# ISO/IEC JTC1/SC2/WG2 N4198

L2/12-039 2012-01-30

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

**Doc Type: Working Group Document** 

Title: Proposal to add two letters to the Grantha repertoire

**Source:** Michael Everson

**Status: Individual Contribution** 

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

Date: 2012-01-30

This document requests two additional characters to be added to the repertoire for Grantha and contains the proposal summary form. The characters are as follows:

11329 GRANTHA LETTER NNNA 11334 GRANTHA LETTER LLLA

These characters represent consonants, transliterated  $\underline{n}$  and  $\underline{l}$ . They are used in Grantha script in transcriptions of Dravidian languages. Both have analogues (1) in modern Tamil, U+0BA9 TAMIL LETTER NNNA and U+0BB4 TAMIL LETTER LLLA, and (2) in modern Malayalam, U+0D29 MALAYALAM LETTER NNNA and U+0D34 MALAYALAM LETTER LLLA.

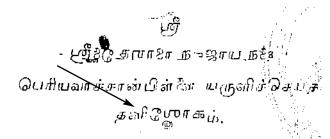
### **Unicode Character Properties**

```
11329;GRANTHA LETTER NNNA;Lo;0;L;;;;;N;;;;;
11334;GRANTHA LETTER LLLA;Lo;0;L;;;;;N;;;;
```

## **Bibliography**

Periya Vachchan Pillai. 1901. *Bharathadii Thani Slokam*. Madras: Srinikethana Mudrakshara Salai. Rangasvāmi Ayyangār. 1923. *Jaiminīya Prayoga Vivaraṇam*. Kumbakōṇam: Komalāmbā Press.

# **Figures**



**Figure 1.** Sample showing the word *taniślokam* 'solitary verse' in Grantha script where the second letter is the letter NNNA followed by the VOWEL SIGN I. Note that the the conjunct *ślo*, the LA is subjoined to the SHA. This does not occur in Tamil script, though the letters used to write this word do look very similar in the two scripts.

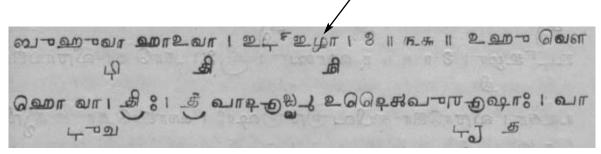
**Figure 2.** Sample showing the same word *taniślokam* elsewhere in the same document; it occurs in the header of at least 40 pages in this book.

**Figure 3.** Another example.

**Figure 4.** Another example.

**Figure 5.** Another example.

**Figure 6.** Sample showing the word *taniślokam* 'solitary verse' in Tamil script where the second letter is the letter NNNA followed by the VOWEL SIGN I. Note that the the conjunct *ślo*, the SHA is killed by the *pulli* and only the LA is modified by the dependent vowel 0.



**Figure 7.** Sample showing the word  $i\underline{l}\bar{a}$  'the goddess IIa' in Grantha script with the letter LLLA.

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	1130F	1131F	1132F	1133F		1135F		

Date: 2012-01-30

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11301 * GRANTHA SIGN CANDRABINDU
                                                 11342 ூ GRANTHA VOWEL SIGN UU
11302 • GRANTHA SIGN ANUSVARA
                                                 11344
11303
         GRANTHA SIGN VISARGA
                                                          GRANTHA VOWEL SIGN VOCALIC RR
11304 Sereserved>
                                                 11345
                                                          <reserved>
                                                 11346
11305 & GRANTHA LETTER A
                                                          <reserved>
                                                 11347
11306 👝 GRANTHA LETTER AA
                                                       G GRANTHA VOWEL SIGN EE
11307
                                                 11348   ଉତ GRANTHA VOWEL SIGN AI

