

Universal Multiple-Octet Coded Character Set
International Organization for Standardization
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Международная организация по стандартизации

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1. Introduction. Proto-cuneiform is the earliest form of the cuneiform script, the earliest writing system attested in history. It emerged towards the end of the fourth millennium B.C. in ancient Babylonia, a region of Mesopotamia that corresponds with the southern part of modern-day Iraq. The signs that made up this writing system were impressed with the aid of a stylus, usually made from reed, into the still soft surface of clay tablets. These clay tablets naturally dried and hardened in the arid and hot climate, and as a result they survived in great numbers. The early version of this script developed into the later cuneiform script that became the hallmark of Mesopotamian history and culture; hence the name “proto-cuneiform” has been accepted by most scholars to designate the most archaic version of script.

The German Archaeological Institute unearthed most of the tablets of this early phase of cuneiform history during their excavations at the ancient city of Uruk in lower Babylonia between 1913 and 1967. During the seasons from 1928 until 1976, nearly 5000 tablets and fragments were discovered, forming the basis for a long-term research project dedicated to the decipherment and edition of these texts. The periods in which proto-cuneiform is attested are often referred to as the Uruk periods (e.g., Uruk V, ca. 3500-3350 BCE; Uruk IV, ca. 3350-3200 BCE; Uruk III, ca. 3200–3000 BCE), after the excavation layers to which the tablets have been assigned (all tablets and fragments were found in trash deposits outside of secure stratigraphy, but within or below Uruk III). The tablets from Uruk, however, are not the only proto-cuneiform documents known from this period. Similar tablets have been found in the northern Babylonian sites of Jemdet Nasr, Khafaje, and Tell Uqair. Although the tablets from these sites are smaller in number compared to the Uruk corpus, they have aided in the advancement of our understanding of this early period in cuneiform’s history.

2. Basis of the repertoire and methodology. This proposal covers the most commonly occurring 200 Proto-cuneiform lexical and administrative signs that appear within the nearly 4900 texts from the Uruk III period, including Jemdat Nasr. Of these texts, 703 are lexical texts and 4167 are administrative (the genres of the final five texts are catalogued as “legal”, “literary”, “school”, “uncertain”, and “votive”; these were not included here). All non-numerical signs, except where the numerical signs form part of a compound logogram, from these lexical and administrative texts have been included in this study.

The signs were culled from the available texts in the database of the Cuneiform Digital Library Initiative (CDLI); and although this database represents the most comprehensive corpus of proto-cuneiform texts ever put together, the signs included in these lists were checked against previous published sign lists (Green and Nissen 1987; Englund, Damerow, and Nissen 1993; Englund and Boehmer 1994).

3. Glyphs, names, and ordering. The glyphs were originally drawn by R. K. England.¹ The signs are oriented according to their counterparts' orientation in later cuneiform, as per convention. The proposed names are based on each sign's traditional name, with slight differences in order to abide by the common UCS naming conventions. The sign order is alphabetical. This coincides with the order in the published sign list of Green and Nissen (1987).

