ISO/IEC JTC1/SC2/WG2 N1947

1999-01-29

Universal Multiple-Octet Coded Character Set International Organization for Standardization Organisation Internationale de Normalisation Международная организация по стандартизации

Doc Type: Working Group Document

Title: Revised proposal for encoding the Old Permic script in the UCS

Source: Michael Everson, EGT (IE)

Status: Expert Contribution

Action: For consideration by JTC1/SC2/WG2 and UTC

Date: 1999-01-29 Replaces: N1687

This document is a revision of N1687 based on additional research, and contains the proposal summary.

A. Administrative

1. Title

Revised proposal for encoding the Old Permic script in the UCS.

2. Requester's name

Michael Everson, EGT (WG2 member for Ireland).

3. Requester type

Expert contribution.

4. Submission date

1999-01-29.

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 Permic.

1b. Addition of characters to existing block? Name?

No.

2. Number of characters

38

3. Proposed category

Category D.

4. Proposed level of implementation and rationale

Level 1 noncombining.

5a. Character names included in proposal?

Yes.

5b. Character names in accordance with guidelines?

Yes.

5c. Character shapes reviewable?

Yes (see below).

6a. Who will provide computerized font?

Michael Everson.

6b. Font currently available?

Yes.

6c. Font format?

TrueType.

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

Yes, see bibliography below.

7b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached?

Yes, see below.

8. Does the proposal address other aspects of character data processing?

Yes; see Unicode properties below.

C. Technical -- Justification

1. Contact with the user community?

Yes: There is contact with a major centre for Uralic studies, Kotimaisten kielten tutkimuskeskus, Helsinki. I have no contact in the Komi Republic. The proposal is being circulated on uralist@helsinki.fi. The principle authors of some of the materials used to prepare the proposal (chiefly Лыткин 1952 and Stipa 1961), are deceased.

2. Information on the user community?

Scholars and Komi language enthusiasts.

3a. The context of use for the proposed characters?

Old Permic was used chiefly to write Komi texts, but a number of Russian texts are also found in Old Permic script.

3b. Reference

See bibliography.

4a. Proposed characters in current use?

The script is extinct. Old Permic does not appear ever to have been set in type before the present time. I do not know of any computer implementations. However, it can be said to have some use nevertheless.

4b. Where?

Scholars and Komi language enthusiasts (one presumes).

5a. Characters should be encoded entirely in BMP?

No.

5b. Rationale

Rarity and 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; though this is a Greek-derived script like Coptic, Cyrillic, Armenian, Georgian, and Gothic.

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?

No; but see issues listed below for possible null use of COMBINING DIAERESIS.

9b. List of composite sequences and their corresponding glyph images provided?

10. Characters with any special properties such as control function, etc. included? ${\rm No.}$

E. Proposal

The Old Permic script was devised in the 14th century by Russian missionary Stefan of Perm (*fl.* 1373-1395), and was used to write Komi and Komi-Permyak languages. Its model was based on the Greek and Cyrillic alphabets (as can be seen from the order of the letters) but many of the glyphs were taken from the "Tamga signs", used in indigenous Komi religious practices, by Stefan as a way of linking traditional signs, which had a great deal to do with the self-identity of the Komi, with Christian traditions.

The term "Old Permic" is suggested as the name for this script. Stipa calls it "Permisch"; Pillu uses the terms "vanapermi", "древнепермский", and "Old-Permian" in Estonian, Russian, and English respectively. Haarmann calls it "Abur" and "Altsyrjänisch" (= 'Old Komi'); "Abur" is a name derived from the names of the first two characters AN and BUR (so $7 \sim - \Delta p \nabla$ is equivalent to $\alpha \lambda \phi \alpha - \beta \eta \tau \alpha$ and азбуки).

Structure

Old Permic is a simple alphabetic script, read from left to right in horizontal lines running from top to bottom. In the manuscripts, Old Permic glyphs are often shown with a diaeresis, but this doesn't seem to be significant in the regular way it is for, for example, the German letters u and \ddot{u} . Old Permic is caseless.

