UC Irvine

Unicode Project

Title

A Proposal to encode Greek Metrical Symbols in UCS

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Author

Thesaurus Linguae Graecae Project

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PROPOSAL SUMMARY FORM

A. Administrative

1. Title
Proposal for encoding Greek Metrical Symbols in the UCS
2. Requester's name
Thesaurus Linguae Graecae Project (University of California, Irvine)
3. **Requester type**
Expert contribution
4. Submission date:
2002-11-07
5. Requester's reference
6. Completion
This is a complete proposal.

B. Technical - General

1. The proposal is for addition of character(s) to an existing block. Name of the existing block:
Miscellaneous Symbols
2. Number of characters in proposal:
9 characters (2692-269A)
3. Proposed category
Category A
4. Proposed Level of Implementation (1, 2 or 3):
Level 1
5a. Character names provided?
Yes.
5b. Character names in accordance with guidelines
Yes.
5c. Character shapes reviewable?
Yes
6a. Who will provide the appropriate computerized font for publishing the standard?
David Perry and TLG Project
6b. Font currently available?
Yes.
6c. Font format
True Type
7a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?
Yes.
7b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?
Yes.
8. Does the proposal address other aspects of character data processing?
No.

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?

No.

2. Has contact been made to members of the user community?

Yes. The TLG has been in contact with a great number of experts. Several versions of this proposal have been posted online and received extensive comments by members of the profession.

3. Information on the user community for the proposed characters

Scholarly community in the general area of literature.

4. The context of use for the proposed characters (type of use; common or rare)

Common in publications and studies related to ancient and modern poetry, meter, and music.

5. Are the proposed characters in current use by the user community?

Yes. Characters are present in various scholarly discussions of ancient and modern literary texts. General references provided in attached bibliography.

6. After giving due considerations to the principles in *Principles and Procedures document*, must the proposed characters be entirely in the BMP?

Yes.

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

Yes.

8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

No.

9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

Yes. However, existing characters produce unworkable results.

10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

No.

11a. Does the proposal include use of combining characters and/or use of composite sequences?

No.

12. Does the proposal contain characters with any special properties such as control function or similar semantics?
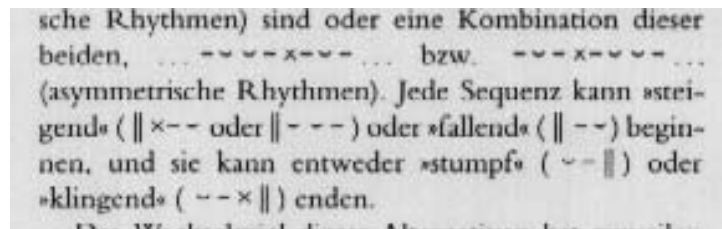
No.

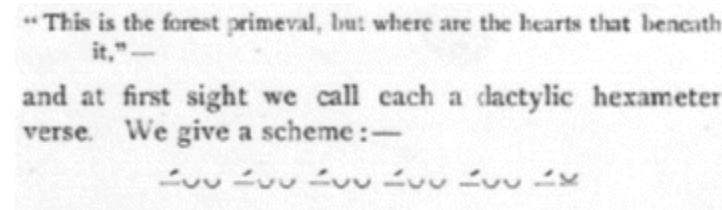**13. Does the proposal contain any Ideographic compatibility character(s)?**

No.

Proposal

The ancient Greek metrical system was developed between the 8th and 4th centuries BC and has been preserved on ancient papyri and codices. A standard set of non-combining metrical symbols is found both in ancient texts as well as modern editions and studies of Greek and Roman poetry. The use of these symbols extends beyond ancient literature and is, in fact, present in editions of contemporary poetry and discussions of modern works of literature. Therefore these characters are extensively used in modern typography and as such they should properly be encoded in the Unicode Standard.

Two examples are presented below, one from a study on ancient Greek metrics, and one from a discussion of modern English poetry.[1]

All possible non-stacking characters used in the Greek metrical notation are given in the table *Overview of Greek Metrical Notation* below. There are a few other, rarely used, symbols which are stacked versions of the characters also provided. The majority of characters required for the representation of Greek meter are already present in Unicode Standard 3.2. Nine (9) additional characters are proposed for inclusion.

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[1] Greek example taken from Der Neue Pauly Volume 8 (2000) 118; English example taken from Gummere, F.R., *A Handbook of Poetics* (Boston, 1892) 138.

