Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Organisation internationale de normalisation
Международная организация по стандартизации

Doc Type: **Working Group Document**
Title: **Proposal to add 6 Egyptological characters to the UCS**
Source: **Michael Everson**
Status: **Expert Contribution**
Action: **For consideration by JTC1/SC2/WG2 and UTC**
Date: **2000-08-27**

This document is based on discussion appearing in the document submitted by Michael Everson on 1999-07-24 as JTC1/SC2/WG2 N2043. It contains the proposal summary.

A. Administrative

1. Title
Proposal to add 6 Egyptological characters to ISO/IEC 10646.
2. Requester's name
Michael Everson
3. Requester type
Expert contribution.
4. Submission date
2000-08-26.
5. Requester's reference
N2403: On the apostrophe and quotation mark, with a note on Egyptian transliteration characters: http://www.dkuug.dk/JTC1/SC2/WG2/docs/n2043.pdf
6a. Completion
This is a complete proposal.
6b. More information to be provided?
No.

B. Technical – General

1a. New script? Name?
No.
1b. Addition of characters to existing block? Name?
Yes. Latin Extended-B.
2. Number of characters
6.
3. Proposed category
Category A.
4. Proposed level of implementation and rationale
Level 1. Base characters with no diacritics.
5a. Character names included in proposal?
Yes.
5b. Character names in accordance with guidelines?
Yes (see below).

5c. Character shapes reviewable?
Yes (see below).
6a. Who will provide computerized font?
Michael Everson, EGT.
6b. Font currently available?
Yes.
6c. Font format?
TrueType.
7a. Are references (to other character sets, dictionaries, descriptive texts, etc.) provided?
Yes (see below).
7b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached?
Yes (see below).
8. Does the proposal address other aspects of character data processing?
No.

C. Technical – Justification

1. Contact with the user community?
Yes.
2. Information on the user community?
Egyptologists.
3a. The context of use for the proposed characters?
They are used in the transcription of Egyptian to Latin letters.
3b. Reference
See bibliography below.
4a. Proposed characters in current use?
Yes.
4b. Where?
In publishing, in education.
5a. Characters should be encoded entirely in BMP?
Yes.
5b. Rationale
They are Latin letters.
6. Should characters be kept in a continuous range?
Yes, if possible.
7a. Can the characters be considered a presentation form of an existing character or character sequence?
No. See the notes on EGYPTOLOGICAL YOD below.
8a. Can any of the characters be considered to be similar (in appearance or function) to an existing character?
No.
9a. Combining characters or use of composite sequences included?
No.
9b. List of composite sequences and their corresponding glyph images provided?
No.
10. Characters with any special properties such as control function, etc. included?
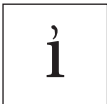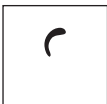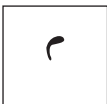No.

D. Proposal

The Hebrew letters ALEF and AYIN and the Arabic letters HAMZA and AIN, having no equivalents in the Latin alphabet, are represented in transliteration by apostrophe-like glyphs of various kinds. This practice goes back a long way. Clarke 1878 gives **,** (!) for HAMZA and ' for AIN. Faulmann 1880 uses a standard alphabet for transcribing all the scripts in his book; he settled on ' for ALEF and ³ for AYIN in Hebrew, and ' for ALEF and ³ for AIN in Arabic and Persian. Faulmann writes HAMZA with h'. Palmer 1901 gives ' for HAMZA and ' for AIN. Egyptologists modified these traditions to suit their needs, devising letters of the latin alphabet to represent these sounds in transcriptions of Egyptian text.

EGYPTOLOGICAL ALEF. The a letter based on ³ the double-bellied AYIN is used in the Egyptologist tradition to represent ALEF (written ⍼). It generally has the letterform or ꜣ (Gardiner 1966) or ꜣ (Collier & Manley 1998); Loprieno 1995 gives the unusual ɜ (which could be U+025C LATIN SMALL LETTER REVERSED OPEN E) but Loprieno's typography is atypical. The EGYPTOLOGICAL ALEF has both a capital and a small form.

EGYPTOLOGICAL YOD. Egyptologists use a special *i* which has some kind of diacritic over it. This is problematic because, although the character only has one function (to represent the sound written ⍿), it has several glyph forms in printed text. In part this was a result of the technology used to prepare books. This character's usual shape is *ỉ* (Gardiner 1966) or *i* (Collier & Manley 1998); Loprieno 1995 substitutes *j* (U+006A LATIN SMALL LETTER J). Betrò 1995 uses *ì*. It would be best to encode this character with a single non-decomposable form, especially as the mark is not productive. The EGYPTOLOGICAL YOD has both a capital and a small form.

EGYPTOLOGICAL AYIN. Egyptologists also use a special modifier letter (to represent the sound written ⍼), written ꜥ (Gardiner 1966) or ꜥ (Collier & Manley 1998); Loprieno 1995 gives only ' (U+02BB MODIFIER LETTER TURNED COMMA), but again, his typography is atypical. The shape (height, rotation, length) and size of this in printed texts is quite different from U+02BD MODIFIER LETTER REVERSED COMMA '. Loprieno appears to have substituted available characters REVERSED OPEN E for ALEF, j for YOD, and ' for AYIN. The EGYPTOLOGICAL AYIN has both a capital and a small form.

