

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 to encode the Cuneiform script in the SMP of the UCS
Source: Michael Everson, Karljürgen Feuerherm, Steve Tinney
Status: Individual Contribution
Date: 2003-11-03

A. Administrative

1. Title

Preliminary proposal to encode the Cuneiform script in the SMP of the UCS.

2. Requester's name

Michael Everson, Karljürgen Feuerherm, Steve Tinney

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

Individual contribution.

4. Submission date

2003-11-03

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

No. This is a preliminary proposal

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.

Proposed name of script

Cuneiform and Cuneiform Numbers.

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

952.

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

Category B.

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

Characters are ordinary spacing characters.

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?

Steve Tinney and Michael Everson. TrueType.

6b. If available now, identify source(s) for the font and indicate the tools used:

Steve Tinney and Michael Everson. Fontographer & FontLab.

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

Yes (see below).

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.

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.

UUUUU;CUNEIFORM CHAR NAME;Lo;0;L;;;;;N;;;;;

They are all "Letter other" category, strong left to right. Their line-breaking properties are much like CJK ideographic characters.

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, Lloyd Anderson, Miguel Civil, Jerrold Cooper, Patrick Durusau, Karljürgen Feuerherm, Madeleine Fitzgerald, Eckart Frahm, Charles E. Jones, Cale Johnson, David Owen, Simo Parpola, Dean Snyder, Matt Stolper, Steve Tinney, Petr Vavroušek, and others cited in the body of the proposal. This proposal was funded in part by Johns Hopkins University and the Digital Hammurabi Project, by the National Science Foundation, and by the Society of Biblical Literature and the Script Encoding Initiative, University of California Berkeley.

2c. If YES, available relevant documents

N/A

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

Scholars.

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

Rare.

4b. Reference

See below.

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

Yes.

5b. If YES, where?

In scholarly publications, primarily in the field of Assyriology, but also elsewhere.

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.

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?

No.

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

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

No.

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

14c. If YES, reference

D. Proposal

1 Introduction and early history

The earliest stage of Mesopotamian Cuneiform, as a complete system of writing, is first attested in Uruk during the so-called Uruk IV period (ca. 3500–3200 BCE) with an initial repertoire of about 700 characters or “signs” as cuneiform scholars customarily call them.

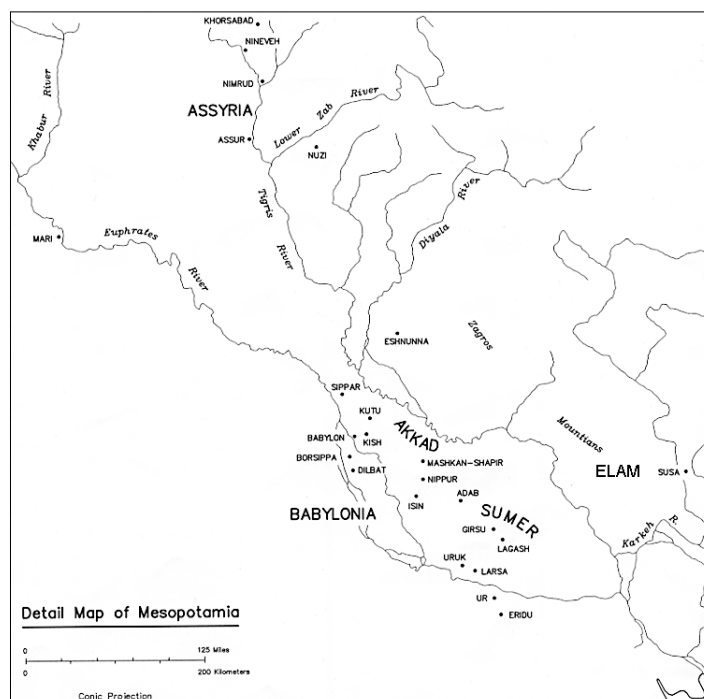


Figure 1: Map of Mesopotamia

Writing emerged in Sumer simultaneously with a sudden growth in urbanization and an attendant increase in the scope and scale of administrative needs. A large proportion of the elements of the early writing system repertoire was devised to represent quantities and commodities for bureaucratic purposes.

At this earliest stage, signs were mainly pictographic, in that a relatively faithful facsimile of the thing signified was traced, though some items were strictly ideographic in that they were represented by completely arbitrary abstractions, such as the symbol for sheep: $\oplus$. Some scholars believe that the abstract symbols were derived from an earlier “token” system of accounting, but there is no general agreement on this point.

Where the pictographs are concerned, interpretation was relatively straightforward. The head of a bull was used to denote ‘cattle’; an ear of barley was used to denote ‘barley’. In some cases, pictographs were also interpreted logographically; meaning was derived from the symbol by close conceptual association. For example, the representation of a bowl might mean ‘bowl’, but it could just as well indicate concepts associated with bowls, such as ‘food’. Renditions of a leg might variously suggest ‘leg’, ‘stand’, or ‘walk.’ By the next chronological period of south Mesopotamian history (the Uruk III period, 3200–2900 BCE), logographic usage seems to have become much more widespread. In addition, individual signs were combined into more complex designs to express other concepts: for example, a head with a bowl next to it was used to denote ‘eat’ or ‘drink’. This is the point during script development at which one can truly speak of the first Sumerian texts. In due course, the early graphs underwent change, conditioned by several factors: the most widely available writing medium, the most widely available writing tools, and the need to record information more quickly and more efficiently from the standpoint of the bureaucracy for whose use the system was invented in the first place.

The obvious writing medium in Sumer was clay, since it was widely available and easily moulded into suitable shapes (cushion or pillow-shaped ‘tablets’), and writing utensils were easily made for it by sharpening pieces of reed. Since inscribing curvilinear lines in a piece of clay with a sharpened reed (called a “stylus”) was awkward and slow, the tendency on the part of scribes was to approximate the pictographs by means of short, wedge-shaped impressions made with the edge of the stylus. It is these short, mainly straight shapes which have given rise to the modern word “cuneiform” (from the Latin *cuneus*, meaning ‘wedge’). Cuneiform proper was common from about 2700 BCE (see Figure 2) though it should be noted that the term “cuneiform” is understood by experts in the script to include the earlier forms as well.

PICTOGRAPHIC SIGN c. 3100 BC									
INTERPRETATION	star	?sun over horizon	?stream	ear of barley	bull's head	bowl	head + bowl	lower leg	?shrouded body
CUNEIFORM SIGN c. 2400 BC									
CUNEIFORM SIGN c. 700 BC (turned through 90°)									
PHONETIC VALUE*	dingir, an	u ₄ , ud	a	še	gu ₄	nig ₂ , ninda	ku ₂	du, gin, gub	lu ₂
MEANING	god, sky	day, sun	water, seed, son	barley	ox	food, bread	to eat	to walk, to stand	man

* Some signs have more than one phonetic value and some sounds are represented by more than one sign. U₄ means the fourth sign with the phonetic value u.

Figure 2: Evolution of Cuneiform from early pictographs

Naturally, as there is an infinite number of ways to approximate a curve by means of short line segments, there were many different approximations to the original round shapes. This is particularly evident in the early script, but even in the latest periods of use of Cuneiform, one can almost never think of a single “canonical” form of any given sign. At best, one can speak of prominent patterns in a given place at a given time.

As can be seen in Figure 2, the orientation of signs shifted at some point in time, mainly due to the evolution of tablet shapes and the manner in which they were held by the scribes. It is difficult to specify this time exactly, but most scholars are inclined to believe that it took place during the so-called Early Dynastic Period (2900–2335 BCE).

It should be noted that the discussion given here has concentrated on the local Mesopotamian contribution to the development of the system. It is of course true that late fourth millennium ideographic tablets were found in other places than Uruk, notably at Susa and several other west Iranian sites, at Nineveh and Tell Brak in Assyria, and even at Habuba Kabira in Syria. The writing system developed in Sumer was repeatedly exported to peripheral regions in the third, second and first millennia BCE. Though local variations in usage are attested, it is valid to discuss script evolution in terms of the core Sumero-Akkadian writing system.

1.1 Overview of the spread of Cuneiform usage

The Sumerians did not live in complete isolation, and from a very early period there is evidence for the presence of another significant linguistic group in the area immediately north of Sumer known as Agade or Akkad (see Figure 1). Those peoples spoke a Semitic language all of whose dialects are subsumed by scholars under the heading “Akkadian”. In the long run, it was the Akkadian speakers who became the primary users and promulgators of Cuneiform script. Because of their trade involvement with their neighbours, Cuneiform spread through Babylonia (the umbrella term for “Sumer and Akkad”) to Elam, Assyria, eastern Syria, southern Anatolia, and even Egypt. Ultimately, many languages came to be written in Cuneiform script, the most notable being:

- Sumerian
- Akkadian (including Babylonian, Assyrian, Eblaite)
- Elamite
- Hittite
- Hurrian

For the practical purposes of encoding, it is helpful to define time-space categories of script usage according to geography and primary linguistic representation as shown in Figure 3 below.

2 Overview of the encoding venture

It is of course not possible to give an exact account of the threads which ultimately resulted in the promulgation of the present preliminary proposal. Nevertheless, a brief history of known and identified contributors to the process may be helpful.

2.1 Absence of legacy encodings

Unlike many other scripts, there is for all intents and purposes no “standard” legacy encoding of Cuneiform to take into account. There are a few reasons for this: primarily the fact that the encoding of 600+ items was not possible in the pre-Unicode world of 8-bit fonts, other than by overloading codepoints which could only be differentiated on a mark-up level (such as font-switching); and such mark-up was never implemented in any consistent fashion leading to an accepted standard.

Archaic Period (to 2901)		
Early Dynastic (2900–2335)		
Old Akkadian (2334–2154)		
Ur III (or NeoSumerian; 2112–2095)		Elamite (2100–360)
Old Assyrian (1900–1750)	Old Babylonian (2004–1595)	
Middle Assyrian (1500-1000)	Middle Babylonian (1595–627)	
Neo-Assyrian (1000-609)		
	Neo-Babylonian (626–539)	
Hittite (1570-1220)		

Figure 3: Cuneiform script usage

In addition, much of the scholarly work takes place on the level of deciphering and redrafting signs found in autographs (in other words, in engaging in hand-writing analysis). Cuneiform signs are almost all multivalent, and the transmission of document content is in general most useful only when sign identification is packaged alongside sign interpretation. Since the “solution” offered by “font mark-up encodings” was not able to accommodate this need, pre-Unicode encodings of Cuneiform found little support in the user community and consequently never emerged as any kind of standard. There do exist some fonts which had a measure of commercial success (such as it was); Michael Everson supplied an analysis of one of these in N2297.

2.2 Towards a Unicode/UCS encoding of Cuneiform

No doubt the true history of this endeavour is as complex as the original invention of Cuneiform itself: there will have been many people engaged in thinking about the issues involved in a Unicode/UCS encoding of Cuneiform who, for various reasons, remain unknown and perforce unacknowledged. The present description is a brief chronicle of contributions on public record.

