

# ISO/IEC JTC 1/SC 2/WG 2 PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646

Please fill Sections A, B and C below. Section D will be filled by SC 2/WG 2.

For instructions and guidance for filling in the form please see the document "Principles and Procedures for Allocation of New Characters and Scripts"

(<http://www.dkuug.dk/JTC1/SC2/WG2/prot>).

## A. Administrative

1. Title: **Arabic Ligature Rial**
2. Requester's name: **High Council of Informatics of Iran (HCI)**
3. Requester type (Member body/Liaison/Individual contribution): **Individual contribution**
4. Submission date: **3 April 2001**
5. Requester's reference (if applicable):
6. (Choose one of the following:  
This is a complete proposal: ; or,  
More information will be provided later:  
**This is a complete proposal**

## B. Technical - General

1. (Choose one of the following:)
  - a. This proposal is for a new script (set of characters): **No**  
Proposed name of script:
  - b. The proposal is for addition of character(s) to an existing block: **Yes**  
Name of the existing block: **Arabic Presentation Forms - A**
2. Number of characters in proposal: **1 (One)**

3. Proposed category (see section II, Character Categories): **A**

4. Proposed Level of Implementation (see clause 15, ISO/IEC 10646-1): **1**

Is a rationale provided for the choice? **The proposed character is like similar compatibility characters in the Arabic script**

If Yes, reference:

5. Is a repertoire including character names provided?: **Yes, at the end of this document.**

a. If YES, are the names in accordance with the 'character naming guidelines' in Annex K of ISO/IEC 10646-1? **Yes**

b. Are the character shapes attached in a reviewable form? **Yes**

6. Who will provide the appropriate computerized font (ordered preference: True Type, PostScript or 96x96 bit-mapped format) for publishing the standard? **Roozbeh Pournader <roozbeh@sharif.edu>**

If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used: **A 96x96 GIF image is attached. A TrueType font will be prepared.**

7. References:

a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? **Yes, ISIRI 3342 and ISIRI 2901**

b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached? **No**

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): **Yes, Unicode character properties is included**

## **C. Technical - Justification**

1. Has this proposal for addition of character(s) been submitted before? **No**

If YES explain

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? **Iranian national body (ISIRI), Persian Academy for Language and Literature, FarsiWeb Project Group**

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: **All nationals of Iran**

4. The context of use for the proposed characters (type of use; common or rare)

Reference: **It's a character for the Iranian currency unit Rial; Common**

5. Are the proposed characters in current use by the user community? **Yes**

If YES, where? Reference: **On all applications that support the Iranian national 8-bit character set standard, ISIRI 3342**

6. After giving due considerations to the principles in N 1352 must the proposed characters be entirely in the BMP? **Yes**

If YES, is a rationale provided? **Yes**

If YES, reference: **It needs to be available in the UCS range within the "Arabic Presentation Forms-A" block, for Persian information interchange and compatibility with existing data.**

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

**N/A**

8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? **Yes**

If YES, is a rationale for its inclusion provided? **Yes**

If YES, reference: **It is coded as a character in the Iranian national character set standard for information interchange, ISIRI 3342:1993**

9. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character? **No**

If YES, is a rationale for its inclusion provided?

If YES, reference:

10. Does the proposal include use of combining characters and/or use of composite sequences (see clause 4.11 and 4.13 in ISO/IEC 10646-1)? **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:

11. 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)

## **D. SC 2/WG 2 Administrative (To be completed by SC 2/WG 2)**

1. Relevant SC 2/WG 2 document numbers:

2. Status (list of meeting number and corresponding action or disposition):

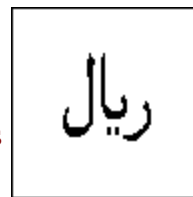
3. Additional contact to user communities, liaison organizations etc:

4. Assigned category and assigned priority/time frame:

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## Arabic Ligature Rial

This is a proposal for addition of the Iranian Rial sign to Unicode and ISO/IEC 10646 standards. It is an Arabic compatibility character, needed for one-to-one mapping from Iranian 8-Bit character set standard [1]. In that standard (ISIRI 3342), it is coded in the position "A/4". It is also on the Iranian standard keyboard [2] on the **Shift-4** position. This character were available as a key on Persian typewriters before computers were deployed in Iran. The character shape is usually a little bit narrower than normal writing of the word Rial.



This ligature can be encoded as a sequence of six existing characters, namely 200C 0631 06CC 0627 0644 200C, but we believe that because of its special meaning as a currency sign (that's used in Iranian software), and round-trip compatibility of Unicode with ISIRI 3342, it is needed in ISO/IEC 10646/Unicode. Also, because some protocols (like X) do not support assigning a sequence of characters to a single keyboard key, and this character is present on the Iranian standard keyboard, there is a need for encoding it.

Recommended Unicode character properties for the character is as follows:

1. Character Name: **ARABIC LIGATURE RIAL**
2. General Category: **Sc** (Symbol, Currency)
3. Canonical Combining Class: **0** (spacing)
4. Bidirectional Category: **AL** (Right-to-Left Arabic)
5. Character Decomposition Mapping: **<isolated> 0631 06CC 0627 0644**
6. Mirrored: **N**

## References:

1. Persian 8-Bit Standard Code for Information Interchange, ISIRI 3342, Institute of Standards and Industrial Research of Iran, 1993.
  2. Standard for Positioning Persian Language Letters and Symbols on Computer Keyboards, ISIRI 2901 (revised), Institute of Standards and Industrial Research of Iran, 1994.
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Following is a picture of the character table in the ISIRI 3342 standard:

جدول شماره ۱۲. جدول کد تبادل اطلاعات ۸ بیتی فارسی (G2)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0											SP	۰	آ	س	۰	ـ
1											PSP	۱	ا	ش	ی	ـ
2											PCN	۲	ء	ص	[	ء
3											!	۳	ب	ض	]	ء
4											ریال	۴	پ	ط	{	ء
5											%	۵	ت	ظ	}	ء
6											.	۶	ث	ع	«	ـ
7											,	۷	ج	غ	»	۰
8											(	۸	چ	ف	•	اُ
9											)	۹	ح	ق	-	وُ
A											x	:	خ	ک		اِ
B											+	؛	د	گی	\	ئ
C											,	>	ذ	ل		ة
D											-	=	ر	م		ك
E											/	<	ز	ن		ي
F											/	؟	ژ	و		