

**PROPOSAL SUBMISSION FORM TO ACCOMPANY SUBMISSIONS  
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646**

L2/04-162

2004 – 7 – 17

**A. Administrative**

1. Title:

Proposal to add Babylonian Pointing to ISO/IEC 10646

2. Requester's name:

Elaine Keown

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

Individual contribution

4. Submission date:

May 14, 2004

5. Requester's reference (if applicable):

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6. Choose one of the following:

6a. This is a complete proposal.

No

6b. More information will be provided later:

Yes. (see D. Proposal)

**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

Name of the existing block:

Hebrew

2. Number of characters in proposal:

37; number may increase slightly if variants found

3. Proposed category (select one from below - see section 2.2 of P&P document):

Category B.2

4. Proposed Level of Implementation (1, 2 or 3) (see Annex K in P&P document):

Level 2

Is a rationale provided for the choice?

Yes

If Yes, reference: \_\_\_\_\_

5. Is a repertoire including character names provided?

Partial repertoire included, waiting on font—names preliminary

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? A few are.

### **B. Technical - General**

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

John Hudson Tiro Typeworks True Type

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

Font should be available sometime in summer or fall 2004

7. References:

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

Yes, see Bibliography.

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

No

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:

Several characters resemble existing Unicode Hebrew or possibly Syriac diacritics, but they have different semantic meaning (represent different Hebrew vowels, etc.)

### **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 (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes. Proposer will be contacting Aramaists and other potential users. She has already been in contact with two largest computational Aramaic projects, the CAL (Comprehensive Aramaic Lexicon, Cincinnati), and a new targum project in Kampen (The Netherlands).

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

The user community includes computational Aramaists and Hebraists worldwide. The targums, the Aramaic translations of the Bible, are among the earliest and most important translations. Many of them use Babylonian pointing. Some targum texts may be available exclusively in this pointing system. Others are preserved in both Tiberian and Babylonian pointing. In addition, Babylonian pointing was used in Yemen for all pointed writing until the late 1780s. The Yemenite manuscript tradition is among the most important.

Reference: \_\_\_\_\_

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

Widely used by scholars.

Reference: \_\_\_\_\_

**C. Technical - Justification**

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

Yes

If YES, where? Reference:

\_\_\_\_\_

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

That would be more desirable. This is the second-most important pointing system.

If YES, is a rationale provided?

Yes, see 3. \_\_\_\_\_

If YES, reference: \_\_\_\_\_

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

Yes

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?

Yes

If YES, is a rationale for its inclusion provided?

Yes, see proposal.

If YES, reference: \_\_\_\_\_

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

Yes

If YES, is a rationale for its inclusion provided?

Yes, see D. Proposal.

If YES, reference: \_\_\_\_\_

11. Does the proposal include use of combining characters and/or use of composite

Yes

If YES, is a rationale for such use provided?

Yes, see B.9 \_\_\_\_\_ If YES, reference:

\_\_\_\_\_

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

Yes

If YES, reference: \_\_\_\_\_

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

No

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

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

No

## D. Proposal

The Hebrew and Aramaic languages have been written with 6 sets of diacritics for vowels and 4 sets for punctuation, accents, and text markup:

1. **Tiberian** - the vowels, accents, and diacritics (incompletely) in Unicode
- 2., 3., 4. **Simple Babylonian 1 and 2, Complex Babylonian** – this proposal
5. **Samaritan** – see proposal at <http://www.lashonkodesh.org/samarpro.pdf>
6. **Palestinian** – another regional system of diacritics, not as widely known

In addition, the Hebrew language has been written in at least two sets of ‘base characters,’ namely Hebrew and Arabic.

The Aramaic language, apparently the most polyscriptal on earth, has been written in at least eight writing systems, including both Hebrew (= ‘Aramaic square script’ and its glyphic variants) and Arabic characters, plus Syriac, Roman, Cyrillic, and all the Egyptian writing systems except for the most recent (Coptic).

### Simple Babylonian 1 and 2

The two Simple Babylonian vowel systems overlap some. The noted scholar Aron Dotan writes :

"There are two sets of signs in Babylonian vocalization :  
 (a) the regular Babylonian set, which consists (in part) of lines, whose origin is in letters, and (in part) of dots; (b) a set which consists entirely of dots and is relatively rare."







Dotan goes on to completely describe both sets of Simple Babylonian, including the points which are found in both Simple Babylonian systems.




NOTE : graphics for the character repertoire are not shown, since the font is not done.

