

## MALAYALAM SIGN AVAGRAHA and MALAYALAM DAY SIGN in Unicode (0D00-0D7F)

### 1.0 Renaming of MALAYALAM PRASLESHAM at U+0D3D as MALAYALAM SIGN AVAGRAHA

Avagraha is like an apostrophe sign, and it is used in India's major scripts when Sanskrit texts are written/transliterated in them. Consider the fact that all avagraha signs encoded in major Indic scripts (Table 1) are encoded with character names as "X SIGN AVAGRAHA" where X is the corresponding script name as the prefix. It will be far less confusing when users compare MALAYALAM SIGN AVAGRAHA with other Indic scripts' avagraha names. The name, AVAGRAHA will bring transparency in script interoperability scenarios between Indic scripts. So, rename the Malayalam avagraha at U+0D3D from 'MALAYALAM PRASLESHAM' to 'MALAYALAM SIGN AVAGRAHA' at U+0D3D.

Note that Tamil sign avagraha has the form somewhat like Latin Z (Reference 1, page 17) and Telugu sign avagraha has the form somewhat like Latin 2 (Reference 1, page 136).

Table 1. Indic Sign Avagraha in some of  
India's major scripts

Unicode Code Point	Unicode Character Name	Remarks
U+09BD	BENGALI SIGN AVAGRAHA	
U+093D	DEVANAGARI SIGN AVAGRAHA	
U+0ABD	GUJARATI SIGN AVAGRAHA	
U+0CBD	KANNADA SIGN AVAGRAHA	
U+0B3D	ORIYA SIGN AVAGRAHA	
U+0D3D	<a href="#">MALAYALAM SIGN AVAGRAHA</a>	Name change request to UTC
U+0BBD	TAMIL SIGN AVAGRAHA	To be added in Unicode later
U+0C3D	TELUGU SIGN AVAGRAHA	To be added in Unicode later

### 2.0 Renaming of MALAYALAM ORDINAL INDICATOR (U+0D79) as [MALAYALAM DAY SIGN \(U+0D7A\)](#)

Mr. Cibu Johny's document gives the MALAYALAM DAY SIGN an incorrect name as MALAYALAM ORDINAL INDICATOR. This character is in fact MALAYALAM DAY SIGN which is comparable in its glyph form with TAMIL DAY SIGN (U+0BF3). Both Tamil and Malayalam Day Sign glyphs originate from the consonant letter, NA which stands for the Dravidian word for "day", NAAL.

Tamil and Malayalam code points usually have close correspondences in Unicode code charts for Indic scripts. To illustrate, let us take a look at two examples:

**Example (a): Numeric symbols for 10, 100 and 1000**

Both Tamil and Malayalam employ a quasi-decimal arithmetic without using digit Zero. The zero glyph used in Indic scripts is from Europe that came in the 19<sup>th</sup> century. For the quasi-decimal arithmetic, numeric symbols for 10, 100 and 1000 are used in Tamil and Malayalam. The code points for 10, 100, 1000 numerics in Tamil are U+0BF0, U+0BF1, U+0BF2 respectively. Recently, Unicode has added similar numerics for Malayalam also at U+0D70, U+0D71, U+0D72 based on the evidence presented in Reference 2.

**Example (b): Long Vowel Signs EE and OO**

Both Malayalam and Tamil did not possess the Vowel sign glyphs for EE and OO as used in print or web today. Constantino G. Beschi (d. 1747 CE) was a Jesuit missionary and he introduced the said two long vowel signs in printing Tamil printed books for differentiating between the glyphs of long vowel signs EE and OO and the glyphs of short vowel signs E and O. This vowel sign innovation by Beschi was adapted in Malayalam in the last century or so (eg. Gundert's Malayalam dictionary) whereas old Malayalam palm-leaf manuscripts do not show these vowel sign glyphs. These examples demonstrate the close relationships between Tamil and Malayalam, and as recently as 1970s, Malayalam officially has adapted the visible virama feature so prominent in Tamil script (Reference 3) in an effort undertaken by Government of Kerala to reform the script. Now like Tamil PuLLi (U+0BCD), the equivalent candra-kala (U+0D4D) is visible in Malayalam textbooks, tv and newspapers.

Tamil and Malayalam Day Sign symbols can be used, for example, for 16<sup>th</sup> day of a month or for 200<sup>th</sup> day of an year. Hence it is recommended that the so called "Malayalam Ordinal Indicator" be named correctly as MALAYALAM DAY SIGN at U+0D7A. The code point U+0D79 should be reserved for the MALAYALAM RUPEE SIGN (Cf. Tamil Rupee Sign, U+0BF9).

**References:**

1. R. Grunendahl, South Indian scripts in Sanskrit manuscripts and prints. Grantha Tamil – Malayalam – Telugu- Kannada – Nandinagari, 2001, Wiesbaden: O. Harrassowitz.
2. Correcting Malayalam Digit Zero glyph and adding Malayalam numerics 10, 100 and 1000, N. Ganesan, L2/05-087, April 11, 2005.
3. Soornad Kunjan Pillai, Malayalam Lexicon Editor, led the script reform effort. The Kerala Government Order on its script reform , G.O. (P) 37/71/Edn, is available in the web, <http://www.malayalamresourcecentre.org/Mrc/order.pdf>