Overview of Greek Metrical Notation

	Name	Unicode	Comment
×	Anceps	00D7	
⌣	Breve		Similar to 02D8, but 02D8 is positioned too high in the line.
–	Longum	2012 or 2013	
⌣̅	Metrical Long Over Short		Similar to 02D8 + 0305
⌣̲	Metrical Short Over Long		Similar to 02D8 + 0332
⌣̅⌣̅	Metrical Long Over Two Shorts		Similar to 02D8 + 0305 + 02D8 + 0305
⌣̲⌣̲	Metrical Two Shorts Over Long		Similar to 02D8 + 0332 + 02D8 + 0332
○ ○	Aeolian Basis	25EF + 25EF	
⌣⌣	Metrical Two Shorts Joined		Similar to 02D8 + 02D8
⌣̶	Breve Combining with Longum	02D8 + 0336	A second glyph variant may be encoded with 2312 + 0323
˰	Catalexis indicator	0020 + 032D	
⋮	Tricolon		Proposed separately as a punctuation character
|	Word End Indicator	007C	
‖	Period End Indicator	2016	
⦀	Stanza End Indicator	007C + 007C + 007C	
⊗	Poem End Indicator	2297	
ᴴ	Hiatus	<superscript> 0048	The character ⌇ may also be used to represent a hiatus[2] the Unicode of which is 2307.
ʃ	Dovetail	0283 or possibly 222B	
~	Responsion	007E	
¨	Anaclasis	00A8	
◌́	Ictus	0301	
α͡α	Bridge	0361	
⌐	Metrical Triseme		
⌐⌐	Metrical Tetraseme		
⌐⌐⌐	Metrical Pentaseme		

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[2] See Raven (1965) 13

Bibliography

Gummere, F.R., *A Handbook of Poetics* (Boston, 1892)

Maas, P., *Greek Metre*. Tr. Lloyd-Jones, H. (Oxford, 1962)

Parker, L.P.E., "Metre, Greek" in *OCD*[3] (1996) 970

Pauly, A.F. von *et al.* (eds.), *Paulys Realencyclopädie der classischen
   Altertumwissenschaft.* (Stuttgart, 1856-1972)

Raven, D.S., *Latin Metre: An Introduction* (London, 1965)

West, M.L. "Metrik. IV Griechisch" in *DNP* 8 (2000) 115-122

West, M.L. *Greek Metre* (Oxford, 1982)

Table of New Characters Proposed

		Name	Unicode	Comment
1	⏑	Metrical Breve Symbol	2692	
2	⏓	Metrical Long Over Short Symbol	2693	
3	⏒	Metrical Short Over Long Symbol	2694	
4	⏖	Metrical Long Over Two Shorts Symbol	2695	
5	⏕	Metrical Two Shorts Over Long Symbol	2696	
6	⏔	Metrical Two Shorts Joined Symbol	2697	
7	⏙	Metrical Triseme Symbol	2698	
8	⏚	Metrical Tetraseme Symbol	2699	
9	⏛	Metrical Pentaseme Symbol	269A	

Character Properties

These characters should be encoded as "Symbol, other" (So).

Notes

Approximations of characters 2-6 may be created using characters in the Unicode Standard; however there are several problems with these representations. For example,

- they are visually inaccurate;
- on occasion a character which is semantically one character may have to be encoded in such a way as to make into two characters (e.g., Long over two Shorts);
- it is necessary to occasionally stack metrical characters. So, for instance, it may be necessary to have Two Shorts over Long stacked over an Anceps. This becomes extremely difficult to effect were the Two Shorts over Long to be encoded as two separate characters.
- Further, in the specific case of the Double Short, to encode it with two Shorts would be visually confusing as the same meter will often contain both Shorts and Double Shorts (e.g. aeolo-chori-ambic and the dactylo-epitric).

Characters 7-9 cannot currently be encoded in Unicode.
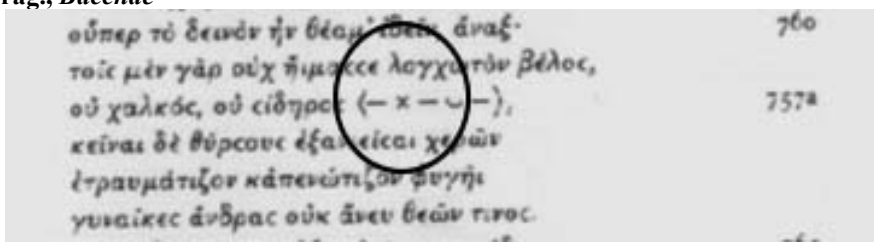
METRICAL CHARACTERS: CODE CHART

