

L2/99-046

February 4, 1999

TITLE: Specification of UTC Resolution on Eyelash RA

SOURCE: Joe Becker

STATUS: Expert contribution

ACTION: For consideration at UTC #79/L2 #176

This is an attempt to restate the UTC #79 resolution of 2/3/99 concerning Eyelash RA in terms of the Devanagari script rules presented in the Unicode Standard 2.0, p. 6-33 ff.

It is the UTC's belief that ISCII in essence uses the alternative RA, U+0931 RRA, to implement Eyelash RA. The UTC would like to emulate the ISCII model in the simplest way. The proposal is to add the one rule:

$RRA_h \alpha \text{ Eyelash RA}$

No other change is made. The following are consequences of this addition. The behavior of RRA becomes as follows, based on Unicode 2.0 p. 6-37 (Consonant Forms / see Figure 6-16) & p. 6-36 (Explicit Virama):

$RRA_n + VIRAMA_n + C_l \quad RRA_h + C_l \text{ -- now Eyelash RA}$

$RRA_n + VIRAMA_n + ZWJ \quad RRA_h \text{ -- consistent}$

$RRA_n + VIRAMA_n + X \quad RRA_d \text{ -- where } X = \text{anything else, including ZWNJ or nil}$

Note that Unicode already specifies a canonical equivalence:

$RRA_n \alpha RA_n + NUKTA_n$

therefore that substitution may be made in the rules above, modeling (the UTC believes) the ISCII behavior.

The proposed overloading of RRA, which is originally defined as a transcription for a Dravidian "r" sound, may cause a problem in case transcribed text encounters the first consequence listed above, namely:

$RRA_n + VIRAMA_n + C_l \quad RRA_h + C_l \text{ -- now Eyelash RA}$

in a case where $RRA_d + C_l$ would be the appropriate appearance instead of $RRA_h + C_l$. In such a case, a ZWNJ inserted by hand would fix the appearance:

$RRA_n + VIRAMA_n + ZWNJ + C_l \quad RRA_d + C_l$

Presumably machine-transcribed text is less common than ordinary typed-in text, and may need to undergo hand-editing in any case.

[END]