language (and in Figures 13 and 14) but the unbarred form used for the Latin et in the abbreviation ꡲ ‘etc.’ (Figures 13, 14, 16). As stated above, presses like Oxford and Cambridge know to distinguish the three, and the UCS must support this practice.

5. Glyphs. A variety of glyph shapes are available for the hooked TIRONIAN ETS, as can be seen in the Figures below.
5.1. Glyphs for the hooked ets. For the reference glyphs for the non-Insular characters, we have followed the university presses and chosen a typographic hybrid of the bow of an inverted digit 2 and the crossbar of a digit 7, as shown in Figure 12: ꟲꟵ. Constructing the hooked glyphs from such pieces will usually yield an attractive glyph harmonious with the base font.

5.2. Glyphs for the Insular ets. Ever since U+204A was encoded in Unicode 3.0, many implementations of it have been seriously incorrect. The typically incorrect glyph is no more than an x-height down-and-left right angle, as in Lucida Grande ꟱. The correct shape has a slightly thicker horizontal at x-height, often slightly bowed downwards, and with a thinner vertical going down to the descender length of the letter p, usually offset towards the left from true vertical by one stem thickness. This is the quintessential Irish punctuation mark. For the Insular LETTER ET, we have retained the crossbar of a font’s digit 7, but with the same thinner vertical as for the Insular punctuation et. The distinctions are subtle, but in good typography it is not difficult to distinguish a digit 7 from the punctuation and from the letter ets.

6. Identifiers. As the characters proposed here are historical characters, we expect that none of these six characters would be required in IDNA identifiers.

7. Ordering. The Old English alphabet was formally ordered by Byrhtferð in the year 1011 for the purposes of numerology. His alphabetical order included both AMPERSAND & and the TIRONIAN SIGN ȝ.

A B C D E F G H I K L M N O P Q R S T V X Y Z & ȝ Æ

Today’s default UCS order is somewhat different. The ȝ TIRONIAN SIGN ET is ordered as punctuation, after & AMPERSAND:

… / < \ & < ȝ < # < % … 

Since the Tironian marks are related in a certain sense to some of the Latin abbreviation letters, it seems sensible to put them, interfiled, between Norse Y VEND (which derives from Þ WYNN) and ȝ LATIN LETTER ET:

A << (Æ) < B < C < D << D << E < F < G < H < I < J < K < L < M < N < O < P < Q < R < S < T < U < V < X < Y < Z < Þ < Y < ȝ <<< ȝ <<< ȝ <<< ȝ <<< ȝ <<< ȝ <<< ȝ <<< ȝ < ȝ < ȝ < ȝ …

7. Unicode Character Properties. Character properties are proposed here.

8. Bibliography


Figures.

Figure 1. Old English text, “The Ormulum”, written early 13th century, Oxford Bodleian Library, Junius MS 1, fol. 3r. At the beginnings of sentences the letters A, I, V, Þ, and Þ are given alongside capital ȝ. The Ormulum is written in a very precise orthography and is an extraordinarily important source of our knowledge of Middle English pronunciation. From Wright 1960, Plate 2.

Figure 2. Old English text, “The Ormulum”, written early 13th century, Oxford Bodleian Library, Junius MS 1, fol. 3r. In this transcription a distinction between capital ȝ and small ȝ has not been made, likely due to typographic constraints. From Wright 1960, Plate 2.
Figure 3. Latin and Old English text, “The Gifts of Bishop Leofric”, written early 13th century, Exeter Cathedral Library, MS 3501, fol. 2r. At the beginnings of sentences the capital ȝ can clearly be seen. (There are other examples of this in the manuscript as well.)

Figure 4. Transcription of the Bishop Leofric text from Conner 1993. Here, with ȝ-shaped glyphs lowercase ȝ and uppercase ȝ are distinguished.

Figure 5. Transcription of another MS containing the Bishop Leofric text, from an edition of the Anglo-Saxon charters. Here both lowercase ȝ and uppercase ȝ are clearly distinguished.

Figure 6. Translation of the text in Figure 5.
Figure 7. Middle English text, “Vices and Virtues”, written c. 1200, British Museum, Stowe MS 34, fol. 20r. Here the early Carolingian hooked form of ꟈ TIRONIAN ET WITH HOOK can be seen; not Carolingian long s/j and g as well. From Wright 1960, Plate 3.

‘VICES AND VIRTUES’, the earliest of all Middle English dialogues, composed in the Essex dialect, about A.D. 1200.

Written about A.D. 1200.

Vellum: 22 x 16 cm.

A vigorous, individualistic hand closely related to the court-hand of the time.

Note. The vertical stroke of the a is normally now brought well up but some examples preserve hint of the insular a (†); a remarkable form of e is used, the e being superscript and linked to the top part of the vertical of the a; long s appears throughout; continental f and r are now normal; after a the 2-form of r is used; 'yogh' (γ) still preserves in its angularity traces of its origin in the insular g (♂); hard g is represented by what is now to be the normal form; the insular or uncial d (δ) is used; j and θ are used; p and φ are clearly differentiated; e and i are well differentiated, the cross-bar of the latter being firmly made (and the vertical does not yet appear above it); i has sometimes an upward slanting stroke.