269

2	⏑
3	⏝
4	⏜
5	⏝⏝
6	⏝⏝
7	⏝
8	⌐
9	⌞⌟
A	⊔⊔
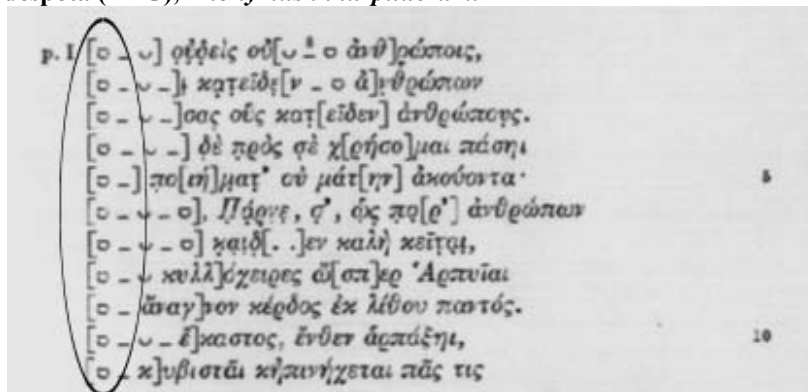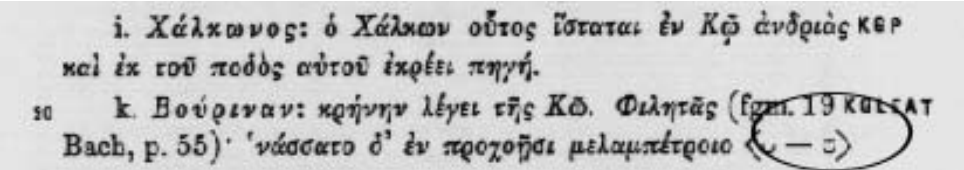
METRICAL CHARACTERS: NAME CHART

hex	Name
2692	METRICAL BREVE
2693	METRICAL LONG OVER SHORT
2694	METRICAL SHORT OVER LONG
2695	METRICAL LONG OVER TWO SHORTS
2696	METRICAL TWO SHORTS OVER LONG
2697	METRICAL TWO SHORTS JOINED
2698	METRICAL TRISEME
2699	METRICAL TETRASEME
269A	METRICAL PENTASEME

1. Metrical Breve
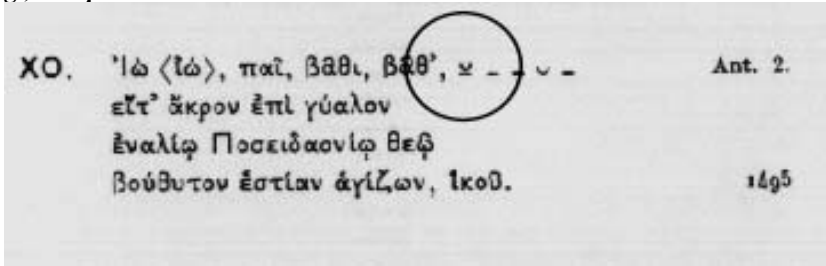
Sign	Unicode
◡	2692

Definition and comments
This character represents a short syllable.

Example 1 **Euripides Trag.,** *Bacchae*
Diggle, J., *Euripidis fabulae,* vol. 3 (Clarendon Press, Oxford, 1994) 323

2. Metrical Long over Short
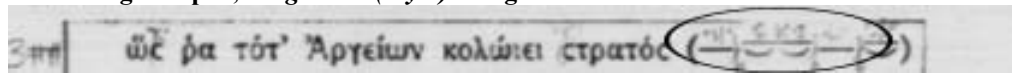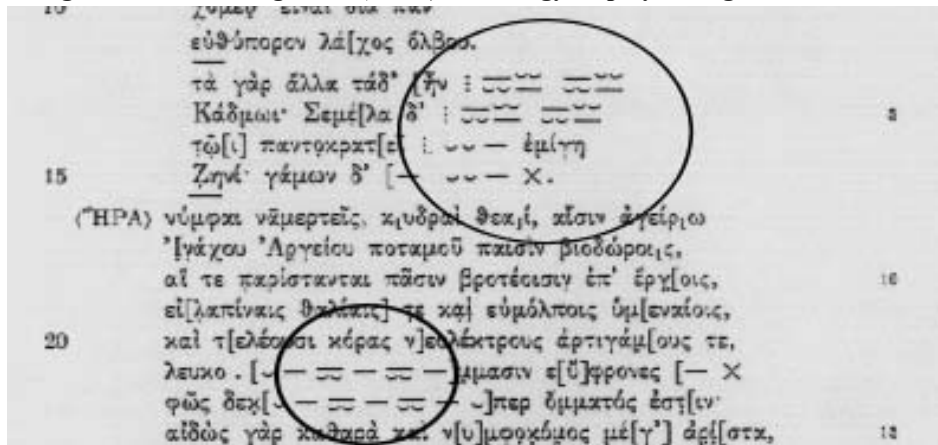
Sign	Unicode
◡̄	2693

