

L2/98-033



ISO/IEC JTC1/SC2/WG2 N1686

DATE: 1998-01-18

ISO/IEC JTC1/SC2/WG2
Universal Multiple-Octet Coded Character Set (UCS) – ISO/IEC 10646
Secretariat: ANSI

DOC TYPE: Expert contribution

TITLE: Draft Proposal to encode Old Hungarian in Plane 1 of ISO/IEC 10646-2

SOURCE: Michael Everson, EGT (IE)

PROJECT: JTC1.02.18.02

STATUS: Proposal.

ACTION ID: FYI

DUE DATE: --

DISTRIBUTION: Worldwide

MEDIUM: Paper and web

NO. OF PAGES: 7 (printed at 80%)

A. Administrative

1. Title	Proposal to encode Old Hungarian in Plane 1 of ISO/IEC 10646-2
2. Requester's name	Michael Everson
3. Requester type	Expert request
4. Submission date	1998-01-18
5. Requester's reference	
6a. Completion	This is a complete proposal.
6b. More information to be provided?	No

B. Technical -- General

1a. New script? Name?	Yes. Old Hungarian
1b. Addition of characters to existing block? Name?	No.
2. Number of characters	45 - 163
3. Proposed category	Category B.1
4. Proposed level of implementation and rationale	Level 1
5a. Character names included in proposal?	Yes
5b. Character names in accordance with guidelines?	Yes
5c. Character shapes reviewable?	Yes
6a. Who will provide computerized font?	Fšr Zoltjn or Hosszu Gjbor via Michael Everson
6b. Font currently available?	Fšr Zoltjn or Hosszu Gjbor via Michael Everson
6c. Font format?	TrueType
7a. Are references (to other character sets, dictionaries, descriptive texts, etc.) provided?	Yes.
7b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached?	No
8. Does the proposal address other aspects of character data processing?	Yes

C. Technical -- Justification

1. Contact with the user community?	Yes, with the Centre for the Domestic Languages of Finland and experts on the web (the <i>rov/sír/s</i> discussion list, rov@nimrud.eet.bme.hu).
2. Information on the user community?	Old Hungarian enjoys mostly scholarly use, but is also known by other enthusiasts. It may form a part of the cultural curriculum in Hungarian schools.
3a. The context of use for the proposed characters?	Used to represent original texts from the 13th-14th century as well as modern Hungarian.
3b. Reference	See below.
4a. Proposed characters in current use?	Yes, by enthusiasts of various kinds.
4b. Where?	By scholars and enthusiasts. Schoolchildren in Hungary make use of the script.
5a. Characters should be encoded entirely in BMP?	No. Plane 1. But BMP should be considered.
5b. Rationale	Accordance with the Roadmap.
6. Should characters be kept in a continuous range?	Yes
7a. Can the characters be considered a presentation form of an existing character or character sequence?	No. Similarity to Germanic Runic is coincidental.
7b. Where?	
7c. Reference	
8a. Can any of the characters be considered to be similar (in appearance or function) to an existing character?	No
8b. Where?	
8c. Reference	
9a. Combining characters or use of composite sequences included?	Characters can combine to form ligatures.
9b. List of composite sequences and their corresponding glyph images provided?	Yes.
10. Characters with any special properties such as control function, etc. included?	No

D. SC2/WG2 Administrative

To be completed by SC2/WG2

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| 1. Relevant SC 2/WG 2 document numbers: | |
| 2. Status (list of meeting number and corresponding action or disposition) | |
| 3. Additional contact to user communities, liaison organizations etc. | |
| 4. Assigned category and assigned priority/time frame | |
| Other Comments | |

The Old Hungarian script is descended from the K-k Turki script used in Central Asia. It was used by the Székler Magyars in Hungary before István, first Christian king of Hungary, ordered all reminders, objects, and writings of the pre-Christian era to be destroyed throughout the nation. Many important documents were destroyed. The "Nikolsberger Alphabet" from 1483 gives a complete repertoire of basic signs. Old Hungarian enjoys an Internet presence today; there are numerous pages dealing with Old Hungarian, including some by students (search for *rovjsírjs* in Alta Vista), and there are a number of active participants on the *rovjsírjs* discussion list. XXX tells how when he and his friends were in school, they used to use Old Hungarian to write secret messages to one another, with RTL directionality. Although less wide-spread than Ogham or Runic (which have significant English-speaking audiences), Old Hungarian should be, because of its popular use, a candidate for BMP encoding. It is certainly more relevant and popular than Phoenician.

