A. Administrative

1.Title:

Proposal to encode the Greek Capital Lunate Sigma in the UCS

2. Requester's name:

Thesaurus Linguae Graecae Project (University of California, Irvine)

3. Requester type:

Expert contribution

4. Submission date:

2002-8-21

5. Requester's reference:

6. Completion:

This is a complete proposal. Additional information may be provided upon request

B. Technical - General

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

Greek and Coptic

2. Number of characters in proposal:

One

3. Proposed category:

 \mathbf{R}

4. Proposed Level of Implementation:

Level 1

5a. Character name provided?

Yes.

5b. Character name in accordance with guidelines:

Yes

5c. Character shape reviewable?

Yes

6a. Who will provide the appropriate computerized font for publishing the standard?

TLG Project

6b. Fonts currently available.

A number of Greek Unicode fonts are already available and listed at:

http://www.tlg.uci.edu/help/UnicodeTest.html.

6c. Font format:

True Type

7a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

7b. Are published examples of use of proposed character 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 in the field of Classics including textual criticism, papyrology, epigraphy, numismatics and historical linguistics.

3. Information on the user community for the proposed character:

Scholarly community and individuals interested in Greek literature.

4. The context of use for the proposed character:

Common in extant Greek texts.

5. Is the proposed character in current use by the user community?

Yes. Character is present in various editions of Greek texts and used extensively.

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

Yes.

If YES, is a rationale provided?

Accordance with the Roadmap.

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

Yes. Small Letter Lunate Sigma is already present in UTS as 03F2.

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

No.

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

No.

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

Similar but not identical to 0043 LATIN CAPITAL LETTER C

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

Greek Capital Letter Lunate Sigma is a widely used version of the Greek letter sigma, employed over many centuries and in many contexts (e.g. epigraphical, papyrological, modern typesetting).

Greek Small Letter Lunate Sigma is already present in Unicode Standard 3.2 and has the codepoint 03F2. The lowercase lunate sigma is conventionally written as a distinct character from the uppercase character (see Example 1 below) which is currently not present in the Unicode Standard. In some cases both types of sigma—lunate and non-lunate—may be required in the same text (see attachment). Example 2 below shows a modern printed edition which employs both types of sigma in the same text.

Thefore the addition of the uppercase character is necessary for the correct and accurate representation of ancient and medieval Greek texts. It is also necessary in order to complement the Greek Small Letter Lunate Sigma which already exists in the Unicode Standard.²

Bibliography

Featherstone, J.M., Theodore Metochites' Poems to "Himself" (Vienna, 2000)

Haralambous, Y. "Guidelines and Suggested Amendments to the Greek Unicode Tables" presented at *21*st *International Unicode Conference* (Dublin, 2002)

Jeffery, L.H., The Local Scripts of Archaic Greece (Oxford, 1961)

Larfeld, W., Handbuch der griechiscehn Epigraphik 2.2. Die attischen Inschriften (Leipzig, 1902)

Liddell, H.G., Scott R. & Jones, H.S., *Greek English Lexicon with a Supplement* 9th ed. (Oxford, 1968)

Smyth, H.W., Greek Grammar (Harvard Univ. Press, 1920)

Thesaurus Linguae Graecae (TLG) CD-ROM E (University of California, Irvine, 1999) Thesaurus Linguae Graecae (TLG) Website, http://www.tlg.uci.edu/ (University of California, Irvine, 2002)

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¹ See Featherstone (2000)

² See also Haralambous (2002) 18: "The Lunate sigma U+03F2 GREEK LUNATE SIGMA SYMBOL, which is not actually a "symbol" (in the sense that it is used for Greek text only and *not* for mathematics), but the traditional way of representing a *context free sigma* (neither initial nor final), requires an uppercase version. Therefore, it is necessary to include its uppercase version as an additional character in the Unicode standard."

Greek Capital Letter Lunate Sigma

Sign	Similar Unicode	Beta Code	Count
С		*S3	1,470 instances, 50 authors ³
Example 1			
-	l., <i>Iatricosum liber i</i> . Cl		
Olivieri, A., Example 2	Το περιεχτιμένον δια Και δέ τι και βυπτικαι λεπτύνει ού μ πάχος ύγρῶν γιγνομ Κάμψυχον λεπτ Τε γάρ και θερμαίνει Καπρότης Εύλων Καρκοκρλλα δάι Καρκοκρλλα δάι	αφορεί. πός έςτι θερμός και τάς πόν, ψ και τάς πόν άλλά και ύπο μέναις άγαθόν φό τόμερους έςτι και ει κατά την τρίτη ν, και μάλιςθ' όςα μ θαίρει και άναπλη κρυόν έςτι δένδρο τινος σύςίας και στο τραύματα κοι dicinales i-iv (Teubr	διαφορητικής δυνάμεως · ξηραίνει το γν τάξιν. ετέχει στύψεώς τε ἄμα καὶ ῥύψεως, τνα βροῖ τὰ ὑγρὰ τῶν ἐλκῶν κάλλιστα. 10 ου περεικοῦ, μικτὸν τὴν δύναμιν τνβ βραχείας πικρᾶς, ὅθεν ἀδήκτως λλὰ.
	"Αγε μοι, α	ψυχά, τρους, ου άς. δεῶν τέφανον, ναιμον, άς. γ πελάγει,	16 ἐπί τε πτολίων, κραναῶν τ' ὀρέων, καὶ κατὰ κλεινῶν ὀπόταν πεδίων στάσω διδύμους 20 γυίων ταρσούς, Ε, μάκορ, μέλπω, γενέτα κόσμου. Coì νύξ με φέρει τὸν ἀοιδόν, ἄναξ τοὶ δ' ἀμους, σοὶ δ' ἀμους, σοὶ δ' ἐσπερίους, σοὶ δ' ἐσπερίους

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Dell'Era, A., Sinesio di Cirene. Inni (Tumminelli, Rome, 1969) 7

³ The TLG count is an underestimate. The TLG abandoned use of the lunate sigma (upper and lower case) in the 80's. Given that the orientation of the project was not papyrological, a decision was made not to preserve the distinction between lunate and non-lunate sigma. However, once the distinction is admitted, the case distinction is also essential.