

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

**Doc Type:** Working Group Document  
**Title:** Request to add one Cuneiform character to the UCS  
**Source:** Michael Everson and Steve Tinney  
**Status:** Liaison Contribution  
**Date:** 2013-10-28  
**Replaces:** N4178

**1. Introduction.** N4178 and N4277R added additional Cuneiform characters to the UCS. One character seems to have fallen through the cracks, however. Requested here is:

12399      ⌵      CUNEIFORM SIGN U U

The character ⌵ U U should have been encoded first time around but was missed by simple oversight; it has syllabic and logographic values, and is also the number-sign for 20—just as the UCS has ⌵⌵ 30, ⌵⌵⌵ 40, ⌵⌵⌵⌵ 50 etc. So it is needed for consistency with our original encoding practices. Note that 30 (⌵⌵⌵ U U U) is already encoded at U+1230D; that is also one of the basic syllables, *eš*.

In the earliest encoding proposal documents ⌵ U U was present, but a follow-on document by removed it. The rationale for ⌵⌵⌵ U U U was that it was a basic syllable in Akkadian. U U did not have a similar rationale then, but what should have been said was that the rationale for U U was that it is also the number 20.

The removal of some of those signs in the early encoding discussions was overzealous and was conditioned by some of the arguments that were going on about the encoding. When we backtracked and let some of the compounds back in, like *eš*, we should also have included U U at that point. It is a real problem for numbers that U U is not encoded; and since both U+1230B ⌵ U and U+1230D ⌵⌵⌵ U U U are in the non-number block we recommend doing the same with U U.

**2. Unicode Character Properties.** Character properties for the new character are proposed here.

12399;CUNEIFORM SIGN U U;Lo;0;L;;;;N;;;;;

**3. Ordering of syllables.** The new character should new signs should be ordered according to their transcription, as other Cuneiform characters are. A

1230C      ⌵⌵⌵      CUNEIFORM SIGN U GUD  
12399      ⌵      CUNEIFORM SIGN U U  
1230D      ⌵⌵⌵      CUNEIFORM SIGN U U U

## A. Administrative

1. Title

**Request to add one Cuneiform character to the UCS**

2. Requester's name

**Michael Everson and Steve Tinney**

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

**Individual contribution.**

4. Submission date

**2013-10-28**

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

**Yes.**

6b. More information will be provided later

**No.**

## B. Technical – General

1. Choose one of the following:

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

**No.**

1b. Proposed name of script

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

**Yes**

1d. Name of the existing block

**Cuneiform**

2. Number of characters in proposal

**1.**

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 F.**

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?

**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, Fontographer.**

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?

**No.**

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.

**Yes; see above.**

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?

**Steve Tinney (co-author).**

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?

**Sumerologists.**

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

**Used historically and in modern editions.**

4b. Reference

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

**Yes.**

5b. If YES, where?

**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)?

**No.**

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?