Issues:

The script is called *rovjsírjs* in Hungarian, from *rovjs* 'incised' and *írjs* 'writing'. Various sources call it Old Hungarian or Hungarian Runic.

The traditional directionality of the script is RTL. Many of the sites on the internet show *rovjsírjs* text in gifs with RTL directionality. One font found on the web so far (by Hosszu Gábor) gives the characters LTR directionality; another (by Fűr Zoltán) gives its characters RTL directionality. Discussion on the *rov@nimrud.eet.bme.hu* list reveals a strong preference by many users for RTL as the default directionality (unlike the user preference for Etruscan). The glyphs presented in the tables below are RTL glyphs; when LTR directionality is used (via UCS directional modifiers), the glyphs must be reversed. The glyphs presented in the ligature list below are LTR.

There is a basic set of 45 letters and a rather large set of ligatures. 64 of these ligatures (columns 3-6) were taken from Hosszu Gábor's font. The remaining 71 ligatures were taken from Haarmann 1990 and Fehér 1975. Are the ligatures a finite set or productive? They appear to be productive. Are the ligatures obligatory? They appear not to be, especially when the script is used to write modern Hungarian (as in Heves 1997). Should ZERO-WIDTH-JOINER be used for any and all ligatures? If that can be done, then UCS should only encode the basic 45 characters.

Is there any punctuation that needs to be coded? A character looking like a colon is used as a divider in Fehér 1975.

What is the relation between this script and the K-k Turki script? Should unification be considered? (My view is that it should not; the glyphs and values are too different.)

U+0001xx00	OLD HUNGARIAN LETTER A
U+0001xx01	OLD HUNGARIAN LETTER AA
U+0001xx02	OLD HUNGARIAN LETTER EB
U+0001xx03	OLD HUNGARIAN LETTER EC