4. Unicode Character Properties. Character properties for the new characters are proposed here.

```
12600;PROTO-CUNEIFORM SIGN A;Lo;0;L;;;;N;;;;;
12601;PROTO-CUNEIFORM SIGN AB-A;Lo;0;L;;;;N;;;;;
12602;PROTO-CUNEIFORM SIGN AB-B;Lo;0;L;;;;N;;;;;
12603;PROTO-CUNEIFORM SIGN AB2;Lo;0;L;;;;N;;;;;
12604;PROTO-CUNEIFORM SIGN ABGAL;Lo;0;L;;;;N;;;;;
12605;PROTO-CUNEIFORM SIGN AD-A;Lo;0;L;;;;N;;;;;
12606;PROTO-CUNEIFORM SIGN AGAR2;Lo;0;L;;;;N;;;;;
12607;PROTO-CUNEIFORM SIGN AK-A;Lo;0;L;;;;N;;;;;
12608;PROTO-CUNEIFORM SIGN AL;Lo;0;L;;;;N;;;;;
12609;PROTO-CUNEIFORM SIGN AMA-A;Lo;0;L;;;;N;;;;;
1260A;PROTO-CUNEIFORM SIGN AMAR;Lo;0;L;;;;N;;;;;
1260B;PROTO-CUNEIFORM SIGN AN;Lo;0;L;;;;N;;;;;
1260C;PROTO-CUNEIFORM SIGN ANSHE-B;Lo;0;L;;;;N;;;;;
1260D;PROTO-CUNEIFORM SIGN APIN-A;Lo;0;L;;;;N;;;;;
1260E;PROTO-CUNEIFORM SIGN BA;Lo;0;L;;;;N;;;;;
1260F;PROTO-CUNEIFORM SIGN BAD-A;Lo;0;L;;;;N;;;;;
12610;PROTO-CUNEIFORM SIGN BALA-A;Lo;0;L;;;;N;;;;;
12611;PROTO-CUNEIFORM SIGN BAR;Lo;0;L;;;;N;;;;;
12612;PROTO-CUNEIFORM SIGN BU-A;Lo;0;L;;;;N;;;;;
12613;PROTO-CUNEIFORM SIGN DA-A;Lo;0;L;;;;N;;;;;
12614;PROTO-CUNEIFORM SIGN DARA4-A1;Lo;0;L;;;;N;;;;;
12615;PROTO-CUNEIFORM SIGN DI;Lo;0;L;;;;N;;;;;
12616;PROTO-CUNEIFORM SIGN DIM-C;Lo;0;L;;;;N;;;;;
12617;PROTO-CUNEIFORM SIGN DIN;Lo;0;L;;;;N;;;;;
12618;PROTO-CUNEIFORM SIGN DU;Lo;0;L;;;;N;;;;;
12619;PROTO-CUNEIFORM SIGN DU6-B;Lo;0;L;;;;N;;;;;
1261A;PROTO-CUNEIFORM SIGN DUB-A;Lo;0;L;;;;N;;;;;
1261B;PROTO-CUNEIFORM SIGN DUG-A;Lo;0;L;;;;N;;;;;
1261C;PROTO-CUNEIFORM SIGN DUG-B;Lo;0;L;;;;N;;;;;
1261D;PROTO-CUNEIFORM SIGN DUG-B TIMES SIG7;Lo;0;L;;;;N;;;;;
1261E;PROTO-CUNEIFORM SIGN DUG-B TIMES X;Lo;0;L;;;;N;;;;;
1261F;PROTO-CUNEIFORM SIGN DUG-C;Lo;0;L;;;;N;;;;;
12620;PROTO-CUNEIFORM SIGN DUR2;Lo;0;L;;;;N;;;;;
12621;PROTO-CUNEIFORM SIGN E2-A;Lo;0;L;;;;N;;;;;
12622;PROTO-CUNEIFORM SIGN E2-B;Lo;0;L;;;;N;;;;;
12623;PROTO-CUNEIFORM SIGN EN-A;Lo;0;L;;;;N;;;;;
12624;PROTO-CUNEIFORM SIGN ERIM-A;Lo;0;L;;;;N;;;;;
12625;PROTO-CUNEIFORM SIGN ERIN;Lo;0;L;;;;N;;;;;
12626;PROTO-CUNEIFORM SIGN EZEN-B;Lo;0;L;;;;N;;;;;
12627;PROTO-CUNEIFORM SIGN GAAR-A1;Lo;0;L;;;;N;;;;;
12628;PROTO-CUNEIFORM SIGN GA-A;Lo;0;L;;;;N;;;;;
12629;PROTO-CUNEIFORM SIGN GA-A DOT ZATU753;Lo;0;L;;;;N;;;;;
1262A;PROTO-CUNEIFORM SIGN GA-B;Lo;0;L;;;;N;;;;;
1262B;PROTO-CUNEIFORM SIGN GA2-A1;Lo;0;L;;;;N;;;;;
1262C;PROTO-CUNEIFORM SIGN GADA-A;Lo;0;L;;;;N;;;;;
1262D;PROTO-CUNEIFORM SIGN GAL-A;Lo;0;L;;;;N;;;;;
1262E;PROTO-CUNEIFORM SIGN GAN-A;Lo;0;L;;;;N;;;;;
1262F;PROTO-CUNEIFORM SIGN GAN-B;Lo;0;L;;;;N;;;;;
12630;PROTO-CUNEIFORM SIGN GAN2;Lo;0;L;;;;N;;;;;
12631;PROTO-CUNEIFORM SIGN GAR;Lo;0;L;;;;N;;;;;
12632;PROTO-CUNEIFORM SIGN GARA2-A;Lo;0;L;;;;N;;;;;
12633;PROTO-CUNEIFORM SIGN GAZI;Lo;0;L;;;;N;;;;;
12634;PROTO-CUNEIFORM SIGN GI;Lo;0;L;;;;N;;;;;
12635;PROTO-CUNEIFORM SIGN GI AND GI;Lo;0;L;;;;N;;;;;
12636;PROTO-CUNEIFORM SIGN GI6;Lo;0;L;;;;N;;;;;
12637;PROTO-CUNEIFORM SIGN GIBIL;Lo;0;L;;;;N;;;;;
12638;PROTO-CUNEIFORM SIGN GIR2-A;Lo;0;L;;;;N;;;;;
12639;PROTO-CUNEIFORM SIGN GIR3 AT G-B;Lo;0;L;;;;N;;;;;
1263A;PROTO-CUNEIFORM SIGN GIR3-C;Lo;0;L;;;;N;;;;;
1263B;PROTO-CUNEIFORM SIGN GISH;Lo;0;L;;;;N;;;;;
1263C;PROTO-CUNEIFORM SIGN GISH2-B;Lo;0;L;;;;N;;;;;
1263D;PROTO-CUNEIFORM SIGN GISHIMMAR-B1;Lo;0;L;;;;N;;;;;
1263E;PROTO-CUNEIFORM SIGN GU;Lo;0;L;;;;N;;;;;
1263F;PROTO-CUNEIFORM SIGN GU4;Lo;0;L;;;;N;;;;;
12640;PROTO-CUNEIFORM SIGN GU7;Lo;0;L;;;;N;;;;;
12641;PROTO-CUNEIFORM SIGN GUG2;Lo;0;L;;;;N;;;;;
12642;PROTO-CUNEIFORM SIGN HAL;Lo;0;L;;;;N;;;;;
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1 Proto-cuneiform signs in postscript format (CS 4), <http://cdli.ucla.edu/?q=downloads>.