On 2000-01-20, after spending quite some time in researching and discussing the issues, Lloyd Anderson and Karljürgen Feuerherm, following consultation with Michael Everson, posted a draft document to the the Assyriological scholars’ list operated by J. M. Sasson of Vanderbilt University listing the summary of their conclusions in the hope of generating interest in a formal encoding venture.

This announcement had the effect of catalysing the latent interest in various parts of the scholarly community, with the consequence that a conference was organized by Dean Snyder and hosted by Johns Hopkins University 2000-11-02/03 under the name “Initiative for Cuneiform Encoding”, to discuss the whole subject of encoding Sumero-Akkadian Cuneiform under the auspices of the Unicode Consortium. Following the conference (now referred to as ICE1), the Unicode Technical Committee was informed of an intent on the part of the scholarly community, in consort with qualified technical experts and with the assistance of representatives of Unicode, to begin background work on a formal encoding proposal. To assist the discussion, Unicode offered to host the **cuneiform @ unicode.org** e-mail list.

Discussion on the list ensued, and various presentations were made by interested parties at conferences and elsewhere. Eventually, the consensus was that a follow-up conference (ICE2) might be helpful, to be held once again at Johns Hopkins, and a number of questions were proposed as agenda items. As a service to conference participants, and in the interests of heightening participant productivity, Michael Everson and Karljürgen Feuerherm reviewed the proposed agenda items in light of the consensus decisions reached in the past and made the document available to list members in advance of the conference. This document, “Basic principles for the encoding of Sumero-Akkadian Cuneiform,” was submitted to the Unicode Technical Committee and to ISO/IEC JTC1/SC2/WG2 and is available at <http://std.dkuug.dk/jtc1/sc2/wg2/docs/n2585.pdf>.

The second conference was held 2003-06-05/07, at which the suggestions in N2585 were reviewed. It was decided to submit a preliminary proposal to the UTC and to WG2, in time for the UTC meeting 2003-11-01 in Baltimore, to consist of a brief outline of the development of cuneiform script, a review of the encoding history, a statement of general encoding principles as ratified, and a provisional list of proposed characters and glyphs. The list was to be compiled by Steve Tinney, based on earlier compilations prepared by Miguel Civil, the Pennsylvania Sumerian Dictionary, and the Cuneiform Digital Library Initiative. A working group of cuneiformists was formed to vet the list to ensure accuracy across all periods and languages that utilized cuneiform. The working group included Miguel Civil, Jerrold Cooper, Madeleine Fitzgerald, Karljürgen Feuerherm, Eckart Frahm, Cale Johnson, Dean Snyder (coordinator), Matthew Stolper, and Steve Tinney. This document is a preliminary proposal incorporating the results of that review.

At the end of this proposal is appended a list of the participants in the Initiative for Cuneiform Encoding.

3 General principles of encoding

The following represents a résumé of the principles which have found consensus since the beginning of the encoding venture, and which have been or are expected to be applied to the provisional character list. It may be helpful to note here that Cuneiform “signs” and Cuneiform “characters” do not correspond in one-to-one relationship. It is clear that many signs could be treated as “molecular” rather than “atomic” in nature, though it is not yet altogether clear, in certain cases, which treatment should be applied. For this reason, it is important to stress that these principles are general rather than absolute, and that following their general application, signs/characters will have to be reviewed on a case by case basis.

3.1 Chronology

It was agreed that in the interests of breaking up the task into manageable chunks, encoding will be done by stages, and that the first stage encoding will *not* include Archaic Cuneiform, but will take into account factors arising from the earliest stages of cuneiform to the extent that these are already known and understood; that is, no special effort has been made to go farther back than Ur III. It is felt that this will afford the necessary practical expediency while minimizing the risk of having to deprecate first stage characters at a later date. Thus, the task of encoding the complete Cuneiform repertoire is likely to unfold as follows:

- Stage One: Ur III through late periods, and including all major contemporaneous script users;
- Stage Two: Old Akkadian and any remaining minor script users;
- Stage Three: Archaic Cuneiform.

3.2 Base character inventory

The base character inventory has been distilled from the list of Ur III signs compiled by the Cuneiform Digital Library Initiative (UCLA) in union with the list constructed independently by Miguel Civil. The resultant base list is intended to be comprehensive from Ur III onwards including the most recently published results of an ongoing major scholarly reappraisal of the earlier Fara script (see Manfred Krebernik, *Orbis Biblicus et Orientalis* vol. 160/1). It is felt that comprehensiveness at the level of pre-Old Akkadian periods is not appropriate given the current state of palaeographic research.

3.3 Mergers and splits

Mergers and splits have been discussed and the position to date is that such occurrences must be encoded at the point of maximum differentiation, even when this results in the duplication of glyphs as represented in fonts appropriate for some periods.

3.4 Complex and compound signs

For the sake of ensuring ease of communication, the terms “complex” and “compound” in relation to Cuneiform signs have been defined as follows:

Complex signs: signs made up of a primary sign with one of more secondary signs written within it or otherwise conjoined to it such that the whole is generally treated by scholars as a unit.

Compound signs: linear sequences of two or more signs or wedge-clusters generally treated by scholars as a single unit.

In light of these definitions, the following principles have been ratified:

- Complex signs, which present a relative visual unity, will be assigned single individual code points irrespective of their components.
- Compound signs will be encoded as sequences of their component characters.

It has been agreed that the aggregate list be initially parsed according to these criteria, but that following this first pass, discussion on special treatment of individual cases will be entertained. In general, signs which shift from compound to complex or vice versa will initially be treated according to their Ur III manifestation.

3.5 Apparent omissions

A list of signs which will not appear as unique characters due to the application of former principles will be prepared. This will include as a subset a list of ligatures, since traditional cuneiform scholarship, which is perforce essentially glyph-oriented, often treats ligatures as signs in their own right.

3.6 Glyph variants acquiring independent semantic status

Glyph variants such as TA*, a Middle Assyrian form of the sign TA which in Neo-Assyrian usage has its own logographic interpretation, will be assigned their own code positions, to be used only when the new interpretation applies.

3.7 Punctuation marks. The small number of signs occasionally used in cuneiform to indicate word division, repetition or phrase separation will be assigned code positions.

3.8 Special case: Numerals

In general, numerals will be encoded separately from signs which are visually identical but semantically different (e.g. 1BÁN, 2BÁN, etc. vs. MAŠ, PA, etc). (There are issues as to whether this is entirely appropriate or not.)

3.9 Mark-up/formatting. Case ruling and the like is considered formatting and is not to be treated as punctuation and hence is irrelevant to the encoding.

3.10 Character order

Various alternatives have been suggested including using the traditional numbering, which itself derives from a formal ordering by first millennium character shapes; devising an ordering based on form which is better matched to the third millennium glyphs which appear in the character tables; or simply ordering the characters alphabetically according to their transliteration. A variant of the latter alternative has been chosen in this document: it is alphabetical by primary sign name with complex signs based on the primary sign organized according to graphic principles; in some cases, these correspond to the native analyses.

3.11 Fonts and software

Steve Tinney will produce a predominantly Ur III font containing comprehensive glyph representation for the characters in the ultimate list in the final proposal, with assistance from Michael Everson. Karljürgen Feuerherm will endeavour to produce a font representative of the Old Babylonian period and a demonstrator capable of showing the operation of the proposed encoding.

3.12 Proofing

The aggregate list will be vetted by representatives from each period, to ensure that nothing of significance has been omitted.

Row 120: CUNEIFORM

	1200	1201	1202	1203	1204	1205	1206	1207
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 120: CUNEIFORM

hex	Name
12000	CUNEIFORM SIGN A
12001	CUNEIFORM SIGN A TIMES A
12002	CUNEIFORM SIGN A TIMES BAD
12003	CUNEIFORM SIGN A TIMES GAN2 TENU
12004	CUNEIFORM SIGN A TIMES HA
12005	CUNEIFORM SIGN A TIMES IGI
12006	CUNEIFORM SIGN A TIMES LAGAR GUNU
12007	CUNEIFORM SIGN A TIMES MUSH
12008	CUNEIFORM SIGN A TIMES SAG
12009	CUNEIFORM SIGN A2
1200A	CUNEIFORM SIGN AB
1200B	CUNEIFORM SIGN AB GUNU
1200C	CUNEIFORM SIGN AB TIMES ASH2
1200D	CUNEIFORM SIGN AB TIMES GIN2
1200E	CUNEIFORM SIGN AB TIMES GAL
1200F	CUNEIFORM SIGN AB TIMES GAN2 TENU
12010	CUNEIFORM SIGN AB TIMES HA
12011	CUNEIFORM SIGN AB TIMES IMIN
12012	CUNEIFORM SIGN AB TIMES LAGAB
12013	CUNEIFORM SIGN AB TIMES SHESH
12014	CUNEIFORM SIGN AB TIMES SIG7
12015	CUNEIFORM SIGN AB TIMES U PLUS U PLUS U
12016	CUNEIFORM SIGN AB2
12017	CUNEIFORM SIGN AB2 TIMES ASHGAB
12018	CUNEIFORM SIGN AB2 TIMES BALAG
12019	CUNEIFORM SIGN AB2 TIMES BI
1201A	CUNEIFORM SIGN AB2 TIMES DUG
1201B	CUNEIFORM SIGN AB2 TIMES GAN2 TENU
1201C	CUNEIFORM SIGN AB2 TIMES GUD
1201D	CUNEIFORM SIGN AB2 TIMES KAD3
1201E	CUNEIFORM SIGN AB2 TIMES LA
1201F	CUNEIFORM SIGN AB2 TIMES ME PLUS EN
12020	CUNEIFORM SIGN AB2 TIMES NE
12021	CUNEIFORM SIGN AB2 TIMES SHA3
12022	CUNEIFORM SIGN AB2 TIMES SIG7
12023	CUNEIFORM SIGN AB2 TIMES SILA3
12024	CUNEIFORM SIGN AB2 TIMES TAK4
12025	CUNEIFORM SIGN AB2 TIMES U2
12026	CUNEIFORM SIGN AD
12027	CUNEIFORM SIGN AK
12028	CUNEIFORM SIGN AK TIMES ERIN2
12029	CUNEIFORM SIGN AK TIMES SAL PLUS GISH
1202A	CUNEIFORM SIGN AK TIMES SHITA PLUS GISH
1202B	CUNEIFORM SIGN AL
1202C	CUNEIFORM SIGN AL CROSSING AL
1202D	CUNEIFORM SIGN AL TIMES DIM2
1202E	CUNEIFORM SIGN AL TIMES GISH
1202F	CUNEIFORM SIGN AL TIMES HA
12030	CUNEIFORM SIGN AL TIMES KAD3
12031	CUNEIFORM SIGN AL TIMES KI
12032	CUNEIFORM SIGN AL TIMES SHE
12033	CUNEIFORM SIGN AL TIMES USH
12034	CUNEIFORM SIGN ALAN
12035	CUNEIFORM SIGN ALEPH
12036	CUNEIFORM SIGN AMAR
12037	CUNEIFORM SIGN AMAR TIMES SHE
12038	CUNEIFORM SIGN AN
12039	CUNEIFORM SIGN AN OPPOSING AN
1203A	CUNEIFORM SIGN AN OVER AN
1203B	CUNEIFORM SIGN AN PLUS NAGA SQUARED
1203C	CUNEIFORM SIGN ANSHE
1203D	CUNEIFORM SIGN APIN
1203E	CUNEIFORM SIGN ARAD
1203F	CUNEIFORM SIGN ARAD TIMES KUR
12040	CUNEIFORM SIGN ARKAB
12041	CUNEIFORM SIGN ASAL2
12042	CUNEIFORM SIGN ASH
12043	CUNEIFORM SIGN ASH KABA TENU
12044	CUNEIFORM SIGN ASH KABA TENU CROSSING ASH KABA TENU
12045	CUNEIFORM SIGN ASH OVER ASH OVER ASH
12046	CUNEIFORM SIGN ASH OVER ASH OVER ASH CROSSING ASH OVER ASH OVER ASH
12047	CUNEIFORM SIGN ASH ZIDA TENU
12048	CUNEIFORM SIGN ASH2
12049	CUNEIFORM SIGN ASHGAB
1204A	CUNEIFORM SIGN BA
1204B	CUNEIFORM SIGN BAD
1204C	CUNEIFORM SIGN BAHAR2
1204D	CUNEIFORM SIGN BAL
1204E	CUNEIFORM SIGN BAL OVER BAL
1204F	CUNEIFORM SIGN BALAG
12050	CUNEIFORM SIGN BAR
12051	CUNEIFORM SIGN BARA2
12052	CUNEIFORM SIGN BI
12053	CUNEIFORM SIGN BI TIMES A
12054	CUNEIFORM SIGN BI TIMES GAR
12055	CUNEIFORM SIGN BI TIMES SIG7
12056	CUNEIFORM SIGN BU

