Proposal to encode the Kannada sign SIDDHAM in Unicode

Srinidhi A and Sridatta A

Tumakuru, Karnataka, India

srinidhi.pinkpetals24@gmail.com, sridatta.jamadagni@gmail.com

January 22, 2016

1 Introduction

This is a proposal to encode to the Siddham in Kannada block of Unicode. The character is commonly used as sign of invocation in the inscriptions.

Glyph Code Character name

಄

0C84

KANNADA SIGN SIDDHAM

2 Description

This sign is written as an invocation at the beginning of texts. It represents the Sanskrit word siddham meaning "accomplished". It cognates to the Siddham signs of Devanagari, Tibetan, Sharada and other related scripts. Variants are attested, such as anti-clockwise form (as in Figure 1, 3) The Siddham sign also appears in transcription of inscriptions in printed sources. Likewise this document requests to encode a Siddham sign for Kannada script.

3 Character details

Character properties: in the format of UnicodeData.txt:

```
OC84; KANNADA SIGN SIDDHAM; Po; 0; L;;;;; N;;;;;
```

Collation: the sign is sorted at the head of the script before 69 0C85 KANNADA LETTER A

Annotation: the following annotation is to be added to the names list:

```
@ Sign

0C84 KANNADA SIGN SIDDHAM
= siddhirastu
* used at the beginning of texts as an invocation
```

4 Acknowledgments

We would like to thank Anshuman Pandey for designing and providing the font for the above character. The inscriptions are obtained from the volumes of Epigraphia Carnatica and IndoSkript program.

Attestations

ಪಾದಪೀಠ ಶಾಸನದ ಪಾಠ: ಪಾರ್ಶ್ವನಾಥ ತೀರ್ಥಂಕರ ಶಿಲ್ಪದ ಪಾದಪೀಠದ ಮೇಲೆ ನಾಲ್ಕು ಸಾಲುಗಳ ಕನ್ನಡ ಲಿಪಿ ಮತ್ತು ಭಾಷೆಯಲ್ಲಿರುವ **ಅಪ್ರಕಟಿತ** ಶಾಸನವಿದೆ. ಇದರ ಪಾಠ ಇಂತಿದೆ.

- (ತ್ರಿಸ್ಟಸ್ತ್ಯತುಳ ಮೂಲಸಂಘೇ ಸುಚಿತ್ರ ಕೂಟಾನ್ವಯ ಗಣೇ ಸೂರಸ್ಥೇ ಶ್ರೀ ಪೂಜ್ಯಪಾದ ಮುನಿಪಃ ಶಾಸನ ಏ

- ವಿಂ ಪ್ರಪೂಜ್ಯಪಾದೋಜಯತೇ ॥ ಶ್ರೀ ల

Figure 1: Use of Siddham in the transcription of Sanskrit inscription in Kannada script belonging to Jain temple of Paschapura, Belagavi district. (from Appanna N. Hanje, 2010)

ಶಾಸನಗಳಲ್ಲಿ 'ಸಿದ್ಧಂ' ಎಂಬುದಕ್ಕೆ ಬಳಸಿರುವ ಸಂಕೇತ ಸುರಳಿಯಂತಿದ್ದರೂ, ಕೆಲವು ಶಾಸನಗಳಲ್ಲಿ ವಿಭಿನ್ನವಾಗಿರುವುದು ಕಾಣುತ್ತದೆ, ಅಂದರೆ, S ಅಥವಾ S ಆಕಾರದಲ್ಲೂ ಕಂಡರಿನೆರುವುದು. 'ಸಿದ್ದಂ' ಎಂಬುದರ ಸಂಕೇತ ಬೇರೆ ಬೇರೆ ಶಾಸನಗಳಲ್ಲಿ ವಿಭಿನ್ನವಾಗಿದೆ. 0 ಎಪಿಗ್ರಾಫಿಯ ಇಂಡಿಕ, ಸಂಪುಟ ೩೦, ಪು. ೨೭ ಎದುರು ಚಿತ್ರ 9 ಅದೇ ಪು. ೨೨ರ ಎದುರು ಚಿತ್ರ ಎಪಿಗ್ರಾಫಿಯ ಕರ್ನಾಟಿಕ, ಸಂಪುಟ ೩, ನಂಜನಗೂಡು ೧೭೫. ಇತ್ಯಾದಿ ಶ್ರವಣಬೆಳಗೊಳದ ಮೊದಲನೇ ಶಾಸನದಲ್ಲಿ ಬಳಸಿರುವ ಇದನ್ನು 'ಸಿದ್ಧಂ' ಎಂದೇ ಓದಲಾಗಿದೆ.