12643;PROTO-CUNEIFORM SIGN HASHHUR;Lo;0;L;;;;;N;;;;;
12644;PROTO-CUNEIFORM SIGN HI;Lo;0;L;;;;;N;;;;;
12645;PROTO-CUNEIFORM SIGN HI AT G-A;Lo;0;L;;;;;N;;;;;
12646;PROTO-CUNEIFORM SIGN IB-A;Lo;0;L;;;;;N;;;;;
12647;PROTO-CUNEIFORM SIGN IM-A;Lo;0;L;;;;;N;;;;;
12648;PROTO-CUNEIFORM SIGN IN-B;Lo;0;L;;;;;N;;;;;
12649;PROTO-CUNEIFORM SIGN IR-A;Lo;0;L;;;;;N;;;;;
1264A;PROTO-CUNEIFORM SIGN ISH-B;Lo;0;L;;;;;N;;;;;
1264B;PROTO-CUNEIFORM SIGN KA-A;Lo;0;L;;;;;N;;;;;
1264C;PROTO-CUNEIFORM SIGN KAB;Lo;0;L;;;;;N;;;;;
1264D;PROTO-CUNEIFORM SIGN KAK-A;Lo;0;L;;;;;N;;;;;
1264E;PROTO-CUNEIFORM SIGN KAR2-A;Lo;0;L;;;;;N;;;;;
1264F;PROTO-CUNEIFORM SIGN KAR2-B;Lo;0;L;;;;;N;;;;;
12650;PROTO-CUNEIFORM SIGN KASH-A;Lo;0;L;;;;;N;;;;;
12651;PROTO-CUNEIFORM SIGN KASH-B;Lo;0;L;;;;;N;;;;;
12652;PROTO-CUNEIFORM SIGN KASH-C;Lo;0;L;;;;;N;;;;;
12653;PROTO-CUNEIFORM SIGN KI;Lo;0;L;;;;;N;;;;;
12654;PROTO-CUNEIFORM SIGN KID-B;Lo;0;L;;;;;N;;;;;
12655;PROTO-CUNEIFORM SIGN KINGAL;Lo;0;L;;;;;N;;;;;
12656;PROTO-CUNEIFORM SIGN KISAL-B1;Lo;0;L;;;;;N;;;;;
12657;PROTO-CUNEIFORM SIGN KISIM-A;Lo;0;L;;;;;N;;;;;
12658;PROTO-CUNEIFORM SIGN KISH;Lo;0;L;;;;;N;;;;;
12659;PROTO-CUNEIFORM SIGN KISHIK-A;Lo;0;L;;;;;N;;;;;
1265A;PROTO-CUNEIFORM SIGN KU-B1;Lo;0;L;;;;;N;;;;;
1265B;PROTO-CUNEIFORM SIGN KU3-A;Lo;0;L;;;;;N;;;;;
1265C;PROTO-CUNEIFORM SIGN KU6-A;Lo;0;L;;;;;N;;;;;
1265D;PROTO-CUNEIFORM SIGN KUR-A;Lo;0;L;;;;;N;;;;;
1265E;PROTO-CUNEIFORM SIGN LA-2;Lo;0;L;;;;;N;;;;;
1265F;PROTO-CUNEIFORM SIGN LAGAB-A;Lo;0;L;;;;;N;;;;;
12660;PROTO-CUNEIFORM SIGN LAGAR-A;Lo;0;L;;;;;N;;;;;
12661;PROTO-CUNEIFORM SIGN MA;Lo;0;L;;;;;N;;;;;
12662;PROTO-CUNEIFORM SIGN MAR-A;Lo;0;L;;;;;N;;;;;
12663;PROTO-CUNEIFORM SIGN MASH;Lo;0;L;;;;;N;;;;;
12664;PROTO-CUNEIFORM SIGN MASH2;Lo;0;L;;;;;N;;;;;
12665;PROTO-CUNEIFORM SIGN ME-A;Lo;0;L;;;;;N;;;;;
12666;PROTO-CUNEIFORM SIGN MES;Lo;0;L;;;;;N;;;;;
12667;PROTO-CUNEIFORM SIGN MU;Lo;0;L;;;;;N;;;;;
12668;PROTO-CUNEIFORM SIGN MUD;Lo;0;L;;;;;N;;;;;
12669;PROTO-CUNEIFORM SIGN MUD3-A;Lo;0;L;;;;;N;;;;;
1266A;PROTO-CUNEIFORM SIGN MUNU3;Lo;0;L;;;;;N;;;;;
1266B;PROTO-CUNEIFORM SIGN MUSH-A;Lo;0;L;;;;;N;;;;;
1266C;PROTO-CUNEIFORM SIGN MUSHEN;Lo;0;L;;;;;N;;;;;
1266D;PROTO-CUNEIFORM SIGN NA-A;Lo;0;L;;;;;N;;;;;
1266E;PROTO-CUNEIFORM SIGN NA2-A;Lo;0;L;;;;;N;;;;;
1266F;PROTO-CUNEIFORM SIGN NAGA-A;Lo;0;L;;;;;N;;;;;
