JTC1/SC2/WG2 N4324
L2/12-312
2012-09-24

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

Doc Type: **Working Group Document**
Title: **Preliminary proposal for encoding the Hatran script in the SMP of the UCS**
Source: **UC Berkeley Script Encoding Initiative (Universal Scripts Project)**
Author: **Michael Everson**
Status: **Liaison Contribution**
Action: **For consideration by JTC1/SC2/WG2 and UTC**
Date: **2012-09-24**

1. Introduction. The Hatran alphabet belongs to the North Mesopotamian branch of the Aramaic scripts, and was used from year 409 of the Seleucid Era, or 97–98 BCE until the destruction of the city of Hatra ca. 240 CE. Hatra was an economically important oasis between the Euphrates and the Tigris, now al-Ḥaḍr in present-day Iraq. Many of the texts in Hatran are graffiti, but there are some longer texts; there are some 600 texts in all. Ligatures occur in the script but appear to be optional, as will be discussed below (§5). In Hatran the letters DALETH and RESH have fallen together, and do not appear to be distinguished by shape in the monuments. But because a Hatran abecedary *does* distinguish the two in sequence (see Figure 4), and because modern scholars regularly transliterate Hatran texts using *d* and *r*, the two characters have been included in this encoding, with RESH distinguished in the code charts by having a slightly longer tail (compare 𐡓 and 𐡙 in Imperial Aramaic).

2. Processing. Hatran is written from right to left horizontally. Hatran language inscriptions sometimes have no space (or extremely narrow space) between words, and sometimes they have spaces between words; modern editors tend to insert U+0020 SPACE. Sorting order is as in the code chart.

3. Character names. The names used for the characters here are based on those used for Imperial Aramaic. Other West Semitic names may have some currency, but the UCS Imperial Aramic names have been preferred here since Hatran is an Aramaic language.

4. Numerals. Hatran numerals are built up out of 𐣻 1, 𐣼 2, 𐣽 3, 𐣾 4, 𐣿 5, 𐣺 10, 𐣹 20 and 𐣸 100. The origin of the highest numbers in their Aramaic predecessors is clear; compare Aramaic numbers 10 𐡊, 20 𐡙 (in origin two 10s one atop the other), and 100 𐡒 (in origin, a 10 with a stroke added to differentiate it from 100) with Hatran 10 𐣺, 20 𐣹, 100 𐣸. The numbers have right-to-left directionality. In the chart below, the third and sixth columns are displayed in visual order. The number 100 𐣸 can be written with a 1 𐣸𐣻 which can sometimes be ligated with its preceding 1 𐣸; again this is not obligatory.

1	𐣻	1 ←	11	𐣺𐣻	1+10 ←
2	𐣻𐣻	2 ←	12	𐣺𐣻𐣻	2+10 ←
3	𐣻𐣻𐣻	3 ←	13	𐣺𐣻𐣻𐣻	3+10 ←
4	𐣻𐣻𐣻𐣻	4 ←	14	𐣺𐣻𐣻𐣻𐣻	4+10 ←
5	𐣿	5 ←	15	𐣿𐣺	5+10 ←
6	𐣻𐣿	1+5 ←	16	𐣻𐣿𐣺	1+5+10 ←
7	𐣻𐣻𐣿	2+5 ←	17	𐣻𐣻𐣿𐣺	2+5+10 ←
8	𐣻𐣻𐣻𐣿	3+5 ←	18	𐣻𐣻𐣻𐣿𐣺	3+5+10 ←
9	𐣻𐣻𐣻𐣻𐣿	4+5 ←	19	𐣻𐣻𐣻𐣻𐣿𐣺	4+5+10 ←

10	𐣻	10 ←	100	𐣴𐣻	100+1 ←
20	𐣼	20 ←	200	𐣴𐣻𐣻	100+2 ←
30	𐣻𐣼	10+20 ←	300	𐣴𐣻𐣻𐣻	100+3 ←
40	𐣼𐣼	20+20 ←	400	𐣴𐣻𐣻𐣻𐣻	100+4 ←
50	𐣻𐣼𐣼	10+20+20 ←	500	𐣴𐣽	100+5 ←
60	𐣼𐣼𐣼	20+20+20 ←	600	𐣴𐣻𐣽	100+1+5 ←
70	𐣻𐣼𐣼𐣼	10+20+20+20 ←	700	𐣴𐣻𐣻𐣽	100+2+5 ←
80	𐣼𐣼𐣼𐣼	20+20+20+20 ←	800	𐣴𐣻𐣻𐣻𐣽	100+3+5 ←
90	𐣻𐣼𐣼𐣼𐣼	10+20+20+20+20 ←	900	𐣴𐣻𐣻𐣻𐣻𐣽	100+4+5 ←