Group 00

hex	Name
12057	CUNEIFORM SIGN BU GUNU
12058	CUNEIFORM SIGN BU CROSSING BU
12059	CUNEIFORM SIGN BU OVER BU
1205A	CUNEIFORM SIGN BULUG
1205B	CUNEIFORM SIGN BULUG OVER BULUG
1205C	CUNEIFORM SIGN BUR
1205D	CUNEIFORM SIGN BUR OVER BUR
1205E	CUNEIFORM SIGN BUR2
1205F	CUNEIFORM SIGN DA
12060	CUNEIFORM SIGN DAG
12061	CUNEIFORM SIGN DAM
12062	CUNEIFORM SIGN DAR
12063	CUNEIFORM SIGN DARA3
12064	CUNEIFORM SIGN DARA4
12065	CUNEIFORM SIGN DI
12066	CUNEIFORM SIGN DIB
12067	CUNEIFORM SIGN DIM
12068	CUNEIFORM SIGN DIM TIMES SHE
12069	CUNEIFORM SIGN DIM2
1206A	CUNEIFORM SIGN DIN
1206B	CUNEIFORM SIGN DISH
1206C	CUNEIFORM SIGN DISH OVER DISH
1206D	CUNEIFORM SIGN DU
1206E	CUNEIFORM SIGN DU GUNU
1206F	CUNEIFORM SIGN DU SHESHIG
12070	CUNEIFORM SIGN DU OVER DU
12071	CUNEIFORM SIGN DUB
12072	CUNEIFORM SIGN DUB TIMES ESH2
12073	CUNEIFORM SIGN DUB2
12074	CUNEIFORM SIGN DUG
12075	CUNEIFORM SIGN DUGUD
12076	CUNEIFORM SIGN DUN
12077	CUNEIFORM SIGN DUN3
12078	CUNEIFORM SIGN DUN3 GUNU
12079	CUNEIFORM SIGN DUN3 GUNU GUNU
1207A	CUNEIFORM SIGN DUN3 GUNU GUNU SHESHIG
1207B	CUNEIFORM SIGN DUR2
1207C	CUNEIFORM SIGN E
1207D	CUNEIFORM SIGN E OVER E
1207E	CUNEIFORM SIGN E TIMES PAP
1207F	CUNEIFORM SIGN E2

Plane 01

Row 120

Row 120: CUNEIFORM

	1208	1209	120A	120B	120C	120D	120E	120F
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 120: CUNEIFORM

hex	Name
12080	CUNEIFORM SIGN E2 TIMES A PLUS HA PLUS DA
12081	CUNEIFORM SIGN E2 TIMES GAR
12082	CUNEIFORM SIGN E2 TIMES MI
12083	CUNEIFORM SIGN E2 TIMES SAL
12084	CUNEIFORM SIGN E2 TIMES SHE
12085	CUNEIFORM SIGN E2 TIMES U
12086	CUNEIFORM SIGN EDIN
12087	CUNEIFORM SIGN EGIR
12088	CUNEIFORM SIGN EL
12089	CUNEIFORM SIGN EN
1208A	CUNEIFORM SIGN EN CROSSING EN
1208B	CUNEIFORM SIGN EN SQUARED
1208C	CUNEIFORM SIGN EN OPPOSING EN
1208D	CUNEIFORM SIGN EN TIMES GAN2
1208E	CUNEIFORM SIGN EN TIMES GAN2 TENU
1208F	CUNEIFORM SIGN EN TIMES ME
12090	CUNEIFORM SIGN EREN
12091	CUNEIFORM SIGN ERIN2
12092	CUNEIFORM SIGN ESH2
12093	CUNEIFORM SIGN EZEN
12094	CUNEIFORM SIGN EZEN TIMES A
12095	CUNEIFORM SIGN EZEN TIMES A PLUS LAL
12096	CUNEIFORM SIGN EZEN TIMES A PLUS LAL2
12097	CUNEIFORM SIGN EZEN TIMES AN
12098	CUNEIFORM SIGN EZEN TIMES BAD
12099	CUNEIFORM SIGN EZEN TIMES DUN3
1209A	CUNEIFORM SIGN EZEN TIMES DUN3 GUNU SHESHIG
1209B	CUNEIFORM SIGN EZEN TIMES HA
1209C	CUNEIFORM SIGN EZEN TIMES HA GUNU
1209D	CUNEIFORM SIGN EZEN TIMES KASKAL
1209E	CUNEIFORM SIGN EZEN TIMES KASKAL SQUARED
1209F	CUNEIFORM SIGN EZEN TIMES KU3
120A0	CUNEIFORM SIGN EZEN TIMES LA
120A1	CUNEIFORM SIGN EZEN TIMES LAL2
120A2	CUNEIFORM SIGN EZEN TIMES LI
120A3	CUNEIFORM SIGN EZEN TIMES LU
120A4	CUNEIFORM SIGN EZEN TIMES SIG7
120A5	CUNEIFORM SIGN EZEN TIMES U2
120A6	CUNEIFORM SIGN EZEN TIMES UD
120A7	CUNEIFORM SIGN GA
120A8	CUNEIFORM SIGN GA GUNU
120A9	CUNEIFORM SIGN GA2
120AA	CUNEIFORM SIGN GA2 OVER GA2
120AB	CUNEIFORM SIGN GA2 TIMES A PLUS HA
120AC	CUNEIFORM SIGN GA2 TIMES A PLUS DA PLUS HA
120AD	CUNEIFORM SIGN GA2 TIMES A PLUS IGI
120AE	CUNEIFORM SIGN GA2 TIMES AB2 TENU PLUS TAB
120AF	CUNEIFORM SIGN GA2 TIMES AN
120B0	CUNEIFORM SIGN GA2 TIMES ASH
120B1	CUNEIFORM SIGN GA2 TIMES ASH2 PLUS GAL
120B2	CUNEIFORM SIGN GA2 TIMES BAD
120B3	CUNEIFORM SIGN GA2 TIMES BAR PLUS RA
120B4	CUNEIFORM SIGN GA2 TIMES BUR
120B5	CUNEIFORM SIGN GA2 TIMES BUR PLUS RA
120B6	CUNEIFORM SIGN GA2 TIMES DA
120B7	CUNEIFORM SIGN GA2 TIMES DI
120B8	CUNEIFORM SIGN GA2 TIMES DIM TIMES SHE
120B9	CUNEIFORM SIGN GA2 TIMES DUB
120BA	CUNEIFORM SIGN GA2 TIMES EL
120BB	CUNEIFORM SIGN GA2 TIMES EL PLUS LA
120BC	CUNEIFORM SIGN GA2 TIMES EN
120BD	CUNEIFORM SIGN GA2 TIMES EN TIMES GAN2 TENU
120BE	CUNEIFORM SIGN GA2 TIMES GAN2 TENU
120BF	CUNEIFORM SIGN GA2 TIMES GAR
120C0	CUNEIFORM SIGN GA2 TIMES GI
120C1	CUNEIFORM SIGN GA2 TIMES GI GUNU
120C2	CUNEIFORM SIGN GA2 TIMES GI GUNU PLUS A
120C3	CUNEIFORM SIGN GA2 TIMES GIR2 PLUS SU
120C4	CUNEIFORM SIGN GA2 TIMES HA PLUS LU PLUS ESH2
120C5	CUNEIFORM SIGN GA2 TIMES HAL
120C6	CUNEIFORM SIGN GA2 TIMES HAL PLUS LA
120C7	CUNEIFORM SIGN GA2 TIMES HI PLUS LI
120C8	CUNEIFORM SIGN GA2 TIMES HUB2
120C9	CUNEIFORM SIGN GA2 TIMES IGI GUNU
120CA	CUNEIFORM SIGN GA2 TIMES ISH PLUS HU PLUS ASH
120CB	CUNEIFORM SIGN GA2 TIMES KAK
120CC	CUNEIFORM SIGN GA2 TIMES KASKAL
120CD	CUNEIFORM SIGN GA2 TIMES KID
120CE	CUNEIFORM SIGN GA2 TIMES KID PLUS LAL
120CF	CUNEIFORM SIGN GA2 TIMES KU3 PLUS AN
120D0	CUNEIFORM SIGN GA2 TIMES ME PLUS EN
120D1	CUNEIFORM SIGN GA2 TIMES MI
120D2	CUNEIFORM SIGN GA2 TIMES NUN
120D3	CUNEIFORM SIGN GA2 TIMES NUN OVER NUN
120D4	CUNEIFORM SIGN GA2 TIMES PA
120D5	CUNEIFORM SIGN GA2 TIMES SAL
120D6	CUNEIFORM SIGN GA2 TIMES SAR
120D7	CUNEIFORM SIGN GA2 TIMES SHE
120D8	CUNEIFORM SIGN GA2 TIMES SHE PLUS TUR

