

Comments on L2/14-097 re using ZWJ for Grantha “chillus”

Shriramana Sharma, jamadagni-at-gmail-dot-com, India

2014-May-02

The Grantha script represents vowelless consonants in three ways – using a non-ligated virama with the consonant as in ऋ[॑], by a simple touching ligature of the consonant and virama as in ऋ[॒] and by other archaic ligatures¹ such as ऋ. (Ref: L2/09-372 §5.3.1 pp 20, 21.) However these forms are all semantically equivalent. (Ref: ibid §5.3.2 pp 22, 23.)

The GOI meeting report (L2/10-409 pp 3, 4) recognizes both these facts. It further records that the manuscript and technical experts invited by the GOI recommended that it is best to handle this situation in Grantha as a free style variation using font tables. The Grantha user community has also asserted (L2/10-233, L2/10-283) that it is important to maintain the equivalence of the various vowelless forms in encoding.

Based on the recommendations of the GOI-invited experts and the native scholars, I have submitted L2/10-404 and (as a later summary) L2/14-002 describing a virama model for Grantha which preserves this semantic equivalence by entirely leaving the choice of the per-consonant default virama form to the font. L2/14-002 also draws attention to the fact that other Indic scripts such as Telugu, Kannada and Bhaikshuki also have a similar situation of multiple vowelless forms of consonants where the same solution is applied.

Today’s smart font technologies are such that users are able to control their desired final representation using alternate mechanisms such as font features without resorting to invisible joiner characters² in encoded text. Even in Latin script fonts one is able to select from options like “All ligatures”, “Common ligatures”, “No ligatures” etc. A similar mechanism is entirely appropriate and satisfactory for the native users of Grantha.

In this situation, the recommendation of Naga Ganesan in L2/14-097 that ZWJ may be used in the form of CONSONANT + VIRAMA + ZWJ to produce the archaic ligatures is quite cumbersome and inappropriate.

¹ It is these archaic ligatures that Ganesan in L2/14-097 refers to by the Malayalam term “chillu”.

² The joiner characters are merely *suggestion devices* and default ignorable by the application/font anyway and hence the only way of *ensuring* display of a particular shape is using appropriate fonts and their capabilities.

It is to be noted that this sequence CONSONANT + VIRAMA + ZWJ is the one used in Indic to request C1-conjoining forms. The earlier application of this sequence to the Malayalam chillu-s was based on an (incorrect) analysis of those vowelless forms as C1-conjoining forms. That sequence is now water under the bridge even for Malayalam since the chillu-s there are now atomically encoded.

Furthermore, in Grantha the sequence CONSONANT + VIRAMA + ZWJ should be preserved in its pan-Indic sense of requesting C1-conjoining forms to avoid for instance archaic ligatures involving cluster initial RA (which has a C1-conjoining form in Grantha as in most Indic scripts).

Ganesan has earlier (in L2/09-141, 09-141R, 09-345, 09-405, 10-062, 10-154, 10-194, 10-297, 10-303, 10-430, 10-447 and most recently in 14-020) insisted that a chillu marker (or ligating virama) should be encoded for Grantha. However, as shown before, that has been struck down by the assertion of manuscript experts and native scholars/users that there is no semantic difference between the vowelless forms in Grantha (unlike in Malayalam) and hence it is important to maintain encoding equivalence between all those forms.

While Ganesan's current request of using ZWJ as in CONSONANT + VIRAMA + ZWJ for requesting the archaic consonant-virama ligatures is not based on any claim of semantic difference, it conflicts with the pan-Indic practice of using that sequence for requesting C1-conjoining forms. Hence this is not acceptable either.

In passing, it is to be noted that the sample provided by Ganesan in L2/14-097, comparing with the same from L2/14-020, seems to be in his handwriting and not from Gruenendahl's work on South Indian manuscripts, despite Ganesan's preceding and following the sample by references to that author and book. In any case, it is not evidence that there is a need for distinctive plaintext representation of these vowelless forms, especially in the face of the recommendation from the GOI experts and native scholars/users that equivalence of the vowelless forms be maintained in encoding.

Thus it is recommended to go by the opinion of the experts and native scholars recorded in documents as mentioned above, and *not use* ZWJ or any other contrived joiner (or other) sequence in an attempt to distinguish the various vowelless forms in encoding.

-o-o-o-