12670;PROTO-CUNEIFORM SIGN NAGAR-A;Lo;0;L;;;;;N;;;;;
12671;PROTO-CUNEIFORM SIGN NAGAR-B;Lo;0;L;;;;;N;;;;;
12672;PROTO-CUNEIFORM SIGN NAM2;Lo;0;L;;;;;N;;;;;
12673;PROTO-CUNEIFORM SIGN NAMESHDA;Lo;0;L;;;;;N;;;;;
12674;PROTO-CUNEIFORM SIGN NAR;Lo;0;L;;;;;N;;;;;
12675;PROTO-CUNEIFORM SIGN NE-A;Lo;0;L;;;;;N;;;;;
12676;PROTO-CUNEIFORM SIGN NESAG2-A;Lo;0;L;;;;;N;;;;;
12677;PROTO-CUNEIFORM SIGN NI-A;Lo;0;L;;;;;N;;;;;
12678;PROTO-CUNEIFORM SIGN NI-A DOT RU;Lo;0;L;;;;;N;;;;;
12679;PROTO-CUNEIFORM SIGN NI-B;Lo;0;L;;;;;N;;;;;
1267A;PROTO-CUNEIFORM SIGN NIM-A;Lo;0;L;;;;;N;;;;;
1267B;PROTO-CUNEIFORM SIGN NIM-B1;Lo;0;L;;;;;N;;;;;
1267C;PROTO-CUNEIFORM SIGN NIMGIR;Lo;0;L;;;;;N;;;;;
1267D;PROTO-CUNEIFORM SIGN NIN;Lo;0;L;;;;;N;;;;;
1267E;PROTO-CUNEIFORM SIGN NU;Lo;0;L;;;;;N;;;;;
1267F;PROTO-CUNEIFORM SIGN NUN-A;Lo;0;L;;;;;N;;;;;
12680;PROTO-CUNEIFORM SIGN NUN-B;Lo;0;L;;;;;N;;;;;
12681;PROTO-CUNEIFORM SIGN NUNUZ-A1;Lo;0;L;;;;;N;;;;;
12682;PROTO-CUNEIFORM SIGN PA-A;Lo;0;L;;;;;N;;;;;
12683;PROTO-CUNEIFORM SIGN PAP-A;Lo;0;L;;;;;N;;;;;
12684;PROTO-CUNEIFORM SIGN PIRIG-B1;Lo;0;L;;;;;N;;;;;
12685;PROTO-CUNEIFORM SIGN PU2;Lo;0;L;;;;;N;;;;;
12686;PROTO-CUNEIFORM SIGN RAD-A;Lo;0;L;;;;;N;;;;;
12687;PROTO-CUNEIFORM SIGN RU;Lo;0;L;;;;;N;;;;;
12688;PROTO-CUNEIFORM SIGN SAG;Lo;0;L;;;;;N;;;;;
12689;PROTO-CUNEIFORM SIGN SAL;Lo;0;L;;;;;N;;;;;
1268A;PROTO-CUNEIFORM SIGN SANGA-A;Lo;0;L;;;;;N;;;;;
1268B;PROTO-CUNEIFORM SIGN SAR-A;Lo;0;L;;;;;N;;;;;
1268C;PROTO-CUNEIFORM SIGN SI;Lo;0;L;;;;;N;;;;;
1268D;PROTO-CUNEIFORM SIGN SI4-F;Lo;0;L;;;;;N;;;;;
1268E;PROTO-CUNEIFORM SIGN SIG;Lo;0;L;;;;;N;;;;;
1268F;PROTO-CUNEIFORM SIGN SIG2-B;Lo;0;L;;;;;N;;;;;
12690;PROTO-CUNEIFORM SIGN SIG7;Lo;0;L;;;;;N;;;;;
12691;PROTO-CUNEIFORM SIGN SILA4-C;Lo;0;L;;;;;N;;;;;
12692;PROTO-CUNEIFORM SIGN SU-A;Lo;0;L;;;;;N;;;;;
12693;PROTO-CUNEIFORM SIGN SUG5;Lo;0;L;;;;;N;;;;;
12694;PROTO-CUNEIFORM SIGN SUHUR;Lo;0;L;;;;;N;;;;;

12695;PROTO-CUNEIFORM SIGN SUKKAL;Lo;0;L;;;;N;;;;;
 12696;PROTO-CUNEIFORM SIGN SUM-A;Lo;0;L;;;;N;;;;;
 12697;PROTO-CUNEIFORM SIGN SHA;Lo;0;L;;;;N;;;;;
 12698;PROTO-CUNEIFORM SIGN SHA3-A1;Lo;0;L;;;;N;;;;;
 12699;PROTO-CUNEIFORM SIGN SHAB-A;Lo;0;L;;;;N;;;;;
 1269A;PROTO-CUNEIFORM SIGN SHAGAN;Lo;0;L;;;;N;;;;;
 1269B;PROTO-CUNEIFORM SIGN SHAM2;Lo;0;L;;;;N;;;;;
 1269C;PROTO-CUNEIFORM SIGN SHE-A;Lo;0;L;;;;N;;;;;