U+0001xx04	OLD HUNGARIAN LETTER ECS
U+0001xx05	OLD HUNGARIAN LETTER ED
U+0001xx06	OLD HUNGARIAN LETTER E
U+0001xx07	OLD HUNGARIAN LETTER EE
U+0001xx08	OLD HUNGARIAN LETTER EF
U+0001xx09	OLD HUNGARIAN LETTER EG
U+0001xx0A	OLD HUNGARIAN LETTER EGY
U+0001xx0B	OLD HUNGARIAN LETTER EH
U+0001xx0C	OLD HUNGARIAN LETTER I
U+0001xx0D	OLD HUNGARIAN LETTER II
U+0001xx0E	OLD HUNGARIAN LETTER EJ
U+0001xx0F	OLD HUNGARIAN LETTER EK
U+0001xx10	OLD HUNGARIAN LETTER AK
U+0001xx11	OLD HUNGARIAN LETTER EL
U+0001xx12	OLD HUNGARIAN LETTER ELY
U+0001xx13	OLD HUNGARIAN LETTER EM
U+0001xx14	OLD HUNGARIAN LETTER EN
U+0001xx15	OLD HUNGARIAN LETTER ENY
U+0001xx16	OLD HUNGARIAN LETTER O
U+0001xx17	OLD HUNGARIAN LETTER OO
U+0001xx18	OLD HUNGARIAN LETTER OE
U+0001xx19	OLD HUNGARIAN LETTER OEE
U+0001xx1A	OLD HUNGARIAN LETTER EP
U+0001xx1B	OLD HUNGARIAN LETTER ER
U+0001xx1C	OLD HUNGARIAN LETTER ES
U+0001xx1D	OLD HUNGARIAN LETTER ESZ
U+0001xx1E	OLD HUNGARIAN LETTER ET
U+0001xx1F	OLD HUNGARIAN LETTER ETY
U+0001xx20	OLD HUNGARIAN LETTER U
U+0001xx21	OLD HUNGARIAN LETTER UU
U+0001xx22	OLD HUNGARIAN LETTER UE
U+0001xx23	OLD HUNGARIAN LETTER UEE
U+0001xx24	OLD HUNGARIAN LETTER EV
U+0001xx25	OLD HUNGARIAN LETTER EZ
U+0001xx26	OLD HUNGARIAN LETTER EZS
U+0001xx27	OLD HUNGARIAN NUMBER ONE
U+0001xx28	OLD HUNGARIAN NUMBER FIVE
U+0001xx29	OLD HUNGARIAN NUMBER TEN
U+0001xx2A	OLD HUNGARIAN NUMBER FIFTY
U+0001xx2B	OLD HUNGARIAN NUMBER ONE HUNDRED
U+0001xx2C	OLD HUNGARIAN NUMBER ONE THOUSAND
U+0001xx2D	(This position shall not be used)
U+0001xx2E	(This position shall not be used)
U+0001xx2F	(This position shall not be used)
U+0001xx30	OLD HUNGARIAN LIGATURE AB
U+0001xx31	OLD HUNGARIAN LIGATURE AL
U+0001xx32	OLD HUNGARIAN LIGATURE AMB
U+0001xx33	OLD HUNGARIAN LIGATURE ANT
U+0001xx34	OLD HUNGARIAN LIGATURE ATT
U+0001xx35	OLD HUNGARIAN LIGATURE ATY
U+0001xx36	OLD HUNGARIAN LIGATURE AAR
U+0001xx37	OLD HUNGARIAN LIGATURE BA
U+0001xx38	OLD HUNGARIAN LIGATURE BE
U+0001xx39	OLD HUNGARIAN LIGATURE BI
U+0001xx3A	OLD HUNGARIAN LIGATURE BO
U+0001xx3B	OLD HUNGARIAN LIGATURE CK
U+0001xx3C	OLD HUNGARIAN LIGATURE CSA
U+0001xx3D	OLD HUNGARIAN LIGATURE DU
U+0001xx3E	OLD HUNGARIAN LIGATURE GA
U+0001xx3F	OLD HUNGARIAN LIGATURE GE
U+0001xx40	OLD HUNGARIAN LIGATURE GI
U+0001xx41	OLD HUNGARIAN LIGATURE HA
U+0001xx42	OLD HUNGARIAN LIGATURE HI

