


Table 4.4-2 shows the already existing Unicode encoded characters corresponding to the appropriate Khazarian Rovas punctuation marks.



Glyph	Name of the Khazarian Rovas character	Name and code point of the Unicode Character
.	WORD SEPARATOR MIDDLE DOT	'WORD SEPARATOR MIDDLE DOT' (U+2E31) from the Supplemental Punctuation block
:	COLON	COLON (U+003A) from the Basic Latin block
⋮	TRICOLON	'TRICOLON' (U+205D) from the General Punctuation block

Table 5.4-2: The Khazarian Rovas and the corresponding Unicode coded characters.





The KHAZARIAN ROVAS SEPARATOR LARGE  is script-specific and therefore belongs into the KHAZARIAN ROVAS block, it used mostly at the end of the sentences. The SHORT LOW VERTICAL BAR is proposed to encode in the Supplemental Punctuation block of the BMP. The SHORT LOW VERTICAL BAR differs from the HEBREW PUNCTUATION PASEQ' (U+05C0), since it is much shorter than the character height.

4.4. Ligatures

Ligatures were frequently used in the Khazarian Rovas script. These ligatures do not need individual code points, since they are stylistic, only, that is, whether the text means the same if somebody substitute ligatures, or remove them. Two ligatures are systematic, used regularly, similarly to the Arabic LAM-ALEF or the CH in Fraktur.

Glyph	Name	Transcription	Constituents of the systematic ligatures
	DA	<u>da</u>	∩ ARCHED D /d/ + ʸ A /a/
	DI	<u>de/di/ed</u>	∩ ARCHED D /d/ + 1 ANGLED I /i/e/

The rest of the ligatures are not systematic, they are applied on occasion. Therefore, they can be represented by sequences of characters. Their implementations will need to give the user localized control over ligation (perhaps by supporting ZWJ). *Following table* presents some examples of the non-systematic ligatures from the relics.

Glyph	Name	Transcription	Constituents of the non-systematic ligatures
ʸ	AA	<u>aa</u>	ʸ A /a/ + ʸ A /a/
	ATLIGH	<u>at^aly</u>	χ TY /t/ + ʌ SIMPLE L /l/ + ʌ GH UU /ɣ/
ʃ	BAN	<u>ban</u>	ʃ RAISED B /b/ + ʸ A /a/ + ʌ N /n/
	CSI	<u>tsi</u>	ʌ CS /tʃ/ + 1 ANGLED I /i/e/
→	DKE	<u>ðkε</u>	ʌ D /ð/ + ʌ ANGLED K /k/ + ʸ A /ε/
	ER	<u>εr</u>	ʸ A /ε/ + ʌ R /r/
ɿ	IL	<u>il</u>	1 ANGLED I /i/ + ʌ SIMPLE L /l/
ɿ̇	IN	<u>in</u>	ɿ I /i/ + ʌ N /n/
ʌ	IQ	<u>iq</u>	1 ANGLED I /i/e/ + ʌ K /q/
ʌ	Jl	<u>jl</u>	ʌ J /j/ + 1 ANGLED I /i/e/
ʸ, ʸ	ISHAD	<u>ʸʌð</u>	ʸ ZS /ʃ/ + ʌ D /ð/
	RAT	<u>rat</u>	ʌ R /r/ + ʸ A /ε/ + χ TY /t/
ʌ	TEGH	<u>t^eɣ</u>	χ TY /t/ + ʌ GH UU /ɣ/

4.5. Ordering

In ordering the Common Template Table defined in the International Standard ISO/IEC 14651 is adapted.³⁵ The ordering requires different levels:

Level 1

The first level renders the texts to be sorted case-insensitive and insensitive to diacritical marks, and to all special characters. In the case of the Khazarian Rovas the following order is required:

Ÿ A < X B < Ǿ ANGLED B < U ARCHED B < ʘ RAISED B < N CS < > D < Ń ARCHED D < λ FORKED D < Ǿ E < M ANGLED E < ǧ CLOSE E < φ F < ʘ CLOSE G < λ FORKED G < N GH UU < ' ' TRIPLE GH < ʘ CH < Ǿ FORKED CH < U ANGLED CH < Ń ARCHED CH < ʘ I < 1 ANGLED I < ʘ II < ʘ J < ʘ K < Ǿ ANGLED K < ʘ KUE < ʘ ARCHED L < X CLOSED L < T FORKED L < ʘ SIMPLE L < M LT < ʘ M < O ROUND M < ʘ N < ʘ NY < U ANGLED N < ʘ NG < ʘ O < ʘ OE < 1 P < X Q < C ARCHED Q < ʘ R < Ń ARCHED R < ʘ CLOSE R < ʘ SH < Ń ARCHED SH < ʘ SHL < 1 SZ < ʘ FORKED SZ < ʘ ARCHED T < X CENTRAL T < X TY < M UE < 1 OPEN V < X Z < ʘ ZS

