

Proposal to encode KAWI SIGN NUKTA

Febri Muhammad Nasrullah <niomi13@proton.me>

2022-10-15

1 Introduction

The Kawi script, which is historically based on the Brahmi language, can be seen on a variety of artifacts and inscriptions from insular Southeast Asia that date from the eighth to the sixteenth century. Java holds a sizable amount of the corpus, while Sumatra, the Malaysia Peninsula, Bali, and the Philippines have also yielded Kawi resources. The Kawi script is commonly linked to the Old Javanese language, but it has also been used for writing in Sanskrit, Old Malay, Old Balinese, and Old Sundanese. Land grants, royal edicts, and other chancery documents were frequently recorded in Kawi beginning in the middle of the eighth century. In Unicode right now, the script is widely accepted, making it possible to accurately encode almost all conventional texts. However, in the process of researching some older documents, it has been discovered that a sign is currently not encoded in Unicode. The current Kawi block still has six vacant slots, one of which can be filled with this sign.

2 Name

In accordance with the original Kawi proposal which uses Sanskrit terminology, as modern cognates have differing name and native Kawi name is unknown, the author proposes the sign to be named NUKTA.

3 Proposal history

[L2/22-093](#) Review of Kawi code chart of Unicode 15 Alpha (PRI 442)

— Waṣkiṭa Kinaṇṭi, Rikza F. Sh.

4 Request

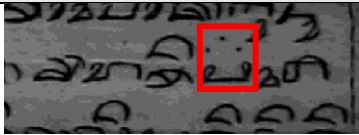
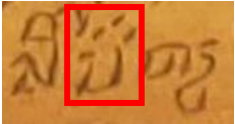
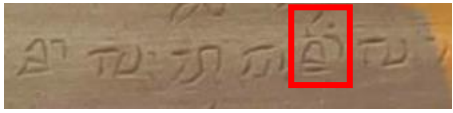


This proposal requests the addition of a new character in the Kawi block with the following name and code point:

U+11F5A  KAWI SIGN NUKTA

- for extending the abugida to new letters

5 Attestation

The sign is combining *nukta* which has a similar shape and function with JAVANESE SIGN CECAK TELU (U+A9B3) and BALINESE REREKAN (U+1B34). The use of this combining sign is to sign the foreign phoneme that doesn't exist in the original Kawi phonology. For example, if this *nukta* combining sign is placed above the letter pa (U+11F26), that letter should be pronounced as /fa/.

Letter	Source	Text	Explanation
ṡ fa (ف)	Seh Ba Yajid (206 II.3 L 32)	 မဟာ ^ṡ ပိတ <i>maharifa^te</i>	The mark with three dots above KAWI LETTER PA (U+11F26) is <i>nukta</i>
	Suluk Asal-Usul (9 L 194 20 A)	 ပိ ^ṡ တ <i>sifa^t</i>	The mark with three slanted lines above KAWI LETTER PA (U+11F26) is just a stylistic variant of the <i>nukta</i>
ṡ ṡa (ع)	Suluk Asal-Usul (9 L 194 15 B)	 နာ ^ṡ ဟတ ^ṡ လိ <i>ṡalah ta^ṡalā</i>	The mark with two dots surrounding a slanted line above KAWI LETTER NGA (U+11F16) is just a stylistic variant of the <i>nukta</i>
	Tapal Adam (5 L 297 01 A)	 တ ^ṡ လိ <i>ta^ṡalā</i>	The mark with three dots above KAWI LETTER NGA (U+11F16) is <i>nukta</i>
	Tapal Adam (5 L 217 06 B)	 တ ^ṡ လိ <i>ta^ṡalā</i>	The mark with two dots surrounding a slanted line above KAWI LETTER NGA (U+11F16) is just a stylistic variant of the <i>nukta</i>

<p> 𑀓 ḥa (ح) </p>	<p> Suluk Asal-Usul (9 L 194 11 B) </p>	 <p> 𑀓𑀲𑀸 <i>saḥamli</i> </p>	<p> The mark with four dots above KAWI LETTER HA (U+11F32) is a combination of the <i>nukta</i> with the KAWI SIGN ANUSVARA (U+11F01) </p>
--	--	---	--

