

**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://www.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://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

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

A. Administrative

1. Title:	Gurmukhi Sign Yakash
2. Requester's name:	<i>Sukhjinder Sidhu (Punjabi Computing Resource Centre), Unicode Technical Committee</i>
3. Requester type (Member body/Liaison/Individual contribution):	<i>Individual</i>
4. Submission date:	<i>2006-04-07</i>
5. Requester's reference (if applicable):	<i>L2/06-037</i>
6. Choose one of the following:	
This is a complete proposal:	<input checked="" 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):	
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>Gurmukhi</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 checked="" type="checkbox"/> B.1-Specialized (small collection) <input type="checkbox"/> B.2-Specialized (large collection) <input type="checkbox"/>	
C-Major extinct <input type="checkbox"/> D-Attested extinct <input type="checkbox"/> E-Minor extinct <input type="checkbox"/>	
F-Archaic Hieroglyphic or Ideographic <input type="checkbox"/> G-Obscure or questionable usage symbols <input type="checkbox"/>	
4. Proposed Level of Implementation (1, 2 or 3) (see Annex K in P&P document):	<i>2</i>
Is a rationale provided for the choice?	<input checked="" type="checkbox"/> Yes
If Yes, reference:	<i>Combining Mark</i>
5. 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
6. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?	<i>Dr Kulbir Thind (AnmolUniBani, OpenType).</i>
If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:	<i>E-mail sukhuk@users.sourceforge.net</i>
7. 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
8. 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
	<i>Sorting</i>

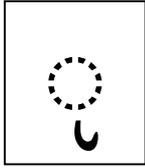
9. Additional Information:

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 <http://www.unicode.org/Public/UNIDATA/UCD.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

¹ Form number: N3002-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)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? If YES explain	No
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?	Yes
	<i>Jeevan Deol, Manudeep Singh, Serjinder Singh, Kulbir Thind and general community consultation</i>
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:	No
4. The context of use for the proposed characters (type of use; common or rare) Reference:	Rare
5. Are the proposed characters in current use by the user community? If YES, where? Reference:	Yes
	<i>Used in the Adi Granth, the holy book of the Sikhs</i>
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? If YES, reference:	Yes Yes
	<i>In keeping with the Gurmukhi block</i>
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? If YES, is a rationale for its inclusion provided? If YES, reference:	No
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? If YES, reference:	No
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character? If YES, is a rationale for its inclusion provided? If YES, reference:	Yes Yes
	<i>See End</i>
11. Does the proposal include use of combining characters and/or use of composite sequences? 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:	No
12. Does the proposal contain characters with any special properties such as control function or similar semantics? If YES, describe in detail (include attachment if necessary)	No
13. Does the proposal contain any Ideographic compatibility character(s)? If YES, is the equivalent corresponding unified ideographic character(s) identified? If YES, reference:	No



U+0A75 GURMUKHI SIGN YAKASH

Yakash is found in the Sri Guru Granth Sahib a total of 268 times². The Yakash is commonly said to be a form of the Half Yayya character of Gurmukhi³. Yakash may take up many forms, but it is most commonly shown in Sikh religious texts as a small hook below a consonant.

Unlike the forms of Haha and Udaat, which are related to aspirated and high tones, the conjoined forms of Yaiyya have a different clarification⁴. The pronunciation of the Half Yayya character is less ambiguous. It represents the /y/ sound, with the inherent vowel /a/ being suppressed. The problem is related to the Yakash (Pairin Yayya).

The prevalent view among a section of Gurbani scholars⁵ is that 'y' is to be regarded as both a *vianjan* (consonant) and an *ardh-svar* (semi-vowel). This means that 'y' represents both the sounds of /y/ and a number of sounds close to those of Gurmukhi vowels. Giani Harbans Singh (2000) has formulated it likewise that the Yakash is used at places where a semi-vowel is to be pronounced. Here is an example to illustrate this view. We use the word ਸਿਖਿਆ ('sikhī'ā'), where the ਿ and ਯ are to be replaced by the forms of Yayya:

Yayya: ਸਿਖਯਾ should be pronounced 'sikhayā'.

Half Yayya: ਸਿਖਯਾ should be pronounced 'sikhya'.

Yakash: ਸਿਖੁਾ should be pronounced with a semi-vowel sound as between 'sikhya' and 'sikhīā'.

This is related to the evolution of Sanskrit words, from their *tatsam* (original) to *tadbhav* (derivated) stages. Half Yayya was to be used where writings were transcribed into Gurmukhi, however, their pronunciation remained close to the original term. The second form, with the Yakash, suggests the change in pronunciation, where the consonant sounds moved towards a semi-vowel sound. The present way of writing, where we now use vowel signs, denotes the modern pronunciation of the term.

It is recommended that Yakash be encoded as a separate Unicode character, with the following properties:

```
0A75;GURMUKHI SIGN YAKASH;Mn;0;NSM;;;;;N;;;;;
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Yakash looks like a hook and attaches to the bottom of the bearing consonant:



Yakash, like Udaat, should push down U and UU in the same way that existing subjoined consonants do.

² Thind, op.cit.

³ Harkirat Singh, op.cit. p. 104.

⁴ The information given in this part is largely based upon Giani Harbans Singh, *Gurbani Viyakaran* (2000), p. 247-50. The views presented herein should not be regarded as scholarly sound, as other writers, such as Harkirat Singh, op.cit., pp. 104-5, have presented alternative views.

⁵ See Joginder Singh Talwara, op.cit. pp. 24-6 and 32-3, and Giani Harbans Singh, op.cit, p. 248.

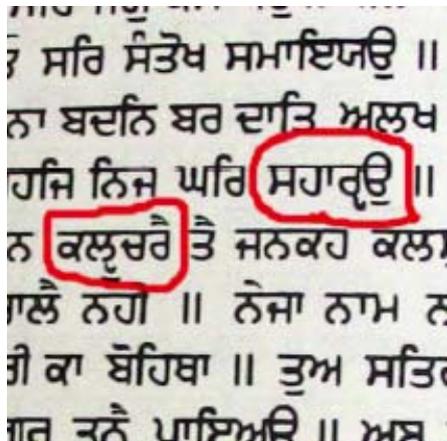


The logical ordering required for Gurmukhi determines that Yakash should come after the consonant, but before the vowel sign:

ਸਿਖਾ

0A38 0A3F 0A16 0A75 0A3E
ਸ ਿ ਖ ੁ ਾ

In terms of sorting, GURMUKHI SIGN YAKASH should be treated as a subjoined form of /ya/.



Guru Granth Sahib page 1408 (ੴ੦੮)