To: UTC and ISO/IEC JTC1/SC2 WG2

Title: Proposal to encode SYLOTI NAGRI SIGN ALTERNATE HASANTA in the UCS

From: Lorna Priest Evans (SIL International)

Date: 12 January 2019

Reference: L2/18-259, L2/19-023

Introduction

We wish to propose the addition of SYLOTI NAGRI SIGN ALTERNATE HASANTA in the "Syloti Nagri (Sylo)" script block. The character should be encoded at the next available codepoint which is U+A82C.

The need for this character was discussed in L2/18-259 and L2/19-023. It could be considered a variant of the SYLOTI NAGRI SIGN HASANTA. However, the properties are different. There have been some suggestions that the Bengali virama could be used. However, it is best to keep these kinds of characters in the same Indic script block as other characters in a particular script. Encoding this new character will simplify implementations.

The current SYLOTI NAGRI SIGN HASANTA is classified as "Pure_Killer." However, that property should be changed to "Virama" because the current hasanta is used for conjunct formation. This ALTERNATE HASANTA should be classified as a "Pure_Killer" because no conjunct should be formed.

Examples of SYLOTI NAGRI SIGN ALTERNATE HASANTA have not been found. However, it has been requested by modern Nagri users. L2/19-023 gives examples of how it would be used.

In the example below (from L2/19-023), the first line uses the *hasanta* at the end of the word and the 2nd line uses the alternate *hasanta* at the end of the word.

फानी! ˙

फान् !

The character should display similar to a BENGALI SIGN VIRAMA:

◌্

Thus, we wish to request the encoding of SYLOTI NAGRI SIGN ALTERNATE HASANTA with properties as described below. Also, as mentioned above, the properties for SYLOTI NAGRI SIGN HASANTA must also be changed.

Character Name and annotations

The color blue indicates the new character property or a change in property or text. Black indicates no changes.

A806	◌̂	SYLOTI NAGRI SIGN HASANTA
		• virama, forms conjuncts
A82C	◌̖	SYLOTI NAGRI SIGN ALTERNATE HASANTA
		• a killer, no conjunct formed

Unicode Character Properties

UnicodeData properties for the new character:

```
A806;SYLOTI NAGRI SIGN HASANTA;Mn;9;NSM;;;;;N;;;;;

A82C;SYLOTI NAGRI SIGN ALTERNATE HASANTA;Mn;9;NSM;;;;;N;;;;;
```

IndicSyllableCategory:

```
A806 ; Virama     # Mn SYLOTI NAGRI SIGN HASANTA

A82C ; Pure_Killer # Mn SYLOTI NAGRI SIGN ALTERNATE HASANTA
```

IndicPositionalCategory:
```
A806 ; Top    # Mn SYLOTI NAGRI SIGN HASANTA

A82C ; Bottom # Mn SYLOTI NAGRI SIGN ALTERNATE HASANTA
```

LineBreak:
```
A806;CM # Mn SYLOTI NAGRI SIGN HASANTA

A82C;CM # Mn SYLOTI NAGRI SIGN ALTERNATE HASANTA
```

This character (U+A82C) can sort immediately after:

```
A806  ; [.2ABB.0020.0002] # SYLOTI NAGRI SIGN HASANTA
```

Core spec changes in documentation

In L2/18-259 we made some suggested changes to the documentation. Those suggested changes were based on *not* encoding a new character. Thus, the changes to the Core spec should be revisited. The second paragraph that was added should be deleted.

A. Administrative

1. **Title:** Proposal to encode SYLOTI NAGRI SIGN ALTERNATE HASANTA in the UCS
2. Requester's name: *Lorna Priest Evans*
3. Requester type (Member body/Liaison/Individual contribution): *Individual contribution*
4. Submission date: *11-Jan-2019*
5. Requester's reference (if applicable): *L2/19-024*
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: *Syloti Nagri*
2. Number of characters in proposal: *1*
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. 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? *Yes*
5. Fonts related:
   a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?
      STAR
   b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):

6. References:
   a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? *No*
   b. Are published examples of use (such as samples from newspapers, magazines, or other sources)
      of proposed characters attached? *No*
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)? *Sorting*

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 Unicode Character Database (http://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? _____*No*_____
   If YES explain _____*This is the first official proposal. Other discussion documents are listed in the proposal.*
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.)? _____ _____
   If YES, with whom? _____ _____
   If YES, available relevant documents: _____*Proposal is based on desired usage.*
3. Information on the user community for the proposed characters (for example:
   size, demographics, information technology use, or publishing use) is included? _____*No*_____
   Reference: _____ _____
4. The context of use for the proposed characters (type of use; common or rare) _____*Yes*_____
   Reference: _____*See proposal*_____
5. Are the proposed characters in current use by the user community? _____*No*_____
   If YES, where? Reference: _____*See proposal*_____
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely
   in the BMP? _____*Yes*_____
       If YES, is a rationale provided? _____*Yes*_____
          If YES, reference: _____*See proposal*_____
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? _____*n/a*_____
8. Can any of the proposed characters be considered a presentation form of an existing
   character or character sequence? _____*Yes*_____
       If YES, is a rationale for its inclusion provided? _____ _____
          If YES, reference: _____*See proposal*_____
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, or could be confused with, an existing character? _____*Yes*_____
        If YES, is a rationale for its inclusion provided? _____*Yes*_____
           If YES, reference: _____*See proposal*_____
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 characters? _____*No*_____
    If YES, are the equivalent corresponding unified ideographic characters identified? _____ _____
        If YES, reference: _____ _____

Lorna Priest Evans   January 12, 2019