U+0001xx43	OLD HUNGARIAN LIGATURE HE
U+0001xx44	OLD HUNGARIAN LIGATURE HO
U+0001xx45	OLD HUNGARIAN LIGATURE IT
U+0001xx46	OLD HUNGARIAN LIGATURE IIRT
U+0001xx47	OLD HUNGARIAN LIGATURE IIT
U+0001xx48	OLD HUNGARIAN LIGATURE LA
U+0001xx49	OLD HUNGARIAN LIGATURE LAA
U+0001xx4A	OLD HUNGARIAN LIGATURE LE
U+0001xx4B	OLD HUNGARIAN LIGATURE LO
U+0001xx4C	OLD HUNGARIAN LIGATURE LT
U+0001xx4D	OLD HUNGARIAN LIGATURE EMB
U+0001xx4E	OLD HUNGARIAN LIGATURE EMP
U+0001xx4F	OLD HUNGARIAN LIGATURE NA
U+0001xx50	OLD HUNGARIAN LIGATURE ENB
U+0001xx51	OLD HUNGARIAN LIGATURE NC
U+0001xx52	OLD HUNGARIAN LIGATURE ND
U+0001xx53	OLD HUNGARIAN LIGATURE NGY
U+0001xx54	OLD HUNGARIAN LIGATURE NT
U+0001xx55	OLD HUNGARIAN LIGATURE RA
U+0001xx56	OLD HUNGARIAN LIGATURE RCS
U+0001xx57	OLD HUNGARIAN LIGATURE RE
U+0001xx58	OLD HUNGARIAN LIGATURE RI
U+0001xx59	OLD HUNGARIAN LIGATURE RO
U+0001xx5A	OLD HUNGARIAN LIGATURE RT
U+0001xx5B	OLD HUNGARIAN LIGATURE RU
U+0001xx5C	OLD HUNGARIAN LIGATURE SA
U+0001xx5D	OLD HUNGARIAN LIGATURE SE
U+0001xx5E	OLD HUNGARIAN LIGATURE SI
U+0001xx5F	OLD HUNGARIAN LIGATURE SM
U+0001xx60	OLD HUNGARIAN LIGATURE SO
U+0001xx61	OLD HUNGARIAN LIGATURE SP
U+0001xx62	OLD HUNGARIAN LIGATURE ST
U+0001xx63	OLD HUNGARIAN LIGATURE SZT
U+0001xx64	OLD HUNGARIAN LIGATURE TI
U+0001xx65	OLD HUNGARIAN LIGATURE TPRUS
U+0001xx66	OLD HUNGARIAN LIGATURE TPRU
U+0001xx67	OLD HUNGARIAN LIGATURE TYAA
U+0001xx68	OLD HUNGARIAN LIGATURE UL
U+0001xx69	OLD HUNGARIAN LIGATURE UNK
U+0001xx6A	OLD HUNGARIAN LIGATURE UR
U+0001xx6B	OLD HUNGARIAN LIGATURE US
U+0001xx6C	OLD HUNGARIAN LIGATURE VAA
U+0001xx6D	OLD HUNGARIAN LIGATURE ZA
U+0001xx6E	OLD HUNGARIAN LIGATURE ZR
U+0001xx6F	OLD HUNGARIAN LIGATURE ZT
U+0001xx70	OLD HUNGARIAN LIGATURE ALB
U+0001xx71	OLD HUNGARIAN LIGATURE ALBT
U+0001xx72	OLD HUNGARIAN LIGATURE ART
U+0001xx73	OLD HUNGARIAN LIGATURE BT
U+0001xx74	OLD HUNGARIAN LIGATURE CSI
U+0001xx75	OLD HUNGARIAN LIGATURE DA
U+0001xx76	OLD HUNGARIAN LIGATURE DJ
U+0001xx77	OLD HUNGARIAN LIGATURE DRZSI
U+0001xx78	OLD HUNGARIAN LIGATURE GO
U+0001xx79	OLD HUNGARIAN LIGATURE NCS
U+0001xx7A	OLD HUNGARIAN LIGATURE NGY TWO
U+0001xx7B	OLD HUNGARIAN LIGATURE NP
U+0001xx7C	OLD HUNGARIAN LIGATURE NTL
U+0001xx7D	OLD HUNGARIAN LIGATURE OS
U+0001xx7E	OLD HUNGARIAN LIGATURE RCSI
U+0001xx7F	OLD HUNGARIAN LIGATURE SK

