Doc Type: Working Group Document<br>Title: Proposal for encoding pre-combined and extended Rovas numerals into the Rovas block in the SMP of the UCS<br>Source: Tamás Rumi (Rovas Foundation)<br>Status: Individual Contribution<br>Action: For consideration by UTC and ISO/IEC JTC1/SC2/WG2

## Introduction

This document contains some information about the usage of the Rovas numerals and proposes Rovas numeral symbols, which have not been included into the N4083. The document contains the proposal summary form. Please send any response to this proposal to Tamás Rumi (email: napjelkepek@gmail.com), curator of the Rovas Foundation.

## The pre-combined Rovas numerals

I support the N4183 in order to give individual code point to each group of numeral signs, which could help the easy transcription between Arabic and Rovas numbers. However, I propose to extend the proposed Rovas numeral range to all pre-combined characters for numbers up to 12 . The reason for encoding of pre-combined numerals is for the 12 -month use. The use of the Szekely-Hungarian Rovas script in a calendar is an inherent part of the Rovas traditions (Sándor 1991; Hosszú 2011:198-210), the Rovas Calendar (Rovásnaptár) 2012 also continues this tradition.

| I | ROVAS NUMERAL ONE | (proposed in N 4083 ) |
| :---: | :---: | :---: |
| \|| | ROVAS NUMERAL TWO | (proposed in N 4083 ) |
| III | ROVAS NUMERAL THREE | (proposed in N 4083 ) |
| IIII | ROVAS NUMERAL FOUR | (proposed in N 4083 ) |
| V | ROVAS NUMERAL FIVE | (proposed in N 4083 ) |
| IV | ROVAS NUMERAL SIX | NEW |
| IIV | ROVAS NUMERAL SEVEN | NEW |
| IIIV | ROVAS NUMERAL EIGHT | NEW |
| IIIIV | ROVAS NUMERAL NINE | NEW |
| $X$ | ROVAS NUMERAL TEN | (proposed in N 4083 ) |
| IX | ROVAS NUMERAL ELEVEN | NEW |
| IIX | ROVAS NUMERAL TWELWE | NEW |

Table 1: The range 1... 12 of the Rovas numerals

It is noteworthy that encoding the Rovas pre-combined numerals up to 12 is strictly follows the traditions of the Unicode, see the code range of the Roman numerals U+2160 to U+2171.

## Extended Rovas numerals

Based on the extensive present-day use of the Szekely-Hungarian Rovas script, the Rovas numerals higher than 米 1000 are necessary in the Rovas orthography. for the modern use there should be code points for these numbers. In the last decades several research was carried out for improving the traditional repertoire of the Rovas numerals. The most comprehensive solution is presented in Figure 1 (Rumi 2010).

## Kerek Számok <br> Rumi Tamás



Figure 1: The comprehensive system of the Rovas numerals
There are some traditions of the Rovas numerals that have to be considered:

- The glyphs of the 5000 and 500.000 should be graphically half of the glyphs 1000 and 1.000 .000 , respective. See correlations between $\bigvee 5$ vs. $X 10, \bigvee 50$ vs. $\mathbb{Z} 100, \mathbb{Z} 500$ vs. * 1000 .
- According to Historians the Hungarians have used a term for denoting 10.000 soldiers, that was the „tömény / tumen".
Based on the previous research results, the following Rovas numerals are proposed, see Table 2 .

| $D$ | ROVAS NUMERAL FIVE THOUSAND |
| :---: | :---: |
| $\odot$ | ROVAS NUMERAL TEN THOUSAND |
| $\ominus$ | ROVAS NUMERAL FIFTY THOUSAND |
| $\otimes$ | ROVAS NUMERAL ONE HUNDRED THOUSAND |
| $\circledast$ | ROVAS NUMERAL FIVE HUNDRED THOUSAND |
| $\circledast$ | ROVAS NUMERAL ONE MILLION |
| $\circledast$ | ROVAS NUMERAL FIVE MILLION |
| $\circledast$ | ROVAS NUMERAL TEN MILLION |

Table 2: Proposed new characters for Rovas numerals

## Some examples for use of the Rovas numerals

As one of the authors I have investigated the Patakfalvi family's Bible, which have an important long-text Rovas relic in many aspect (see Figure 2). In this relic the number 2 is denoted with II TWO.