Group 00

hex	Name
120D9	CUNEIFORM SIGN GA2 TIMES SHID
120DA	CUNEIFORM SIGN GA2 TIMES SUM
120DB	CUNEIFORM SIGN GA2 TIMES TAK4
120DC	CUNEIFORM SIGN GA2 TIMES U
120DD	CUNEIFORM SIGN GA2 TIMES UD
120DE	CUNEIFORM SIGN GA2 TIMES UD PLUS DU
120DF	CUNEIFORM SIGN GABA
120E0	CUNEIFORM SIGN GABA CROSSING GABA
120E1	CUNEIFORM SIGN GAD
120E2	CUNEIFORM SIGN GAD OVER GAD
120E3	CUNEIFORM SIGN GAL
120E4	CUNEIFORM SIGN GALAM
120E5	CUNEIFORM SIGN GAM
120E6	CUNEIFORM SIGN GAN
120E7	CUNEIFORM SIGN GAN2
120E8	CUNEIFORM SIGN GAN2 TENU
120E9	CUNEIFORM SIGN GAN2 CROSSING GAN2
120EA	CUNEIFORM SIGN GAN2 OVER GAN2
120EB	CUNEIFORM SIGN GAR
120EC	CUNEIFORM SIGN GAR OVER GAR
120ED	CUNEIFORM SIGN GAR3
120EE	CUNEIFORM SIGN GASHAN
120EF	CUNEIFORM SIGN GESHTIN
120F0	CUNEIFORM SIGN GESHTIN TIMES KUR
120F1	CUNEIFORM SIGN GI
120F2	CUNEIFORM SIGN GI CROSSING GI
120F3	CUNEIFORM SIGN GI GUNU
120F4	CUNEIFORM SIGN GI GUNU CROSSING GI GUNU
120F5	CUNEIFORM SIGN GI GUNU OVER GI GUNU
120F6	CUNEIFORM SIGN GI TIMES E
120F7	CUNEIFORM SIGN GI TIMES U
120F8	CUNEIFORM SIGN GIDIM
120F9	CUNEIFORM SIGN GIG
120FA	CUNEIFORM SIGN GIR2
120FB	CUNEIFORM SIGN GIR2 GUNU
120FC	CUNEIFORM SIGN GIR3
120FD	CUNEIFORM SIGN GIR3 TIMES A PLUS IGI
120FE	CUNEIFORM SIGN GIR3 TIMES GAN2 TENU
120FF	CUNEIFORM SIGN GIR3 TIMES IGI

Plane 01

Row 120

Row 121: CUNEIFORM

	1210	1211	1212	1213	1214	1215	1216	1217
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 121: CUNEIFORM

hex	Name	hex	Name
12100	CUNEIFORM SIGN GIR3 TIMES LU PLUS IGI	12159	CUNEIFORM SIGN KA TIMES GAR PLUS SHA3 PLUS A
12101	CUNEIFORM SIGN GIR3 TIMES PA	1215A	CUNEIFORM SIGN KA TIMES GI
12102	CUNEIFORM SIGN GISAL	1215B	CUNEIFORM SIGN KA TIMES GIG
12103	CUNEIFORM SIGN GISH	1215C	CUNEIFORM SIGN KA TIMES GIR2
12104	CUNEIFORM SIGN GISH TENU	1215D	CUNEIFORM SIGN KA TIMES GISH PLUS SAR
12105	CUNEIFORM SIGN GISH TIMES BAD	1215E	CUNEIFORM SIGN KA TIMES GU
12106	CUNEIFORM SIGN GISH TIMES TAK4	1215F	CUNEIFORM SIGN KA TIMES GUR7
12107	CUNEIFORM SIGN GU	12160	CUNEIFORM SIGN KA TIMES IGI
12108	CUNEIFORM SIGN GU CROSSING GU	12161	CUNEIFORM SIGN KA TIMES IM
12109	CUNEIFORM SIGN GU2	12162	CUNEIFORM SIGN KA TIMES KAK
1210A	CUNEIFORM SIGN GU2 GUNU	12163	CUNEIFORM SIGN KA TIMES KI
1210B	CUNEIFORM SIGN GU2 TIMES KAK	12164	CUNEIFORM SIGN KA TIMES KIB
1210C	CUNEIFORM SIGN GU2 TIMES KAK TIMES SIG7	12165	CUNEIFORM SIGN KA TIMES KID
1210D	CUNEIFORM SIGN GU2 TIMES NUN	12166	CUNEIFORM SIGN KA TIMES LI
1210E	CUNEIFORM SIGN GU2 TIMES SAL PLUS TUG2	12167	CUNEIFORM SIGN KA TIMES LU
1210F	CUNEIFORM SIGN GUD	12168	CUNEIFORM SIGN KA TIMES ME
12110	CUNEIFORM SIGN GUD OVER GUD	12169	CUNEIFORM SIGN KA TIMES ME PLUS DU
12111	CUNEIFORM SIGN GUD TIMES A PLUS KUR	1216A	CUNEIFORM SIGN KA TIMES ME PLUS GI
12112	CUNEIFORM SIGN GUD TIMES KUR	1216B	CUNEIFORM SIGN KA TIMES ME PLUS ME
12113	CUNEIFORM SIGN GUM	1216C	CUNEIFORM SIGN KA TIMES ME PLUS TE
12114	CUNEIFORM SIGN GUM TIMES SHE	1216D	CUNEIFORM SIGN KA TIMES MI
12115	CUNEIFORM SIGN GUR	1216E	CUNEIFORM SIGN KA TIMES NE
12116	CUNEIFORM SIGN GUR7	1216F	CUNEIFORM SIGN KA TIMES NUN
12117	CUNEIFORM SIGN GURUN	12170	CUNEIFORM SIGN KA TIMES PI
12118	CUNEIFORM SIGN GURUSH	12171	CUNEIFORM SIGN KA TIMES RU
12119	CUNEIFORM SIGN HA	12172	CUNEIFORM SIGN KA TIMES SA
1211A	CUNEIFORM SIGN HA TENU	12173	CUNEIFORM SIGN KA TIMES SAR
1211B	CUNEIFORM SIGN HA GUNU	12174	CUNEIFORM SIGN KA TIMES SHA
1211C	CUNEIFORM SIGN HAL	12175	CUNEIFORM SIGN KA TIMES SHE
1211D	CUNEIFORM SIGN HAR GUNU	12176	CUNEIFORM SIGN KA TIMES SHID
1211E	CUNEIFORM SIGN HI	12177	CUNEIFORM SIGN KA TIMES SHU
1211F	CUNEIFORM SIGN HI TIMES ASH	12178	CUNEIFORM SIGN KA TIMES SIG
12120	CUNEIFORM SIGN HI TIMES ASH2	12179	CUNEIFORM SIGN KA TIMES SUHUR
12121	CUNEIFORM SIGN HI TIMES BAD	1217A	CUNEIFORM SIGN KA TIMES TAR
12122	CUNEIFORM SIGN HI TIMES DISH	1217B	CUNEIFORM SIGN KA TIMES U
12123	CUNEIFORM SIGN HI TIMES GAD	1217C	CUNEIFORM SIGN KA TIMES U2
12124	CUNEIFORM SIGN HI TIMES KIN	1217D	CUNEIFORM SIGN KA TIMES UD
12125	CUNEIFORM SIGN HI TIMES NUN	1217E	CUNEIFORM SIGN KA TIMES USH
12126	CUNEIFORM SIGN HI TIMES SHE	1217F	CUNEIFORM SIGN KA TIMES ZI
12127	CUNEIFORM SIGN HI TIMES U		
12128	CUNEIFORM SIGN HU		
12129	CUNEIFORM SIGN HUB2		
1212A	CUNEIFORM SIGN HUB2 TIMES AN		
1212B	CUNEIFORM SIGN HUB2 TIMES HAL		
1212C	CUNEIFORM SIGN HUB2 TIMES KASKAL		
1212D	CUNEIFORM SIGN HUB2 TIMES LISH		
1212E	CUNEIFORM SIGN HUB2 TIMES UD		
1212F	CUNEIFORM SIGN HUL2		
12130	CUNEIFORM SIGN I		
12131	CUNEIFORM SIGN IB		
12132	CUNEIFORM SIGN IDIM		
12133	CUNEIFORM SIGN IDIM OVER IDIM		
12134	CUNEIFORM SIGN IDIM OVER IDIM SQUARED		
12135	CUNEIFORM SIGN IG		
12136	CUNEIFORM SIGN IGI		
12137	CUNEIFORM SIGN IGI GUNU		
12138	CUNEIFORM SIGN IGI OVER IGI		
12139	CUNEIFORM SIGN IGI GUNU OVER IGI GUNU		
1213A	CUNEIFORM SIGN IL		
1213B	CUNEIFORM SIGN IL TIMES GAN2 TENU		
1213C	CUNEIFORM SIGN IL2		
1213D	CUNEIFORM SIGN IM		
1213E	CUNEIFORM SIGN IM CROSSING IM		
1213F	CUNEIFORM SIGN IM SQUARED		
12140	CUNEIFORM SIGN IM OPPOSING IM		
12141	CUNEIFORM SIGN IM TIMES TAK4		
12142	CUNEIFORM SIGN IMIN		
12143	CUNEIFORM SIGN IN		
12144	CUNEIFORM SIGN IR		
12145	CUNEIFORM SIGN ISH		
12146	CUNEIFORM SIGN ITI GUNU		
12147	CUNEIFORM SIGN KA		
12148	CUNEIFORM SIGN KA TIMES A		
12149	CUNEIFORM SIGN KA TIMES A PLUS LAL		
1214A	CUNEIFORM SIGN KA TIMES AD		
1214B	CUNEIFORM SIGN KA TIMES AD PLUS KU3		
1214C	CUNEIFORM SIGN KA TIMES ASH2		
1214D	CUNEIFORM SIGN KA TIMES BAD		
1214E	CUNEIFORM SIGN KA TIMES BALAG		
1214F	CUNEIFORM SIGN KA TIMES BAR		
12150	CUNEIFORM SIGN KA TIMES BI		
12151	CUNEIFORM SIGN KA TIMES DE2		
12152	CUNEIFORM SIGN KA TIMES DUB2		
12153	CUNEIFORM SIGN KA TIMES ERIN2		
12154	CUNEIFORM SIGN KA TIMES ESH2		
12155	CUNEIFORM SIGN KA TIMES GA		
12156	CUNEIFORM SIGN KA TIMES GAL		
12157	CUNEIFORM SIGN KA TIMES GAN2 TENU		
12158	CUNEIFORM SIGN KA TIMES GAR		

