# Universal Multiple-Octet Coded Character Set International Organization for Standardization Organisation Internationale de Normalisation <br> Международная организация по стандартизации 

| Doc Type: | Working Group Document |
| :--- | :--- |
| Title: | Proposal to add ten characters for Middle English to the UCS |
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| Status: | Individual Contribution |
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This proposal requests the encoding of four combining characters and six spacing characters used in the early Middle English Ormulum. If this proposal is accepted, the following characters will exist:

| - | 1AC1 | COMBINING TRIPLE ACUTE ACCENT |
| :---: | :---: | :---: |
|  |  | - used in the Middle English Ormulum |
| \% | 1AC2 | COMBINING LATIN SMALL LETTER INSULAR G |
|  |  | - used in the Middle English Ormulum |
| \% | 1AC3 | COMBINING LATIN SMALL LETTER INSULAR R |
|  |  | - used in the Middle English Ormulum |
| \% | 1 AC 4 | COMBINING LATIN SMALL LETTER INSULAR T |
|  |  | - used in the Middle English Ormulum |
| 5 | A7CA | Latin Capital letter closed insular g |
| , | A7CB | LATIN SMALL LETTER CLOSED INSULAR G |
|  |  | - used in the Middle English Ormulum |
|  | A7CC | Latin Capital letter double thorn |
|  | A7CD | LATIN SMALL LETTER DOUBLE THORN |
|  |  | - used in the Middle English Ormulum |
|  | A7CE | Latin Capital letter double wynn |
| $B$ | A7CF | LATIN SMALL LETTER DOUBLE WYNN |
|  |  | - used in the Middle English Ormulum |

The early Middle English Ormulum, composed in the 12th century, is of extraordinary importance to the study of the history of the English language because its author, Orm, who signed as Orrm and Orrmin, devised an orthography for English which expressed distinctions between long and short vowels, and expressed precise distinctions between certain consonants. His orthography is remarkable in its accuracy; it precedes more formal phonetic analyses by centuries. Though the work has some lacunae, it consists of over 20,000 lines of verse; the metrical nature of the work also
assists in our understanding of the phonology of this dialect of Middle English. The edited text was published in White and Holt 1878, but their transcription partially normalizes Orm's own scribal conventions and prevents the more comprehensive analysis of his orthography that a palaeographic reading can provide. The manuscript also contains numerous passages in Latin, and the scribe (who was Orm himself) used two distinctive styles of writing for each. When writing Latin, Orm uses a Carolingian hand with numerous signs of abbreviation and with a number of standard ligatures. He does not use these ligatures in his Middle English text, which is written in Insular script and is quite distinct from the standard Latin hand and orthography. It is for this reason that the palaeography of Orm's orthography is both interesting and important. A palaeographic edition is being prepared, and in the preparation a number of characters missing from the UCS have been identified, The missing characters are proposed for encoding here.

1. Combining triple acute accent. Orm's orthography marks vowels with three kinds of diacritics, drawn as a slightly angled straight line, two of those stacked, and three of those stacked. In modern orthography it is quite convenient to unify the first of these with U+0301 combining acute accent and U+030B combining double acute accent; the third one is proposed for $\mathrm{U}+1 \mathrm{ABF}$ combining triple acute accent. The specific meanings of all three of these accents is (as usual in Old and Middle English manuscripts) slightly uncertain, but they are clearly distinct and the missing one needs to be added to the UCS. Dickens and Wilson (1952:82) have suggested that readers trained in Latin might assume a short vowel before a single final $-t$, and that Orm's accents were a reminder to pronounce. A comprehensive study of the distribution of these accents in the Ormulum has not been completed; certainly encoding the COMBINING TRIPLE ACUTE ACCENT will help such study. A similar set of spacing characters exists in the UCS: U+2032 ' prime, U+2033 " double PRIME, and U+2034 ${ }^{\prime \prime}$ ' TRIPLE PRIME. It should be noted that single and double acutes in early English manuscripts are drawn with a somewhat less intense slope than the modern ACUTE ACCENT is, but the unification with the modern character is conventional, though in the examples in Figures 1 and 2 below they appear stacked rather than side-by-side; they are a bit more accent-like in the actual manuscript as shown in Figure 3. SC2 and the UTC should not encode "semi-sloped stacking macrons" for this character (they are distinct from either combining macron and combining OVERLINE).