 1269D;PROTO-CUNEIFORM SIGN SHE-A NAM2;Lo;0;L;;;;N;;;;;
 1269E;PROTO-CUNEIFORM SIGN SHE3;Lo;0;L;;;;N;;;;;
 1269F;PROTO-CUNEIFORM SIGN SHITA-A1;Lo;0;L;;;;N;;;;;
 126A0;PROTO-CUNEIFORM SIGN SHU;Lo;0;L;;;;N;;;;;
 126A1;PROTO-CUNEIFORM SIGN SHU2;Lo;0;L;;;;N;;;;;
 126A2;PROTO-CUNEIFORM SIGN SHUBUR;Lo;0;L;;;;N;;;;;
 126A3;PROTO-CUNEIFORM SIGN TAK4-A;Lo;0;L;;;;N;;;;;
 126A4;PROTO-CUNEIFORM SIGN TAR-A;Lo;0;L;;;;N;;;;;
 126A5;PROTO-CUNEIFORM SIGN TE;Lo;0;L;;;;N;;;;;
 126A6;PROTO-CUNEIFORM SIGN TI;Lo;0;L;;;;N;;;;;
 126A7;PROTO-CUNEIFORM SIGN TUG2-A;Lo;0;L;;;;N;;;;;
 126A8;PROTO-CUNEIFORM SIGN TUG2-A AT G;Lo;0;L;;;;N;;;;;
 126A9;PROTO-CUNEIFORM SIGN TUN3-A;Lo;0;L;;;;N;;;;;
 126AA;PROTO-CUNEIFORM SIGN TUR;Lo;0;L;;;;N;;;;;
 126AB;PROTO-CUNEIFORM SIGN TUR3-A;Lo;0;L;;;;N;;;;;
 126AC;PROTO-CUNEIFORM SIGN U2-A;Lo;0;L;;;;N;;;;;
 126AD;PROTO-CUNEIFORM SIGN U2-B;Lo;0;L;;;;N;;;;;
 126AE;PROTO-CUNEIFORM SIGN U4;Lo;0;L;;;;N;;;;;
 126AF;PROTO-CUNEIFORM SIGN U4 TIMES ONE;Lo;0;L;;;;N;;;;;
 126B0;PROTO-CUNEIFORM SIGN U8;Lo;0;L;;;;N;;;;;
 126B1;PROTO-CUNEIFORM SIGN UB;Lo;0;L;;;;N;;;;;
 126B2;PROTO-CUNEIFORM SIGN UD5-A;Lo;0;L;;;;N;;;;;
 126B3;PROTO-CUNEIFORM SIGN UDU-A;Lo;0;L;;;;N;;;;;
 126B4;PROTO-CUNEIFORM SIGN UDUNITA-A;Lo;0;L;;;;N;;;;;
 126B5;PROTO-CUNEIFORM SIGN UKKIN-A;Lo;0;L;;;;N;;;;;
 126B6;PROTO-CUNEIFORM SIGN UMUN2;Lo;0;L;;;;N;;;;;
 126B7;PROTO-CUNEIFORM SIGN UNUG-A;Lo;0;L;;;;N;;;;;
 126B8;PROTO-CUNEIFORM SIGN UR-A;Lo;0;L;;;;N;;;;;
 126B9;PROTO-CUNEIFORM SIGN UR2;Lo;0;L;;;;N;;;;;
 126BA;PROTO-CUNEIFORM SIGN UR5-A;Lo;0;L;;;;N;;;;;
 126BB;PROTO-CUNEIFORM SIGN URI3-A;Lo;0;L;;;;N;;;;;
 126BC;PROTO-CUNEIFORM SIGN URU-A1;Lo;0;L;;;;N;;;;;
 126BD;PROTO-CUNEIFORM SIGN UTUA-A;Lo;0;L;;;;N;;;;;
 126BE;PROTO-CUNEIFORM SIGN UTUL-A;Lo;0;L;;;;N;;;;;
 126BF;PROTO-CUNEIFORM SIGN ZAG-A;Lo;0;L;;;;N;;;;;
 126C0;PROTO-CUNEIFORM SIGN ZATU647;Lo;0;L;;;;N;;;;;
 126C1;PROTO-CUNEIFORM SIGN ZATU659;Lo;0;L;;;;N;;;;;
 126C2;PROTO-CUNEIFORM SIGN ZATU649-C;Lo;0;L;;;;N;;;;;
 126C3;PROTO-CUNEIFORM SIGN ZATU737 TIMES DI;Lo;0;L;;;;N;;;;;
 126C4;PROTO-CUNEIFORM SIGN ZATU737 TIMES SAL;Lo;0;L;;;;N;;;;;
 126C5;PROTO-CUNEIFORM SIGN ZATU752;Lo;0;L;;;;N;;;;;
 126C6;PROTO-CUNEIFORM SIGN ZATU753;Lo;0;L;;;;N;;;;;
 126C7;PROTO-CUNEIFORM SIGN ZI-A;Lo;0;L;;;;N;;;;;

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6. Bibliography.