Row 121: CUNEIFORM

	1218	1219	121A	121B	121C	121D	121E	121F
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 121: CUNEIFORM

hex	Name
12180	CUNEIFORM SIGN KA TIMES ZI3
12181	CUNEIFORM SIGN KA2
12182	CUNEIFORM SIGN KA2 CROSSING KA2
12183	CUNEIFORM SIGN KAB
12184	CUNEIFORM SIGN KAD2
12185	CUNEIFORM SIGN KAD3
12186	CUNEIFORM SIGN KAD4
12187	CUNEIFORM SIGN KAD5
12188	CUNEIFORM SIGN KAD5 OVER KAD5
12189	CUNEIFORM SIGN KAK
1218A	CUNEIFORM SIGN KAK TIMES IGI GUNU
1218B	CUNEIFORM SIGN KAL
1218C	CUNEIFORM SIGN KAL CROSSING KAL
1218D	CUNEIFORM SIGN KAL TIMES BAD
1218E	CUNEIFORM SIGN KAM2
1218F	CUNEIFORM SIGN KAM4
12190	CUNEIFORM SIGN KASKAL
12191	CUNEIFORM SIGN KESH2
12192	CUNEIFORM SIGN KI
12193	CUNEIFORM SIGN KI TIMES BAD
12194	CUNEIFORM SIGN KI TIMES U
12195	CUNEIFORM SIGN KI TIMES UD
12196	CUNEIFORM SIGN KIB
12197	CUNEIFORM SIGN KID
12198	CUNEIFORM SIGN KIN
12199	CUNEIFORM SIGN KISAL
1219A	CUNEIFORM SIGN KISH
1219B	CUNEIFORM SIGN KISIM5
1219C	CUNEIFORM SIGN KISIM5 OVER KISIM5
1219D	CUNEIFORM SIGN KISIM5 TIMES A PLUS MASH
1219E	CUNEIFORM SIGN KISIM5 TIMES AMAR
1219F	CUNEIFORM SIGN KISIM5 TIMES BALAG
121A0	CUNEIFORM SIGN KISIM5 TIMES BI
121A1	CUNEIFORM SIGN KISIM5 TIMES GA
121A2	CUNEIFORM SIGN KISIM5 TIMES GA PLUS MASH
121A3	CUNEIFORM SIGN KISIM5 TIMES GI
121A4	CUNEIFORM SIGN KISIM5 TIMES GIR2
121A5	CUNEIFORM SIGN KISIM5 TIMES GUD
121A6	CUNEIFORM SIGN KISIM5 TIMES HA
121A7	CUNEIFORM SIGN KISIM5 TIMES IR
121A8	CUNEIFORM SIGN KISIM5 TIMES IR PLUS LU
121A9	CUNEIFORM SIGN KISIM5 TIMES KAK
121AA	CUNEIFORM SIGN KISIM5 TIMES LA
121AB	CUNEIFORM SIGN KISIM5 TIMES LU
121AC	CUNEIFORM SIGN KISIM5 TIMES LU PLUS MASH2
121AD	CUNEIFORM SIGN KISIM5 TIMES LUM
121AE	CUNEIFORM SIGN KISIM5 TIMES NE
121AF	CUNEIFORM SIGN KISIM5 TIMES PAP PLUS PAP
121B0	CUNEIFORM SIGN KISIM5 TIMES SI
121B1	CUNEIFORM SIGN KISIM5 TIMES TAK4
121B2	CUNEIFORM SIGN KISIM5 TIMES U2 PLUS GIR2
121B3	CUNEIFORM SIGN KISIM5 TIMES USH
121B4	CUNEIFORM SIGN KU
121B5	CUNEIFORM SIGN KU OVER HI TIMES ASH2
121B6	CUNEIFORM SIGN KU3
121B7	CUNEIFORM SIGN KU4
121B8	CUNEIFORM SIGN KU4 VARIANT
121B9	CUNEIFORM SIGN KU7
121BA	CUNEIFORM SIGN KUL
121BB	CUNEIFORM SIGN KUL GUNU
121BC	CUNEIFORM SIGN KUN
121BD	CUNEIFORM SIGN KUR
121BE	CUNEIFORM SIGN KUR OPPOSING KUR
121BF	CUNEIFORM SIGN KUSHU2
121C0	CUNEIFORM SIGN LA
121C1	CUNEIFORM SIGN LAGAB
121C2	CUNEIFORM SIGN LAGAB SQUARED
121C3	CUNEIFORM SIGN LAGAB TIMES A
121C4	CUNEIFORM SIGN LAGAB TIMES A PLUS DA PLUS HA
121C5	CUNEIFORM SIGN LAGAB TIMES A PLUS GAR
121C6	CUNEIFORM SIGN LAGAB TIMES A PLUS LAL
121C7	CUNEIFORM SIGN LAGAB TIMES AL
121C8	CUNEIFORM SIGN LAGAB TIMES AN
121C9	CUNEIFORM SIGN LAGAB TIMES ASH ZIDA TENU
121CA	CUNEIFORM SIGN LAGAB TIMES ASH2
121CB	CUNEIFORM SIGN LAGAB TIMES BAD
121CC	CUNEIFORM SIGN LAGAB TIMES BI
121CD	CUNEIFORM SIGN LAGAB TIMES DAR
121CE	CUNEIFORM SIGN LAGAB TIMES EN
121CF	CUNEIFORM SIGN LAGAB TIMES GA
121D0	CUNEIFORM SIGN LAGAB TIMES GAR
121D1	CUNEIFORM SIGN LAGAB TIMES GUD
121D2	CUNEIFORM SIGN LAGAB TIMES GUD PLUS GUD
121D3	CUNEIFORM SIGN LAGAB TIMES HA
121D4	CUNEIFORM SIGN LAGAB TIMES HAL
121D5	CUNEIFORM SIGN LAGAB TIMES HI TIMES NUN
121D6	CUNEIFORM SIGN LAGAB TIMES IGI GUNU
121D7	CUNEIFORM SIGN LAGAB TIMES IM
121D8	CUNEIFORM SIGN LAGAB TIMES IM PLUS HA

Group 00

hex	Name
121D9	CUNEIFORM SIGN LAGAB TIMES IM PLUS LU
121DA	CUNEIFORM SIGN LAGAB TIMES KI
121DB	CUNEIFORM SIGN LAGAB TIMES KIN
121DC	CUNEIFORM SIGN LAGAB TIMES KU3
121DD	CUNEIFORM SIGN LAGAB TIMES KUL
121DE	CUNEIFORM SIGN LAGAB TIMES KUL PLUS HI PLUS A
121DF	CUNEIFORM SIGN LAGAB TIMES LAGAB
121E0	CUNEIFORM SIGN LAGAB TIMES LISH
121E1	CUNEIFORM SIGN LAGAB TIMES LU
121E2	CUNEIFORM SIGN LAGAB TIMES LUL
121E3	CUNEIFORM SIGN LAGAB TIMES ME
121E4	CUNEIFORM SIGN LAGAB TIMES ME PLUS EN
121E5	CUNEIFORM SIGN LAGAB TIMES MUSH
121E6	CUNEIFORM SIGN LAGAB TIMES NE
121E7	CUNEIFORM SIGN LAGAB TIMES SHE PLUS SUM
121E8	CUNEIFORM SIGN LAGAB TIMES SHITA PLUS ERIN2
121E9	CUNEIFORM SIGN LAGAB TIMES SHITA TENU
121EA	CUNEIFORM SIGN LAGAB TIMES SHU2
121EB	CUNEIFORM SIGN LAGAB TIMES SHU2 PLUS SHU2
121EC	CUNEIFORM SIGN LAGAB TIMES SUM
121ED	CUNEIFORM SIGN LAGAB TIMES TAG
121EE	CUNEIFORM SIGN LAGAB TIMES TAK4
121EF	CUNEIFORM SIGN LAGAB TIMES TE PLUS A
121F0	CUNEIFORM SIGN LAGAB TIMES U PLUS A
121F1	CUNEIFORM SIGN LAGAB TIMES U PLUS U PLUS U
121F2	CUNEIFORM SIGN LAGAB TIMES U2 PLUS ASH
121F3	CUNEIFORM SIGN LAGAB TIMES UD
121F4	CUNEIFORM SIGN LAGAB TIMES USH
121F5	CUNEIFORM SIGN LAGAR
121F6	CUNEIFORM SIGN LAGAR GUNU
121F7	CUNEIFORM SIGN LAGAR GUNU OVER LAGAR GUNU
121F8	CUNEIFORM SIGN LAGAR TIMES GAR
121F9	CUNEIFORM SIGN LAGAR TIMES MASH
121FA	CUNEIFORM SIGN LAGAR TIMES NUN
121FB	CUNEIFORM SIGN LAGAR TIMES SAL
121FC	CUNEIFORM SIGN LAGAR TIMES SHE
121FD	CUNEIFORM SIGN LAGAR TIMES SHE PLUS SUM
121FE	CUNEIFORM SIGN LAGAR TIMES USH
121FF	CUNEIFORM SIGN LAL

Plane 01

Row 121

Row 122: CUNEIFORM

	1220	1221	1222	1223	1224	1225	1226	1227
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 122: CUNEIFORM

hex	Name
12200	CUNEIFORM SIGN LAL2
12201	CUNEIFORM SIGN LAL2 TIMES DU
12202	CUNEIFORM SIGN LAL2 TIMES HAL
12203	CUNEIFORM SIGN LAL2 TIMES KAK
12204	CUNEIFORM SIGN LAL2 TIMES NI
12205	CUNEIFORM SIGN LAL2 TIMES SAR
12206	CUNEIFORM SIGN LAL2 TIMES URU TIMES MIN
12207	CUNEIFORM SIGN LAM
12208	CUNEIFORM SIGN LAM TIMES KUR
12209	CUNEIFORM SIGN LAM TIMES KUR PLUS RU
1220A	CUNEIFORM SIGN LI
1220B	CUNEIFORM SIGN LIL
1220C	CUNEIFORM SIGN LIMMU2
1220D	CUNEIFORM SIGN LISH
1220E	CUNEIFORM SIGN LU
1220F	CUNEIFORM SIGN LU TIMES BAD
12210	CUNEIFORM SIGN LU2
12211	CUNEIFORM SIGN LU2 TENU
12212	CUNEIFORM SIGN LU2 CROSSING LU2
12213	CUNEIFORM SIGN LU2 SQUARED
12214	CUNEIFORM SIGN LU2 OPPOSING LU2
12215	CUNEIFORM SIGN LU2 SHESHIG
12216	CUNEIFORM SIGN LU2 TIMES AL
12217	CUNEIFORM SIGN LU2 TIMES BAD
12218	CUNEIFORM SIGN LU2 TIMES ESH2
12219	CUNEIFORM SIGN LU2 TIMES ESH2 TENU
1221A	CUNEIFORM SIGN LU2 TIMES GAN2 TENU
1221B	CUNEIFORM SIGN LU2 TIMES HI TIMES BAD
1221C	CUNEIFORM SIGN LU2 TIMES IM
1221D	CUNEIFORM SIGN LU2 TIMES KAD2
1221E	CUNEIFORM SIGN LU2 TIMES KAD3
1221F	CUNEIFORM SIGN LU2 TIMES KAD3 PLUS ASH
12220	CUNEIFORM SIGN LU2 TIMES KI
12221	CUNEIFORM SIGN LU2 TIMES LA PLUS ASH
12222	CUNEIFORM SIGN LU2 TIMES LAGAB
12223	CUNEIFORM SIGN LU2 TIMES ME PLUS EN
12224	CUNEIFORM SIGN LU2 TIMES NE
12225	CUNEIFORM SIGN LU2 TIMES NU
12226	CUNEIFORM SIGN LU2 TIMES SI PLUS ASH
12227	CUNEIFORM SIGN LU2 TIMES SIK2 PLUS BU
12228	CUNEIFORM SIGN LU2 TIMES TUG2
12229	CUNEIFORM SIGN LU3
1222A	CUNEIFORM SIGN LUGAL
1222B	CUNEIFORM SIGN LUGAL OPPOSING LUGAL
1222C	CUNEIFORM SIGN LUGAL OVER LUGAL
1222D	CUNEIFORM SIGN LUGAL SHESHIG
1222E	CUNEIFORM SIGN LUH
1222F	CUNEIFORM SIGN LUL
12230	CUNEIFORM SIGN LUM
12231	CUNEIFORM SIGN LUM OVER LUM
12232	CUNEIFORM SIGN MA
12233	CUNEIFORM SIGN MA GUNU
12234	CUNEIFORM SIGN MA TIMES TAK4
12235	CUNEIFORM SIGN MA2
12236	CUNEIFORM SIGN MAH
12237	CUNEIFORM SIGN MAR
12238	CUNEIFORM SIGN MASH
12239	CUNEIFORM SIGN MASH2
1223A	CUNEIFORM SIGN ME
1223B	CUNEIFORM SIGN MES
1223C	CUNEIFORM SIGN MI
1223D	CUNEIFORM SIGN MIN
1223E	CUNEIFORM SIGN MU
1223F	CUNEIFORM SIGN MU OVER MU
12240	CUNEIFORM SIGN MUG
12241	CUNEIFORM SIGN MUNSUB
12242	CUNEIFORM SIGN MURGU2
12243	CUNEIFORM SIGN MUSH
12244	CUNEIFORM SIGN MUSH CROSSING MUSH
12245	CUNEIFORM SIGN MUSH TIMES A
12246	CUNEIFORM SIGN MUSH TIMES KUR
12247	CUNEIFORM SIGN MUSH TIMES ZA
12248	CUNEIFORM SIGN MUSH3
12249	CUNEIFORM SIGN MUSH3 GUNU
1224A	CUNEIFORM SIGN MUSH3 TIMES A
1224B	CUNEIFORM SIGN MUSH3 TIMES A PLUS DI
1224C	CUNEIFORM SIGN MUSH3 TIMES DI
1224D	CUNEIFORM SIGN NA
1224E	CUNEIFORM SIGN NA2
1224F	CUNEIFORM SIGN NAGA
12250	CUNEIFORM SIGN NAGA OPPOSING NAGA
12251	CUNEIFORM SIGN NAGA TIMES SHU TENU
12252	CUNEIFORM SIGN NAGAR
12253	CUNEIFORM SIGN NAM
12254	CUNEIFORM SIGN NAM NUTILLU
12255	CUNEIFORM SIGN NAM2
12256	CUNEIFORM SIGN NE
12257	CUNEIFORM SIGN NE SHESHIG
12258	CUNEIFORM SIGN NE TIMES A