## áa̋ a̋ é e e" e" ó ő ő

2. Combining insular g, insular r, and insular t. Orm's orthography marks short vowels in two ways: by following the vowel with two consonants, and by following the vowel with a consonant topped with a smaller identical consonant. This sort of combining-character convention is normal in the medieval period. Compare two Middle Cornish spellings for "Crist" 'Christ':

## crift cift

In a few some cases the stack is replaced by a full "double letter" (see $\S 4$ below). These are not standard fancy-text ligatures, however: they are as distinctive in terms of Orm's orthography as the letters surmounted by smaller letters, and in Orm's English orthography he does not use any of the standard ligatures which he uses when he writes Latin. In fact, when the COMBINING OVERLINE is used to abbreviate $m$ and $n$, he even doubles that to indicate a short vowel (so $\overline{\overline{\mathrm{e}}}$ is emm or enn). In terms of the UCS, most of the letters can be encoded with a base letter and an existing combining character above.

## 

Three of the combining characters are missing from the UCS. See Figures 4 and 5.

$$
\text { S } \mathfrak{j n c}
$$

3. Insular g, closed insular g, and carolingian g. Orm's orthography is remarkable in that it indicates three different reflexes of original $/ \mathrm{g} /$. Orm uses InSULAR G ( 5 ) for $/ \mathrm{j} /$ (this is the ancestor of yogh 3), as in ̧iff 'if' [jiff]; a unique CLOSED INSULAR G of his own invention for $/ \mathrm{g} /$, as in Joddspell 'gospel' ['godspel]; and Carolingian G for/d3/, as in seggen (Old English secgen) 'to say' ['sedzən]. The second of these has not been encoded. See Figures 6 and 7.

## 

4. Double wynn and double thorn. The two runic borrowings into Insular script, wynn $\mathfrak{p p}$ and THORN Pp , get special treatment in Orm's orthography. Instead of trying to squeeze a combining letter atop (in order to indicate a short vowel), Orm devised double letters where the two bowls share a single vertical stem: as in $\beta \beta$ and $B \beta$. These letters are extremely frequent throughout the manuscript (DOUBLE THORN being the more frequent). Orm writes pik as easily as he writes pipp 'with', and trobpe as easily as tropppe 'belief'. He does not write a *COMBINING thorn over p or a *Combining wynn over $\mathfrak{p}$; neither of those combining characters is encoded and neither is required for the Ormulum. See Figures 3, 7, and 8 (they are not marked in Figure 7).

## PpBpDpß

5. Tironian et. For the use and casing of the tironian et in the Ormulum, see N5042 (L2/19-172).
6. Capitalization. Capitalization in Orm's manuscript is quite rigorously applied at the beginning of every verse. In fact as the manuscript is really rather cramped, the capitalization provides an important cue to reading the text-particularly on those folios where there are lacunae in the text. As with other palaeographic letters encoded in Latin Extended D, the casing forms are proposed here, both for the representation of the medieval manuscript itself and in terms of the normal use a modern scholar might make of such characters in ordinary publication:

> Reflexes of the voiced velar in the Ormulum: ऽiff, godd, and seggen.
> Reflexes of the voiced velar in the Ormulum: sIff, sodd, AND Seggen. REFLEXES OF THE VOICED VELAR IN THE ORMULUM: SIFF, SODD, AND SEGGEN.