Definition and comments
A usually short Anceps.[3]

Example 1 **Choliambica Adespota (ALG),** *Anonymus in turpilucrum.*
Diehl, E., *Anthologia lyrica Graeca*, fasc. 3, 3rd ed. (Teubner, Leipzig, 1952) 131
Example 2 **Scholia in Theocritum, Scholia in Theocritum. 7, 5-9k**
Wendel, K., *Scholia in Theocritum vetera* (Teubner, Leipzig, 1914) 79-80

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[3] Maas (1962) 28

3. Metrical Short over Long

Sign	Unicode
◡̲	2694

Definition and comments
A usually long Anceps.[4]

Example 1
Sophocles Trag., *Oedipus Coloneus***.**

Dain, A., Mazon, P., *Sophocle*, vol. 3 (Les Belles Lettres, Paris, 1960) 139
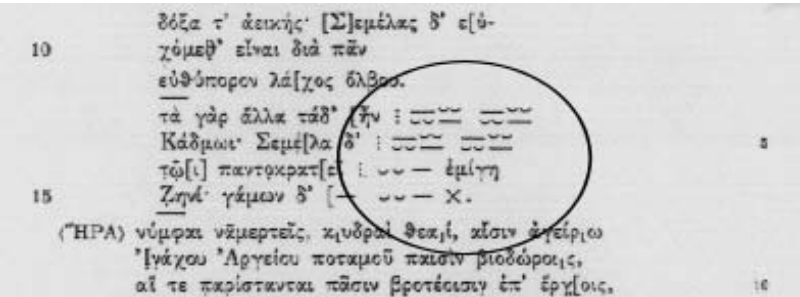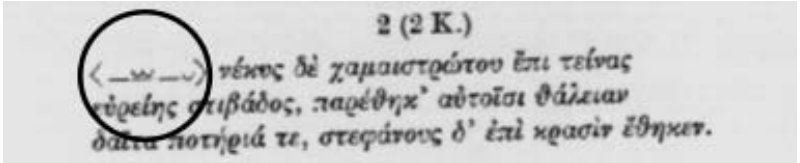
4. Metrical Long over Two Shorts

Sign	Unicode
‿‿	2695

Definition and comments
A part of the foot which may consist of either a long or two shorts, where the long is more frequent than the two shorts.[5]

Example 1
Antimachus Eleg. et Epic., *Fragmenta (Wyss)***. Fragment 43**

Wyss, B., *Antimachi Colophonii reliquiae* (Weidmann, Berlin, 1936) 23

Example 2
Aeschylus Trag. Atheniensis, *Fragmenta (Mette).* **Tetralogy 34 play A fragment 355**

Mette, H.J., *Die Fragmente der Tragödien des Aischylo*s (Akademie-Verlag, Berlin, 1959) 133

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[4] Maas (1962) 28

[5] Maas (1962) 25

5. Metrical Two Shorts over Long

Sign	Unicode
⏖	2696

Definition and comments

A part of the foot which may consist of either a long or two shorts, where the two shorts are more frequent than the long.[6]

Example 1

Aeschylus Trag. Atheniensis, *Fragmenta* (Mette). Tetralogy 34 play A fragment 355

Mette, H.J., *Die Fragmente der Tragödien des Aischylo*s (Akademie-Verlag, Berlin, 1959) 133

Example 2

Alcmaeonis, *Alcmaeonis*. Fragment 2.