Group 00

hex	Name
12259	CUNEIFORM SIGN NE TIMES UD
1225A	CUNEIFORM SIGN NI
1225B	CUNEIFORM SIGN NI OVER NI
1225C	CUNEIFORM SIGN NI TIMES E
1225D	CUNEIFORM SIGN NI2
1225E	CUNEIFORM SIGN NIM
1225F	CUNEIFORM SIGN NIM TIMES GAN2 TENU
12260	CUNEIFORM SIGN NIM TIMES GAR PLUS GAN2 TENU
12261	CUNEIFORM SIGN NINDA2
12262	CUNEIFORM SIGN NINDA2 TIMES AN
12263	CUNEIFORM SIGN NINDA2 TIMES ASH
12264	CUNEIFORM SIGN NINDA2 TIMES ASH PLUS ASH
12265	CUNEIFORM SIGN NINDA2 TIMES GUD
12266	CUNEIFORM SIGN NINDA2 TIMES ME PLUS GAN2
12267	CUNEIFORM SIGN NINDA2 TIMES NE
12268	CUNEIFORM SIGN NINDA2 TIMES NUN
12269	CUNEIFORM SIGN NINDA2 TIMES SHE
1226A	CUNEIFORM SIGN NINDA2 TIMES SHE PLUS A
1226B	CUNEIFORM SIGN NINDA2 TIMES SHE PLUS ASH
1226C	CUNEIFORM SIGN NINDA2 TIMES SHE PLUS ASH PLUS ASH
1226D	CUNEIFORM SIGN NINDA2 TIMES U2 PLUS ASH
1226E	CUNEIFORM SIGN NINDA2 TIMES USH
1226F	CUNEIFORM SIGN NISAG
12270	CUNEIFORM SIGN NU
12271	CUNEIFORM SIGN NUN
12272	CUNEIFORM SIGN NUN TENU
12273	CUNEIFORM SIGN NUN CROSSING NUN
12274	CUNEIFORM SIGN NUN OVER NUN
12275	CUNEIFORM SIGN NUNUZ
12276	CUNEIFORM SIGN PA
12277	CUNEIFORM SIGN PA OVER PA
12278	CUNEIFORM SIGN PAD
12279	CUNEIFORM SIGN PAN
1227A	CUNEIFORM SIGN PAP
1227B	CUNEIFORM SIGN PESH2
1227C	CUNEIFORM SIGN PI
1227D	CUNEIFORM SIGN PI CROSSING PI
1227E	CUNEIFORM SIGN PI TIMES A
1227F	CUNEIFORM SIGN PI TIMES AB

Plane 01

Row 122

Row 122: CUNEIFORM

	1228	1229	122A	122B	122C	122D	122E	122F
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 122: CUNEIFORM

hex	Name	hex	Name
12280	CUNEIFORM SIGN PI TIMES BI	122D9	CUNEIFORM SIGN SIG4
12281	CUNEIFORM SIGN PI TIMES BU	122DA	CUNEIFORM SIGN SIG4 OVER SIG4
12282	CUNEIFORM SIGN PI TIMES E	122DB	CUNEIFORM SIGN SIK2
12283	CUNEIFORM SIGN PI TIMES I	122DC	CUNEIFORM SIGN SILA3
12284	CUNEIFORM SIGN PI TIMES IP	122DD	CUNEIFORM SIGN SU
12285	CUNEIFORM SIGN PI TIMES U	122DE	CUNEIFORM SIGN SU OVER SU
12286	CUNEIFORM SIGN PI TIMES U2	122DF	CUNEIFORM SIGN SUD
12287	CUNEIFORM SIGN PIRIG	122E0	CUNEIFORM SIGN SUD2
12288	CUNEIFORM SIGN PIRIG OPPOSING PIRIG	122E1	CUNEIFORM SIGN SUHUR
12289	CUNEIFORM SIGN PIRIG TIMES KAL	122E2	CUNEIFORM SIGN SUM
1228A	CUNEIFORM SIGN PIRIG TIMES UD	122E3	CUNEIFORM SIGN SUMASH
1228B	CUNEIFORM SIGN PIRIG TIMES ZA	122E4	CUNEIFORM SIGN SUR
1228C	CUNEIFORM SIGN RA	122E5	CUNEIFORM SIGN SUR OVER SUR
1228D	CUNEIFORM SIGN RAB	122E6	CUNEIFORM SIGN TA
1228E	CUNEIFORM SIGN RI	122E7	CUNEIFORM SIGN TA ASTERISK
1228F	CUNEIFORM SIGN RU	122E8	CUNEIFORM SIGN TA GUNU
12290	CUNEIFORM SIGN RU TIMES KUR	122E9	CUNEIFORM SIGN TA TIMES HI
12291	CUNEIFORM SIGN SA	122EA	CUNEIFORM SIGN TA TIMES MI
12292	CUNEIFORM SIGN SAG	122EB	CUNEIFORM SIGN TAB
12293	CUNEIFORM SIGN SAG GUNU	122EC	CUNEIFORM SIGN TAB SQUARED
12294	CUNEIFORM SIGN SAG NUTILLU	122ED	CUNEIFORM SIGN TAB OVER TAB
12295	CUNEIFORM SIGN SAG OVER SAG	122EE	CUNEIFORM SIGN TAG
12296	CUNEIFORM SIGN SAG TIMES A	122EF	CUNEIFORM SIGN TAG TIMES BI
12297	CUNEIFORM SIGN SAG TIMES DU	122F0	CUNEIFORM SIGN TAG TIMES GUD
12298	CUNEIFORM SIGN SAG TIMES DUB	122F1	CUNEIFORM SIGN TAG TIMES KU
12299	CUNEIFORM SIGN SAG TIMES HA	122F2	CUNEIFORM SIGN TAG TIMES SHE
1229A	CUNEIFORM SIGN SAG TIMES KAK	122F3	CUNEIFORM SIGN TAG TIMES SHU
1229B	CUNEIFORM SIGN SAG TIMES KUR	122F4	CUNEIFORM SIGN TAG TIMES TUG2
1229C	CUNEIFORM SIGN SAG TIMES LUM	122F5	CUNEIFORM SIGN TAG TIMES UD
1229D	CUNEIFORM SIGN SAG TIMES MI	122F6	CUNEIFORM SIGN TAK4
1229E	CUNEIFORM SIGN SAG TIMES NUN	122F7	CUNEIFORM SIGN TAR
1229F	CUNEIFORM SIGN SAG TIMES SAL	122F8	CUNEIFORM SIGN TE
122A0	CUNEIFORM SIGN SAG TIMES SHID	122F9	CUNEIFORM SIGN TE GUNU
122A1	CUNEIFORM SIGN SAG TIMES TAB	122FA	CUNEIFORM SIGN TI
122A2	CUNEIFORM SIGN SAG TIMES U2	122FB	CUNEIFORM SIGN TI TENU
122A3	CUNEIFORM SIGN SAG TIMES UB	122FC	CUNEIFORM SIGN TIL
122A4	CUNEIFORM SIGN SAG TIMES UM	122FD	CUNEIFORM SIGN TIR
122A5	CUNEIFORM SIGN SAG TIMES UR	122FE	CUNEIFORM SIGN TIR OVER TIR
122A6	CUNEIFORM SIGN SAG TIMES USH	122FF	CUNEIFORM SIGN TIR TIMES TAK4
122A7	CUNEIFORM SIGN SAL		
122A8	CUNEIFORM SIGN SANGA2		
122A9	CUNEIFORM SIGN SAR		
122AA	CUNEIFORM SIGN SHA		
122AB	CUNEIFORM SIGN SHA3		
122AC	CUNEIFORM SIGN SHA3 TIMES A		
122AD	CUNEIFORM SIGN SHA3 TIMES BAD		
122AE	CUNEIFORM SIGN SHA3 TIMES GISH		
122AF	CUNEIFORM SIGN SHA3 TIMES NE		
122B0	CUNEIFORM SIGN SHA3 TIMES SHU2		
122B1	CUNEIFORM SIGN SHA3 TIMES TUR		
122B2	CUNEIFORM SIGN SHA3 TIMES U		
122B3	CUNEIFORM SIGN SHA3 TIMES U PLUS A		
122B4	CUNEIFORM SIGN SHA6		
122B5	CUNEIFORM SIGN SHAB6		
122B6	CUNEIFORM SIGN SHAR2		
122B7	CUNEIFORM SIGN SHE		
122B8	CUNEIFORM SIGN SHE OVER SHE		
122B9	CUNEIFORM SIGN SHEG9		
122BA	CUNEIFORM SIGN SHEN		
122BB	CUNEIFORM SIGN SHESH		
122BC	CUNEIFORM SIGN SHESH2		
122BD	CUNEIFORM SIGN SHESHLAM		
122BE	CUNEIFORM SIGN SHID		
122BF	CUNEIFORM SIGN SHID TIMES A		
122C0	CUNEIFORM SIGN SHID TIMES IM		
122C1	CUNEIFORM SIGN SHIM		
122C2	CUNEIFORM SIGN SHIM TIMES A		
122C3	CUNEIFORM SIGN SHIM TIMES BAL		
122C4	CUNEIFORM SIGN SHIM TIMES BULUG		
122C5	CUNEIFORM SIGN SHIM TIMES DIN		
122C6	CUNEIFORM SIGN SHIM TIMES GAR		
122C7	CUNEIFORM SIGN SHIM TIMES IGI		
122C8	CUNEIFORM SIGN SHIM TIMES IGI GUNU		
122C9	CUNEIFORM SIGN SHIM TIMES LUL		
122CA	CUNEIFORM SIGN SHIM TIMES MUG		
122CB	CUNEIFORM SIGN SHIM TIMES SAL		
122CC	CUNEIFORM SIGN SHINIG		
122CD	CUNEIFORM SIGN SHIR		
122CE	CUNEIFORM SIGN SHIR TENU		
122CF	CUNEIFORM SIGN SHIR GUNU		
122D0	CUNEIFORM SIGN SHIR OVER SHIR		
122D1	CUNEIFORM SIGN SHITA		
122D2	CUNEIFORM SIGN SHU		
122D3	CUNEIFORM SIGN SHU OVER INVERTED SHU		
122D4	CUNEIFORM SIGN SHU2		
122D5	CUNEIFORM SIGN SHUBUR		
122D6	CUNEIFORM SIGN SI		
122D7	CUNEIFORM SIGN SI GUNU		
122D8	CUNEIFORM SIGN SIG		

