Plain-text Ligating Virama Representation for Grantha script in the Unicode Standard following the model of Malayalam, Grantha's closest script

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1.0 Abstract Like its closely related script of Malayalam, Ligating Virama (Chillu) representation in Grantha script needs to be done in plain-text so that the User's intended employment of Chillu in Grantha script is not lost in e-mail transmissions etc., Unlike the solution offered in L2/14-002 by Mr. S. Sharma using rich text and which requires changing the fonts each time, a simple and technically straight-forward solution of Chillu half-consonants is offered here by using a ligating Chillu marker code point which follows what has been done for Malayalam script. Also, compare with the Saurashtra script's Haaru sign U+A8B4 (SAURASHTRA CONSONANT SIGN HAARU).

2.0 Plain-Text Representation of Ligating Virama (Chillu) in Grantha script: Malayalam script which itself derives from Grantha script uses a subset of Chillu consonants which are called Prepausal consonants in literature. The Grantha script employs a large number of Chillu consonants some of which are listed as below:

Reference for Prepausal Consonants (Ligating Virama) in Grantha script:
R. Gruenendahl, 2001, South Indian Scripts in Sanskrit Manuscripts and Prints
Grantha Tamil – Malayalam – Telugu – Kannada – Nandinagari
O. Harrassowitz, Wiesbaden, page 16.

Depending on the User's choice and intention, one of the three forms – with or without chillu – are used in Grantha texts. It totally depends on the user to specify where the breaking pauses in pre-pausal ligating virama consonants are specified. A rich text representation using change of fonts will lose the User's writing in plain-text format in e-mails, and computer processing of Grantha text between various platforms. For example, take the word, *utkaTa* which can be written in 3 ways and unique representations in Unicode standard are needed:

GRANTHA — 3 way choices of Conjuncts
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Example Word : utkaTam

① 2 ஃ 4   where tka = ⟨ta, virama, ka⟩

② 2 ஃ 4   where tka = ⟨ta, ZWNJ, virama, ka⟩

③ 2 ஃ 4   where tka = ⟨ta, prepausal virama, ka⟩

3 Encoding Choices Needed to unambiguously represent these 3 forms.
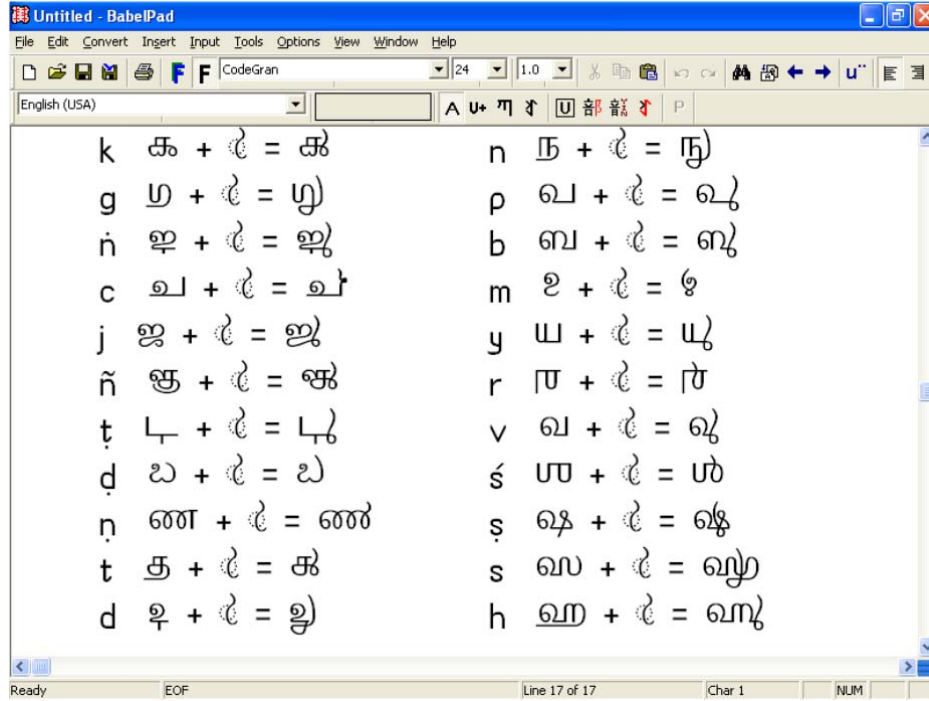
A user needs to have these 3 choices available to make this selection.

Grantha script, like Devanagari, Malayalam etc., is used to write South Indian languages also. For example, http://thevaaram.org website writes sacred Tamil songs, 1000s of the religious songs and 10 centuries or more old, in Malayalam, Grantha, Devanagari etc., scripts in addition to Tamil script. The user of Grantha script in web pages, emails, language processing tools should be able to place the Chillu wherever he/she and his text

demands in plain text. For example, nouns such as kaNvalayam can be written (1) *kaNva-layam* or (2*) kaN-valayam* where (2) requires chillu on N in plain text format.

Plain text representation of Grantha Chillu consonants

Grantha Pre-pausals <Consonant, Chillu Marker sign (U+1134F>:

3.0 Summary: For the plain text representation of Grantha ligating virama-s, which is called Prepausal consonants in literature, *U+1134F GRANTHA SIGN LIGATING VIRAMA* is requested to be encoded in the Unicode Standard. This *GRANTHA SIGN LIGATING VIRAMA* will be able to help the User community to make their own individual choices for representing their texts in plain-text format in specifying Ligating Virama forms which will not be lost in email transmission between various platforms. Another choice for the name of this code point will be U+1134F GRANTHA SIGN PREPAUSAl LIGATING VIRAMA

Note that the User's choice between the three forms of the word, utkaTa needs to be done in plain text. This is quite distinct from Telugu and Kannada cases in L2/14-002 where archaic old style vs. modern style fonts are being talked about in rich text format.

4.0 References:

Prof. K. Nachimuthu, L2/10-414, (it is on two Virama signs of Grantha)

Prof. Ulrike Niklas, Koeln, Germany, L2/10-424 (On the prepausal viramas in Grantha script)