> Marking short vowels in the Ormulum: pipp and pib; tropppe and troßbe.
> MARKING SHORT vOWELS IN THE ORMULUM: pIpp AND pIB; TROpppe And TROBDE. MARKING SHORT VOWELS IN THE ORMULUM: pIPP AND PIB; TROPpPE AND TROBPE.
7. Glyphs. A variety of glyphs can be used to represent the INSULAR G. Some look z-like, some 3like, some have a closed circular counter $\zeta$, and some-the most iconic and common-look more Slike, without a closed counter. Orm uses the S-like glyph for both his $/ \mathrm{j} / \mathrm{and} / \mathrm{g} /$ letters. A glyph for his /g/ having two closed counters does not look right. For consistency in the UCS, we recommend that the following glyphs be used for A77D, 1D79, A77E, A77F, A7CA, and A7CB:

## S5SS S §

8. Ordering. We recommend the following.

$$
\begin{aligned}
& \ldots \mathrm{g} \ll \mathrm{G} \ll \ldots \ll \mathrm{~J} \ll \delta \ll \mathrm{~J}<\mathrm{g} \ll \mathrm{~g}<\mathrm{g} \ll \mathrm{~S}<\mathrm{g} \ldots \\
& \ldots \mathrm{r} \ll \mathrm{R} \ll \ldots \ll \mathrm{n} \ll \delta \ll \boldsymbol{n}<\boldsymbol{\beta} \ldots \\
& \ldots \mathrm{t} \ll \mathrm{~T} \ll \ldots \ll \tau \ll \bar{\zeta} \ll \boldsymbol{\tau}<\mathrm{T}<\mathfrak{t} \ll \text { Ғ ... } \\
& \ldots \mathrm{p} \ll \mathrm{p}<\mathrm{p} \ll \mathrm{\Phi}<\mathrm{p} \ll \mathrm{P}<\mathrm{p} \ll \mathrm{P}<\mathrm{B} \ll \mathrm{~B}<\mathrm{p} \ll \mathrm{p}<\mathrm{\beta} \ll \boldsymbol{\beta} . .
\end{aligned}
$$

Actually we would also prefer an alteration be made for the base form of the Insular letters (moving them out of their current base letters, and after them):

$$
\begin{gathered}
\ldots \mathrm{g} \ll \mathrm{G} \ll \ldots<\mathrm{g} \ll \mathrm{~g}<\mathrm{J} \ll \delta \ll \mathrm{~J}<\mathrm{S} \ll \mathrm{~S}<\mathrm{g} \ldots \\
\ldots \mathrm{r} \ll \mathrm{R} \ll \ldots<\mathrm{n} \ll \delta \ll \mathrm{~T}<\boldsymbol{\mathrm { h }} \ldots \\
\ldots \mathrm{t} \ll \mathrm{~T} \ll \ldots<\mathrm{T}<\mathrm{\tau} \ll \overline{\mathrm{~S}} \ll \mathrm{~T}<\mathrm{t} \ll \mathrm{~T} \ldots
\end{gathered}
$$

9. Security. None of these characters are required in identifiers.
10. Unicode Character Properties. Character properties are proposed here.

1AC1;COMBINING TRIPLE ACUTE ACCENT;Mn;220;NSM; ; ; ; $N ; ; ; ;$
1AC2;COMBINING LATIN SMALL LETTER INSULAR G;Mn;220;NSM; ; ; ; ; N; ; ; ; ;
1AC3;COMBINING LATIN SMALL LETTER INSULAR R;Mn;220;NSM; ; ; ; ; N; ; ; ; ;
1AC4;COMBINING LATIN SMALL LETTER INSULAR T;Mn;220;NSM; ; ; ; ; N; ; ; ; ;
A7CA;LATIN CAPITAL LETTER CLOSED INSULAR G;Ll;0;L; ; ; ; N; ; ; ;A7CB;
A7CB;LATIN SMALL LETTER CLOSED INSULAR G;Ll;0;L; ; ; ; $N$; ; ; A7CA; $; A 7 C A$

A7CD; LATIN SMALL LETTER DOUBLE THORN;Ll;0;L; ; ; ; N; ; ;A7CC; ;A7CC
A7CE; LATIN CAPITAL LETTER DOUBLE WYNN;Ll;0;L; ; ; ; N; ; ; ;A7CF;
A7CF;LATIN SMALL LETTER DOUBLE WYNN;Ll;0;L; ; ; ; N; ; ;A7CE; ;A7CE 7