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	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	126A	126B	126C	126D	126E	126F
0																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

Signs

12600	≡	PROTO-CUNEIFORM SIGN A
12601	△	PROTO-CUNEIFORM SIGN AB-A
12602	▽	PROTO-CUNEIFORM SIGN AB-B
12603	∇	PROTO-CUNEIFORM SIGN AB2
12604	⊥	PROTO-CUNEIFORM SIGN ABGAL
12605	⊢	PROTO-CUNEIFORM SIGN AD-A
12606	⊣	PROTO-CUNEIFORM SIGN AGAR2
12607	⊤	PROTO-CUNEIFORM SIGN AK-A
12608	⊥	PROTO-CUNEIFORM SIGN AL
12609	⊢	PROTO-CUNEIFORM SIGN AMA-A
1260A	⊣	PROTO-CUNEIFORM SIGN AMAR
1260B	*	PROTO-CUNEIFORM SIGN AN
1260C	⊢	PROTO-CUNEIFORM SIGN ANSHE-B
1260D	⊣	PROTO-CUNEIFORM SIGN APIN-A
1260E	⊥	PROTO-CUNEIFORM SIGN BA
1260F	⊢	PROTO-CUNEIFORM SIGN BAD-A
12610	⊣	PROTO-CUNEIFORM SIGN BALA-A
12611	⊥	PROTO-CUNEIFORM SIGN BAR
12612	⊢	PROTO-CUNEIFORM SIGN BU-A
12613	⊣	PROTO-CUNEIFORM SIGN DA-A
12614	⊥	PROTO-CUNEIFORM SIGN DARA4-A1
12615	⊢	PROTO-CUNEIFORM SIGN DI
12616	⊣	PROTO-CUNEIFORM SIGN DIM-C
12617	⊥	PROTO-CUNEIFORM SIGN DIN
12618	⊢	PROTO-CUNEIFORM SIGN DU
12619	⊣	PROTO-CUNEIFORM SIGN DUG-B
1261A	⊥	PROTO-CUNEIFORM SIGN DUB-A
1261B	⊢	PROTO-CUNEIFORM SIGN DUG-A
1261C	⊣	PROTO-CUNEIFORM SIGN DUG-B
1261D	⊥	PROTO-CUNEIFORM SIGN DUG-B TIMES SIG7
1261E	⊢	PROTO-CUNEIFORM SIGN DUG-B TIMES X
1261F	⊣	PROTO-CUNEIFORM SIGN DUG-C
12620	⊥	PROTO-CUNEIFORM SIGN DUR2
12621	⊢	PROTO-CUNEIFORM SIGN E2-A
12622	⊣	PROTO-CUNEIFORM SIGN E2-B
12623	⊥	PROTO-CUNEIFORM SIGN EN-A
12624	⊢	PROTO-CUNEIFORM SIGN ERIM-A
12625	⊣	PROTO-CUNEIFORM SIGN ERIN
12626	⊥	PROTO-CUNEIFORM SIGN EZEN-B
12627	⊢	PROTO-CUNEIFORM SIGN GAAR-A1
		• ga'ar-a1
12628	⊣	PROTO-CUNEIFORM SIGN GA-A
12629	⊥	PROTO-CUNEIFORM SIGN GA-A DOT ZATU753
		• ga-a.zatu753
1262A	⊢	PROTO-CUNEIFORM SIGN GA-B
1262B	⊣	PROTO-CUNEIFORM SIGN GA2-A1
1262C	⊥	PROTO-CUNEIFORM SIGN GADA-A
1262D	⊢	PROTO-CUNEIFORM SIGN GAL-A
1262E	⊣	PROTO-CUNEIFORM SIGN GAN-A
1262F	⊥	PROTO-CUNEIFORM SIGN GAN-B
12630	⊢	PROTO-CUNEIFORM SIGN GAN2
12631	⊣	PROTO-CUNEIFORM SIGN GAR
12632	⊥	PROTO-CUNEIFORM SIGN GARA2-A
12633	⊢	PROTO-CUNEIFORM SIGN GAZI
12634	⊣	PROTO-CUNEIFORM SIGN GI
12635	⊥	PROTO-CUNEIFORM SIGN GI AND GI
		• gi&gi
12636	⊢	PROTO-CUNEIFORM SIGN GI6
12637	⊣	PROTO-CUNEIFORM SIGN GIBIL
12638	⊥	PROTO-CUNEIFORM SIGN GIR2-A
12639	⊢	PROTO-CUNEIFORM SIGN GIR3 AT G-B
		• gir3@g-b
1263A	⊣	PROTO-CUNEIFORM SIGN GIR3-C
1263B	⊥	PROTO-CUNEIFORM SIGN GISH
1263C	⊢	PROTO-CUNEIFORM SIGN GISH2-B

1263D	⊣	PROTO-CUNEIFORM SIGN GISHIMMAR-B1
1263E	⊢	PROTO-CUNEIFORM SIGN GU
1263F	⊣	PROTO-CUNEIFORM SIGN GU4
12640	⊥	PROTO-CUNEIFORM SIGN GU7
12641	⊢	PROTO-CUNEIFORM SIGN GUG2
12642	⊣	PROTO-CUNEIFORM SIGN HAL