Babylonian cantillation marks







0826	HEBREW BABYLONIAN ACCENT ETNACHTA
0827	HEBREW BABYLONIAN ACCENT ZAQEF
0828	HEBREW BABYLONIAN ACCENT TEVIR
0829	HEBREW BABYLONIAN ACCENT MINOR DISJUNCTIVE1
082A	HEBREW BABYLONIAN ACCENT MINOR DISJUNCTIVE2
082B	HEBREW BABYLONIAN ACCENT DEHI
082C	HEBREW BABYLONIAN ACCENT ALTERNATE DEHI
082D	HEBREW BABYLONIAN ACCENT HAZER
082E	HEBREW BABYLONIAN ACCENT TERES
082F	HEBREW BABYLONIAN ACCENT NEGDA = legarmeh
0830	HEBREW BABYLONIAN ACCENT ZARQA
0831	HEBREW BABYLONIAN ACCENT SEGOL
0832	HEBREW BABYLONIAN ACCENT ALTERNATE ZARQA
0833	HEBREW BABYLONIAN ACCENT ALTERNATE TERES
0834	HEBREW BABYLONIAN ACCENT YETIV
0835	<not used yet>
0836	<not used yet>
0837	<not used yet>

Simple Babylonian points

0838		HEBREW SIMPLE BABYLONIAN POINT KHETFA = Tiberian SHEVA
0839		HEBREW SIMPLE BABYLONIAN POINT HIRIQ
0840		HEBREW SIMPLE BABYLONIAN POINT TSERE OR SEGOL
0841		HEBREW SIMPLE BABYLONIAN POINT MIFTAKH PUMA OR PITKHA (two glyphs)
0842		HEBREW SIMPLE BABYLONIAN POINT ALTERNATE MIFTAKH PUMA OR PITKHA
0843		HEBREW SIMPLE BABYLONIAN POINT MIKPATZ PUMA OR MITSAF PUMA = Tiberian QAMATS

0844		HEBREW SIMPLE BABYLONIAN POINT ALTERNATE MIKPATZ PUMA OR MITSAF PUMA = Tiberian QAMATS
0845		HEBREW SIMPLE BABYLONIAN POINT SECOND ALTERNATE MIKPATZ PUMA OR MITSAF PUMA = Tiberian QAMATS
0846		HEBREW SIMPLE BABYLONIAN POINT HOLAM
0847		HEBREW SIMPLE BABYLONIAN POINT QUBUTS
0848		HEBREW SIMPLE BABYLONIAN POINT ALTERNATE QUBUTS
0849		<not used>
084A		<not used>

Complex Babylonian points

084B		HEBREW COMPLEX BABYLONIAN POINT ??
084C		HEBREW COMPLEX BABYLONIAN POINT ??
084D		HEBREW COMPLEX BABYLONIAN POINT ??
084E		HEBREW COMPLEX BABYLONIAN POINT ??
084F		HEBREW COMPLEX BABYLONIAN POINT ??
0850		HEBREW COMPLEX BABYLONIAN POINT ??



MANUSCRIPTS TO EVENTUALLY CONSULT :

Or. 1467

Or. 2228, 2229, 2230

Or. 2211

Or. 1474

Or. 1473

Or. 2374

Or. 2210

Or. 1472

Or. 1471

Simple Babylonian :

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INDIVIDUAL SCHOLARS CONSULTED :

Prof. Stephen Kaufman, CAL (Comprehensive Aramaic Lexicon), Hebrew Union College, Cincinnati.

BIBLIOGRAPHY:

Dotan, Aron. "Masorah." *Encyclopaedia Judaica*. Keter: Jerusalem, 1971, cols. 1441-1447.

Keown, E.R. "Hebrew alphabets, symbols and computer codes: history and preliminary tabulation." *Revue des Études Juives*, 161 (1-2), pp. 235-240. N.B. this article is an earlier and less interesting version of my research and has miscellaneous errors, e.g., I have never had an affiliation with UPenn; there is one chronological error.

Knudsen, Ebbe E. A Targumic Aramaic Reader : Texts from Onkelos and Jonathan. Leiden : E. J. Brill, 1981.

Morag, Shelomo. *The vocalization systems of Arabic, Hebrew, and Aramaic; their phonetic and phonemic principles*. 's-Gravenhage: Mouton, 1962 [c1961].

Sa'adia ben Joseph and Shelomo Morag. The book of Daniel : a Babylonian-Yemenite manuscript. Jerusalem : Kiryat-Sepher, c1973.

Tov, E. Textual Criticism of the Hebrew Bible. Fortress Press : Minneapolis, 1992. Plate 14 (p. 394) : 'simple' Babylonian ms, T-S Box A38,5.