Row 123: CUNEIFORM

	1230	1231	1232	1233	1234	1235	1236	1237
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 123: CUNEIFORM

hex	Name
12300	CUNEIFORM SIGN TU
12301	CUNEIFORM SIGN TUG2
12302	CUNEIFORM SIGN TUG2 OVER TUG2
12303	CUNEIFORM SIGN TUK
12304	CUNEIFORM SIGN TUM
12305	CUNEIFORM SIGN TUR
12306	CUNEIFORM SIGN TUR OVER TUR
12307	CUNEIFORM SIGN U
12308	CUNEIFORM SIGN U GUNU
12309	CUNEIFORM SIGN U OVER U
1230A	CUNEIFORM SIGN U REVERSED OVER U REVERSED
1230B	CUNEIFORM SIGN U2
1230C	CUNEIFORM SIGN UB
1230D	CUNEIFORM SIGN UD
1230E	CUNEIFORM SIGN UD GUNU
1230F	CUNEIFORM SIGN UD OVER UD
12310	CUNEIFORM SIGN UD SHESHIG
12311	CUNEIFORM SIGN UD SHESHIG TIMES BAD
12312	CUNEIFORM SIGN UD TIMES BAD
12313	CUNEIFORM SIGN UD TIMES MI
12314	CUNEIFORM SIGN UD TIMES U PLUS U PLUS U
12315	CUNEIFORM SIGN UDUG
12316	CUNEIFORM SIGN UM
12317	CUNEIFORM SIGN UM TIMES LAGAB
12318	CUNEIFORM SIGN UM TIMES ME PLUS DA
12319	CUNEIFORM SIGN UM TIMES SHA3
1231A	CUNEIFORM SIGN UM TIMES U
1231B	CUNEIFORM SIGN UMUM
1231C	CUNEIFORM SIGN UMUM TIMES KASKAL
1231D	CUNEIFORM SIGN UMUM TIMES PA
1231E	CUNEIFORM SIGN UN
1231F	CUNEIFORM SIGN UR
12320	CUNEIFORM SIGN UR CROSSING UR
12321	CUNEIFORM SIGN UR SHESHIG
12322	CUNEIFORM SIGN UR2
12323	CUNEIFORM SIGN UR2 TIMES A PLUS HA
12324	CUNEIFORM SIGN UR2 TIMES HA
12325	CUNEIFORM SIGN UR2 TIMES NUN
12326	CUNEIFORM SIGN UR2 TIMES U2
12327	CUNEIFORM SIGN UR2 TIMES U2 PLUS ASH
12328	CUNEIFORM SIGN UR2 TIMES U2 PLUS BI
12329	CUNEIFORM SIGN UR4
1232A	CUNEIFORM SIGN URI
1232B	CUNEIFORM SIGN URI2
1232C	CUNEIFORM SIGN URU
1232D	CUNEIFORM SIGN URU TIMES A
1232E	CUNEIFORM SIGN URU TIMES ASHGAB
1232F	CUNEIFORM SIGN URU TIMES BAR
12330	CUNEIFORM SIGN URU TIMES DUN
12331	CUNEIFORM SIGN URU TIMES GA
12332	CUNEIFORM SIGN URU TIMES GAL
12333	CUNEIFORM SIGN URU TIMES GAN2 TENU
12334	CUNEIFORM SIGN URU TIMES GAR
12335	CUNEIFORM SIGN URU TIMES GU
12336	CUNEIFORM SIGN URU TIMES HA
12337	CUNEIFORM SIGN URU TIMES IGI
12338	CUNEIFORM SIGN URU TIMES IM
12339	CUNEIFORM SIGN URU TIMES ISH
1233A	CUNEIFORM SIGN URU TIMES KI
1233B	CUNEIFORM SIGN URU TIMES LUM
1233C	CUNEIFORM SIGN URU TIMES MIN
1233D	CUNEIFORM SIGN URU TIMES PA
1233E	CUNEIFORM SIGN URU TIMES SHE
1233F	CUNEIFORM SIGN URU TIMES SIG4
12340	CUNEIFORM SIGN URU TIMES TU
12341	CUNEIFORM SIGN URU TIMES TU PLUS TU
12342	CUNEIFORM SIGN URU TIMES U PLUS GUD
12343	CUNEIFORM SIGN URU TIMES UD
12344	CUNEIFORM SIGN URU TIMES URUDA
12345	CUNEIFORM SIGN URUDA
12346	CUNEIFORM SIGN URUDA TIMES U
12347	CUNEIFORM SIGN USH
12348	CUNEIFORM SIGN USH TIMES A
12349	CUNEIFORM SIGN USH TIMES KU
1234A	CUNEIFORM SIGN USH TIMES KUR
1234B	CUNEIFORM SIGN USH TIMES TAK4
1234C	CUNEIFORM SIGN USH2
1234D	CUNEIFORM SIGN USHX
1234E	CUNEIFORM SIGN USHUMX
1234F	CUNEIFORM SIGN UTUKI
12350	CUNEIFORM SIGN UZ3
12351	CUNEIFORM SIGN UZ3 TIMES KASKAL
12352	CUNEIFORM SIGN UZU
12353	CUNEIFORM SIGN ZA
12354	CUNEIFORM SIGN ZA TENU
12355	CUNEIFORM SIGN ZA SQUARED TIMES KUR
12356	CUNEIFORM SIGN ZA OVER ZA
12357	CUNEIFORM SIGN ZAX
12358	CUNEIFORM SIGN ZADIM

hex	Name
12359	CUNEIFORM SIGN ZAG
1235A	CUNEIFORM SIGN ZAMX
1235B	CUNEIFORM SIGN ZE2
1235C	CUNEIFORM SIGN ZI
1235D	CUNEIFORM SIGN ZI OVER ZI
1235E	CUNEIFORM SIGN ZIB
1235F	CUNEIFORM SIGN ZIB KABA TENU
12360	CUNEIFORM SIGN ZIG
12361	CUNEIFORM SIGN ZIZ2
12362	CUNEIFORM SIGN ZU
12363	CUNEIFORM SIGN ZU5
12364	CUNEIFORM SIGN ZU5 TIMES A
12365	CUNEIFORM SIGN ZUBUR
12366	CUNEIFORM SIGN ZUM
12367	(This position shall not be used)
12368	(This position shall not be used)
12369	(This position shall not be used)
1236A	(This position shall not be used)
1236B	(This position shall not be used)
1236C	(This position shall not be used)
1236D	(This position shall not be used)
1236E	(This position shall not be used)
1236F	(This position shall not be used)
12370	(This position shall not be used)
12371	(This position shall not be used)
12372	(This position shall not be used)
12373	(This position shall not be used)
12374	(This position shall not be used)
12375	(This position shall not be used)
12376	(This position shall not be used)
12377	(This position shall not be used)
12378	(This position shall not be used)
12379	(This position shall not be used)
1237A	(This position shall not be used)
1237B	(This position shall not be used)
1237C	(This position shall not be used)
1237D	(This position shall not be used)
1237E	(This position shall not be used)
1237F	(This position shall not be used)

Row 123: CUNEIFORM NUMBERS

	1238	1239	123A	123B	123C	123D	123E	123F
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

