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

**Doc Type: Working Group Document** 

Title: Proposal for encoding the Lycian script in the UCS

**Source:** Michael Everson

**Status: Individual Contribution** 

Action: For consideration by JTC1/SC2/WG2 and UTC

Date: 2005-04-27

Lycian is used to write an ancient Indo-European language of Western Anatolia, which is related to Luwian, Lydian, Hittite, and Palaic. It was used from ca. 500 BCE to about 200 BCE. The term "Lycian" is now used in place of "Lycian A". A dialect of Lycian, attested in two texts in Anatolia, is called "Lycian B", or "Milyan", and dates to the first millennium BCE.

The Lycian script, like Lydian and Carian, is related to the Greek script. It appears on stone inscriptions, coins, and a few other objects.

## **Processing**

Lycian is an alphabetic script written left-to-right, with frequent use of word-dividers.

#### **Names**

The names used for the characters here are based on their Latin transliterations.

# **Bibliography**

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Faulmann, Carl. 1990 (1880). Das Buch der Schrift. Frankfurt am Main: Eichborn. ISBN 3-8218-1720-8 Melchert, H. Craig. 2004. "Lycian", in *The Cambridge encyclopedia of the world's ancient languages*, ed. Roger Woodard, 591-600. Cambridge: Cambridge University Press.

Swiggers, Pierre, & Wolfgang Jenniges. 1996. "The Anatolian alphabets", in *The World's Writing Systems*, ed. Peter T. Daniels & William Bright. New York; Oxford: Oxford University Press. ISBN 0-19-507993-0

# **Unicode Character Properties**

```
10500; LYCIAN LETTER A; Lo; 0; L;;;;; N;;;;;
10501; LYCIAN LETTER E; Lo; 0; L;;;;; N;;;;
10502; LYCIAN LETTER B; Lo; 0; L;;;;; N;;;;
10503; LYCIAN LETTER BH; Lo; 0; L;;;;; N;;;;
10504; LYCIAN LETTER G; Lo; 0; L;;;;; N;;;;
10505; LYCIAN LETTER D; Lo; 0; L;;;;; N;;;;
10506; LYCIAN LETTER I; Lo; 0; L;;;;; N;;;;
10507; LYCIAN LETTER W; Lo; 0; L;;;;; N;;;;
10508; LYCIAN LETTER Z; Lo; 0; L;;;;; N;;;;
10509; LYCIAN LETTER TH; Lo; 0; L;;;;; N;;;;
1050A; LYCIAN LETTER Y; Lo; 0; L;;;;; N;;;;
1050B; LYCIAN LETTER K; Lo; 0; L;;;;; N;;;;;
1050C; LYCIAN LETTER Q; Lo; 0; L;;;;; N;;;;
1050D; LYCIAN LETTER L; Lo; 0; L;;;;; N;;;;
1050E; LYCIAN LETTER M; Lo; 0; L;;;;; N;;;;
1050F; LYCIAN LETTER N; Lo; 0; L;;;;; N;;;;
```