Figure 2: Examples of Siddham signs found in the various inscriptions. (from Gītā N.& Kṛṣṇamūrti P.V,2001)



Figure 3: A stone inscription from Shravanabelagola showing the use of Siddham sign.

Figure 4: A reproduction of inscription from Narayana temple, Aihole dated 1118 CE depicting the sign Siddham.

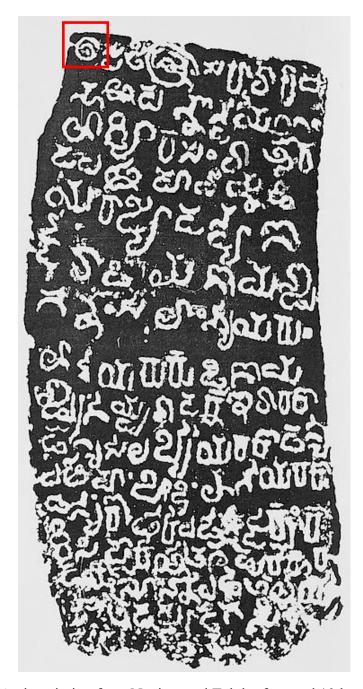


Figure 5: An inscription from Nanjanagud Taluk of around 10th century CE.

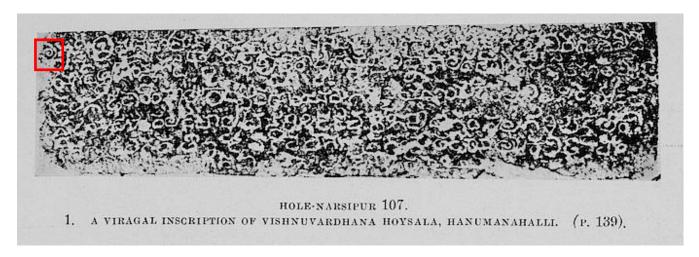


Figure 6: The siddham sign is identifiable in the beginning of the inscription from Holenarasipura taluk of Hoysala Empire.

References

ಅಣ್ಣಪ್ಪ ಎನ್. ಹಂಜೆ., (Dr. Appanna N. Hanje) ಪಾಶ್ಚಾಪುರದ ಪಾರ್ಶ್ವನಾಥ ಶಿಲ್ಪ ಮತ್ತು ಪಾದಪೀಠ ಶಾಸನ (pāścāpurada pāśrvanātha śilpa mattu pādapīṭha śāsana); ಇತಿಹಾಸ ದರ್ಶನ ಸಂ.25, ಪು.73-74. 2010

ಗೀತಾ ಎನ್ & ಕೃಷ್ಣಮೂರ್ತಿ ಪಿ.ವಿ [Gītā N. & Kṛṣṇamūrti P.V] ಶಾಸನಗಳಲ್ಲಿ ಸಂಕೇತ ಮತ್ತು ಸಂಕ್ಷೇಪಗಳ ಬಳಕೆ –ಒಂದು ಅವಲೋಕನ (śāsanagaļalli saṅkēta mattu saṅkṣēpagaļa baļake) ಇತಿಹಾಸ ದರ್ಶನ ಸಂ.16, ಪು.17-21.2001

Rice, B. L. Epigraphia Carnatica. Volumes, 1895-1905

ISO/IEC JTC 1/SC 2/WG 2

PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS

FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646TP1PT

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

Please read Principles and Procedures Document (P & P) from HTUhttp://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html

<u>UT</u>H for guidelines and details before filling this form.