12643	⊥	PROTO-CUNEIFORM SIGN HASHHUR
12644	⊢	PROTO-CUNEIFORM SIGN HI
12645	⊣	PROTO-CUNEIFORM SIGN HI AT G-A
12646	⊥	PROTO-CUNEIFORM SIGN IB-A
12647	⊢	PROTO-CUNEIFORM SIGN IM-A
12648	⊣	PROTO-CUNEIFORM SIGN IN-B
12649	⊥	PROTO-CUNEIFORM SIGN IR-A
1264A	⊢	PROTO-CUNEIFORM SIGN ISH-B
1264B	⊣	PROTO-CUNEIFORM SIGN KA-A
1264C	⊥	PROTO-CUNEIFORM SIGN KAB
1264D	⊢	PROTO-CUNEIFORM SIGN KAK-A
1264E	⊣	PROTO-CUNEIFORM SIGN KAR2-A
1264F	⊥	PROTO-CUNEIFORM SIGN KAR2-B
12650	⊢	PROTO-CUNEIFORM SIGN KASH-A
12651	⊣	PROTO-CUNEIFORM SIGN KASH-B
12652	⊥	PROTO-CUNEIFORM SIGN KASH-C
12653	⊢	PROTO-CUNEIFORM SIGN KI
12654	⊣	PROTO-CUNEIFORM SIGN KID-B
12655	⊥	PROTO-CUNEIFORM SIGN KINGAL
12656	⊢	PROTO-CUNEIFORM SIGN KISAL-B1
12657	⊣	PROTO-CUNEIFORM SIGN KISIM-A
12658	⊥	PROTO-CUNEIFORM SIGN KISH
12659	⊢	PROTO-CUNEIFORM SIGN KISHIK-A
1265A	⊣	PROTO-CUNEIFORM SIGN KU-B1
1265B	⊥	PROTO-CUNEIFORM SIGN KU3-A
1265C	⊢	PROTO-CUNEIFORM SIGN KU6-A
1265D	⊣	PROTO-CUNEIFORM SIGN KUR-A
1265E	⊥	PROTO-CUNEIFORM SIGN LA-2
1265F	⊢	PROTO-CUNEIFORM SIGN LAGAB-A
12660	⊣	PROTO-CUNEIFORM SIGN LAGAR-A
12661	⊥	PROTO-CUNEIFORM SIGN MA
12662	⊢	PROTO-CUNEIFORM SIGN MAR-A
12663	⊣	PROTO-CUNEIFORM SIGN MASH
12664	⊥	PROTO-CUNEIFORM SIGN MASH2
12665	⊢	PROTO-CUNEIFORM SIGN ME-A
12666	⊣	PROTO-CUNEIFORM SIGN MES
12667	⊥	PROTO-CUNEIFORM SIGN MU
12668	⊢	PROTO-CUNEIFORM SIGN MUD
12669	⊣	PROTO-CUNEIFORM SIGN MUD3-A
1266A	⊥	PROTO-CUNEIFORM SIGN MUNU3
1266B	⊢	PROTO-CUNEIFORM SIGN MUSH-A
1266C	⊣	PROTO-CUNEIFORM SIGN MUSHEN
1266D	⊥	PROTO-CUNEIFORM SIGN NA-A
1266E	⊢	PROTO-CUNEIFORM SIGN NA2-A
1266F	⊣	PROTO-CUNEIFORM SIGN NAGA-A
12670	⊥	PROTO-CUNEIFORM SIGN NAGAR-A
12671	⊢	PROTO-CUNEIFORM SIGN NAGAR-B
12672	⊣	PROTO-CUNEIFORM SIGN NAM2
12673	⊥	PROTO-CUNEIFORM SIGN NAMESHDA
12674	⊢	PROTO-CUNEIFORM SIGN NAR
12675	⊣	PROTO-CUNEIFORM SIGN NE-A
12676	⊥	PROTO-CUNEIFORM SIGN NESAG2-A
12677	⊢	PROTO-CUNEIFORM SIGN NI-A
12678	⊣	PROTO-CUNEIFORM SIGN NI-A DOT RU
		• ni-a.ru
12679	⊥	PROTO-CUNEIFORM SIGN NI-B
1267A	⊢	PROTO-CUNEIFORM SIGN NIM-A
1267B	⊣	PROTO-CUNEIFORM SIGN NIM-B1
1267C	⊥	PROTO-CUNEIFORM SIGN NIMGIR
1267D	⊢	PROTO-CUNEIFORM SIGN NIN
1267E	⊣	PROTO-CUNEIFORM SIGN NU

1267F  PROTO-CUNEIFORM SIGN NUN-A
 12680  PROTO-CUNEIFORM SIGN NUN-B
 12681  PROTO-CUNEIFORM SIGN NUNUZ-A1
 12682  PROTO-CUNEIFORM SIGN PA-A
 12683  PROTO-CUNEIFORM SIGN PAP-A
 12684  PROTO-CUNEIFORM SIGN PIRIG-B1
 12685  PROTO-CUNEIFORM SIGN PU2
 12686  PROTO-CUNEIFORM SIGN RAD-A
 12687  PROTO-CUNEIFORM SIGN RU
 12688  PROTO-CUNEIFORM SIGN SAG
 12689  PROTO-CUNEIFORM SIGN SAL
 1268A  PROTO-CUNEIFORM SIGN SANGA-A
 1268B  PROTO-CUNEIFORM SIGN SAR-A
 1268C  PROTO-CUNEIFORM SIGN SI