■ GRANTHA LETTER I

11308 - GRANTHA LETTER II
                                                 11349
                                                          <reserved>
11309 º GRANTHA LETTER U
                                                 1134A
                                                          <reserved>
1130A 2 GRANTHA LETTER UU
                                                 1134B Оп GRANTHA VOWEL SIGN OO
1130B 🐰 GRANTHA LETTER VOCALIC R
                                                 1134C െണ GRANTHA VOWEL SIGN AU
1130C
     GRANTHA LETTER VOCALIC L
                                                 1134D
                                                          GRANTHA SIGN VIRAMA
1130D <reserved>
1130E <reserved>
                                                 1134E
                                                          <reserved>
                                                 1134F
                                                          <reserved>
1130F ๑๙ GRANTHA LETTER EE
                                                 11350
                                                          <reserved>
11310 തെ GRANTHA LETTER AI
                                                 11351
                                                          <reserved>
11352
                                                          <reserved>
                                                 11353
                                                          <reserved>
11354
                                                          <reserved>
                                                 11355
11314 ഒണ GRANTHA LETTER AU
                                                          <reserved>
11315 க GRANTHA LETTER KA
                                                 11356
                                                          <reserved>
11316 ഖ GRANTHA LETTER KHA
                                                 11357
                                                          GRANTHA AU LENGTH MARK
11317 👱 GRANTHA LETTER GA
                                                 11358
                                                          <reserved>
11318      ш      GRANTHA LETTER GHA
                                                 11359
                                                          <reserved>
11319 ഈ
         GRANTHA LETTER NGA
                                                 1135A
                                                          <reserved>
                                                 1135B
1131A 🖭 GRANTHA LETTER CA
                                                          <reserved>
1131B 🖭 GRANTHA LETTER CHA
                                                 1135C
                                                          <reserved>
                                                 1135D
1131C 🕱 GRANTHA LETTER JA
                                                          GRANTHA LETTER VEDIC PLUTA
                                                       Ę
1131D FU GRANTHA LETTER JHA
                                                 1135E
                                                       v
                                                          GRANTHA LETTER VEDIC ANUSVARA
                                                 1135F
1131E 55 GRANTHA LETTER NYA
                                                          GRANTHA LETTER VEDIC DOUBLE ANUSVARA
                                                 11360 g3 GRANTHA LETTER VOCALIC RR
1131F ∟ GRANTHA LETTER TTA
11320 o
         GRANTHA LETTER TTHA
                                                 11361
                                                      ளு GRANTHA LETTER VOCALIC LL
11321 ພ GRANTHA LETTER DDA
                                                 11362 ்ள GRANTHA VOWEL SIGN VOCALIC L
11322 🕹 GRANTHA LETTER DDHA
                                                 11363
                                                          GRANTHA VOWEL SIGN VOCALIC LL
11323 \infty Grantha Letter NNA
                                                 11364
                                                          <reserved>
11324 5 GRANTHA LETTER TA
                                                 11365
                                                          <reserved>
11325 u Grantha Letter tha
                                                 11366
                                                          COMBINING GRANTHA DIGIT ZERO
11326 2 GRANTHA LETTER DA
                                                 11367
                                                          COMBINING GRANTHA DIGIT ONE
11327 w Grantha Letter Dha
                                                 11368
                                                          COMBINING GRANTHA DIGIT TWO
                                                 11369
11328
     ъ
         GRANTHA LETTER NA
                                                          COMBINING GRANTHA DIGIT THREE
11329 of Grantha Letter NNNA
                                                 1136A
                                                          COMBINING GRANTHA DIGIT FOUR
                                                 1136B
                                                          COMBINING GRANTHA DIGIT FIVE
         • for transcribing Dravidian alveolar n
                                                 1136C
                                                          COMBINING GRANTHA DIGIT SIX
1132A ப GRANTHA LETTER PA
                                                 1136D
                                                          <reserved>
1132B வ GRANTHA LETTER PHA
                                                 1136E
                                                          <reserved>
1132C ബ GRANTHA LETTER BA
                                                 1136F
                                                          <reserved>
1132D 🖭 GRANTHA LETTER BHA
                                                 11370
                                                          COMBINING GRANTHA LETTER A
1132E 2 GRANTHA LETTER MA
                                                 11371
                                                          COMBINING GRANTHA LETTER KA
1132F
     ш GRANTHA LETTER YA
                                                 11372
                                                          COMBINING GRANTHA LETTER NA
11330
         GRANTHA LETTER RA
                                                 11373
                                                          COMBINING GRANTHA LETTER VI
11331 🔘 <reserved>
                                                 11374
                                                          COMBINING GRANTHA LETTER PA
11332
      GRANTHA LETTER LA
11333
      െ GRANTHA LETTER LLA
11334
      Θ GRANTHA LETTER LLLA
         • for transcribing Dravidian retroflex continuant 1
11335 ഖ GRANTHA LETTER VA
11336 UT GRANTHA LETTER SHA
11337
     63⊅ GRANTHA LETTER SSA
11338 സ GRANTHA LETTER SA
11339 💩 GRANTHA LETTER HA
1133A S 1133B
         <reserved>
         <reserved>
1133C
         GRANTHA SIGN NUKTA
1133D
         GRANTHA SIGN AVAGRAHA
         GRANTHA VOWEL SIGN AA
1133E
     ा
1133F
         GRANTHA VOWEL SIGN I
11340
         GRANTHA VOWEL SIGN II
11341 ு GRANTHA VOWEL SIGN U
```

Date: 2012-01-30

### A. Administrative

1. Title

#### Proposal for to add two letters to the Grantha repertoire.

2. Requester's name

#### Michael Everson

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

### Individual contribution.

4. Submission date

#### 2012-01-30

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

Yes.

6b. More information will be provided later

No.

#### B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

No.

1b. Proposed name of script

1c. The proposal is for addition of character(s) to an existing block

Ves

1d. Name of the existing block

#### Grantha (proposed for ballot).

2. Number of characters in proposal

2.

3. Proposed category (A-Contemporary; 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)

#### Category A.

4a. Is a repertoire including character names provided?

Ves.

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

Yes.

4c. Are the character shapes attached in a legible form suitable for review?

Yes.

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard? **Mr Elmar Kniprath.** 

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

#### kniprath - at - online - dot - de

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

No.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes.

7. 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. 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/Public/UNIDATA/ UnicodeCharacterDatabase.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

See above.

# C. Technical - Justification

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

### Yes, in numerous documents, but not with evidence of the characters in use.

2a. 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.

2b. If YES, with whom?

Asko Parpola

- 2c. If YES, available relevant documents
- 3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

#### Grantha users.

4a. The context of use for the proposed characters (type of use; common or rare)

#### **Quite rare.**

4b. Reference

5a. Are the proposed characters in current use by the user community?

#### Yes.

5b. If YES, where?

#### Texts in Grantha.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

#### No

6b. If YES, is a rationale provided?

6c. If YES, reference

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

#### No.

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

#### No.

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

#### No.

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

### They are similar to Tamil characters but belong to a different script.

10b. If YES, is a rationale for its inclusion provided?

10c. If YES, reference

11a. Does the proposal include use of combining characters and/or use of composite sequences?

#### No.

11b. If YES, is a rationale for such use provided?

11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

#### No.

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

#### No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

#### No.

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?