To indicate 134, 𐣻𐣻𐣻𐣻𐣼𐣴𐣻 would be written. 500 can also be written 𐣴𐣻𐣻𐣻𐣻𐣻 10+1+1+1+1+1 ←. It has also been observed in a soecuak ligature 𐣴𐣻. This should be handled by the font as a nonce ligature.

5. Ligation is sometimes used in Hatran; it seems to be common, but not obligatory (see figures 5, 6, and 7). The letter beth often joins (or touches) the letter following it, but it does not appear that there is a formal script grammar involved. Ligatures which have been observed thus far are:

𐣲 *ʔd* (𐣱𐣱), 𐣳 *ʔq* (𐣸𐣱), 𐣲 *bʔd* (𐣱𐣱𐣯), 𐣰 *bz* (𐣯), 𐣰 *bl* (𐣰𐣫), 𐣰 *bn* (𐣰𐣫), 𐣰 *br* (𐣰𐣪), 𐣰 *bš* (𐣰𐣬), 𐣱 *gl* (𐣰𐣱), 𐣵 *lṭ* (𐣵),𐣷 *qd* (𐣸𐣷).

6. Punctuation. Two punctuation signs have been described in Beyer (see Figures 1, 2, and 3). The original texts should be examined before recommending an encoding.

7. Unicode Character Properties

```
108E0;HATRAN LETTER ALEPH;Lo;0;R;;;;;N;;;;;
108E1;HATRAN LETTER BETH;Lo;0;R;;;;;N;;;;;
108E2;HATRAN LETTER GIMEL;Lo;0;R;;;;;N;;;;;
108E3;HATRAN LETTER DALETH;Lo;0;R;;;;;N;;;;;
108E4;HATRAN LETTER HE;Lo;0;R;;;;;N;;;;;
108E5;HATRAN LETTER WAW;Lo;0;R;;;;;N;;;;;
108E6;HATRAN LETTER ZAYN;Lo;0;R;;;;;N;;;;;
108E7;HATRAN LETTER HETH;Lo;0;R;;;;;N;;;;;
108E8;HATRAN LETTER TETH;Lo;0;R;;;;;N;;;;;
108E9;HATRAN LETTER YODH;Lo;0;R;;;;;N;;;;;
108EA;HATRAN LETTER KAPH;Lo;0;R;;;;;N;;;;;
108EB;HATRAN LETTER LAMEDH;Lo;0;R;;;;;N;;;;;
108EC;HATRAN LETTER MEM;Lo;0;R;;;;;N;;;;;
108ED;HATRAN LETTER NUN;Lo;0;R;;;;;N;;;;;
108EE;HATRAN LETTER SAMEKH;Lo;0;R;;;;;N;;;;;
108EF;HATRAN LETTER AYN;Lo;0;R;;;;;N;;;;;
108F0;HATRAN LETTER PE;Lo;0;R;;;;;N;;;;;
108F1;HATRAN LETTER SADHE;Lo;0;R;;;;;N;;;;;
108F2;HATRAN LETTER QOPH;Lo;0;R;;;;;N;;;;;
108F3;HATRAN LETTER RESH;Lo;0;R;;;;;N;;;;;
108F4;HATRAN LETTER SHIN;Lo;0;R;;;;;N;;;;;
108F5;HATRAN LETTER TAW;Lo;0;R;;;;;N;;;;;
108F8;HATRAN NUMBER ONE;No;0;R;;;;1;N;;;;;
108F9;HATRAN NUMBER TWO;No;0;R;;;;2;N;;;;;
108FA;HATRAN NUMBER THREE;No;0;R;;;;3;N;;;;;
108FB;HATRAN NUMBER FOUR;No;0;R;;;;4;N;;;;;
108FC;HATRAN NUMBER FIVE;No;0;R;;;;5;N;;;;;
108FD;HATRAN NUMBER TEN;No;0;R;;;;10;N;;;;;
108FE;HATRAN NUMBER TWENTY;No;0;R;;;;20;N;;;;;
108FF;HATRAN NUMBER ONE HUNDRED;No;0;R;;;;100;N;;;;;
```

8. Bibliography

Aggoula, Basile. 1991. *Inventaire des inscriptions hatréennes*. Paris: Librairie orientaliste Paul Geuthner.

