ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646[1]
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 to Encode Additional Cyrillic Characters

2. Requester's name: Lorna A. Priest

3. Requester type (Member body/Liaison/Individual contribution):   Individual contribution

4. Submission date: 15 March 2005

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: No

B. Technical – General

1. Choose one of the following:

    a. This proposal is for a new script (set of characters):   No

        Proposed name of script:

    b. The proposal is for addition of character(s) to an existing block: Yes

        Name of the existing block: Cyrillic Supplementary

2. Number of characters in proposal: 10

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

    A-Contemporary   x   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 _____

4. Proposed Level of Implementation (1, 2 or 3) (see Annex K in P&P document):   1

    Is a rationale provided for the choice?   No

        If Yes, reference:

5. Is a repertoire including character names provided?   Yes

    a. If YES, are the names in accordance with the "character naming guidelines"   Yes
        in Annex L of P&P document?

    b. Are the character shapes attached in a legible form suitable for review?   Yes

6. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?   SIL International

    If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

7. 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

8. 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, suggested character properties are included.

9. 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.

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[1] Form number: N2652-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11)

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,   Yes
     user groups of the script or characters, other experts, etc.)?
          If YES, with whom?   linguists
          If YES, available relevant documents: Email correspondence. See also References.

3. Information on the user community for the proposed characters (for example: Yes
     size, demographics, information technology use, or publishing use) is included?
     Reference: See comments in Section E

4. The context of use for the proposed characters (type of use; common or rare)   Common
     Reference: orthographic characters are used in literacy materials, liturgical books and general literature.

5. Are the proposed characters in current use by the user community?   Yes
          If YES, where? Reference: See comments in Section E

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely
     in the BMP?   Preferably
          If YES, is a rationale provided?
               If YES, reference: If possible, should be kept with other related blocks in the BMP.

7. Should the proposed characters be kept together in a contiguous   Preferably together with other related blocks
range (rather than being scattered)?

8. Can any of the proposed characters be considered a presentation form of an existing   No
     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?   Yes
          If YES, is a rationale for its inclusion provided?   Characters with bar might be construed as
                                                               precomposed forms of sequences with
                                                               combining overlay marks.
          If YES, reference: (Cf. §F.1 of L2/04-047.)

10. Can any of the proposed character(s) be considered to be similar (in appearance or function)   No
     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?   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?
          If YES, reference:

12. Does the proposal contain characters with any special properties such as   No
     control function or similar semantics?
          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:

D. Proposed Characters

A code chart and list of character names are shown on a new page.

D.1. Proposed Characters

	xx0
0	Ғ
1	ғ
2	Ɛ
3	ɛ
4	Ӆ
5	ӆ
6	Ӿ
7	ӿ
8	Х
9	х
A	
B	
C	
D	
E	
F	

D.1. Character Names

xx00   CYRILLIC CAPITAL LETTER GHE WITH STROKE AND DESCENDER

xx01   CYRILLIC SMALL LETTER GHE WITH STROKE AND DESCENDER

xx02   CYRILLIC CAPITAL LETTER REVERSED ZE

xx03   CYRILLIC SMALL LETTER REVERSED ZE

xx04   CYRILLIC CAPITAL LETTER EL WITH HOOK

xx05   CYRILLIC SMALL LETTER EL WITH HOOK

xx06   CYRILLIC CAPITAL LETTER HA WITH HOOK

xx07   CYRILLIC SMALL LETTER HA WITH HOOK

xx08   CYRILLIC CAPITAL LETTER HA WITH STROKE

xx09   CYRILLIC SMALL LETTER HA WITH STROKE

D.3. Unicode Character Properties

xx00, xx02, xx04, xx06 and xx08 should have a general category of Lu. Other properties for these characters should match those of similar characters, such as U+0413 CYRILLIC CAPITAL LETTER GHE.

Other characters should have a general category of Ll. Other properties for these remaining characters should match those of similar characters, such as U+0433 CYRILLIC SMALL LETTER GHE.

E. Other Information

CYRILLIC CAPITAL LETTER GHE WITH STROKE AND DESCENDER (Fig. 1 and 3) and CYRILLIC SMALL LETTER GHE WITH STROKE AND DESCENDER (Fig. 1, 2, 3 and 4) are used in the Nivkh orthography. We consider the differing hooks to be typographic variants (compare Fig. 1 with 2-4).

Figure 1. CYRILLIC CAPITAL LETTER GHE WITH STROKE AND DESCENDER and CYRILLIC SMALL LETTER GHE WITH STROKE AND DESCENDER (Berdnikov, 1998, p. 43) [Nivkh]
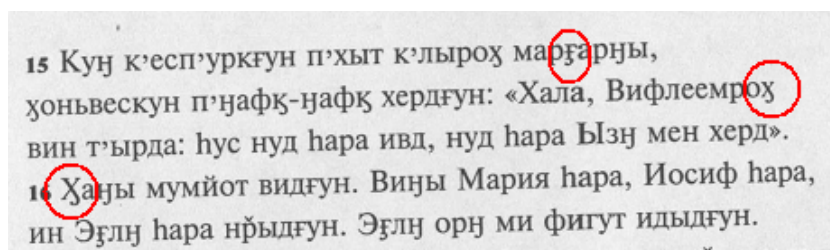

Figure 2. CYRILLIC SMALL LETTER GHE WITH STROKE AND DESCENDER, CYRILLIC CAPITAL LETTER HA WITH HOOK and CYRILLIC SMALL LETTER HA WITH HOOK (Institute for Bible Translation, 2000, p. 177) [Nivkh]

Figure 3. CYRILLIC CAPITAL LETTER GHE WITH STROKE AND DESCENDER, CYRILLIC CAPITAL LETTER HA WITH HOOK and CYRILLIC CAPITAL LETTER HA WITH STROKE (Bergmann, 1999) [Nivkh]

Figure 4. CYRILLIC SMALL LETTER GHE WITH STROKE AND DESCENDER, CYRILLIC SMALL LETTER HA WITH HOOK, CYRILLIC CAPITAL LETTER HA WITH STROKE and CYRILLIC SMALL LETTER HA WITH STROKE (нивхская сказка, undated, p. 3) [Nivkh]

CYRILLIC CAPITAL LETTER REVERSED ZE and CYRILLIC SMALL LETTER REVERSED ZE are used in the Enets (Fig. 5) and Khanti (Fig. 6) orthographies.

