1. Introduction

The critical apparatus of recent editions of classical Greek works uses a set of conventional signs and abbreviations. While the constituents of most of these are already contained in Unicode, two of them, being raised Greek letters, are missing. They are subject of this proposal.

The provided evidence shows lists of the apparatus characters as well as excerpts of apparatuses from several works printed in the USA, the U.K., and Germany.

Text of critical apparatuses is subject to be stored in text databases, associated with the text pieces (verses, lines, or sentences) they refer to. The set of conventional signs used there, partly consisting of raised Latin or Greek letters, is well-defined and limited. Thus, the use of these conventional signs is plain text, and they have to be encoded. As they consists of well-defined pieces which are already encoded (with the exception of the two characters proposed here), it is advisable to use these pieces when storing the plain text (like it is practice to store "ch" as "c" + "h", even if the text language is one which considers "ch" as a single letter).

2. Encoding Considerations

The raised Greek letters are proposed to be placed in the GREEK EXTENDED block, to leave the gaps in the "Greek and Coptic" block for "real" Greek letters if such are still found.

For the letter proposed at U+1F16, the term LAMDA instead of LAMBDA is used in the name, according to the naming of 03BB GREEK SMALL LETTER LAMDA.

While the MODIFIER LETTER SMALL GREEK RHO occurs only paired with the already encoded U+1D5E MODIFIER LETTER SMALL GREEK GAMMA in the context of this proposal, it is proposed as a separate character, rather than proposing a RAISED GREEK SMALL GAMMA RHO in analogy to e.g. U+1F16A RAISED MD.

If this were done, it had to be discussed whether other conventional signs like ᵘᵛ ("ut videtur"), which perfectly can be represented by U+1D58 U+1D5B MODIFIER LETTER SMALL U/V, are to be encoded separately as units also in analogy.
3. Proposed Characters

*Block: Greek Extended*

**Critical Apparatus symbols**

λ  
\[ \text{U+1F16 MODIFIER LETTER SMALL GREEK LAMDA} \]
\[ \approx \text{<super> 03BB} \]

ρ  
\[ \text{U+1F17 MODIFIER LETTER SMALL GREEK RHO} \]
\[ \approx \text{<super> 03C1} \]
\\· usually used following U+1D5E modifier letter small greek gamma

**Properties:**

U+1F16 MODIFIER LETTER SMALL GREEK LAMDA;Lm;0;L;<super> 03BB;;;;N;;;;;
U+1F17 MODIFIER LETTER SMALL GREEK RHO;Lm;0;L;<super> 03C1;;;;N;;;;;

4. References

5. Examples and Figures

The figures are numbered by the referenced work (consisting of the year of edition and the letter, as in the "references" list, followed by a hyphen the page number, and following by a second letter if more than one figure is taken from a page.

E.g.: "Fig. 1992a-42" means "See ref. [1992a], p.42").

---

**Fig. 1973a-xvi:** Showing a specimen for MODIFIER LETTER SMALL GREEK RHO.

non omnia eorum exemplorum, quae Di Benedetto adfert 4), idones sunt:

1030 ὕκετι (ὑκ ἐτι 0) Μφ, ut vid. Σ: ὕκετι'
e' cett.: cf. Ion 1289 (coni. Dobree); hic, ni fallor, ellipsis verbi, quae in Μφ versa-
tur, ut lectio difficilior praeferenda est.

---

**Fig. 1980a-27/103:** Showing specimens for MODIFIER LETTER SMALL GREEK RHO from two different pages of [1980a] (above, p.27; below, p.103).

11 ἄλλοις ἄλλοις Α | ζωοφράλμος ζ | 12 άμα Α | παμφρέων
τε Α | ἐν ομ. ν || 13. 14 ποντίας — ἀμμίτριας Σφ || 15 εὑρι'
μαχον Α || 16 εὑριχόρον Βγ, -χόρον ΑΒ ΕΙ ΕΛ, -χόροι ζ ||
19 εὐβολον (? ) Theotimus ap. Σ || 24 ψεσίν Αζ, ν. 1. in β || 28 και
ομ. Α | φέρετον Α

13 δε' ομ. Β || 14 εἰς δόμου γη' | φέρει Β || 16 ἐκατοντακάρανος
(ντο- ΒΠ): E. Schmid | μν: Mo. || 30 παρνασία: Boe. || 28 και
ἐν ὀφθ. ν (Σ) || 38 μνημή Sehr. || 37 -μάχον Β || 36 μιδ.: Bgk. ||
40 ἤπει: Boe. || 41 δρ' ομ. Β
Proposal to encode two Greek modifier letters for Critical Apparatuses in the UCS

Fig. 1992a-VIII: Showing specimens for MODIFIER LETTER SMALL GREEK RHO (red) and MODIFIER LETTER SMALL GREEK LAMDA (green)

Fig. 1992a-42: Showing a specimen MODIFIER LETTER SMALL GREEK RHO (green).

Fig. 1993a-58: Showing specimens for MODIFIER LETTER SMALL GREEK RHO.

