L2/03-324

ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646[1]
Please fill all the sections A, B and C below.
(Please read Principles and Procedures Document for guidelines and details before filling this form.)
See http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html **for latest *Form*.**
See http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html **for latest *Principles and Procedures* document.**
See http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html **for latest roadmaps.**

A. Administrative

1. **Title: Proposal to encode additional Greek editorial and punctuation characters in the UCS**

2. Requester's name: **Thesaurus Linguae Graecae, (University of California, Irvine)**

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

4. Submission date: **Oct. 6, 2003**

5. Requester's reference (if applicable):

6. (Choose one of the following:)

This is a complete proposal: **YES**

or,   More information will be provided later:

B. Technical - General

1. (Choose one of the following:)

  a. This proposal is for a new script (set of characters): _____

  Proposed name of script: _____

. b. The proposal is for addition of character(s) to an existing block: **YES**

  Name of the existing block: **3 characters in Combining Diacritical Marks; 11 characters in**
  Supplemental Punctuation (2E10-2E1A); 3 characters in the Greek and Coptic Block (03FC-03FE)

2. Number of characters in proposal: **17**

3. Proposed category (see section II, Character Categories): **C**

4. Proposed Level of Implementation (1, 2 or 3) (see clause 14, ISO/IEC 10646-1: 2000):
Level 3 for Diacritical Marks; Level 1 for other characters

  Is a rationale provided for the choice? **YES**

  If Yes, reference: **Contains combining marks**

5. Is a repertoire including character names provided? **Yes**

  a. If YES, are the names in accordance with the 'character naming guidelines
  in Annex L of ISO/IEC 10646-1: 2000? **Yes**

  b. Are the character shapes attached in a legible form suitable for review? **Yes**

6. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for
  publishing the standard? **David Perry and TLG Project (True Type)**

  If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools
  used: **TLG Project, mcpantel@uci.edu**

7. References:

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

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

8. Special encoding issues:

  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)? **No**

9. Additional Information:
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 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.

C. Technical - Justification

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[1] Form number: N2352-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09)

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

2. Has contact been made to members of the user community (for example: National Body,
     user groups of the script or characters, other experts, etc.)?   _____
          If YES, with whom? **Proposal has been reviewed by Professors Roger Bagnall, Columbia University, John Oates, Duke University, William Johnson, University of Cincinnati, Michael Haslam, University of California, Los Angeles. Earlier versions of this proposals have been posted online and received comments by members of the profession**.

3. Information on the user community for the proposed characters (for example:
     size, demographics, information technology use, or publishing use) is included?   **Scholarly community**
     Reference: _____

4. The context of use for the proposed characters (type of use; common or rare)   **Use varies**
     Reference: _____

5. Are the proposed characters in current use by the user community? **Yes. Characters are present in various editions of Greek texts and used extensively by scholars of Greek. General references provided in attached bibliography.**
     If YES, where? Reference: _____

6. After giving due considerations to the principles in *Principles and Procedures document* (a WG 2 standing
     document) must the proposed characters be entirely in the BMP?   **Yes**
          If YES, is a rationale provided?   **Accordance with the Roadmap**.
             If YES, reference: _____

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

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

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

10. Can any of the proposed character(s) be considered to be similar (in appearance
     or function) to an existing character?   **Two characters are similar but not identical to 1FED and IFEE**
     If YES, is a rationale for its inclusion provided?
          If YES, reference: _____

11. 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, characters 1-3**
     If YES, is a rationale for such use provided?   **Are combining marks**

     If YES, reference: _____
          Is a list of composite sequences and their corresponding glyph images (graphic symbols)
          provided?   **No**
             If YES, reference: _____

12. Does the proposal contain characters with any special properties such as
     control function or similar semantics?   **Greek Paragraphos. See footnote 3 in the proposal**

          If YES, describe in detail (include attachment if necessary)   _____

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

Proposal

Ancient Greek scribes generally wrote in continuous uppercase letters without separating letters into words. On occasion the scribe added in punctuation to indicate the end of a sentence, change of speaker or, that two words which could be read as one word, were in fact separate words. Editorial and punctuation characters appear abundantly in surviving papyri and when possible have been rendered in modern typography.

When punctuation is present, it falls into one of two kinds: (1) marginal or semi-marginal characters which mark the end of a section of text (e.g. Coronis, Paragraphos); (2) characters mixed in with the text to mark pauses, end of sense, or separation between words (e.g. Stigme, Hypodiastole).

A number of editorial characters are attributed to and named after Aristarchos of Samothrace (*c*. 216-144 BCE),[2] fifth head of the Library at Alexandria. Aristarchos is known to have provided a major edition of the works of Homer, which forms the basis of our modern editions. For a complete list of the extant papyri containing these characters, see McNamee (1992) 28-9.

Character Properties

The properties of the three additions to the Combining Diacritical Marks block are all "Mn".

The propeties of the 11 additions to the Supplemental Punctuation block are "Po".