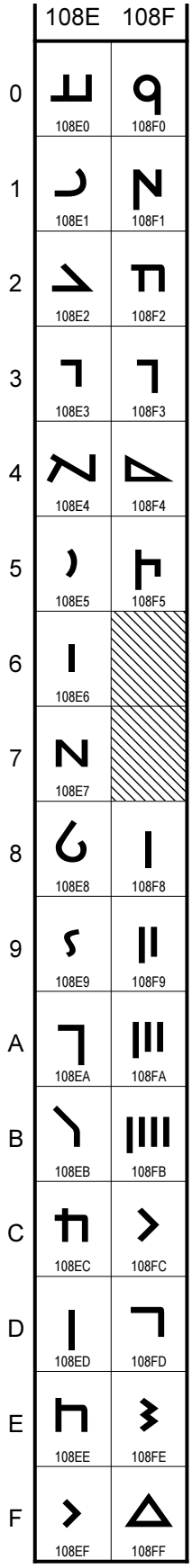
Bertolino, Roberto. 2008. *Manual d'épigraphie hatréenne*. Paris: Geuthner Manuels.

Beyer, Klaus. 1998. *Die aramäischen Inschriften aus Assur, Hatra und dem übrigen Ostmesopotamien (datiert 44 v.Chr. bis 238 n.Chr.)*. Göttingen: Vandenhoeck & Ruprecht. ISBN 3-525-53645-3

Ifrah, Georges. 1998. *The universal history of numbers: from prehistory to the invention of the computer.* London: Harvill Press. ISBN 1-86046-324-X

Naveh, Joseph. 1987. *Early history of the alphabet: an introduction to West Semitic epigraphy and palaeography*. Jerusalem: Magnes Press, the Hebrew University. ISBN 965-223-436-2

9. Acknowledgements. This project was made possible in part by a grant from the U.S. National Endowment for the Humanities, which funded the Universal Scripts Project (part of the Script Encoding Initiative at UC Berkeley) in respect of the Hatran encoding. Any views, findings, conclusions or recommendations expressed in this publication do not necessarily reflect those of the National Endowment of the Humanities.



Letters

108E0 𐭠 HATRAN LETTER ALEPH
108E1 𐭡 HATRAN LETTER BETH
108E2 𐭢 HATRAN LETTER GIMEL
108E3 𐭣 HATRAN LETTER DALETH
108E4 𐭤 HATRAN LETTER HE
108E5 𐭥 HATRAN LETTER WAW
108E6 𐭦 HATRAN LETTER ZAYN
108E7 𐭧 HATRAN LETTER HETH
108E8 𐭨 HATRAN LETTER TETH
108E9 𐭩 HATRAN LETTER YODH
108EA 𐭪 HATRAN LETTER KAPH
108EB 𐭫 HATRAN LETTER LAMEDH
108EC 𐭬 HATRAN LETTER MEM
108ED 𐭭 HATRAN LETTER NUN
108EE 𐭮 HATRAN LETTER SAMEKH
108EF 𐭯 HATRAN LETTER AYN
108F0 𐭰 HATRAN LETTER PE
108F1 𐭱 HATRAN LETTER SADHE
108F2 𐭲 HATRAN LETTER QOPH
108F3 𐭳 HATRAN LETTER RESH
108F4 𐭴 HATRAN LETTER SHIN
108F5 𐭵 HATRAN LETTER TAW

Numbers

108F8 𐭸 HATRAN NUMBER ONE
108F9 𐭹 HATRAN NUMBER TWO
108FA 𐭺 HATRAN NUMBER THREE
108FB 𐭻 HATRAN NUMBER FOUR
108FC 𐭼 HATRAN NUMBER FIVE
108FD 𐭽 HATRAN NUMBER TEN
108FE 𐭾 HATRAN NUMBER TWENTY
108FF 𐭿 HATRAN NUMBER ONE HUNDRED

10. Figures.

Aus der Chronologie der aramäischen Lautgesetze (ATTM 77–153 + N) und der Schreibung der ostmesopotamischen Inschriften ergeben sich für das Aramäische in Ostmesopotamien am Anfang des 3. Jh.s n. Chr. 27 Konsonanten und die Vokale *a e o (i u ə) ā ę̄ ē ī ō ū* (*i* nur vor *y, u* nur vor *w, ə* nur nach *ʾ*), dazu die Langdiphthonge *āy īw ūy* und, nur am Wortende und wenn < *–ayy –áyā,* der Kurzdiphthong *–ay*.