 1268D  PROTO-CUNEIFORM SIGN SI4-F
 1268E  PROTO-CUNEIFORM SIGN SIG
 1268F  PROTO-CUNEIFORM SIGN SIG2-B
 12690  PROTO-CUNEIFORM SIGN SIG7
 12691  PROTO-CUNEIFORM SIGN SILA4-C
 12692  PROTO-CUNEIFORM SIGN SU-A
 12693  PROTO-CUNEIFORM SIGN SUG5
 12694  PROTO-CUNEIFORM SIGN SUHUR
 12695  PROTO-CUNEIFORM SIGN SUKKAL
 12696  PROTO-CUNEIFORM SIGN SUM-A
 12697  PROTO-CUNEIFORM SIGN SHA
 12698  PROTO-CUNEIFORM SIGN SHA3-A1
 12699  PROTO-CUNEIFORM SIGN SHAB-A
 1269A  PROTO-CUNEIFORM SIGN SHAGAN
 1269B  PROTO-CUNEIFORM SIGN SHAM2
 1269C  PROTO-CUNEIFORM SIGN SHE-A
 1269D  PROTO-CUNEIFORM SIGN SHE-A NAM2
 • she-a.nam2
 1269E  PROTO-CUNEIFORM SIGN SHE3
 1269F  PROTO-CUNEIFORM SIGN SHITA-A1
 126A0  PROTO-CUNEIFORM SIGN SHU
 126A1  PROTO-CUNEIFORM SIGN SHU2
 126A2  PROTO-CUNEIFORM SIGN SHUBUR
 126A3  PROTO-CUNEIFORM SIGN TAK4-A
 126A4  PROTO-CUNEIFORM SIGN TAR-A
 126A5  PROTO-CUNEIFORM SIGN TE
 126A6  PROTO-CUNEIFORM SIGN TI
 126A7  PROTO-CUNEIFORM SIGN TUG2-A
 126A8  PROTO-CUNEIFORM SIGN TUG2-A AT G
 • tug2-a@g
 126A9  PROTO-CUNEIFORM SIGN TUN3-A
 126AA  PROTO-CUNEIFORM SIGN TUR
 126AB  PROTO-CUNEIFORM SIGN TUR3-A
 126AC  PROTO-CUNEIFORM SIGN U2-A
 126AD  PROTO-CUNEIFORM SIGN U2-B
 126AE  PROTO-CUNEIFORM SIGN U4
 126AF  PROTO-CUNEIFORM SIGN U4 TIMES ONE
 126B0  PROTO-CUNEIFORM SIGN U8
 126B1  PROTO-CUNEIFORM SIGN UB
 126B2  PROTO-CUNEIFORM SIGN UD5-A
 126B3  PROTO-CUNEIFORM SIGN UDU-A
 126B4  PROTO-CUNEIFORM SIGN UDUNITA-A
 126B5  PROTO-CUNEIFORM SIGN UKKIN-A
 126B6  PROTO-CUNEIFORM SIGN UMUN2
 126B7  PROTO-CUNEIFORM SIGN UNUG-A
 126B8  PROTO-CUNEIFORM SIGN UR-A
 126B9  PROTO-CUNEIFORM SIGN UR2
 126BA  PROTO-CUNEIFORM SIGN UR5-A
 126BB  PROTO-CUNEIFORM SIGN URI3-A
 126BC  PROTO-CUNEIFORM SIGN URU-A1
 126BD  PROTO-CUNEIFORM SIGN UTUA-A
 126BE  PROTO-CUNEIFORM SIGN UTUL-A
 126BF  PROTO-CUNEIFORM SIGN ZAG-A

126C0  PROTO-CUNEIFORM SIGN ZATU647
 126C1  PROTO-CUNEIFORM SIGN ZATU659
 126C2  PROTO-CUNEIFORM SIGN ZATU649-C
 126C3  PROTO-CUNEIFORM SIGN ZATU737 TIMES DI
 126C4  PROTO-CUNEIFORM SIGN ZATU737 TIMES SAL
 126C5  PROTO-CUNEIFORM SIGN ZATU752
 126C6  PROTO-CUNEIFORM SIGN ZATU753
 126C7  PROTO-CUNEIFORM SIGN ZI-A

A. Administrative

1. Title

Preliminary proposal to encode Proto-Cuneiform 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

2016-09-25

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

Proto-Cuneiform.

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

200.

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.

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?

Steve Tinney.

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?