Abbreviations are rare: p is used for pat and the Tironian nota for and is used (γ) in a rather elaborate form (γ); the horizontal mark of contraction is sometimes hooked at the end.

Correction is by a dot under the letter to be deleted (e.g. f in l. 12); this is normal medieval practice.

Text printed in: Vices and Virtues, ed. F. Holt-hausen (E.E.T.S., o.s., nos. 89, 159 (1888, 1921)).

Another specimen in: Pal. Soc., ser. ii, pl. 94.

Our plate shows fol. 20v.

TRANSCRIPTION

ðanne art tu rihus þa hæNE æure gode drædnesse mid þe . þ þu
ðu ne forhtes ðæt æure godes æsæ biæ uppe þæ ðæt nāþing
ne mei ðe deriž . þ his ære opene to ðune b'enæs . ðæt
næpigh he ðe ne ple ðæræn ðus ðæ ræt ðæ hale gast ðæ

Figure 8. Transcription of Figure 7, showing ꟈ TIRONIAN ET WITH HOOK. In the discussion both the forms γ and ꟈ are distinguished by the editor. From Wright 1960, Plate 3.

`${\ddot{\text{o}}} \text{de derižé . } \gamma \text{ his ea}`

Figure 9. Close-up example of the type cut for ꟈ TIRONIAN ET WITH HOOK as shown in Figure 8. Compare Figure 12; the shape there without the crossbar is also acceptable for this character.
Figure 10. Middle English text, “Chronicle of Robert of Gloucester”, written between 1300 and 1325, British Museum Cotton MS Caligula A.xi, fol. 165r. Two examples of Ꟶ [TIRONIAN ET WITH HOOK AND STROKE] can be seen. From Wright 1960, Plate 10.

sir henri de hastinges Ꟶ sir Nicole iwis.
De segle was pere inome Ꟶ as so sir peris.
✶ sir roberd Ꟶ pat sir peris Ꟶ de moutfort sones were.

Figure 11. Transcription of Figure 10. From Wright 1960, Plate 10.

Figure 12. Close-up example of the type cut for Ꟶ as shown in Figure 11.

Figure 13. Middle English text, “The Pricke of Conscience”, written 1405 by John Farnelay, British Museum Additional MS 32578, fol. 76r. In the first line Ꟶ [TIRONIAN ET WITH HOOK AND STROKE] can be seen, and in the last line Ꟶ [TIRONIAN ET WITH HOOK] is used. From Wright 1960, Plate 16.

And saus ye synsult salt grope Ꟶ afe
Als mykell m’kenes at mydday
As myndnight Ꟶ pat salt last ay
Palpabut tenebras merde scut media nocte ꟲ.

Figure 14. Transcription of Figure 13. Here the editor distinguishes both characters in his transcription. From Wright 1960, Plate 16.

Figure 15. Latin biblical text written in 1407 showing an example of Ꟶ [TIRONIAN ET WITH HOOK AND STROKE]: “gl’o₂ a uigêti ânis Ꟶ luıp oës” = “gulorum a uiginti annis super omnes”.

Figure 16. German text dated 1768 showing ꟲ in the last line in the abbreviation ꟲc. “etc.”.
Figure 17. Middle English text, “Travels of Sir John Mandeville”, written c. 1410–20, British Museum Cotton MS Titus C.xvi, fol. 60v. Here ε TIRONIAN ET WITH HOOK AND STROKE is written with an inverted breve diacritic (which can be achieved in the usual way with U+0311). As in Figure 13, the headbar of the glyph has acquired a strong downstroke. From Wright 1960, Plate 17.

Figure 18. Transcription of Figure 17. In addition to its literary and historical value, this text is important as it is a source for the names of the letters thorn (þoڑn) and yogh (ȝogh). From Wright 1960, Plate 17.

Figure 19. Middle English text, Claudian’s “De Consulatu Stiliconis”, written in 1445, British Museum Additional MS 11814, fol. 6r. Here ε TIRONIAN ET WITH HOOK AND STROKE is written with a macron (which can be achieved in the usual way with U+0304). Here the headbar of the glyph is greatly truncated. From Wright 1960, Plate 19.

Figure 20. Transcription of Figure 19. From Wright 1960, Plate 19.

Figure 21. English text, “Secrees of Old Philisoffres”, written 1469 by William Ebesham, British Museum Lansdowne MS 285, fol. 152r. Here ε TIRONIAN ET WITH HOOK AND STROKE is written with a headbar which is greatly truncated. From Wright 1960, Plate 24.

Figure 22. Transcription of Figure 21. From Wright 1960, Plate 24.
Figure 23. Chart of medievalist characters from the ninth edition (1879) of *The Court-Hand Restored*, a manual of early handwriting whose first edition was published in 1773. Here ε TIRONIAN ET WITH HOOK AND STROKE is represented with a rather clumsy glyph derived from a tilde-like swash and lowercase letter t. From Wright 1879.