Figure 2: Rovas text in the Patakfalvi Bible

See the traditional way of representing Rovas numerals:

| IIVXV | $=67$ | $=50+10+(5+2)$ |
| :---: | :---: | :---: |
| IIIVXXXXXIIII | $=448$ | $=4 * 100+40+(5+3)$ |
| IIIIVXXXVXIIV粏 | $=2789$ | $=2 * 1000+(5+2) * 100+(50+30)+(5+\mathbf{4})$ |
| XXXXIIII*IVXXXIII | $=326.430$ | $=(\mathbf{3} * 100+(\mathbf{2 0}+(5+1)))^{*} 1000+\mathbf{4} * 100+30$ |
| *IIXX****III | = 3.122.000 | $=3 * 1000 * 1000+(100+20+2)^{*} 1000$ |

Figure 3 presents a Szekely-gate (traditional Szekely wood carving) with Rovas inscriptions, including the IIII 米 $=2004=1000+1000+4$


Figure 3: Rovas numerals from Nagyatád (West Hungary) (2004), Photo: János Balogh

## References

Tamás Rumi, András Tisza et al. (2009, web page): A Patakfalvi Bibliában található rovásírás megfejtése, Retrieved in 2009 from http://unitarius.eu/Patakfalvi-Biblia/index.htm

Tamás Rumi, László Sípos, Tamás Somfai (2009): Gárdonyi Géza: Egri csillagok. Transcribed into Szekely-Hungarian Rovas by Tamás Rumi, László Sípos, \& Tamás Somfai. Edited by Tamás Rumi. Published in 2009 by Imagent - WOU Hungary, ISBN: 978-963-06-7107-1.
Tamás Rumi (2010): Körök a Szent Koronán - égi mértékrendszerek az ösi műveltségekben. Budapest: Imagent, ISBN 978-963-87967-7-6.
Tamás Rumi, László Sípos (2010): Rovás alapismeretek. Budapest: Imagent and WOU Hungary, ISBN: 978-963-88437-1-5
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Gábor Hosszú (2011): Heritage of Scribes. The Relation of Rovas Scripts to Eurasian Writing Systems. First edition. Budapest: Rovas Foundation, ISBN 978-963-88437-4-6, available from Google Books at http://books.google.hu/books?id=TyK8azCqC34C\&pg=PA1

Klára Sándor (1991): A Marsigli-féle székely rovásnaptár és más 15 . századi kalendáriumok. In Békési et al. (ed.), Régi és új peregrináció. Magyarok küföldön, külföldiek Magyarországon. Budapest-Szeged: Nemzetközi Magyar Filológiai Társaság-Scriptum Kft., 322-331.

## 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 10646 |
| Please fill all the sections A, B and C below. |

A. Administrative
$\left.\begin{array}{|l|l|l|l|l|l|}\hline \text { 1. Title: } & \text { Proposal for encoding pre-combined and extended Rovas numerals into the } \\ \text { Rovas block in the SMP of the UCS }\end{array}\right]$

[^0]5. Requester's reference (if applicable):
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:

2. Proposed category (select one from below - see section 2.2 of P\&P document):

A-Contemporary
X. B.1-Specialized (small collection)

C-Major extinct
D-Attested extinct
......... B.2-Specialized (large collection)
$\ldots . . . .$. E-Minor extinct

F-Archaic Hieroglyphic or Ideographic
G-Obscure or questionable usage symbols
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?
b. Are the character shapes attached in a legible form suitable for review?

5. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard? Tamás Rumi
If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used: Tamás Rumi, Font Creator
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)?


## 8. Additional Information:

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.

## C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?

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 ex | tc.)? |
| :---: | :---: |
| If YES, with whom? | Rovas Foundation |
|  | LászlóSŚpos, Tamás Somfai, Dr Gábor Hosszú |
| 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?
Reference:
Rovas Info (rovas.info)
4. The context of use for the proposed characters (type of use; common or rare) Common with increasing popularity
Reference:
Rovas Info (rovas.info)
5. Are the proposed characters in current use by the user community?

If YES, where? Reference:
In Hungary and other places, where Hungarians live.
6. After giving due considerations to the principles in the P\&P document must the proposed characters be entirely in the BMP?

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)?
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

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?

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?

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? 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?
If YES, reference:
12. Does the proposal contain characters with any special properties such as control function or similar semantics?

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

13. Does the proposal contain any Ideographic compatibility character(s)? If YES, is the equivalent corresponding unified ideographic character(s) identified?

If YES, reference:


[^0]:    ${ }^{1}$ 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)