## 11. Bibliography

Dickins, Bruce, \& R. M. Wilson, eds. 1952. Early Middle English texts. Cambridge: Bowes \& Bowes.
Hall, Joseph. 1920. Selections from Early Middle English, 1130-1250. Part I: Texts. Oxford: Clarendon Press.
Napier, Arthur S. 1894. "Notes on the orthography of the Ormulum", in History of the Holy Roodtree, a twelfth century version of the Cross-legend. (Early English Text Society: Original Series; 103.) London: Kegan Paul, Trench, Trübner \& Co. Pp. 71-74. Reprinted 1998 ISBN 0-85991-857-2.
White, R. M., and Robert Holt, eds. 1878. The Ormulum, with the notes and glossary of Dr R. M. White. 2 volumes. Oxford: Clarendon Press.

## 12. Figures.

```
Forrprihht anan se Jesu Crist
    Wass borenn off hiss modert
Zho wand himm sone i winnd (clut, )
    J lezzde himm inn an cribbe. 366
Acc uss birrb witenn patt he warrp,
    All wipp hiss aghenn wille,
Unnorne J wrecche J usell child
    Inn ure mennisscnesse,
Forr patt he wollde inn heoffness ærd 3670
        Uss alle makenn riche.
J he patt all piss middellærd
    Onn alle wise shridepp,
He wollde wundenn ben forr uss
    *I wrecche winndeclutess, 3675
Forr patt he wollde shridenn uss
    Wipp heofennlike wæde.
] he patt all piss weorelld shop
shafte sterepp,
H (lêt )imm babuindenn her 3680
Forr patt he wo unnbindenn uss
    Off hellepiness bandess.
```

Figure 1. Example from White and Holt 1878:xcvii showing combining triple acute accent alongside U+030B ' COMBINING DOUbLE ACUTE ACCENT.

Forrprihht anan se iesu crist. borenn off hiss moderr : Zho wand himm sone iwinnd clutt.) j lezgde himm inn a'n' cribbe. Acc uss birrp witenn $\psi$ he warrp. . wipp hiss aghenn wille. Vnnorne. J wrecche J usell child: Inn ure mennisscnesse : Forr $\ddagger$ he wollde inn heffiness ærd: Vss alle makenn riche. $\|_{\text {I }}$ he ${ }^{p}$ all piss middellærd. Onn alle wise shridepp:
He wollde wundenn | ben forr uss. I wrecche wimnde clutess. [f. $34 \mathrm{v}^{1}$ Forr $\ddagger$ he wollde shridenn uss.' Wipp hefennlike wæde ${ }^{-}$ T Joll piss werelld shop J alle shafite stere:
$\mathrm{H}($ lêt t $) m m$ bape bindenn her. Wipp bandes (fêt ) hande: io Fort he wollde unnbindenn uss. Off hellepinces bandess.

Figure 2. Example of the same text from Hall 1920:112 showing '"' COMBINING TRIPLE ACUTE ACCENT alongside U+030B COMbIning double acute accent.


Figure 3. The same text as given in Figures 1 and 2, from the Ormulum f. 34r-34v, lines 3662-3683, showing combining triple acute accent alongside U+030B combining double acute ACCENT. Sometimes for reasons of space it appears that Orm writes the accents atop the following character, but it is conventional (and proper) to read them as belonging to the vowel, given the design and intent of his orthography. Note in the very first line of the image from f. 34v the word pīde winnde 'swaddling'. Here U+0305 COMbINing overline indicating an $m$ or $n$ is used twice (because Orm doubles these too to indicate vowel length); this is not the combining double acute accent. There is also a double thorn here.


Figure 4. Example from the Ormulum f. 3v showing ${ }^{5}$ combining latin small letter insular Letter g in pešne (line 3) and combining Latin Small Letter insular letter t in ĩ (line 2), alongside examples of combining c in Ice (line 2), of combining H in follhen (line 2), and of combining N in pilen (line 1). The four lines of text here read, in palaeographic transcription:

Act godd fop faple bepphleff. J siff bes5 pileñ hepen ict. J fcllisern ic ic ik dede: Ic hafe hè hollpenn unndepp cpife: Co pīnenn besne bepphleff. J i fhall hafen fopp mir fpinnc. Sod læn act godd onn ende:


