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**Title:** Proposal for consistent naming of "Arabic Pedagogical Symbols"

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**Action:** For consideration by ISO/IEC JTC1/SC2/WG2

**Date:** 2009-03-31

In the JTC1/SC2/WG2 meeting of October 2008, sixteen Arabic Pedagogical Symbols have been accepted for encoding, in the range FBB2..FBC1. The author confirms that their encoding in the ISO/IEC 10646 would be useful for various users of the Arabic script, especially for discussions of writing systems and symbols.

However, the character names for the newly proposed characters are *not* consistent with names of existing Arabic characters in ISO/IEC 10646. This proposal suggests consistent names for the characters. The consistency would also help making the Unicode Standard easier to use for people unfamiliar with South Asian terminology presently used for those accepted characters.

This proposal also discusses the character notes for these characters in WG2 document N3557 (PDAM 7) and proposes removing these character notes.

## Consistent names

The author proposes different names based on the names of various Arabic letters already encoded in ISO/IEC 10646.

The author also proposes that the word "SYMBOL" be added to the name of characters. This would make clear that these characters are just symbols, and hints that these are *not* combining marks, and should not be used for representing normal letters in the Arabic script. This is consistent with the original proposal (WG2 document N3460), and the discussions in WG2 meeting 53 (see WG2 document N3553, section 10.1: "They are NOT combining marks.")

Alternatively, the names may include "PEDAGOGICAL SYMBOL" instead of just "SYMBOL". Since the usage of these symbols is not necessarily restricted to teaching and education, the author has only used "SYMBOL" here.

Code	Suggested name	Notes
FBB2	ARABIC SYMBOL DOT ABOVE	As used in the names of 0696, 069A, 06A7, 06AC, 06B6, 06BF, 06CF, 0754, 0762, and 0765.
FBB3	ARABIC SYMBOL DOT BELOW	As used in the names of 068A, 068B, 0694, 0696, 069A, 06A3, 06B9, 06FA, 06FB, 06FC, 0751, and 0766.