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10510;LYCIAN LETTER MM;Lo;0;L;;;;N;;;;
10511;LYCIAN LETTER NN;Lo;0;L;;;;N;;;;
10512;LYCIAN LETTER U;Lo;0;L;;;;N;;;;
10513;LYCIAN LETTER P;Lo;0;L;;;;N;;;;
10514;LYCIAN LETTER KK;Lo;0;L;;;;N;;;;
10515;LYCIAN LETTER R;Lo;0;L;;;;N;;;;
10516;LYCIAN LETTER S;Lo;0;L;;;;N;;;;
10517;LYCIAN LETTER T;Lo;0;L;;;;N;;;;
10518;LYCIAN LETTER TT;Lo;0;L;;;;N;;;;
10519;LYCIAN LETTER AN;Lo;0;L;;;;N;;;;
1051B;LYCIAN LETTER EN;Lo;0;L;;;;N;;;;
1051B;LYCIAN LETTER H;Lo;0;L;;;;N;;;;
```

# **Figures**

### LYKISCH.

Zeichen	Wert	Zeichen	Wert	Zeichen	Wert
4 4	a	1	y	   T	t
ВЬ	ь	K k l <sup>2</sup> =	k	YYV	v
<	g	۸ ^	l	<b>V V Y</b>	kh
ΔΔ	d	MM	m	* * * * * *	
E &	i	Y F N H N	n	* * * * * W	0
F	v	0	u	)( )(C	w
I	dz	ГССРП	p	x	th
<b>A A</b>	e	₽₽	r	×	ah
+	h	<b>5                                    </b>	s	<b>±</b>	ih

Das vorstehende Alphabet ist entnommen aus J. Savelsberg's Beiträgen
zur Entzifferung der lykischen Sprachdenkmäler. Die Schreibweise bekannter
griechischer Namen weist eine eigene
Orthographie auf, z. B. PPPPWO+
Harpagus, PPOAMNIAP Apollonidas,
SEATPEIP Sidarios, +PPPE Hrpyi,
AAP)I(PSP Dauasa, TKPTPMNP

Hekatomnas. Es dürfte diese Schreibart noch aus jener Zeit stammen, die der Fixirung eines Alphabets voranging; wir finden eine ähnliche Orthographie in den iberischen Münzinschriften, deren Zeichen wir hier nach Phillips (über das iberische Alphabet, Stzb. d. k. Akad. d. W. 1870, LXV, II) folgen lassen.

Figure 1. Table of Lycian letters from Faulmann 1990 (1880).

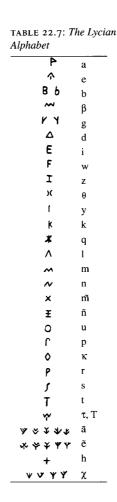


Figure 2. Table of Lycian letters from Swiggers & Jenniges 1996.

LYCIAN-GREEK BILINGUAL

TO B TEIP: A PAFA I EIP: MA TE:

PPEMPFPT Y: SEAA PERIFORM

WITE ARME PIPENTASTA BEGA

APAENT BESATE A SEMENOSEA

MH TO STOMMHMATO ASTO

PTO STO SEAT TAIKAIT HITTE

IKIKAIYILIMANH