Ordering

Alphabetical ordering is a little bit erratic in the sources, especially toward the end of the alphabet. This proposal follows the order 1–34 given in Лыткин 1952, where 1–24 are primary letters and 25–34 are supplementary (see the reproduction of Лыткин's tables below). Four characters are considered to be subordinate in the order to another character, as seen in the pairs 0365/0366 (SHOOI \nearrow and SHCHOOI \upmu), 0367/0368 (YRY \upmu and YERU \upmu), 0369/036A (O \upmathra{a} and OO \upmu), and 0374/0375(YA \upmu and IA $\upper>$). Of these only SHCHOOI hasn't (yet) been identified as corresponding to its Cyrillic equivalent 0449, though it appears in a number of sources. The name SHCHOOI is not attested. The others correspond to 044B, 0460, and 0467.

Use of combining characters

In the table, & 036B (EF) and \neq 036C (HA) are given with glyphs which are not the most commonly found ones. More common representation of the corresponding phonetic entities makes use of combining characters: $\ddot{7}$ is represented by 035F PEEI $\ddot{7}$ + " and $\ddot{7}$ is represented by 03FA KOKE \ref{L} + ". Note the similarity of & and \ref{L} to Greek & and &. Five combining characters may be found with Old Permic characters: COMBINING DIAERESIS, COMBINING DOT ABOVE, COMBINING BREVE, COMBINING COMMA ABOVE, and COMBINING THREE DOTS ABOVE (the last makes us ask whether 20DB can be used with letters in Unicode). The use of diacritical marks is peculiar in Old Permic. Sometimes it appears that the diacritic is semantically zero, analogous to the use of a breve in German handwriting (especially the angular handwritten script Fraktur) over lower-case u to differentiate it from n (that is, where \check{u} is not really supposed to be u + breve and would not be so encoded in text). Sometimes, particularly in word-initial position, vowel quality or consonant palatalization may be marked, apparently indifferently, by these diacritics. There may be more information on this in Лыткин 1952 but the Russian is slow going for me. Characters like COMBINING CYRILLIC TITLO may be used, e.g. to indicate abbreviation or numeric use of a character (see sample texts below).

Code positions proposed in the table are based on my Roadmap to the BMP, version 3.0, 1999-01-26.

Unicode Character Properties

Spacing letters, category "Lo", bidi category "L" (strong left to right) 0001 0350 - 0001 0375

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Proposal for the Old Permic Script

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Figure 1. Part 1 of Table from Лыткин 1952, showing glyph variants of Old Permic characters. Note columns 1 and 2 which give ordering of primary (1–24) and secondary (25–34) characters.

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Figure 2. Part 2 of Table from Лыткин 1952, showing glyph variants of Old Permic characters. Note that the first three columns from the Nomokanon 1510 are repeated from Part 1 of the table.

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VIN ZI NUTIDARTATICUZLCII NILEVANT IS VIL HOTHENDEVILLATION IN INTERILLAND MIVATITEMT 74 OVERVY PTUMZY TANK ONLEN PRITH PARMAG TAL IVAL MATE AV ÄPPEL DHUCLIANTILI IMM. TVHIPETT. ALTRITICA DOOTZIN YINT NYA WA A" ATI A" ZTUTLMETTUKT WHIT VERY TUVZL 8 a VVZHHIZVIJAN .V

Figure 3. Old Permic inscription on the icon "Troitsy". The text is the beginning of a story about Abraham and Sarah (Genesis 18:1–8), from Лыткин 1952.

IN AEVINIMIL TEHOLINGHOUNG DOUS HINDUANS TO HILLDHUS . י ירעט לעלורא יתאמע אי יעושי עת לעדורא ארו זעל ארודא אראי אייער איי אייער אייער ארודא ארודא אראי אייער אייער איי ז איניות איניו מב ד בעלח נעצעדעה. CTTLAIT.VLPTAILUT.AJLA TTUHHITVLVA ינייוע וואן זהלין ע בת שמבעם שברינעו ווו. ליציער אות אביייטעלעי אלאף איין ארסיער ל ANUZITEKTUTT-AAVIAV ZA THIHATETH TR T WILL WITCH O PI-IX VIXLYAUMOIS, ILA THININ MI DJOYULMINMENT MI. VIL KY TUINDEN I FORNOCA IV IN TATTE YOUNGATIA ግር የምተባ ል) ኒፔለህኒካ የቫሃሠ፣ የ ፕ M M TTUAN APALOHON TAYETU יארועע ארבי החיה: TUTINTITUV ZHHIVIAF TUV -V T V VIHHILYIHIND V

Figure 4. Скворцовский's transcription of the Old Permic inscription on the icon "Troitsy" from Лыткин 1952. Linebreaks here were to get a 40cm by 5cm text to fit on an A4 sheet.