Die ostmesopotamische Schrift hat 21 Buchstaben und ist linksläufig. Die von mir entworfene und von Ulrich Seeger digitalisierte stilisierte Druckschrift folgt der Normalform der Buchstaben (vgl. das Alphabet H 14):

𐣠 *ʾ* , 𐣡 *b ḇ* , 𐣢 *g ḡ* , 𐣣 *d ḏ r* , 𐣤 *h* , 𐣥 *w* , 𐣦 *z* , 𐣧 *ḥ* , 𐣨 *ṭ* , 𐣩 *y* , 𐣪 *k ḵ* ,
𐣫 *l* , 𐣬 *m* , 𐣭 *n* , 𐣯 *s* , 𐣰 *ʿ* , 𐣱 *p p̄* , 𐣲 *ṣ* , 𐣳 *q* , 𐣴 *š s* , 𐣵 *t ṯ* .

Die Gleichheit von *d* und *r* ist reichsaramäisches Erbe. Besonders außerhalb von Hatra können 𐣤 𐣧 𐣨 𐣰 𐣴 abweichen; 𐣥 𐣦 𐣩 sind oft nicht zu unterscheiden; 𐣡 und 𐣢 sind oft nach links verbunden, 𐣴 manchmal nach rechts, 𐣠 auch nach beiden Seiten. Deutliche Wortabstände sind selten (A 15; G 1.2; H 228; 230; 240; 242; 272; 345; 347; 377; 378; 406; 1027; T 2), ebenso Worttrennungen am Zeilen-ende (H 4,2; 284,1; 339,2; 342,1; 347,3; 409c,3; 416,4). Die festen Status-constructus-Verbindungen *rabbēṯā* „der Leiter des Hauses, der Verwalter" (oft), *mārę̄lāhę̄* „der Herr der Götter" (A 15b,2; H 1002; S 1,3; T 3,6) und *mārę̄massę̄* „der Leiter der Dienstverpflichteten" (H 408,9) und die Satznamen *Yhabbarmārēn* DER-SOHN-UNSERER-HERRSCHAFTEN-GAB-(DEN-SOHN) (H 79,7 und öfter) und *Qšabbarmārēn* DER-SOHN-UNSERER-HERRSCHAFTEN-WAR-AUFMERKSAM (H 1026,1) werden zu Einem Wort ohne 𐣠 bzw. zweites 𐣡 in der Mitte. 𐣠 ist Abkürzung für *ʾas* „As" (H 191,2; 243,2), 𐣬 für 𐣬𐣭𐣩𐣭 *mnēn* „Minen" (H 191; 192) und 𐣬𐣣𐣩𐣠 *māryā* „der Herr" (H 233,2 = 266f.; 329?). Ein senkrechter Strich | erscheint in H 1017,2, zwei Striche || in H 1029,2.

Figure 1. Description of Hatran letters from Beyer 1998. Note that DALETH and RESH are not distinguished here. Two punctuation marks are described in the last line.

H 1017: Bauinschrift

(6/7 n.Chr.; VATTIONI II 015)

[1] 𐣰𐣣𐣣𐣫 𐣡𐣣 𐣣𐣣𐣩𐣠 [2] | 𐣳𐣣𐣴𐣠 𐣣𐣠𐣫𐣤𐣠 [3] 318

[1]*ʿḎarēl bàr Dārāyā* [2] | *qoḏšā ḏʾəlāhę̄* [3]*318.*

[1]EL-HALF der Sohn des DER-MANN-AUS-DĀR(Ā)$^{\text{BEINAME}}$ (H 240,1). [2] | (Hier beginnt) das den Göttern Heilige. [3](Im Jahre) 318 (seleukidischer Ära).

Figure 2. Transcription and transliteration of Hatran text showing the single punctuation mark.