Bernabé, A., *Poetarum epicorum Graecorum testimonia et fragmenta*, pt. 1 (Teubner, Leipzig, 1987) 33

6. Metrical Two Shorts Joined

Sign	Unicode
⏗	2697

Definition and comments

This character is used in certain meters (aeolo-chori-ambic and dactylo-epitric) to represent a long which may not be resolved into a double short. This is especially prevalent in Attic drama, notably comic spoken verse.[7]
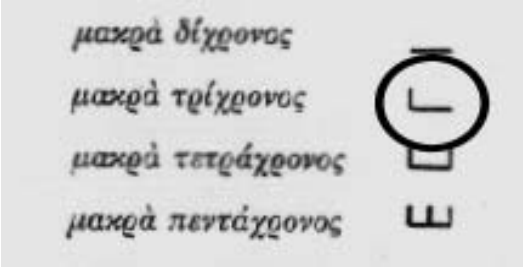
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[6] Maas (1962) 25

[7] See Parker, L.P.E., "metre, Greek" in *OCD³* (1996) 970

Example 1 (Note how this symbol is used here in conjunction with separate shorts)
Pindarus Lyr., *Fragmenta*. **Paian fragment 52b**
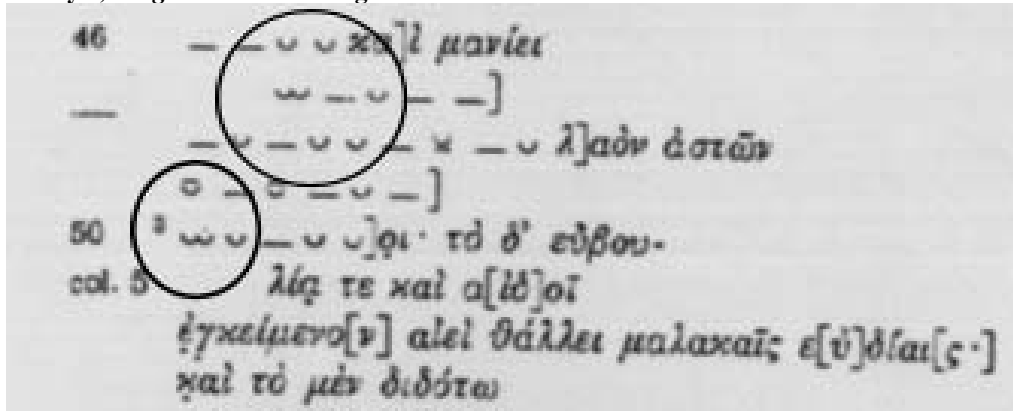
Snell, B., *Pindari carmina cum fragmenti*s, 3rd ed. (Leipzig, 1959) 122-3
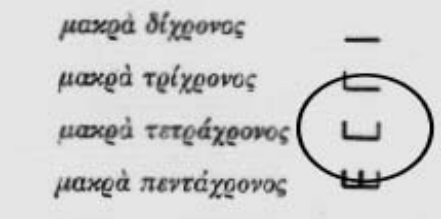
7. Greek Metrical Triseme

Sign	Unicode
⌐	2698

Definition and comments
A long nonspacing horizontal bar with a small upright at the right which marks three beats.
There are two glyphs in antiquity: examples of ⌐ may be found in Winnington-Ingram,[8] examples of ⌐ may be found in Jan.[9]
The form ⌐ is the more common.
See also Greek Musical Triseme in the musical section above.
Example 1 (Non-combining form)
Anonyma de musica scripta Bellermanniana, *Anonyma de musica scripta Bellermanniana.* **Section 83**
Najock, D., *Anonyma de musica scripta Bellermanniana*. (Leipzig, Teubner, 1975) 28

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[8] Winnington-Ingram (1975) 1

[9] Jan (1962:Supp) 38

8. Greek Metrical Tetraseme

Sign	Unicode
⎵	2699

Definition and comments
A long nonspacing horizontal bar with a small upright at the left and right which marks four beats. This symbol occurs in Najock (1975).
See also Greek Musical Tetraseme in the musical section above.

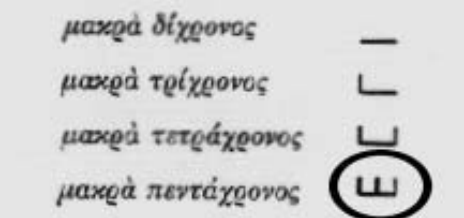| **Example 1** |
|---|
| **Anonyma de musica scripta Bellermanniana,** *Anonyma de musica scripta Bellermanniana.* **Section 83** |
| |
| Najock, D., *Anonyma de musica scripta Bellermanniana*. (Leipzig, Teubner, 1975) 28 |

9. Greek Metrical Pentaseme

Sign	Unicode
�	269A

Definition and comments
A long nonspacing horizontal bar with a small uprights at the left and right and the center which mark five beats. This symbol occurs in Najock (1975).
See also Greek Musical Pentaseme in the musical section above.

Example 1
Anonyma de musica scripta Bellermanniana, *Anonyma de musica scripta Bellermanniana.* **Section 83**
Najock, D., *Anonyma de musica scripta Bellermanniana*. (Leipzig, Teubner, 1975) 28