```
siderija:
1. Lycian: ebeija: erawazija:
                             me ti:/
                                          prñnawatě:
                                          ΕΠ/ΟΙΗΣΑΤΟ ΣΙΔΑΡΙΟΣ
2. Greek:
          TO
                  MNHMA
                              TO\Delta
                                          built
                                                        Siderija
3. Gloss:
          this
                  monument
                             he who
                    tideimi [: h]rppi :
                                       etli ehbi
                                                    se / ladi:
                                                                  ehbi:
I. parm[n]/[ah] :
2. ΠΑΡΜΕΝΟ/ΝΤΟΣ ΥΙΟΣ
                                                    KAI TYN[A]/ IKI
                              ΕΑΥΤΩΙ
                                                    and wife
                                       him own
                                                                  own
3. Parmna's
I. se
        tideimi:
                 pubie/leje:
                  ПУВІАЛНІ
2. KAI
        ΥΙΩΙ
3. and
                  Pubiele
```

'This monument was built by Siderija, son of Parmna, for himself, and for his wife, and for his son Pubiele.'

—Epitaph on a sarcophagus from Limyra (the only bilingual with fully parallel texts; the Greek begins in line 5 after ∴), in Kalinka 1901 no. 117, with a new reading from Neumann 1985.

Figure 3. Sample of Lycian text from Swiggers & Jenniges 1996.

Table 21.1 The Lycian alpha	bet
Character	Transcription
P	a
<b>^</b>	e
ВЬ	b (/β/)
~	β (/k <sup>w</sup> /?)
УЧ	g (/γ/)
Δ	d (/ð/)
∆ E	i
F	w
I	$z(/t^s/)$
×	θ
1	y
k	k (/k )</th
*	q (/k/)
٨	1
M	m
N	n
X	$\tilde{\mathbf{m}}\;(/\mathbf{m}^{\!$
<b>₹</b>	$\tilde{n} (/n^{\gamma})$
0	u
ŗ	P
<b>♦</b>	$(\approx /k < /?)$
Р	r
∫ T Ψ	s
Т	t
<b>~</b>	τ(/c/)
<b>▼</b> ◇ <b>↓</b> ↓ ↓	ã
*	ě
+	h
****	
estato a motor casa de la casa ca	x (/k>/)

**Figure 4.** Table of Lycian letters from Melchert 2004.

**TABLE XX - Row 105: LYCIAN** 

	1050	1051
0	<b>&gt;</b>	×
1	<b>↑</b>	Ξ
2	В	0
3	<b>/</b> ^	L
4	У	$\Diamond$
5	Δ	Р
6	E	5
7	F	Т
8	I	*
9	X	ℽ
Α		¥
В	K	+
С	*	V
D	$\wedge$	
E	M	
F	$\sim$	

G = 00 P = 01

## **TABLE XX - Row 105: LYCIAN**

hex	Name	hex	Name
00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D	LYCIAN LETTER A LYCIAN LETTER B LYCIAN LETTER BH LYCIAN LETTER BH LYCIAN LETTER D LYCIAN LETTER D LYCIAN LETTER W LYCIAN LETTER W LYCIAN LETTER Y LYCIAN LETTER Y LYCIAN LETTER Y LYCIAN LETTER M LYCIAN LETTER M LYCIAN LETTER M LYCIAN LETTER M LYCIAN LETTER MN LYCIAN LETTER MN LYCIAN LETTER S LYCIAN LETTER T LYCIAN LETTER T LYCIAN LETTER T LYCIAN LETTER S LYCIAN LETTER S LYCIAN LETTER T LYCIAN LETTER T LYCIAN LETTER T LYCIAN LETTER S LYCIAN LET		

#### A. Administrative

1. Title

Proposal for encoding the Lycian script in the UCS

2. Requester's name

Michael Everson

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

Individual contribution.

4. Submission date

2005-04-27

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

No.

6b. More information will be provided later

This is a preliminary proposal.

#### B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

Yes.

Proposed name of script

Lycian.

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

No.

1b. Name of the existing block

2. Number of characters in proposal

27

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

Category C

4a. Proposed Level of Implementation (1, 2 or 3) (see clause 14, ISO/IEC 10646-1: 2000)

Level 1

4b. Is a rationale provided for the choice?

Yes.

4c. If YES, reference

Spacing characters are proposed.

5a. Is a repertoire including character names provided?

Yes.

5b. If YES, are the names in accordance with the character naming guidelines in Annex L of ISO/IEC 10646-1: 2000?

Yes.

5c. Are the character shapes attached in a legible form suitable for review?

Yes

6a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

Michael Everson. TrueType.

6b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, Fontographer.

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

Yes, see bibliography above.

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 (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

Yes, see 9 below.

9. 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.

Yes, see Unicode properties 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.)?

Yes.

2b. If YES, with whom?

Deborah Anderson, University of California, Berkeley

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?

Scholarly communities researching the Lycian language.

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

Lycian is fairly rare as these things go.

4b. Reference

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

Yes.

5b. If YES, where?

By scholars worldwide.

6a. 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?

No.

6b. If YES, is a rationale provided?

6c. If YES, reference

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

Yes, they should be encoded in a single block as presented here.

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

9a. 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?

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?

No.

10b. If YES, is a rationale for its inclusion provided?

10c. If YES, reference

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)?

No.

11b. If YES, is a rationale for such use provided?

11c. If YES, reference

12a. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

No.

12b. If YES, reference

13a. Does the proposal contain characters with any special properties such as control function or similar semantics?

Nο

13b. If YES, describe in detail (include attachment if necessary)

14a. Does the proposal contain any Ideographic compatibility character(s)?

Nο

14b. If YES, is the equivalent corresponding unified ideographic character(s) identified?

14c. If YES, reference