H 1029: Beischriften von Zeichnungen (Tiere)

(VATTIONI II 030)

[1] 𐣰𐣡𐣣𐣯𐣬𐣩𐣠 𐣧𐣩𐣠 [1]*ʿḆeḏsemyā* (arabisch *ʿAbdsemyā*) *Ḥayyā.*

[1]SKLAVE-DER-(GÖTTIN)-SEMYĀ, Ḥayyā$^{\text{ARAB. HYPOKOR.}}$

[2](neben Zeichnungen eines weiblichen Pfaus und einer Taube) 𐣦𐣩𐣧 || 𐣢𐣥𐣦𐣫𐣠

Zayyāḥ(?) STOLZER(?) || *gōzlā* die junge Taube.

[3] 𐣫𐣣𐣧𐣬𐣠 [3]*lrāḥmę̄.* [3]für die Freunde.

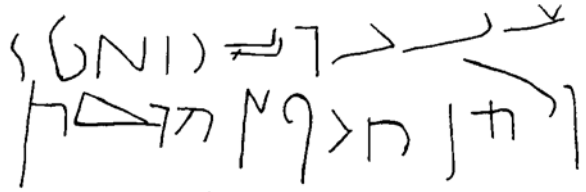
[4](unklar).

Figure 3. Transcription and transliteration of Hatran text showing the double punctuation mark.

14 F. SAFAR, *Sumer*, VII, 1951 (partie arabe), p. 178, IX, 1953 (partie anglaise), p. 12 et *al-Ḥaḍr*, p. 405; A. CAQUOT, *Syria*, XXIX, 1952, p. 97; O. KRÜCKMANN, *Archiv*, p. 146; J.T. MILIK, *RN*, 1962, pp. 53-56 et *DFD*, p. 400 et F. VATTIONI, *Iscrizioni*, p. 29.

Alphabet hatréen gravé sur le mur est du petit temple III. Longueur de la ligne: 1.40m.

ʾB G D H W Z Ḥ Ṭ Y
K L M N S ʿ P Ṣ Q R Š T



Pour d'autres alphabets araméens, nous renvoyons à R. DEGEN, „Ein Armäisches Alphabet vom Tell Ḥalaf", *Neue Ephemeris für Semitische Epigraphik*, III, Wiesbaden, 1978, pp. 1-9; A. LEMAIRE-H. LOZACHMEU «Deux inscriptions araméennes inédites du Ve siècle av. J.-C.», *Semitica*, XXVII, 1977, p. 99 ss et E. PUECH, «Abécédaires et listes alphabétiques des noms hébreux du début du IIe siècle A.D.», *RB*, 87, 1980, pp. 118-126, photo, Pl. I et fac-similé, Pl. II (ostracon de l'Ecole Biblique) = laboratoire de recherche des musées de France, nº 26024).

Figure 4. Hatran abecedary distinguishing ד DALETH and ר RESH by position, though not by shape. The alphabet is given as:

1. DKYR ʿBSMYʾ BR
2. RPŠMŠ WḤBRYHY
3. KLHWN LṬB QDM
4. SMYʾ

1. «*Que soient commémorés ʿbsmyʾ fils de*
2. *rpšmš et ses compagnons,*
3. *tous, en bien devant*
4. *l'Enseigne*».