Level 2

This breaks ties on quasi-homographs (strings differ only because they have different diacritical marks). In the case of the Khazarian Rovas there is only one diacritical mark, the called SEPARATOR DOT ABOVE ̣. However, it is not an accent, but a word separator. It has the same effect as writing -- in other scripts -- a space after the character, it is recommended to process this combining character itself as a space, i.e. assign it a level 1 weight equivalent to that of the space, with also a level 2 weight indicating it is not a space but something else (to distinguish with the case one enters a real space after the character). The basic characters should nevertheless have a level 2 weight indicating a base character (for hypothetical cases where other combining characters are used).³⁶

Level 3

This level breaks ties for quasi-homographs that differ only because uppercase and lowercase characters are used. In case of the Khazarian Rovas script there is not casing. Therefore this level is not required.

Level 4

The fourth level breaks the final tie that, in general, does not correspond to any strong tradition, namely, the tie between quasi-homographs differing only because they contain special characters. In the case of the Khazarian Rovas the Level 4 of the ordering does not differ from similar level in the case of the usual European Latin orthography.

5. Acknowledgement

I thank **my Mother** for her patience, the exactness learned from her and her much useful advice during the elaboration of the entire work when I discussed many details with her. I also remember **my Father** who introduced me to mathematics, stenography and history of Hungary.

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³⁵ LaBonté, 2007a & 2007b

³⁶ LaBonté, 2010

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7. Appendix: Proposal Summary Form

**ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646³⁷.**

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

A. Administrative

1. Title:	Proposal for encoding the Khazarian Rovas script in the SMP of the UCS
2. Requester's name:	Hungarian Standards Institution
3. Requester type (Member body/Liaison/Individual contribution):	Member body
4. Submission date:	January 21, 2011
5. Requester's reference (if applicable):	http://www.mszt.hu/angol/index_eng.htm
6. Choose one of the following:	
This is a complete proposal:	Yes
(or) More information will be provided later:	

B. Technical – General

1. Choose one of the following:	
a. This proposal is for a new script (set of characters):	Yes
Proposed name of script:	Khazarian Rovas
b. The proposal is for addition of character(s) to an existing block:	No
Name of the existing block:	
2. Number of characters in proposal:	34
3. Proposed category (select one from below – see section 2.2 of P&P document):	
A-Contemporary <input type="checkbox"/>	B.1-Specialized (small collection) <input type="checkbox"/>
B.2-Specialized (large collection) <input type="checkbox"/>	

³⁷. Form number: N3152-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05)

C-Major extinct	<input checked="" type="checkbox"/>	D-Attested extinct	<input type="checkbox"/>	E-Minor extinct	<input type="checkbox"/>
F-Archaic Hieroglyphic or Ideographic	<input type="checkbox"/>	G-Obscure or questionable usage symbols	<input type="checkbox"/>		
4. Is a repertoire including character names provided?					Yes
a. If YES, are the names in accordance with the “character naming guidelines” in Annex L of P&P document?					Yes
b. Are the character shapes attached in a legible form suitable for review?					Yes
5. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?	Dr. Gábor Hosszú				
If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:	Dr. Gábor Hosszú, FontCreator 5.6, hosszu@eet.bme.hu				
6. References:					
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?					Yes
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?					Yes
7. Special encoding issues:					
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?					Yes
8. Additional Information:					
<p>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 http://www.unicode.org/Public/UNIDATA/UCD.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard. – See below.</p>					

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before?					No
If YES explain					
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?					Yes
If YES, with whom?	<p>National Standardisation Technical Committee called Informatics (MSZT/MB 819) of the Hungarian Standards Institution</p> <p>Rovas Foundation</p> <p>Péter Fűzi, Dr. Gábor Hosszú, Angéla Ócsai, Tamás Rumi, László Sípos, Tamás Somfai, Levente Sütő, Árpád Zubrits et al.</p>				
If YES, available relevant documents:	Yes				
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?					Yes
Reference:	Scholars and researchers.				
4. The context of use for the proposed characters (type of use; common or rare)					Rare
Reference:	<p>Historical use, some examples: http://rovasirashonlap.fw.hu</p> <p>Rovas Info News Site: http://rovas.info</p>				
5. Are the proposed characters in current use by the user community?					Yes
If YES, where? Reference:	Scholarly and popular publications.				
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?					No

If YES, is a rationale provided?	
If YES, reference:	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	Yes
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
11. Does the proposal include use of combining characters and/or use of composite sequences?	No
If YES, is a rationale for such use provided?	
If YES, reference:	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	No
If YES, reference:	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility character(s)?	No
If YES, is the equivalent corresponding unified ideographic character(s) identified?	
If YES, reference:	