Figure 24. Latin text in the Cornish play, “Origo Mundi”, written late 14th century, Bodley MS 791, fol. 6r. The text shows ε LATIN SMALL LETTER TIRONIAN ET WITH HOOK AND STROKE alongside the regular Latin word et at the end of the line.
Figure 25. Latin text in the Cornish play, “Bewnans Ke”, written late 14th century, Peniarth MS 105B, fol. 1r. The text shows ☘ LATIN CAPITAL LETTER TIRONIAN ET WITH HOOK with its headbar descending in a leftwards curl. The text reads “C ibit Keladocq fuper lapidë iterũ et manebit sedens” “Et ibit Keladocus super lapidem iterum et manebit sedens” ‘And Ke mounts the stone again and will remain seated.’

Figure 26. Latin text in the Cornish play, “Origo Mundi”, written late 14th century, Peniarth MS 105B, fol. 4r. The text shows ☘ LATIN SMALL LETTER TIRONIAN ET WITH HOOK with its headbar descending in a leftwards curl. The text reads: “Keladọ c̑ garcq̑ veniunt ad regẽ” “Keladocus et garçon veniunt ad regem” ‘Ke and the garçon go to the king’.

Figure 27. Latin text in manuscript about the English royal family written c. 1284, British Library Additional MS 24686, fol. 12r. The text shows ☘ LATIN SMALL LETTER TIRONIAN ET WITH HOOK AND STROKE with its headbar descending in a short leftwards curl. From Parkes 1993, Plate 21.
Figure 28. Latin text in J. Fisher’s **Defensio regie assertionis contra Babylonicam captiuitatem**, Cologne, written in 1525. The text shows ꟸ LATIN SMALL LETTER TIRONIAN ET WITH HOOK. From Parkes 1993, Plate 36.

Figure 29. English text in John Whitgift’s **The defense of the answere to the admonition against the reply by T[homas] C[artwright]**, London, written in 1574. The text shows Ꟶ LATIN SMALL LETTER TIRONIAN ET WITH HOOK AND STROKE with a hairline descending in a leftwards curl from its headline. From Parkes 1993, Plate 37.
Figure 30. Latin text, a commentary on Paul’s letters, written c. 1442, Oxford, Balliol College, MS 30, fol. 119v. The text shows ꟴ LATIN SMALL LETTER TIRONIAN ET WITH HOOK AND STROKE with its headbar descending in a short leftwards stroke. From Parkes 1979, Plate 24 (ii).

Figure 31. Latin text, a commentary on Paul’s letters, written c. 1442, Oxford, Bodleian Library, MS Wood Empt. 15 (SC. 8603), fol. 106r. The text shows numerous examples of ꟴ LATIN SMALL LETTER TIRONIAN ET WITH HOOK, nicely drawn with its headbar descending in a long rightwards curve. In the fourth line from the bottom there is a form ꟴ combined with U+0353 COMBINING FERMATA, which has the reading *eciam*. From Parkes 1979, Plate 3 (i).
A. Administrative

1. Title
Proposal to add six Tironian Latin letters to the UCS

2. Requester’s name
Michael Everson and Andrew West

3. Requester type (Member body/Liaison/Individual contribution)
Individual contribution.

4. Submission date
2017-10-20

5. Requester’s reference (if applicable)

6. Choose one of the following:
6a. This is a complete proposal
Yes.

6b. More information will be provided later
No.

B. Technical – General

1. Choose one of the following:
1a. This proposal is for a new script (set of characters)
No.

1b. Proposed name of script

1c. The proposal is for addition of character(s) to an existing block
Yes

1d. Name of the existing block
Latin Extended-D

2. Number of characters in proposal
6.

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)
Category A.

4a. Is a repertoire including character names provided?
Yes.

4b. If YES, are the names in accordance with the “character naming guidelines” in Annex L of P&P document?
Yes.

4c. Are the character shapes attached in a legible form suitable for review?
Yes.

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?
Michael Everson.

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:
Michael Everson, Fontographer.

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?
Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?
Yes.

7. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?
Yes.

8. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see Unicode Character Database http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.
See above.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.
No.

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?
Yes.
2b. If YES, with whom?
Peter Baker, the Anglo-Saxon discussion group ansax-l@listserv.wvu.edu, the Chaucer discussion group chaucer@listserv.uic.edu, Facebook groups for Old and Middle English. The authors are members of the user community.

2c. If YES, available relevant documents
Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Medievalists, Anglistics.
4a. The context of use for the proposed characters (type of use; common or rare)
Common in linguistic texts.

4b. Reference

5a. Are the proposed characters in current use by the user community?
Yes.
5b. If YES, where?
Various publications.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?
Yes.
6b. If YES, is a rationale provided?
Yes.
6c. If YES, reference
According to the Roadmap. Keep with other Latin characters.

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?
No.

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?
No.
8b. If YES, is a rationale for its inclusion provided?
Yes.
8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?
No.
9b. If YES, is a rationale for its inclusion provided?
No.
9c. If YES, reference

10a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?
No.
10b. If YES, is a rationale for such use provided?
Yes.
10c. If YES, reference

11a. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
No.
11b. If YES, is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
Yes.
11c. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?
No.
12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?
No.
13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?