



Our Ref: LL/SIN/RD/1807

Mr. Mark Davis, President, The Unicode Consortium, P.O. Box 391476, Mountain View, CA 94039-1476 U.S.A.

Dear Mr. Davis,

## Inclusion of archaic Sinhala numerals in the Sinhala character code range

The Information and Communication Technology Agency of Sri Lanka (ICTA) is the government body tasked with promoting the use of ICT in Sri Lanka, including ICT in the country's local languages - Sinhala and Tamil.

ICTA and its predecessor, the Council for Information Technology (CINTEC) have been working with stakeholders in the standardization and development of ICT in Sinhala and Tamil since 1988. Specifically, ICTA worked closely with the Sri Lanka Standards Institution (SLSI) on the development of the Sinhala Character Code for Information Interchange SLS 1134:2004.

In producing this standard, ICTA and SLSI worked with the Unicode Consortium to ensure that SLS 1134 and the Unicode Standard are compatible with each other.

ICTA observes that a paper has been submitted by Mr. Michael Everson in February 2007 on including archaic Sinhala numerals in the Sinhala character code range in the Basic Multilingual Plane (BMP), which had been accepted for a future version of the Unicode Standard.

We note with concern that although this document proposes to amend the code range defined in SLS 1134, neither the SLSI, ICTA or any institution concerned with the Sinhala Language has been consulted in this regard, although it will cause the Unicode Standard to diverge from SLS 1134.

Although we have not had time to conduct a thorough investigation in to this issue, a preliminary investigation by ICTA and Mr. Harsha Wijayawardhana of the University of Colombo School of Computing (UCSC) shows that at least five types of numerals have been used in Sinhala at various times of which three are contemporary.

Accordingly we observe the following:

1. Sinhala numbers based on Brahmi letters have been used around the 1st to 3rd century AD.

2. The form of numerals known as "Lith Anka" (calendar numerals) had been used in the

18<sup>th</sup> and early 19<sup>th</sup> centuries. These are what have been proposed by Mr. Everson.

3. A method of writing numbers in Sinhala called "Katapayadia" has been used in horoscopes, etc. up to the 21<sup>st</sup> century, and is well known in the astrological community.

This uses Sinhala letters to represent numbers. This appears to be the most common method (other than European numerals) for representing numbers in Sinhala.

**4.** Another form of writing numbers in Sinhala is described in Dr. Hendrick de Silva Hettigoda's famous astrology book written in 1967, which is another type of "Lith

Anka", based on modified Sinhala letters and symbols. This method too has been used in

recent times.

5. Ola-leaf manuscripts are numbered using the full Sinhala alphabet in order.

6. Sinhala numerals are currently not in common use; Official and private documents use

European ("Arabic") numerals.

Based on the above, we consider that there is no agreement of what Sinhala numbers are, and how they should be represented. Also, as no immediate requirement for the encoding of Sinhala numerals has been presented, there is no urgency to encode these numerals. Therefore, we earnestly request that the encoding of Sinhala numerals be held in abeyance to provide an opportunity for ICTA, SLSI, and other stakeholders to study the issue and formulate a revised

proposal.

We strongly the Unicode Consortium and ISO not to proceed with encoding Sinhala numerals without our concurrence, especially in view of Unicode's policy of not changing characters once

encoded.

Yours sincerely,

**ICT Agency of Sri Lanka** 

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Reshan Dewapura

Chief Operating Officer

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