The repertoire requested is given here with proposed code positions:

Ꜣ	0234	LATIN CAPITAL LETTER EGYPTOLOGICAL ALEF
ꜣ	0235	LATIN SMALL LETTER EGYPTOLOGICAL ALEF
ʾI	0236	LATIN CAPITAL LETTER EGYPTOLOGICAL YOD
ì	0237	LATIN SMALL LETTER EGYPTOLOGICAL YOD
ꜥ	0238	LATIN CAPITAL LETTER EGYPTOLOGICAL AYIN
ꜥ	0239	LATIN SMALL LETTER EGYPTOLOGICAL AYIN

Examples

From Gardiner 1966. Sample showing LATIN CAPITAL LETTER EGYPTOLOGICAL ALEF in 3ḳs and 3kr, and LATIN SMALL LETTER EGYPTOLOGICAL ALEF in 3tf.

> ꬍⳔ var. ꞮꞮ *3ḳs* (S 38) Aḳes, a divinity personifying some part of the royal apparel.
>
> ꬍ *3kr* Aker, an earth-god.
>
> ꬍ *3tf* (S 8) *atef*-crown.

From Gardiner 1966. Sample showing LATIN CAPITAL LETTER EGYPTOLOGICAL YOD in 'In-ḥrt and LATIN SMALL LETTER EGYPTOLOGICAL YOD in ini and inw.

> *ini* (W 25) bring, fetch, remove;
> var. *inw* gifts, tribute; varr.
> , *'In-ḥrt* (N 31) Onūris, the god of This, N. of Abydus, Gk. 'Ονοῦρις.

From Gardiner 1966. Sample showing LATIN CAPITAL LETTER EGYPTOLOGICAL AYIN in ʿnḳt and LATIN SMALL LETTER EGYPTOLOGICAL AYIN in ʿntyw. (Compare the height of the letter with that of the letter *t*.)

> *ʿnḳt*, the goddess Anūkis of Aswân, Gk. Ἀνοῦκις.
>
> *ʿntyw* myrrh.

From Collier & Manley 1998. Sample showing the traditional characters.

3

i

or \\   *y*

ʿ

From Loprieno 1995. Loprieno appears to have substituted available characters REVERSED OPEN E for ALEF, j for YOD, and ʻ for AYIN.

ꜣ (aleph)

j (yod)

jj or *y*

ʻ (ayin)

From Betrò 1995. Betrò appears to have constructed EGYPTOLOGICAL YOD out of a dotless i and a combining right-pointing single guillemet, and to have used a high right-pointing single guillemet for EGYPTOLOGICAL AYIN in *i̓ꜥn* 'baboon'. She has substituted a digit 3 for EGYPTOLOGICAL ALEF in *ʒ* 'vulture'.
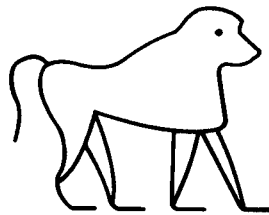
Déterminatif dans i̓ʻn, « babouin », et dans ses synonymes. Déterminatif dans le verbe ḳnd, « être furieux ».

Idéogramme dans le terme 3, « vautour », d'où dérive la valeur phonétique 3.

Unicode Character Properties

Spacing letters, category "Lu", bidi category "L" (strong left to right)
0234, 0236, 0238

Spacing letters, category "Ll", bidi category "L" (strong left to right)
0235, 0237, 0239

Bibliography

Betrò, Maria Carmela. 1995. *Hiéroglyphes: les mystères de l'écriture.* Paris: Flammarion. ISBN 2-08-012465-X

Clarke, H. Wilberforce. 1878. *The Persian manual: a pocket companion intended to facilitate the essential attainments of conversing with fluency and composing with accuracy, in the most graceful of all the languages spoken in the East.* London: Wm. H. Allen & Co.

Collier, Mark, & Bill Manley. 1998. *How to read Egyptian hieroglyphs: a step-by-step guide to teach yourself.* London: British Museum Press. ISBN 0-7141-1910-5

Gardiner, Alan. 1966. *Egyptian grammar: being an introduction to the study of hieroglyphs.* 3rd edition. London: Oxford University Press.

Faulmann, Carl. 1990 (1880). *Das Buch der Schrift.* Frankfurt am Main: Eichborn. ISBN 3-8218-1720-8

Loprieno, Antonio. 1995. *Ancient Egyptian: a linguistic introduction.* Cambridge: Cambridge University Press. ISBN 0-521-44849-2

Palmer, E. H. 1901. *The Arabic manual: comprising a condensed grammar of both the classical and modern Arabic, reading lessons and exercises, with analyses, and a vocabulary of useful words.* London: Samson Low, Marston & Co.