G = 00
P = 01

Row 123: CUNEIFORM NUMBERS

hex	Name
12380	CUNEIFORM NUMERIC SIGN ASH
12381	CUNEIFORM NUMERIC SIGN MIN6
12382	CUNEIFORM NUMERIC SIGN ESH16
12383	CUNEIFORM NUMERIC SIGN LIMMU4
12384	CUNEIFORM NUMERIC SIGN IA9
12385	CUNEIFORM NUMERIC SIGN ASH9
12386	CUNEIFORM NUMERIC SIGN IMIN3
12387	CUNEIFORM NUMERIC SIGN USSU3
12388	CUNEIFORM NUMERIC SIGN ILIMMU3
12389	CUNEIFORM NUMERIC SIGN ESH21
1238A	CUNEIFORM NUMERIC SIGN LIMMU2
1238B	CUNEIFORM NUMERIC SIGN IA7
1238C	CUNEIFORM NUMERIC SIGN ASH4
1238D	CUNEIFORM NUMERIC SIGN IMIN2
1238E	CUNEIFORM NUMERIC SIGN USSU2
1238F	CUNEIFORM NUMERIC SIGN ILIMMU2
12390	CUNEIFORM NUMERIC SIGN MIN5
12391	CUNEIFORM NUMERIC SIGN ESH6
12392	CUNEIFORM NUMERIC SIGN DISH
12393	CUNEIFORM NUMERIC SIGN MIN
12394	CUNEIFORM NUMERIC SIGN ESH5
12395	CUNEIFORM NUMERIC SIGN LIMMU5
12396	CUNEIFORM NUMERIC SIGN IA2
12397	CUNEIFORM NUMERIC SIGN ASH3
12398	CUNEIFORM NUMERIC SIGN IMIN
12399	CUNEIFORM NUMERIC SIGN USSU
1239A	CUNEIFORM NUMERIC SIGN ILIMMU
1239B	CUNEIFORM NUMERIC SIGN ASH TENU
1239C	CUNEIFORM NUMERIC SIGN U
1239D	CUNEIFORM NUMERIC SIGN NISH
1239E	CUNEIFORM NUMERIC SIGN USHU2
1239F	CUNEIFORM NUMERIC SIGN NIMIN
123A0	CUNEIFORM NUMERIC SIGN NINNU
123A1	CUNEIFORM NUMERIC SIGN GESH2
123A2	CUNEIFORM NUMERIC SIGN LIMMU
123A3	CUNEIFORM NUMERIC SIGN LIMMU VARIANT A
123A4	CUNEIFORM NUMERIC SIGN LIMMU VARIANT B
123A5	CUNEIFORM NUMERIC SIGN IMIN VARIANT A
123A6	CUNEIFORM NUMERIC SIGN IMIN VARIANT B
123A7	CUNEIFORM NUMERIC SIGN USSU VARIANT A
123A8	CUNEIFORM NUMERIC SIGN ILIMMU VARIANT A
123A9	CUNEIFORM NUMERIC SIGN ILIMMU4
123AA	CUNEIFORM NUMERIC SIGN NIMIN3
123AB	CUNEIFORM NUMERIC SIGN NIESH
123AC	CUNEIFORM NUMERIC SIGN NILIMMU
123AD	CUNEIFORM NUMERIC SIGN ONE HALF DISH
123AE	CUNEIFORM NUMERIC SIGN BAN2
123AF	CUNEIFORM NUMERIC SIGN BANMIN
123B0	CUNEIFORM NUMERIC SIGN BANESH
123B1	CUNEIFORM NUMERIC SIGN BANLIMMU
123B2	CUNEIFORM NUMERIC SIGN BANIA
123B3	CUNEIFORM NUMERIC SIGN ESH10
123B4	CUNEIFORM NUMERIC SIGN OLD ASSYRIAN ONE SIXTH
123B5	CUNEIFORM NUMERIC SIGN OLD ASSYRIAN ONE QUARTER
123B6	CUNEIFORM NUMERIC SIGN ONE THIRD DISH
123B7	CUNEIFORM NUMERIC SIGN TWO THIRDS DISH
123B8	CUNEIFORM NUMERIC SIGN FIVE SIXTHS DISH
123B9	CUNEIFORM NUMERIC SIGN SHAM2 ONE THIRD
123BA	CUNEIFORM NUMERIC SIGN SHAM2 TWO THIRDS
123BB	CUNEIFORM NUMERIC SIGN ONE EIGHTH ASH
123BC	CUNEIFORM NUMERIC SIGN ONE QUARTER ASH
123BD	CUNEIFORM NUMERIC SIGN ONE HALF ASH
123BE	CUNEIFORM NUMERIC SIGN SHAR2
123BF	CUNEIFORM NUMERIC SIGN SHAR2 TIMES U
123C0	CUNEIFORM NUMERIC SIGN ESHE3
123C1	CUNEIFORM NUMERIC SIGN ESHE3 OVER ESHE3
123C2	CUNEIFORM NUMERIC SIGN CURVED U
123C3	CUNEIFORM NUMERIC SIGN CURVED SHAR2
123C4	CUNEIFORM NUMERIC SIGN CURVED SHAR2 TIMES U
123C5	CUNEIFORM NUMERIC SIGN CURVED BURU
123C6	CUNEIFORM NUMERIC SIGN BURU
123C7	CUNEIFORM NUMERIC SIGN SHAR2 TIMES BURU
123C8	CUNEIFORM NUMERIC SIGN CURVED ASH
123C9	CUNEIFORM NUMERIC SIGN CURVED GESH2
123CA	CUNEIFORM NUMERIC SIGN CURVED ASH TIMES U
123CB	CUNEIFORM NUMERIC SIGN CURVED GESHU
123CC	CUNEIFORM NUMERIC SIGN CURVED ASH TENU
123CD	(This position shall not be used)
123CE	(This position shall not be used)
123CF	(This position shall not be used)
123D0	CUNEIFORM PUNCTUATION OLD ASSYRIAN WORD DIVIDER
123D1	CUNEIFORM PUNCTUATION VERTICAL COLON
123D2	CUNEIFORM PUNCTUATION DIAGONAL COLON
123D3	CUNEIFORM PUNCTUATION DIAGONAL TRICOLON
123D4	(This position shall not be used)
123D5	(This position shall not be used)
123D6	(This position shall not be used)

hex	Name
123D7	(This position shall not be used)
123D8	(This position shall not be used)
123D9	(This position shall not be used)
123DA	(This position shall not be used)
123DB	(This position shall not be used)
123DC	(This position shall not be used)
123DD	(This position shall not be used)
123DE	(This position shall not be used)
123DF	(This position shall not be used)
123E0	(This position shall not be used)
123E1	(This position shall not be used)
123E2	(This position shall not be used)
123E3	(This position shall not be used)
123E4	(This position shall not be used)
123E5	(This position shall not be used)
123E6	(This position shall not be used)
123E7	(This position shall not be used)
123E8	(This position shall not be used)
123E9	(This position shall not be used)
123EA	(This position shall not be used)
123EB	(This position shall not be used)
123EC	(This position shall not be used)
123ED	(This position shall not be used)
123EE	(This position shall not be used)
123EF	(This position shall not be used)
123F0	(This position shall not be used)
123F1	(This position shall not be used)
123F2	(This position shall not be used)
123F3	(This position shall not be used)
123F4	(This position shall not be used)
123F5	(This position shall not be used)
123F6	(This position shall not be used)
123F7	(This position shall not be used)
123F8	(This position shall not be used)
123F9	(This position shall not be used)
123FA	(This position shall not be used)
123FB	(This position shall not be used)
123FC	(This position shall not be used)
123FD	(This position shall not be used)
123FE	(This position shall not be used)
123FF	(This position shall not be used)

Participants in the Initiative for Cuneiform Encoding (ICE)

Deborah Anderson, Visiting Scholar, Linguistics, University of California at Berkeley
Lloyd Anderson, Linguist, Font Vendor, Ecological Linguistics
Richard Averbek, Professor of Old Testament and Semitic Languages, Trinity International University
Robert Black, PhD Candidate, Near Eastern Studies, Johns Hopkins
Giorgio Buccellati, Professor Emeritus, Department of Near Eastern Languages and Cultures, Department of History, Director, Institute of Archaeology's Mesopotamian Laboratory, UCLA
Carl-Martin Bunz, M.A., Indo-European Linguist, University of Saarland, Germany
Miguel Civil, Emeritus Professor of Sumerology, Oriental Institute, University of Chicago, Editor, Materials for the Sumerian Lexicon
Jerrold Cooper, Professor of Assyriology and Sumerian, Johns Hopkins
Robin Cover, SGML/XML, Oasis
T. R. Davis, Lecturer in Bibliography and Palaeography, University of Birmingham, England
Patrick Durusau, Director of Research and Development, Society of Biblical Literature, Emory University
Robert Englund, Professor of Assyriology and Sumerian, UCLA
Michael Everson, Linguist, Alphabetician, Contributing Editor ISO/IEC 10646, co-author The Unicode Standard, Font Vendor, Everson Typography, Dublin
Karljürgen Feuerherm, Department of Archaeology and Classical Studies, Wilfrid Laurier University, Waterloo, Ontario
Madeleine Fitzgerald, Visiting Assistant Prof, Department of Near Eastern Languages and Cultures, UCLA, NSF Digital Libraries Initiative Postdoctoral Fellow for the Cuneiform Digital Library Initiative
Eckart Frahm, Assistant Professor of Assyriology, Department of Near Eastern Languages and Civilizations, Yale Univ
Gene Gragg, Professor of Near Eastern Languages and Linguistics, Oriental Institute, University of Chicago
William Hallo, Professor Emeritus, Department of Near Eastern Languages and Civilizations, Yale University
Edwin Hart, Senior Computing Staff, Applied Physics Laboratory, Johns Hopkins
Harry A. Hoffner, Jr., The John A. Wilson Professor of Hittitology Emeritus, Co-editor, Hittite Dictionary, Oriental Institute, University of Chicago
Hermann Hunger, Professor Assyriology, Altsemitische Philologie und Orientalische Archäologie, Institut für Orientalistik, Universität Wien
Thomas Izbicki, Near Eastern Resource Services Librarian, Johns Hopkins
John Jenkins, System Software Engineer, Apple, Unicode Technical Director
Cale Johnson, PhD Candidate, Department of Near Eastern Languages and Cultures, UCLA, Cuneiform Digital Library Initiative staff
Charles Jones, Research Associate, Bibliographer, Oriental Institute, University of Chicago
Alasdair Livingstone, Reader in Assyriology, University of Birmingham, England
John McGinnis, PhD, Cambridge University, England
Rick McGowan, Vice President, Unicode
Piotr Michalowski, Professor of Ancient Near Eastern Languages and Civilizations, Department of Near Eastern Studies, University of Michigan, Editor-in-chief, Journal of Cuneiform Studies
David Owen, Professor of Ancient Near Eastern and Judaic Studies, Cornell University
Gerfrid Müller, Institut für Altertumswissenschaften, Universität Würzburg
Simo Parpola, Professor of Assyriology, University of Helsinki
Philip Barton Payne, Font Vendor, Linguist's Software
Gonzalo Rubio, Asst. Prof of Assyriology, Ohio State University
Eric Smith, Graduate Student, Department of Linguistics, University of Toronto
Dean A. Snyder, Scholarly Technology Specialist, Manager, Digital Hammurabi, Johns Hopkins
Matthew Stolper, Professor of Assyriology, Oriental Institute, University of Chicago
Jonathan Taylor, an editor for Electronic Text Corpus of Sumerian Literature, Oriental Institute, Oxford University
Steve Tinney, Associate Professor of Assyriology and Sumerian, Editor, Pennsylvania Sumerian Dictionary, University of Pennsylvania
Niek Veldhuis, Assistant Professor Assyriology, Department of Near Eastern Studies, UC Berkeley
Lee Watkins, Jr., Director, Center for Scholarly Resources, Director, Digital Hammurabi, Johns Hopkins
Bruce Wells, PhD Near Eastern Studies, Johns Hopkins
Kenneth Whistler, Software Engineer, Sybase, Unicode Technical Director, Managing Editor, The Unicode Standard
Christopher Woods, Assistant Professor Assyriology, Oriental Institute, University of Chicago

ICE1 2000-2002

Working Group

Lloyd Anderson
Karljürgen Feuerherm
John Jenkins
Rick McGowan
Dean Snyder
Simo Parpola (consultant)
Steve Tinney (consultant)

Conference Attendees

Lloyd Anderson
Jerrold Cooper
Tom Davis
Karljürgen Feuerherm
John Jenkins
Alasdair Livingstone
Rick McGowan
Simo Parpola
Dean Snyder
Steve Tinney
Kenneth Whistler

ICE2 2003-

Working Group

Miguel Civil
Jerrold Cooper
Madeleine Fitzgerald
Karljürgen Feuerherm
Eckhart Frahm
Cale Johnson
Dean Snyder (coordinator)
Matthew Stolper
Steve Tinney
Ken Whistler (liaison to Unicode Technical Committee)

Conference Attendees

Lloyd Anderson
Phil Blair
Jerry Cooper
Michael Droettboom
Michael Everson
Karljürgen Feuerherm
Madeleine Fitzgerald
Edwin Hart
Thomas Izbicki
Cale Johnson
Dale Keiger
Rick McGowan
Dean A. Snyder
Steve Tinney
Lee Watkins
Bruce Wells
Ken Whistler