The three additions to the Greek and Coptic block are "So."

Bibliography

Grenfell, B.P. & Hunt, A.S. et al, *The Oxyrhynchus Papyri,* multiple volumes (London, 1898 - onwards)

Kenyon F.G. & Bell H.I., *Greek Papyri in the British Museum III (Nos. 485—1331)* (London, 1907)

Kenyon, F.G., *The Palaeography of Greek Papyri*. (Oxford, 1899)

Kenyon, F.G., "Abbreviations and Symbols in Greek Papyri" in Oikonomides, A. N. (ed), *Abbreviations in Greek Inscriptions: Papyri, Manuscripts and Early Printed Books* (Chicago, 1974)

Lockwood, J.F., Browning, R. Wilson, N.G. "Aristarchus" in *OCD*[3] (1996) 159

Lockwood, J.F., Browning, R. Wilson, N.G. "Zenodotus" in *OCD*[3] (1996) 1653-6

McNamee, K., *Sigla and Select Marginalia in Greek Literary Papyri*. (Papyrologica Bruxellensia 26) (Brussels, 1992)

Thesaurus Linguae Graecae, *Beta Code Manual* (University of California, Irvine, 2002)

Turner, E.G. with Parsons, P.J., *Greek Manuscripts of the Ancient World* 2nd ed. (London, 1987)

Wace, A.J.B. & Stubbings, F.H., *A Companion to Homer* (London, 1962)

Wattenbach, W., *Anleitung zur Griechischen Palaeographie*. 3rd ed. (Leipzig, 1987)

Zimmermann, F., *Griechische Roman-Papyri und verwandte Texte* (Heidelberg, 1936)

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[2] Lockwood, J.F., Browning, R. Wilson, N.G. "Aristarchus" in *OCD*[3] (1996) 159

Ancient Greek Combining Diacritical Marks, General Punctuation and Additions to the Greek and Coptic Block

Combining Diacritical Marks

|		Name	Unicode	Comments
Amended Accents				
1	◌̀̈	Combining Dotted Grave Accent		Similar, but not identical to 1FEE
2	◌́̈	Combining Dotted Acute Accent		Similar, but not identical to 1FED
Word Joiner				
3	◌͜	Combining Double Breve Below		· Greek Papyrological Hyphen

Supplemental Punctuation

		Name	Comments
Section and Pause Markers, Word Separators			
4		Editorial Coronis	Note: name 'Editorial Coronis' used to distinguish character from 1FBD (Greek Koronis) Many glyph variants. Three basic forms: ᘐ , ⸎ and ⸏ .
5	___	Paragraphos[3]	
6	⌐___	Forked Paragraphos	Glyph variant: >___⊙
7	___⌐	Reversed Forked Paragraphos	Glyph variant: ___⊙<
8	⁞	Tricolon	Similar to 22EE, but with different properties.
9	∴·	Quintuple Colon	=Greek Pentoklion. Unifiable with (Glagolitic block)
10	،	Hypodiastole	Not the same as 002C (see example below)
Text Highlighters and Markers			
11	Ɔ	Reversed Greek Capital Lunate Sigma Symbol	= Greek Antisigma
12	⸓	Dotted Obelos	Many glyph variants, including ⸓ , ÷, ÷ . See McNamee 37 for a complete list.
13	⸑	Downwards Ancora	
14	⸐	Upwards Ancora	
Aristarchean Editorial Notation			
15	⸖	Dotted Right-Pointing Angle	= Diple Periestigmene Glyph variants: >· and ⸖
16	Ϲ̇	Dotted Greek Capital Lunate Sigma Symbol	= Sigma Periestigmenon
17	Ɔ̇	Reversed Dotted Greek Capital Lunate Sigma Symbol	= Antisigma Periestigmenon

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[3] The Greek paragraphos is placed at the beginning of the line but it may refer to a break in the text at any point in the line. Therefore, it should not be treated as a combining character--such as an underscore--and placed under the first character in the line. The Paragraphos should rather be a horizontal line generally stretching under the first one and a half letters of the line it refers to, and possibly extending into the margin. It should be given a no-space line of its own.

TABLE xx00-xx02: COMBINING DIACRITICAL MARKS

xx0

0	
1	
2	

TABLE xx00-xx02: COMBINING DIACRITICAL MARKS

hex	Name
xx00	COMBINING DOTTED GRAVE ACCENT
xx01	COMBINING DOTTED ACUTE ACCENT
xx02	COMBINING DOUBLE BREVE BELOW
	= GREEK PAPYROLOGICAL HYPHEN

Note:

If 03FC COMBINING DOUBLE BREVE BELOW from proposal N2594 (L2/03-142R "Proposal to encode combining double breve below") is accepted, then the COMBINING DOUBLE BREVE BELOW from this proposal can be unified with it.