and 0767.  FBB6 ARABIC SYMBOL THREE DOTS ABOVE AS used in the names of 063F, 0685, 069C, 069F, 06A0, 06A8, 06B4, 06B7, 06BD, 0751, and 0763.  FBB7 ARABIC SYMBOL THREE DOTS BELOW AS used in the names of 063C, 069B, 069C, 06A5, 06AE, 06B8, and 06D1.  FBB8 ARABIC SYMBOL THREE DOTS POINTING DOWNWARDS ABOVE ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW AS used in the names of 0752, 0753,0758, 0761, and 0764.  FBBA ARABIC SYMBOL FOUR DOTS ABOVE As used in the names of 0690, 0699, and 075C.  FBBB ARABIC SYMBOL FOUR DOTS BELOW O680 and 0687 are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here.  FBBC ARABIC SYMBOL TWO DANDAS BELOW 06FD and 06FE are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here is for consistency with other names are not graphical. The name suggested here is for consistency with other names are not graphica			
FBB6 ARABIC SYMBOL THREE DOTS ABOVE  ARABIC SYMBOL THREE DOTS BELOW  FBB7 ARABIC SYMBOL THREE DOTS BELOW  ARABIC SYMBOL THREE DOTS BELOW  ARABIC SYMBOL THREE DOTS POINTING DOWNWARDS ABOVE  FBB9 ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW  FBBA ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW  ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW  ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW  ARABIC SYMBOL FOUR DOTS ABOVE  ARABIC SYMBOL FOUR DOTS ABOVE  ARABIC SYMBOL FOUR DOTS BELOW  O680 and 0687 are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here.  FBBC ARABIC SYMBOL TWO DANDAS BELOW  O6FD and 06FE are the only characters that use the symbol as part of their glyph, but their name are not graphical. The name suggested here is for consistency with other names are not graphical. The name	FBB4	ARABIC SYMBOL TWO DOTS ABOVE	
669F, 06A0, 06A8, 06B4, 06B7, 06BD, 0751, and 0763.  FBB7 ARABIC SYMBOL THREE DOTS BELOW As used in the names of 063C, 069B, 069C, 06A5, 06AE, 06B8, and 06D1.  FBB8 ARABIC SYMBOL THREE DOTS POINTING DOWNWARDS ABOVE the names of 067D and 068F, appears as suggested here in the name of 075E.  FBB9 ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW As used in the names of 0752, 0753,0758, 0761, and 0764.  FBBA ARABIC SYMBOL FOUR DOTS ABOVE As used in the names of 0690, 0699, and 075C.  FBBB ARABIC SYMBOL FOUR DOTS BELOW 0680 and 0687 are the only characters that use the symbol as part of their glyph, but their names and graphical. The name suggested here.  FBBC ARABIC SYMBOL TWO DANDAS BELOW 06FD and 06FE are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here is for consistency with other names are not graphical. The name suggested here is for consistency with other names are not graphical. The name suggested here is for consistency with other nam	FBB5	ARABIC SYMBOL TWO DOTS BELOW	As used in the names of 069D, 06B2, 0754, 0760, and 0767.
FBB8 ARABIC SYMBOL THREE DOTS POINTING DOWNWARDS ABOVE  ARABIC SYMBOL THREE DOTS POINTING DOWNWARDS ABOVE  ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW  ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW  ARABIC SYMBOL FOUR DOTS ABOVE  ARABIC SYMBOL FOUR DOTS ABOVE  ARABIC SYMBOL FOUR DOTS BELOW  ARABIC SYMBOL FOUR DOTS BELOW  ARABIC SYMBOL FOUR DOTS BELOW  O680 and 0687 are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here is for consistency with other names suggested here is for graphical. The name suggested here is for consistency with other names are not graphical. The name suggested here is for consistency with other names of 0690, 0699, and 075C.	FBB6	ARABIC SYMBOL THREE DOTS ABOVE	
the names of 067D and 068F, appears as suggested here in the name of 075E.  FBB9 ARABIC SYMBOL THREE DOTS POINTING UPWARDS BELOW  FBBA ARABIC SYMBOL FOUR DOTS ABOVE  FBBB ARABIC SYMBOL FOUR DOTS BELOW  ARABIC SYMBOL FOUR DOTS BELOW  O680 and 0687 are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here.  FBBC ARABIC SYMBOL TWO DANDAS BELOW  O6FD and 06FE are the only characters that use the symbol as part of their glyph, but their name are not graphical. The name suggested here is for consistency with other names suggested here in the name of 075E.  As used in the names of 0690, 0699, and 075C.  O680 and 0687 are the only characters that use the symbol as part of their glyph, but their name are not graphical. The name suggested here is for	FBB7	ARABIC SYMBOL THREE DOTS BELOW	
UPWARDS BELOW and 0764.  FBBA ARABIC SYMBOL FOUR DOTS ABOVE As used in the names of 0690, 0699, and 075C.  FBBB ARABIC SYMBOL FOUR DOTS BELOW 0680 and 0687 are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here.  FBBC ARABIC SYMBOL TWO DANDAS BELOW 06FD and 06FE are the only characters that use the symbol as part of their glyph, but their name are not graphical. The name suggested here is for	FBB8		
FBBB ARABIC SYMBOL FOUR DOTS BELOW  O680 and 0687 are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here is for consistency with other names suggested here.  FBBC ARABIC SYMBOL TWO DANDAS BELOW  O6FD and 06FE are the only characters that use the symbol as part of their glyph, but their name are not graphical. The name suggested here is for	FBB9		As used in the names of 0752, 0753,0758, 0761, and 0764.
symbol as part of their glyph, but their names ar not graphical. The name suggested here is for consistency with other names suggested here.  FBBC ARABIC SYMBOL TWO DANDAS BELOW  O6FD and O6FE are the only characters that use the symbol as part of their glyph, but their name are not graphical. The name suggested here is for	FBBA	ARABIC SYMBOL FOUR DOTS ABOVE	As used in the names of 0690, 0699, and 075C.
the symbol as part of their glyph, but their name are not graphical. The name suggested here is for	FBBB	ARABIC SYMBOL FOUR DOTS BELOW	
consistency with other suggested names.	FBBC	ARABIC SYMBOL TWO DANDAS BELOW	06FD and 06FE are the only characters that use the symbol as part of their glyph, but their names are not graphical. The name suggested here is for consistency with other suggested names.
FBBD ARABIC SYMBOL TWO DOTS VERTICAL ABOVE in the name of 0682, appears as suggested here in the names of 075F, 076B, and 076D.	FBBD		name of 0682, appears as suggested here in the
FBBE ARABIC SYMBOL TWO DOTS VERTICALLY BELOW As used in the name of 0759.	FBBE		As used in the name of 0759.
FBBF ARABIC SYMBOL RING As used in the names of 067C, 0689, 0693, 06A 06B0, 06BC, 06C4.	FBBF	ARABIC SYMBOL RING	As used in the names of 067C, 0689, 0693, 06AB, 06B0, 06BC, 06C4.
			inappropriate, as it does occur in various positions relative to the letter skeleton (compare the glyphs
FBC0 ARABIC SYMBOL SMALL TAH ABOVE Appears as SMALL TAH in the names of 068B, 0759, and 0768 and as SMALL ARABIC LETTER TAH in the names of 0770 and 0771, and as SMALL ARABIC LETTER TAH ABOVE in the name of 0772.	FBC0	ARABIC SYMBOL SMALL TAH ABOVE	0759, and 0768 and as SMALL ARABIC LETTER TAH in the names of 0770 and 0771, and as SMALL ARABIC LETTER TAH ABOVE in the name
Existing usage is inconsistent and confusing			Existing usage is inconsistent and confusing

		(compare the name of 076F with that of 0770).
FBC1	ARABIC SYMBOL SMALL TAH BELOW	Appears as SMALL ARABIC LETTER TAH BELOW in the name of 076E, and as SMALL ARABIC LETTER TAH in the name of 076F.
		Existing usage is inconsistent and confusing (compare the name of 076F with that of 0770).

## Character notes

In the original proposal (WG2 document N3460), some annotations are suggested for characters. These annotations have turned up into PDAM 7 (WG2 document N3557, page 32). These annotations seem to mention only the languages Sindhi, Pashto, and Urdu, while these symbols are used in various other languages too. For example, the symbol four-dots-above is also used in Shina (U+075C), the ring is also used in Lahnda (U+06B0), and the small-Tah-below is not used in Urdu at all, but only in Khowar.

The author proposes removing the above-mentioned annotations from Amendment 7.

## **Acknowledgments**

The author wishes to thank Deborah W. Anderson, Michael Everson, Jonathan Kew, Kamal Mansour, and Rick McGowan for their valuable comments on an earlier version of this document.