Figure 5. CYRILLIC CAPITAL LETTER REVERSED ZE and CYRILLIC SMALL LETTER REVERSED ZE (Institute for Bible Translation, 2000, p. 186) [Enets]

Figure 6. CYRILLIC CAPITAL LETTER EL WITH HOOK, CYRILLIC SMALL LETTER EL WITH HOOK and CYRILLIC SMALL LETTER REVERSED ZE (Institute for Bible Translation, 2000, p. 158) [Khanti]

CYRILLIC CAPITAL LETTER EL WITH HOOK and CYRILLIC SMALL LETTER EL WITH HOOK (see Fig. 6-11) are used in Chukchi, Itelmen and Khanti orthographies. We consider the differing hooks to be typographic variants (compare Fig. 6, 7 with 8-12).

Figure 7. CYRILLIC SMALL LETTER EL WITH HOOK (Kerek,1998, p. 46) [Chukchi]

Figure 8. CYRILLIC CAPITAL LETTER EL WITH HOOK and CYRILLIC SMALL LETTER EL WITH HOOK (Institute for Bible Translation , 2004, p. 16) [Chukchi]

Figure 9. CYRILLIC CAPITAL LETTER EL WITH HOOK, CYRILLIC SMALL LETTER EL WITH HOOK, CYRILLIC CAPITAL LETTER HA WITH HOOK and CYRILLIC SMALL LETTER HA WITH HOOK (Berdnikov, 1998, p. 43) [Itelmen]

Figure 10. CYRILLIC SMALL LETTER EL WITH HOOK, CYRILLIC CAPITAL LETTER HA WITH HOOK and CYRILLIC SMALL LETTER HA WITH HOOK (Institute for Bible Translation, 2002, p. 128) [Itelman]

Figure 11. CYRILLIC SMALL LETTER EL WITH HOOK and CYRILLIC SMALL LETTER HA WITH HOOK (Institute for Bible Translation, 2000, p. 168) [Itelman]

the same manner from "minus". Additional Cyrillic letters are mainly created using standard modifiers applied to the original Cyrillic letters to produce new glyphs: tails (Ҕ, Ј, Ҥ), descenders (Қ, Д, Н, Ҷ, Ҹ), horizontal strokes (Ғ, К, Ҳ, Ө), vertical strokes (Қ, Ҹ), cedilla (Ҙ, Ҫ, Ҽ) oriented to the left or to the right, etc. Other sources of linguistic fantasy for producing additional glyphs

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1   The main rule used to create new alphabets required that different phonemes should have different graphical representations even if they were from different languages. For example, the Chukcha alphabet contains glyph Ј for "soft el" while the glyph Ԓ is absent.

Figure 12. CYRILLIC CAPITAL LETTER EL WITH HOOK, CYRILLIC SMALL LETTER EL WITH HOOK and CYRILLIC CAPITAL LETTER HA WITH STROKE (Berdnikov, 1998, p. 35) [Nivkh and Chukchi]

CYRILLIC CAPITAL LETTER HA WITH HOOK and CYRILLIC SMALL LETTER HA WITH HOOK (Fig. 2-4, and 9-11) are used in the Itelmen and Nivkh orthographies.

CYRILLIC CAPITAL LETTER HA WITH STROKE and CYRILLIC SMALL LETTER HA WITH STROKE (Fig. 3, 4, 12 and 13) are used in the Nivkh orthography. Eesti Keele Instituut and Pedersen also indicate the use of CYRILLIC CAPITAL LETTER HA WITH STROKE and CYRILLIC SMALL LETTER HA WITH STROKE.

| Ҳ , ҳ | Nivh |

Figure 13. CYRILLIC CAPITAL LETTER HA WITH STROKE and CYRILLIC SMALL LETTER HA WITH STROKE (Berdnikov, 1998, p. 41) [Nivkh]

F. References

Berdnikov, A. Mars 1998. *Alphabets Necessary for Various Cyrillic Writing Systems.* Cahiers GUTenberg n°28-29 — Congrès EuroTEX.

Bergmann, Markus. 1999. *The Languages of Russia: Multimedia Web Site*. http://odur.let.rug.nl/~bergmann/russia/alphabets/nivkh.htm. University of Groningen.

Eesti Keele Instituut. 1996. *Letter Database query page*. http://www.eki.ee/letter/chardata.cgi?ucode=e000-f8ff. Institute of the Estonian Language.

Institute for Bible Translation. 2000. Рождество Иисуса Христа. Moscow: Institute for Bible Translation.

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Kerek, A. G., S.M. Medvedeva. 1998. *Chukotskii iazyk: Uchebnik Dlia 2 Klassa*. Sankt-Peterburg: Otd-nie izd-va Prosveshchenie.

Pedersen, Thomas T. Rev. 1.1, 2002-10-19. Nivkh. http://ee.www.ee/transliteration/pdf/Nivkh.pdf.

нивхская сказка (nivkh fairy tale). undated. **Красавица дочь** (a Beautiful Daughter). Сахалинское книжное издательство.