6 Character data

UnicodeData.txt

```
11F5A;KAWI SIGN NUKTA;Mn;0;NSM;;;;;N;;;;;
```

LineBreak.txt

```
11F5A;CM # Mn KAWI SIGN NUKTA
```

IndicSyllabicCategory.txt

```
# Indic_Syllabic_Category=Nukta
```

```
11F5A ; Nukta # Mn KAWI SIGN NUKTA
```

IndicPositionalCategory.txt

```
# Indic_Positional_Category=Top
```

```
11F5A ; Top # Mn KAWI SIGN NUKTA
```

7 Acknowledgment

The author would like to thank Aditya Bayu Perdana for compiling the typeface and online document sources. The author would also like to thank Norbert Lindenberg for his help and feedback, particularly on technical issues of encoding.

**ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹.**

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html>, for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html>, for latest Roadmaps.

A. Administrative

1. Title:	Proposal to encode KAWI SIGN NUKTA
2. Requester's name:	<i>Febri Muhammad Nasrullah</i>
3. Requester type (Member body/Liaison/Individual contribution):	<i>Individual contribution</i>
4. Submission date:	<i>2022-10-15</i>
5. Requester's reference (if applicable):	
6. Choose one of the following:	
This is a complete proposal:	<input type="checkbox"/> Yes
(or) More information will be provided later:	<input type="checkbox"/>

B. Technical – General

1. Choose one of the following:	
a. This proposal is for a new script (set of characters):	<input type="checkbox"/>
Proposed name of script:	
b. The proposal is for addition of character(s) to an existing block:	<input checked="" type="checkbox"/> Yes
Name of the existing block:	<i>Kawi</i>
2. Number of characters in proposal:	<i>1</i>
3. Proposed category (select one from below - see section 2.2 of P&P document):	
A-Contemporary <input type="checkbox"/>	B.1-Specialized (small collection) <input type="checkbox"/>
B.2-Specialized (large collection) <input type="checkbox"/>	E-Minor extinct <input type="checkbox"/>
C-Major extinct <input type="checkbox"/>	D-Attested extinct <input checked="" type="checkbox"/>
F-Archaic Hieroglyphic or Ideographic <input type="checkbox"/>	G-Obscure or questionable usage symbols <input type="checkbox"/>
4. Is a repertoire including character names provided?	<input checked="" type="checkbox"/> Yes
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?	<input checked="" type="checkbox"/> Yes
b. Are the character shapes attached in a legible form suitable for review?	<input checked="" type="checkbox"/> Yes
5. Fonts related:	
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?	<i>Aditya Bayu Perdana</i>
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):	<i>Lindenberg Software LLC (https://lindenbergsoftware.com)</i>
6. References:	
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?	<input checked="" type="checkbox"/> Yes
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?	<input checked="" type="checkbox"/> Yes
7. Special encoding issues:	
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?	<input checked="" type="checkbox"/> Yes
8. Additional Information:	
Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org , for such information on other scripts. Also see Unicode Character Database (http://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.	

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	<input type="checkbox"/> No
If YES explain	

¹ Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?	Yes
If YES, with whom?	
If YES, available relevant documents:	
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	Yes
Reference:	<i>This document</i>
4. The context of use for the proposed characters (type of use; common or rare)	
Reference:	
5. Are the proposed characters in current use by the user community?	Yes
If YES, where? Reference:	<i>This document</i>
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	No
If YES, is a rationale provided?	
If YES, reference:	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	Yes
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	Yes
If YES, is a rationale for its inclusion provided?	Yes
If YES, reference:	<i>This document</i>
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character?	Yes
If YES, is a rationale for its inclusion provided?	Yes
If YES, reference:	<i>This document</i>
11. Does the proposal include use of combining characters and/or use of composite sequences?	Yes
If YES, is a rationale for such use provided?	Yes
If YES, reference:	<i>This document</i>
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	Yes
If YES, reference:	<i>This document</i>
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility characters?	No
If YES, are the equivalent corresponding unified ideographic characters identified?	
If YES, reference:	