Figure 5. Example from the Ormulum f. 3v showing ${ }^{n}$ combining latin small letter insular LETTER R in bnopen broperr 'brother' (lines 1 and 2; bpopepn is written hyphenated between lines $4-5$ ). The combining double acute accent can be seen in line 5 . The five lines of text here read, in palaeographic transcription:
Nu bropenn palľ. broo en min.
Affe pe flæsheff kīde: 7 bpohen $n$
min i cpiffeenndom. Pupph ful-
luhhe 7 bupph єровре: 7 bpo-
penp min i godeff huf. Sét) o pe ppi-

For the guttural and palatal spirants Orm retains the Old English 子 (in the former case adding an $h$ ), while for the guttural stopped consonant, as in god, he employs a sign which is represented in the printed editions by $g$. But in the printed editions the sign $g$ is not restricted to the guttural stopped consonant: it is used also in words like egge (=Modern English 'edge'), where the $g g$ had the $d z h$ sound. In other words, the printed editions of the Ormulum make no difference between egge ( $=$ ' edge') and eggexn ${ }^{2}$ ( $=$ to ' egg on'), though the pronunciation of the consonants in the two words was, in Orm's time, the same as now, i.e. $d z h$ in the former case and a stopped $g$ in the latter. But on examining the MS. I found that, though the editors make no difference, Orm did. The letter with which he always denoted the guttural stop (as in god, gladd, eggenn, \&c.) is perfectly distinct from the sign which he used to express the $d z k$ sound (as in egge 'edge,' seggen 'to say,' \&c.). The latter, which in the following remarks, as well as in the transcript of the facsimile, is denoted by $g$, has the form of the continental $\mathrm{g}-$ : cf. biggenn in the facsimile, lines 2 , 16, 18, 20, 41, 47, and seggenn, line 6. The former, which I shall denote by y , may be described as a sort of compromise between the Old English $z^{2}$ and the continental $g$ : it has, in common with this latter, the closed upper part, thus differing from the Old English 3 ; but it has, in common with the Old English z, the straight horizontal top stroke, which projects to the left as well as to the right of the letter -: cf. godd, lines 4, 9, 10, 12, 38, \&c., biginnen, line 13 , \&c. This straight horizontal top, especially that part of it which projects to the left, is its most characteristic feature, and serves to distinguish it from the $g$, from the round top of which a short sloping stroke extends to the right, there being no stroke whatever to the left. The absence of any stroke to the left of the top of the $g$ at once distinguishes it from the $y$. Except for the one or two isolated instances mentioned on page 4, Orm never confuses the two signs, but always uses them correctly, y denoting the guttural stopped consonant, and g the $d z k$ sound. I give a few instances-the pronunciation, $g$ or $d z h$, is added in brackets, the number which follows denotes the number of times I have met with the word in question in the Ormulum MS.: egge 'edge' ( $d z h-4$ ) is in each case written with gg ; eygenn ' to egg on' $(g-5)$, eyginny $(g-1)$ are in every instance spelt with yy. The verb biggenn 'to buy' $(d z h-18)$ is always written with gg , being thus invariably distinguished from bigyenn 'to dwell' ( $g-20$ ). The verbs leggenn 'to lay' (dzh-2), and seggenn 'to say' ( $d z h-33$ ) are in every instance written with $g g$, while the Scandinavian trigg 'faithful' $(g-3)$, kaygerrlezzc 'love' $(g-2)$ are spelt with पy.
Figure 6. Discussion in Napier (1894:71-72) of his analysis of the distinction Orm makes between his invented $\mathrm{g} / \mathrm{g} /, 5 / \mathrm{j} /$, and $\mathrm{g} / \mathrm{d} / \mathrm{J} /$. The graphs 5 h and $\mathrm{\zeta}$ were used for $/ \mathrm{\gamma} /$. The glyphs used in this Early English Text Society publication are not the best, though they do the job. (Note that an italic form of S was not cut.) But the shape of the INSULAR G and the CLOSED INSULAR G should be more similar.