TABLE 2E10-2E1C: SUPPLEMENTAL PUNCTUATION

2E1

0	≐
1	___
2	⟋
3	⟍
4	⁝
5	∵∴
6	⌣
7	⁒
8	↗
9	↙
A	⸪

TABLE 2E10-2E1C: SUPPLEMENTAL PUNCTUATION

hex	Name
2E10	EDITORIAL CORONIS
2E11	PARAGRAPHOS
2E12	FORKED PARAGRAPHOS
2E13	REVERSED FORKED PARAGRAPHOS
2E14	TRICOLON
2E15	QUINTUPLE COLON
	= PENTONKION
2E16	HYPODIASTOLE
2E17	DOTTED OBELOS
2E18	DOWNWARDS ANCORA
2E19	UPWARDS ANCORA
2E1A	DOTTED RIGHT-POINTING ANGLE
	= DIPLE PERIESTIGMENE

Note:

If 2059 QUINTUPLE COLON from proposal N2610R ("Final proposal for encoding the Glagolitic script in the UCS") is accepted, then the QUINTUPLE COLON from this proposal can be unified with it.

TABLE 03FC-03FE: GREEK AND COPTIC

03F

C	Ɔ
D	Ꞁ
E	Ɔ

TABLE 03FC-03FE: GREEK AND COPTIC

hex	Name
03FC	REVERSED GREEK CAPITAL LUNATE SIGMA SYMBOL = ANTISIGMA
03FD	DOTTED GREEK CAPITAL LUNATE SIGMA SYMBOL = SIGMA PERIESTIGMENON
03DE	REVERSED DOTTED GREEK CAPITAL LUNATE SIGMA SYMBOL = ANTISIGMA PERIESTIGMENON

Examples

Combining Diacritical Marks

Combining Dotted Grave Accent
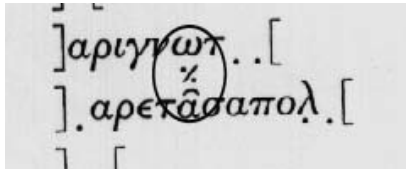
Page, D.L., *Poetae melici Graeci* (Clarendon Press, Oxford, 1962) 271

Combining Double Breve Below

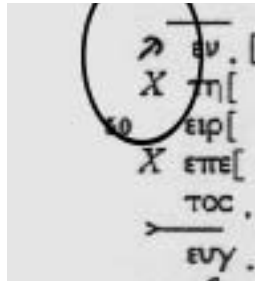Turner, E.G. & Parsons, P.J. *Greek Manuscripts of the Ancient World* (London, 1987) 70

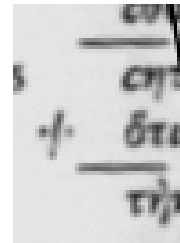## Supplemental Punctuation

Editorial Coronis
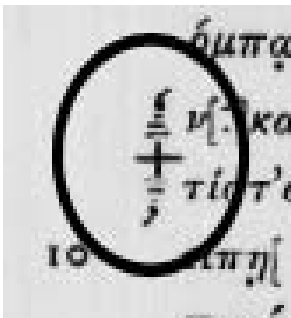
Grenfell, B.P. & Hunt, B.P., *The Oxyrhynchus Papyri XV* (London, 1921) 56

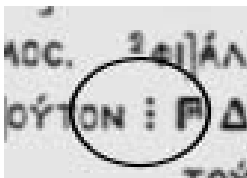### Paragraphos, Forked Paragraphos, Downward Ancora

Austin, C., *Comicorum Graecorum fragmenta in papyris reperta* (De Gruyter, Berlin, 1973) 158

Dotted Obelos, Paragraphos

Austin, C., *Comicorum Graecorum fragmenta in papyris reperta* (De Gruyter, Berlin, 1973) 29
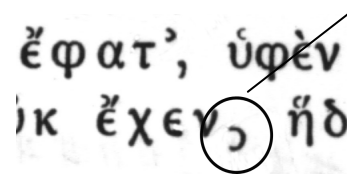
Tricolon

Hiller von Gaertringen, F., *Inscriptiones Graecae I Editio Minor* (Berlin, 1924) 151

Quintuple Colon

Köhler, U., "Zur Geschichte des amphilochischen Krieges" in *Hermes* XXVI (1891) 43
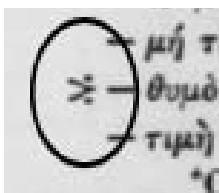
Hypodiastole

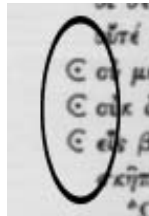Uhlig, G., *Grammatici Graece*, vol. 1.1 (Teubner, Leipzig, 1993) 106

Hypodiastole. Note the different shape of the comma on the line above.

Dotted Right-Pointing Angle

Dotted Greek Capital Lunate Sigma Symbol

Reversed Dotted Greek Capital Lunate Sigma Symbol

Allen, T.W., *Homeri Ilias*, vol. 2 (Clarendon Press, Oxford, 1931) 39-40