Please ensure you are using the latest Form from HTUhttp://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.htmlUTH.

See also HTUhttp://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html UTH for latest Roadmaps.

Proposal to encode the Kannada sign SIDDHAM in Unicode

A. Administrative

1. Title:

2. Requester's name:	Srinidhi A and Sridatta A				
3. Requester type (Memb	er body/Liaison/Individual contribution):	Individual contribution		
4. Submission date:			January 22, 2016		
5. Requester's reference (if applicable):				
6. Choose one of the following:					
This is a comple	ete proposal:		Yes		
(or) More information will be provided later:					
B. Technical – General					
B. Technical General					
1. Choose one of the follo	owing:				
a. This proposal is for a new script (set of characters):					
Proposed name of script:					
b. The proposal is for addition of character(s) to an existing block: Yes					
Name of the existing block: Kannada		Kannada			
2. Number of characters is	in proposal:		1		
3. Proposed category (select one from below - see section 2.2 of P&P document):					
A-Contemporary	X B.1-Specialized (small collection) В	3.2-Specialized (large collection)		
C-Major extinct	D-Attested extinct	Е	E-Minor extinct		

^{.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)

F-Archaic Hieroglyphic or Ideographic	ymbols					
4. Is a repertoire including character names provided	Yes					
a. If YES, are the names in accordance with the "character naming guidelines"						
in Annex L of P&P document?		Yes				
b. Are the character shapes attached in a legib	Yes					
5. Fonts related:						
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?						
	Anshuman Pandey					
b. Identify the party granting a license for use	of the font by the editors (include address, e-mail, ftp	-site, etc.):				
Ansh	uman Pandey (pandey@umich.edu)					
6. References:						
a. Are references (to other character sets, dicti	ionaries, descriptive texts etc.) provided?	Yes				
b. Are published examples of use (such as san	mples from newspapers, magazines, or other sources)					
of proposed characters attached?	Yes					
7. Special encoding issues:						
Does the proposal address other aspects of character data processing (if applicable) such as input,						
presentation, sorting, searching, indexing, tran	nsliteration etc. (if yes please enclose information)?	Yes				
8. Additional Information:						
	ormation about Properties of the proposed Character(s) occessing of the proposed character(s) or script. Examp					

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assis 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

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.)? If YES, with whom? Authors themselves belong to user community 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? Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP 7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? NA				
If YES, with whom? Authors themselves belong to user community 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? Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
If YES, with whom? Authors themselves belong to user community 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? Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
If YES, with whom? Authors themselves belong to user community 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? Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
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? Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
size, demographics, information technology use, or publishing use) is included? Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
Reference: There is an active community of Kannada Epigraphists. 4. The context of use for the proposed characters (type of use; common or rare) Common Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
4. The context of use for the proposed characters (type of use; common or rare) Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
Reference: The character is used as a invocation in inscriptions 5. Are the proposed characters in current use by the user community? Yes If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? Yes If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
5. Are the proposed characters in current use by the user community? If YES, where? Reference: Used by epigraphists and specialists of Kannada script 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
If YES, where? Reference: **Used by epigraphists and specialists of Kannada script** 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? **Yes** If YES, is a rationale provided? **Yes** If YES, reference: **Proposed for encoding in the Kannada block of the BMP**				
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
If YES, is a rationale provided? Yes If YES, reference: Proposed for encoding in the Kannada block of the BMP				
If YES, reference: Proposed for encoding in the Kannada block of the BMP				
7 Should the proposed characters be kept together in a contiguous range (rather than being scattered)? N/4				
WA				
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?				
If YES, is a rationale for its inclusion provided?				

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?	No				
If YES, is a rationale for its inclusion provided?					
If YES, reference:					
11. Does the proposal include use of combining characters and/or use of composite sequences?	No				
If YES, is a rationale for such use provided?					
If YES, reference:					
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?					
If YES, reference:					
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:					