Figure 7. Text from Orm, f. 65r-65v, lines 7825-7841 (left column) and lines 7885-7895 (right column), showing the three different letters, $\mathrm{g} / \mathrm{g} / \mathrm{s} / \mathrm{j} /(\mathrm{sh} / \mathrm{\gamma} /$ ), and $\mathrm{g} / \mathrm{d} 3 /$. Enclosed in green we
 /'majdən/ ‘maiden', گiff /jif/, and Ђho/yo/ ‘she’. Transcription of the text:

All pin unnclene dede:
7 all pe biņp iec biggenn úc:
pib fife pehhce off fillfen.
$Y$ Pact iff $\ddagger$ гe biñp biggenn úc:
All pin miffdede 7 finne.
Punph nilhe dædboce: $\ddagger$ bippp beon:
O fife pife fonpedd.
Foñ phafe pile clenfeñ hī.
7 pib hiff godd hī fahhelen.
Him bippp off all hiff finne beon.
Pupph fiffald pine clennfedd.
Fonp him biñp foñ be lufe off godd.
7 foñ hiff poh co becenn:
O fife pife pinenn hep.
Hiff bodis. 7 hiff faple:
Fopn him biñp lokenn hī pač he: -

7825 Dik cnapechild. piß massdeñchild:
7885
pis bape on ane pife:
Y Be lac paff lamb. 7 cullfne bpidd.
Oppn ict paff lāb. ұ cup̃cle:
7 giff sho paff fū pædle pif.
7830 lamb ne mihhce pinnen:
ba bpohhee sho piß hipe child.
Cpa cullfneff. opepp cuñぇleff.
Y All piff paff fect buñh dpihhcin godd:
Fonp mikell bīs co cacnenn.
7835 Foñ cnapechild bicacneß uff:
Scrāg mahhe i gode dedeff.


Figure 8. Example from the Ormulum f. 3 v showing Latin Small letter double wynn in the word trobbe (trowwhe 'belief') and LATIN SMALL LETTER DOUBLE THORN in the words hafek (hafepp 'has') and pik (wipp 'with'). The text here reads, in palaeographic transcription:

Nu bropepp Pallと. bnope ${ }^{n}$ min. Affic pe flæsheff kīde:
7 bpopeñ min i cpiffeenndom.
Pupph fulluhhe 7 bupph єровре:
7 bpopepp min i godeff huf.
Se̋t o pe ppide pife.
Pupph pace piec hafenn cakeñ ba.
An ne ${ }^{\frac{h}{b}}$ ellboc to foll ${ }^{\frac{h}{5}}$ enn.
Vnndepp kanunnkeff had. 7 lif.
Spa fum fanne Appficin fecze:
Ičc hafe don fpa fum pu badd:
7 fonpedd ce pí pille.
f.3r Y Iće hafe peñd incill enngliffh.

Soddfpelleff hallse lápe:
Affè $\ddagger$ ličle piec pace me.
Min dpihhcin hafeß lenedd.
5 Y Pu pohhceffe cace ict mihhce pel.
Cill mikell fpame cuñnen,
Siff enngliffh follc fopp lufe off cpife.
Ict pollde sepne lepnenn.
7 follhen ice 7 fillenn ice.
Piß pohhe, pib pond, piß dede.

## A. Administrative

1. Title

Proposal to add ten phonetic characters for Scots 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

2019-06-10
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
Combining Diacritical Marks Extended (4); Latin Extended-D (6)
2. Number of characters in proposal
10.
3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; DAttested 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.)?
No.

2b. If YES, with whom?
2c. If YES, available relevant documents
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?
Germanicists, Anglicists, dialectologists, linguists.
4a. The context of use for the proposed characters (type of use; common or rare)
Used in the Ormulum, a unique but very important record of Early Middle English; also used in publications about it and extracts from it.
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 $\mathrm{P} \& \mathrm{P}$ document must the proposed characters be entirely in the BMP?
Yes.
6b. If YES, is a rationale provided?
Yes.
6c. If YES, reference
Accordance with 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?
8c. If YES, reference
9 a. 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. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?
Yes.
10b. If YES, is a rationale for its inclusion provided?
Yes.
10c. If YES, reference

## Cross references point to the related but different characters.

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