Наше воспроизведение*

сэс' 5 вэлмосс' ис 6 йэн аврамлу мамбри тупу дорын, пукыс'лу сылу \ddot{o}_3 'ос 10 в \dot{o}_3 'ын ч'омлон 6 сылон луншоро.

ви5'ис авраам ас с'инйасон и ад5'ис ас с'инмон: воз'3'а 3 вэрос сулало мадыд сылыс';

ад3'ымыс' пышйис в63'3'а нылу ас ч'6млöн öйыс 17 дорыс' и йурбыртис муö3'.

и шиис: мз (мэзöсö) йэнмö бара-ö адз'им кö мэдалсö тэ вôз'ад, ас вэрид вылти ин мун.

мәд вайс'ас ва мыс'кыныс подос тийан и сайкодч'адныд тупу дынын и вайс'аснис ²⁰ н'ан'йас ²², мәд с'ойадныд сәс' мунадныд тутуйо, кодудлыс' кәжидныд ас вәр ордо. и шиисныс: сиз' уўал, куз'ик шиин.

и пышйис аврам сара ордо ч'омйо и шиис: тэрмодс'и, лой 3 тас'ти состом пыс' и уўал 3 колдом н'ан'.

пышйи авраам мосйос ордо, кутис ч'ол ошос, бурос, и с'этис сийо вэрлы, и рэгыд дас'тис.

и бос'тис вый, ма, йол, кук, кодос дас'тис и пугтис ны воз'ын; и с'оисныс; ач'ыс виз'ис ны воз'ын тупу дынын.

Наше чтение*

- 1* Сэ(ш) вълмос(ш)ис ⁷ иэн аурамлу ⁸ мамбри тупу дорын пукышлу ⁹ сылу ö(5'о)с y(ô) $\frac{1}{3}$ 'ын чôмлон сылон луншо(ро) ¹¹ ви5'ис аураам ¹² ä(с) (ш)ин(и)а(сон) \ddot{u} ¹³ ä(д) $\frac{1}{3}$ 'ис äс (ш)инмон (yô) $\frac{1}{3}$ '3 а ¹⁴
- 2. \vec{r} верос сулало (м)атыд сылыш адз'ы мыш 15 пышиис уо̂з'з'а нылу 9 ас 16 чо̂млон ойс д(о)рыш и 13 иврбыртис 8 муо(\vec{z} ') $\dot{\mu}$ 13 шиис мз иэнмо (ба)ра о адз'им ко мэдал (со) 18 тэ
- 3. уо̂ 3'ад ä(с) уэрид ¹⁹ уылти йн мун/мэд уаиша(с) у(а) (мыш'к)ыныс п(о̂)дос тииан. й ¹⁸ сай(к)од-(ча)дныд ²¹ (т)упу ды(ны)н (и) у(а)ишаснис ¹⁹ н(а)ниас м(э)д шо̂иадныд сэш мунад(н)ыд
- 4. ту ²³ туио (кô)дудлыш кѣжидн(ы)д ²⁴ а(с) уэр ордо й ²⁵ шийсныс сиз' уўал куз'(ик) ²⁶ (ш)и(й)н/и пы(ш)иис аурам сара ордо (ч)омио и шийс тэрмодши ²⁷ лои
- 5. г ташти (со)стом пыш 28 и у дал г колдом нан пышии аураам мосиос ордо (к) утис чол ошос бурос и шэтис сиио уэрлу 9 и ръгыд 29 даштис и 10
- 6. 60(m)ти(c) у(ыи) м(а) иол кук к(ô)дос(c) д(ашт)ис и пугтис ны уô3'ын й шôисныс (ачыс) в(и3')ис ны уô3'ын тупу д(ы)н(ын).

Figure 5. Лыткин's Cyrillic transcription of the Old Permic inscription on the icon "Troitsy". On the left ("our reproduction") is the normalized Komi text; on the right ("our reading") is the literal transcription, with additions and corrections in parentheses.