	xx0	xx1	xx2	xx3	xx4	xx5	xx6	xx7
0	𐰀	𐰁	𐰂	𐰃	𐰄	𐰅	𐰆	𐰇
1	𐰈	𐰉	𐰊	𐰋	𐰌	𐰍	𐰎	𐰏
2	𐰐	𐰑	𐰒	𐰓	𐰔	𐰕	𐰖	𐰗
3	𐰘	𐰙	𐰚	𐰛	𐰜	𐰝	𐰞	𐰟
4	𐰠	𐰡	𐰢	𐰣	𐰤	𐰥	𐰦	𐰧
5	𐰨	𐰩	𐰪	𐰫	𐰬	𐰭	𐰮	𐰯
6	𐰰	𐰱	𐰲	𐰳	𐰴	𐰵	𐰶	𐰷
7	𐰸	𐰹	𐰺	𐰻	𐰼	𐰽	𐰾	𐰿
8	𐱀	𐱁	𐱂	𐱃	𐱄	𐱅	𐱆	𐱇
9	𐱈	𐱉	𐱊	𐱋	𐱌	𐱍	𐱎	𐱏
A	𐱐	𐱑	𐱒	𐱓	𐱔	𐱕	𐱖	𐱗
B	𐱘	𐱙	𐱚	𐱛	𐱜	𐱝	𐱞	𐱟
C	𐱠	𐱡	𐱢	𐱣	𐱤	𐱥	𐱦	𐱧
D	𐱨	𐱩		𐱫	𐱬	𐱭	𐱮	𐱯
E	𐱰	𐱱		𐱳	𐱴	𐱵	𐱶	𐱷
F	𐱸	𐱹		𐱻	𐱼	𐱽	𐱾	𐱿

U+0001xx80	OLD HUNGARIAN LIGATURE STA
U+0001xx81	OLD HUNGARIAN LIGATURE ACS
U+0001xx82	OLD HUNGARIAN LIGATURE AACS
U+0001xx83	OLD HUNGARIAN LIGATURE AANT
U+0001xx84	OLD HUNGARIAN LIGATURE AR
U+0001xx85	OLD HUNGARIAN LIGATURE AAR
U+0001xx86	OLD HUNGARIAN LIGATURE ARU
U+0001xx87	OLD HUNGARIAN LIGATURE AS
U+0001xx88	OLD HUNGARIAN LIGATURE AAS
U+0001xx89	OLD HUNGARIAN LIGATURE BAA
U+0001xx8A	OLD HUNGARIAN LIGATURE GT
U+0001xx8B	OLD HUNGARIAN LIGATURE CSIN
U+0001xx8C	OLD HUNGARIAN LIGATURE DM
U+0001xx8D	OLD HUNGARIAN LIGATURE DT
U+0001xx8E	OLD HUNGARIAN LIGATURE FI
U+0001xx8F	OLD HUNGARIAN LIGATURE FIL
U+0001xx90	OLD HUNGARIAN LIGATURE FLY
U+0001xx91	OLD HUNGARIAN LIGATURE HN
U+0001xx92	OLD HUNGARIAN LIGATURE IAK
U+0001xx93	OLD HUNGARIAN LIGATURE IN
U+0001xx94	OLD HUNGARIAN LIGATURE INT
U+0001xx95	OLD HUNGARIAN LIGATURE KAANT
U+0001xx96	OLD HUNGARIAN LIGATURE KN
U+0001xx97	OLD HUNGARIAN LIGATURE LB
U+0001xx98	OLD HUNGARIAN LIGATURE LD
U+0001xx99	OLD HUNGARIAN LIGATURE LV
U+0001xx9A	OLD HUNGARIAN LIGATURE MND
U+0001xx9B	OLD HUNGARIAN LIGATURE NAA
U+0001xx9C	OLD HUNGARIAN LIGATURE NAAZTI
U+0001xx9D	OLD HUNGARIAN LIGATURE NCS TWO
U+0001xx9E	OLD HUNGARIAN LIGATURE NJ
U+0001xx9F	OLD HUNGARIAN LIGATURE NKE
U+0001xxA0	OLD HUNGARIAN LIGATURE OK
U+0001xxA1	OLD HUNGARIAN LIGATURE PA
U+0001xxA2	OLD HUNGARIAN LIGATURE PTHRU
U+0001xxA3	OLD HUNGARIAN LIGATURE OSKAANT
U+0001xxA4	OLD HUNGARIAN LIGATURE RCSIN
U+0001xxA5	OLD HUNGARIAN LIGATURE ROO
U+0001xxA6	OLD HUNGARIAN LIGATURE ROOD
U+0001xxA7	OLD HUNGARIAN LIGATURE RV
U+0001xxA8	OLD HUNGARIAN LIGATURE SK TWO
U+0001xxA9	OLD HUNGARIAN LIGATURE SKA
U+0001xxAA	OLD HUNGARIAN LIGATURE SKAANT
U+0001xxAB	OLD HUNGARIAN LIGATURE SRE
U+0001xxAC	OLD HUNGARIAN LIGATURE ULI
U+0001xxAD	OLD HUNGARIAN LIGATURE VAR
U+0001xxAE	OLD HUNGARIAN LIGATURE VR
U+0001xxAF	OLD HUNGARIAN LIGATURE VISAA
U+0001xxB0	OLD HUNGARIAN LIGATURE VM
U+0001xxB1	OLD HUNGARIAN LIGATURE VR
U+0001xxB2	OLD HUNGARIAN LIGATURE AALD
U+0001xxB3	OLD HUNGARIAN LIGATURE MA
U+0001xxB4	OLD HUNGARIAN LIGATURE GYRT
U+0001xxB5	OLD HUNGARIAN LIGATURE IST
U+0001xxB6	OLD HUNGARIAN LIGATURE SZM
U+0001xxB7	OLD HUNGARIAN LIGATURE TR
U+0001xxB8	(This position shall not be used)
U+0001xxB9	(This position shall not be used)
U+0001xxBA	(This position shall not be used)
U+0001xxBB	(This position shall not be used)
U+0001xxBC	(This position shall not be used)
U+0001xxBD	(This position shall not be used)
U+0001xxBE	(This position shall not be used)