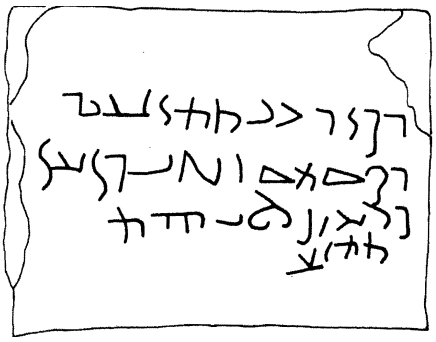
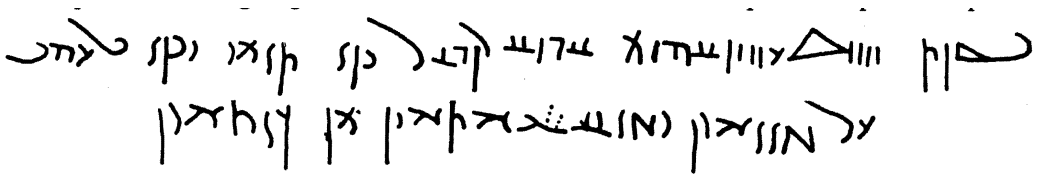
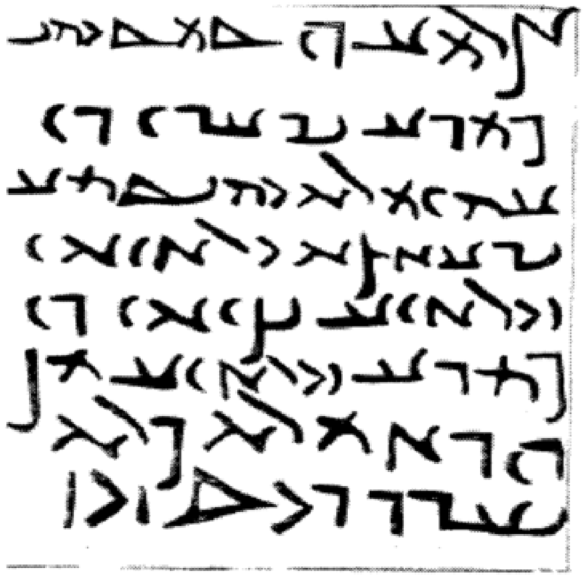


Figure 5. Hatran inscription H 213. In the first line there is a ligature ב *br* (ך), but in the second line there is no ligature ך *br*. In the third line there is a ligature ל *lṭ* (ל) and a ligature ד *qd* (ד).



1. BŠNT CCCC + V + IIII ʾQYM ʾRZʾ LNRGL
   BNY TYMW WBNY BL ʿQB
2. ʿL ḤYYHWN WḤYʾ ʾBHTHWN MN KYSHWN

Figure 6. Hatran inscription H 214.
In the first line there is a ligature ש *bš* (ש), ן *bn* (ן), and ל *bl* (ל).



SLM' DY ŠMŠ'QB
KMR' BR 'DY DY
'QYM LH 'QBŠM'
BR 'ḤTH 'L ḤYHY
W'L ḤY' BNYHY DY
KMR' W'L ḤY' MN
DY RḤM LH KLH
B'DR D CCCCC X V I

Figure 7. Hatran inscription H 405.
In line 2 there is a ligature 𐣡𐣣 *br* (𐣡𐣣) and a ligature 𐣠𐣣 *ʔd* (𐣠𐣣);
in line 3 there is a ligature 𐣠𐣲 *ʔq* (𐣠𐣲), and a ligature 𐣡𐣴 *bš* (𐣡𐣴);
in line 4 there is a ligature 𐣡𐣣 *br* (𐣡𐣣); in line 5 there is a ligature 𐣡𐣭 *bn* (𐣡𐣭);
in line 8 there is a ligature 𐣡𐣠𐣣 *bʔd* (𐣡𐣠𐣣).

A. Administrative

1. Title

Preliminary proposal for encoding the Hatran script in the SMP of the UCS

2. Requester's name

UC Berkeley Script Encoding Initiative (Universal Scripts Project)

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

Liaison contribution.

4. Submission date

2012-09-24

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

Yes.

B. Technical – General

1. Choose one of the following:

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

Yes.

1b. Proposed name of script

Hatran.

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

No.

1d. Name of the existing block

2. Number of characters in proposal

30.

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); 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)

Category E.

4a. Is a repertoire including character names provided?

Yes.

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

Yes.

4c. Are the character shapes attached in a legible form suitable for review?

Yes.

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

Ulrich Seeger via Michael Everson.

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, FontLab.

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes.

7. 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.

8. 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.

See 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?

John Healey, Klaus Beyer, and Ulrich Seeger.

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?

See above.

4a. The context of use for the proposed characters (type of use; common or rare)
To write a dialect of the Aramaic language.
4b. Reference
5a. Are the proposed characters in current use by the user community?
Yes.
5b. If YES, where?
In scholarly publications.
6a. After giving due considerations to the principles in the P&P 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.
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
11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
No.
11e. If YES, reference
12a. Does the proposal contain characters with any special properties such as control function or similar semantics?
No.
12b. If YES, describe in detail (include attachment if necessary)
13a. Does the proposal contain any Ideographic compatibility character(s)?
No.
13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?