τν[x] ΣΕννητ[x]ης ηνν γργγννρ νιγνάση τρορρ YUDUN phying from yi[iu] th[m]inn ymn fun cinfun 7~~~ pwiiz & staut chishu [n] sany cupur \$yin Φυντι νην[ι] ή χην νιι [φ2]νς η ζΥιν Τι ν-YYZ/ [Ci] IL MMIZY ½[C] HYDJY HU/IJ JV NHV NYY γ27χ2[t] γ[z] [νιμχζ]μνιμι γ[w]ληι Φ77zν. ή ιzή[ζ]ηλ[Jz]λν-ላወላ የሌ ላኔላል[ላ]ወላ ፊኔ ፊኔላህ [Հጠ] የእትረለው ነ ሚደሠላት υ[χ] γις ξρός νι τλός νόγν [ζ] Μνισιν η χρής Σλόννης-ጸ7 \n7 T TZXT7 [tn]tInn huጵ ή μΩZ\ ቸ ζη\Δην ν΄ τη κης ζρογίν νης της ής Αη [Δ] μαγε JnV ñañe dpone à avere erra prolp à obtu-[Z] X[J] X

Figure 6. My typeset version of Лыткин's Cyrillic literal transcription of the Old Permic inscription on the icon "Troitsy". The linebreaks in the text above are the same as those of the text in Figure 3 (hyphens have been added at line-final word breaks). Note the use of COMBINING DOT ABOVE, COMBINING DIAERESIS, COMBINING COMMA ABOVE, and CYRILLIC COMBINING TITLO.

²Χηης ΖΧΥΖΖΜ ΖΕ ΑΊΥΥΡΖΕΠΎ η ΖΑΙΊΕ ΖΕ ΑΊΥΥΜΠΎ: ΧΨΙΙΖ 3 ΧΥΥΠΕ τρνονή Μολωλ εωνωλ; ΖΑΙωνωλ γωλήτε ΧΨΙΙΟ νωνρ ΖΕ ΊΨΜΝΠΥ Π΄ΊΜΕ ΑΠΟωλ η Ϋρφφωρτης ΜρΠΙ.

³7 x775: "MY (MYBÄTÄ) ŽYVMÄ ØZVZ-Ä ZKI7M KÄ MYKZVEÄ EY XWIZK ZE XYV7K XMVE7 7V MPV.

4"νιλ Σρή Άρι Σρ νιμά ζωνωι ἡωλιίι Φρήρν η ιρή ζιλ ὑρλνωλ Φρήρ Αωνων η Σρή ἀρινηι ὑρνήρι, νιλλ ἀωήρλνωλ ιλά νιρνρλνωλ Φρ Φρήι, ζωλρλλω ἀ ζωπηλνωλ ρι Σλη αγλί." η Αγγινωι: "ιη ρωρλ, ζριης Αγγν."

67 λωχΫγι ΖΣΥΖΝ ΙΖΥΖ ΛΥΔΑ ΊωνΥΫΑ 7 ΧΥΥΙ: "ΦΙΥΝΑΚΧΥ, ΥΛΫ 3 ΦΖΧΦ ΤΑΊΤΕΙΝ λωχ 7 μΦΖ 3 ΔΑΊΧΑΝ ΫΖΫ!"

⁷λωχΫη ΖΣΥΖΖΥ ΥΙΚΥΪΚ ΛΥΔΚ, ΔΡΏΤΙ ၨၟΚΝ ΚΑΚ, ΦΡΥΚ, η ΑΡΏΤΙ τηΫΚ ΣΡΌνω, η Υβτωλ ΑΖΆΦης.

⁸7 ΦΛΑΣΤΕ ΧΙΠΫ, ΜΖ, ΫΫΝ, ΔΡΔ, ΔωΔΫΕ ΔΖΑΣΤΕ 7 ΣΡΤΣΤΕ ΔΙΩ μωιων; 7 Αωγενιος; Ζ΄ Ιοιε ΧΤΙΤΕ ΔΙΟ Χωιων ΣΡΣΡ Διονιον.

Figure 7. My typeset version of Лыткин's Cyrillic normalized transcription of the Old Permic inscription on the icon "Troitsy". It is possible that this is the first time that a text in this script has ever been typeset with fonts. Linebreaks, punctuation, and numbering follow normal biblical editorial practice. Note the use of COMBINING DOT ABOVE, COMBINING DIAERESIS, and COMBINING BREVE here.