	xx8	xx9	xxA	xxB
0	À	Á	Â	Ã
1	Ä	Å	Æ	Ç
2	Ð	Ñ	Ò	Ó
3	Ô	Õ	Ö	×
4	Ë	Ï	Ï	Ï
5	Ë	Ï	Ï	Ï
6	Ë	Ï	Ï	Ï
7	À	Á	Â	
8	À	Á	Â	
9	À	Á	Â	
A	À	Á	Â	
B	À	Á	Â	
C	À	Á	Â	
D	À	Á	Â	
E	À	Á	Â	
F	À	Á	Â	

U+0001xxBF (This position shall not be used)

List of combinations producing ligatures:

IX = K	NY = Y	AI = A	XI = X	XP = X	CI = C
IA = A	AT = A	AB = B	NI = N	AI = A	CO = C
IX = X	AP = A	AC = C	IF = F	NI = N	CO = C
KI = Y	AX = A	AF = F	IF = F	IB = B	FI = F
NY = Y	AC = A	AI = A	INNY = Y	HI = K	FXNI =
IX = X	AI = A	IF = F	AC = A	OI = O	OX
NI = N	IX = X	II = Y	CI = C	OIA = A	CAOP =
XI = X	IX = X	INNI =	IF = C	OO = O	OX
XC = X	CI = C	XP = X	IF = C	XC = X	NC =
XI = X	IX = X	II = Y	CI = X	IO = A	NC = Y
XC = X	CI = C	XP = X	CA = C	IC = I	AO = A
IJ = J	CI = C	II = Y	NI = N	IC = Y	IAI = C
NI = N	CI = C	II = Y	AO = A	OP = C	MI = N
II = C	CI = T	IKO = X	AI = A	OX = C	MI = M
AI = A	NI = N	NI = N	IN = Y	AX = X	MIAP = N
AC = A	NI = N	II = O	PN = P	AI = A	MB = B
AI = A	NI = K	MP = M	PI = T	AM = M	MI = M
XI = X	NI = H	NI = N	PI = H	IC = X	PA = X
XC = X	NC = K	NI = N	PI = H	CP = C	BI = B
XI = X	NI = N	NI = N	PI = H	CPNI =	INNY = Y
XC = X	NI = N	IA = A	PA = A	CI = C	IAI = A
NY = Y	AI = A	IA = A	PA = A	CI = C	IN = K
INNY = N	AI = A	INNY = Y			

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HTML Michael Everson, everson@indigo.ie, <http://www.indigo.ie/egt>, Dublin, 1998-01-18