THE TEXT

* after test. or specific author cited for testimonium indicates some mss of the test. author(s)

Modifications of symbols
A first hand in manuscript A
A• second, third hand in A
A•• corrector in A
A••• rubricator in A
A•• above the line in A
A• superlinear gloss in A
A••• variant or correction in A introduced by γρ(άφεται/άφει) (καὶ)
A•••• in the margin in A
A•••• A before correction
A•••• A after correction
A••• A ut videtur
Σ scholion, scholiast on Phoen.
Σ• scholion as found in manuscript A
Σ•• lemma of Σ
Σ••• reading implied by interpretation of Σ
Σ•••• word or form used in paraphrase of Σ
Σ••••• gloss used in Σ
Σ••••• γράφεται variant in Σ

Fig. 1993b-160: Showing a specimen for MODIFIER LETTER SMALL GREEK LAMDA.

1004 in. ὥς ᾧς ἄνακτος Κ 1005 λῆλος
κήρυκται ληστήν Radermacher 1006 Σ. om. R 1007 τοῦ τοῦν] αὐτὸν R
κριναὶ [μοι] πυθανόμενοι S.E. χρής] δεῦτη R 1009 Σ. om. [At.] διήθετε Α
R 1010 πόλειν τινά Α. Σ. om. V νοοντίσας Ρ Α: ὁ Ρ ἀπέ- V 1013 Σ. om. Κ
1014 -δρηθεῖ Phryn. 1015 μηδέ... μηδέ] μητὲ... μητὲ V A K μηδὲ ἐπά- R
1016 -λόφας R 1018 Σ. om. [At.] Δι. Α. ant. κατα-] Δι. R V K -ψεῖς V K
1019 in. Σ. om. V. Κ: om. Β 3 σὺ νῦν Α K δρας Α αὐτοῖς οὐτως Α γεν-
1024 ἐνεκά R V K: ἐνεκά V Σ. om. [At.] dic. R 1023 Δι.] Σ. om. Μ
Fig. 1998a-156: Showing a specimen for U+MODIFIER LETTER SMALL GREEK RHO.

Fig. 2001a-2: Showing a specimen for MODIFIER LETTER SMALL GREEK RHO.

Proposal to encode two Greek modifier letters for Critical Apparatuses in the UCS

2011-10-15
### Proposal to encode two Greek modifier letters for Critical Apparatuses in the UCS

1. **Title:** Proposal to encode two Greek modifier letters for Critical Apparatuses in the UCS

2. **Requester's name:** Martin Schrage, Karl Pentzlin

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

4. **Submission date:** 2011-10-15

5. **Requester's reference (if applicable):** University of Munich, Germany (M. S.)

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): No
   - b. The proposal is for addition of character(s) to an existing block: Yes

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

3. **Proposed category (select one from below - see section 2.2 of P&P document):**
   - A-Contemporary
   - B.1-Specialized (small collection) X
   - 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

4. **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 P&P document? Yes
   - b. Are the character shapes attached in a legible form suitable for review? Yes

5. **Fonts related:**
   - a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard? The authors (if requested)
   - b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.): The authors (if requested)

6. **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

7. **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

### 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](http://www.unicode.org) for such information on other scripts. Also see [http://www.unicode.org/Public/UNIDATA/UCD.html](http://www.unicode.org/Public/UNIDATA/UCD.html) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

---

<table>
<thead>
<tr>
<th>Q</th>
<th>A</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Has this proposal for addition of character(s) been submitted before?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>If YES explain</td>
<td>They are contained in WG2 N3913 = L2/10-358R and are separated here from its revision</td>
<td></td>
</tr>
<tr>
<td>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.)?</td>
<td>Yes</td>
<td>One of the authors (M. S.) is a member of the scientific community himself</td>
</tr>
<tr>
<td>If YES, available relevant documents:</td>
<td>See text</td>
<td></td>
</tr>
<tr>
<td>3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Reference:</td>
<td>See text</td>
<td></td>
</tr>
<tr>
<td>4. The context of use for the proposed characters (type of use; common or rare)</td>
<td>Common scientific</td>
<td></td>
</tr>
<tr>
<td>Reference:</td>
<td>See text</td>
<td></td>
</tr>
<tr>
<td>5. Are the proposed characters in current use by the user community?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>If YES, where?</td>
<td>Reference:</td>
<td>See text</td>
</tr>
<tr>
<td>6. After giving due considerations to the principles in the P&amp;P document must the proposed characters be entirely in the BMP?</td>
<td>Yes</td>
<td>To keep them in line with related characters</td>
</tr>
<tr>
<td>If YES, is a rationale provided?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If YES, reference:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If YES, reference:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If YES, is a rationale for its inclusion provided?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>If YES, reference:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Does the proposal include use of combining characters and/or use of composite sequences?</td>
<td>No</td>
<td>Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?</td>
</tr>
<tr>
<td>If YES, is a rationale for such use provided?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>If YES, reference:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Does the proposal contain characters with any special properties such as control function or similar semantics?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If YES, describe in detail (include attachment if necessary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Does the proposal contain any Ideographic compatibility character(s)?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If YES, is the equivalent corresponding unified ideographic character(s) identified?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>If YES, reference:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>