

# Unicode for transliteration

This package contains fonts and keyboards for transliterating Ancient Egyptian (and Demotic).

## Fonts

A complete set of fonts, based on the DejaVu free fonts, is provided. The main changes from DejaVu are :

- inclusion of (ugly versions of) aleph and ayin. I would be very interested if a better sign drawer than me would provide those signs
- a ligature based system to provide correct rendering of Ḥ, ḥ, Ḥ̄, ḥ̄ and Ḥ̇.
- (really technical: to deal with a problem in Mac OS X snow leopard, the « references » in the DejaVu fonts have been replaced by copies of the signs)

Note that the Gentium files have now a decent version of aleph and ayin, and be considered for edition (although they lack bold variants). Gentium (and, in fact, any unicode font with the right characters) can be used with those keyboards.

## Keyboards

three mac keyboards are provided: one for french keyboards, the other for american keyboards. Note that the free Ukelele (<http://scripts.sil.org/ukelele>) tool can be used to create new keyboards quite easily on the mac.

### ***The 0313 and 0486 keyboards***

For each keyboard, I have made two versions. Basically, Unicode lists two ways of producing a “yod”. Now, one of this will probably work with most of the fonts (it's the 0313 version), but will give something like I for capital yod.

The 0486 version is *supposed* to give a correct egyptological yod (with the accent in front of the yod).

In EgyptoSerif, both will give the correct characters (provided your word processor does the right thing – which is the case of Openoffice, and apparently, of recent versions of Word). If you plan to use Gentium, I'd suggest using the 0313 keyboard. More detailed information below.

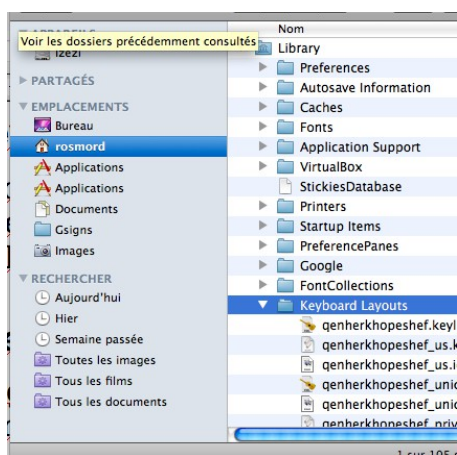
### ***The mac French Transliteration keyboards***

## Installation

I'll give instruction and documentation for the french keyboard, but the principles are the same for the english one.

To install the keyboard:

copy the keyboard files (for instance qenherkhopeshef\_0313.icns and qenherkhopeshef\_0313.keylayout in your Library/Keyboards Layout folder:



(for the us keyboard, the names are qenherkhopeshef\_0313\_us.icns and qenherkhopeshef\_0313\_us.keylayout).

Close your session (this might not be necessary anymore, but in doubt).

Open System Preferences, Languages and Text. Go to « Input methods » (or something like that, my Mac insists on speaking French). Activate the keyboard(s) you want to be able to use.

## Use

The principles of the mac keyboard are the following:

- to get a character, type the key that corresponds to its manuel de codage code. For instance, the « x » key will get you the « h » character, the « D » key will get you the « d » character. Note that you will get the actual unicode character (independant of any font).
- To get an uppercase character, type « caps lock » and then the character. For instance, to get « H », type « caps lock » and then « x ». To get « H », type « caps lock », and then « shift-x ».
- some useful characters are :
  - $\text{t}$  and  $\text{T}$  : « option » « t » and « option-shift » « \$ »
  - $\text{h}$  and  $\text{H}$  : « c » and « caps lock », then « c ».
  - $\emptyset$  (for grammarians) : type « option »-zero
  - $\neq$  : « option » « = »
  - $\text{'...}'$  : type « option » « \$ » and « option-shift » « \$ »

## ***The Windows french keyboard***

This keyboard is not completely ready, but I include it nonetheless.

Its principles are the same as those of the Mac keyboards, except that the use of caps lock is replaced by the use of Alt-graphics.

## Character encoding

MdC Code	<i>Lower case</i>	<i>Upper case</i>	<i>Code and commentary</i>
A	Ǻ	Ǻ	A723, A722
I	ı	İ	U+0069 U+0486, U+0049 U+0486. Also possible 0131  0399 + 0313. (ı; 'İ)
a	ǻ	ǻ	A725, A724
H	ħ	Ħ	
x	ẖ	ẖ	
X	ẖ	ẖ	
q	ķ	Ķ	
S	š	Š	
T	ţ	Ț	
D	ḍ	Ḍ	
« = »	≠		0x2E17
	ţ	Ț	
	ś	Ś	
Halft brackets (doubtful reading)	ŗ	ŀ	

3°ıbhıħđħekqfşgthđ÷f 3°İĦLĦmĦnĶQŠpTsḌr

### **A commentary about the « yod »**

In unicode, the “normal” way of encoding diacritics on a sign is to encode the base sign and then the diacritic. So, for instance, “ê” would be “e” + “^”. This would be two characters: “e”, and “COMBINING CIRCUMFLEX ACCENT”. In fact, “ê” can also be represented as *one* code. This is called a “precomposed character”. In theory, precomposed characters are there for compatibility purposes with older systems. Combining characters require some intelligence from the fonts and the software using them. Correctly placing an accent on a letter is far from simple.

In general, the Unicode consortium is *very* reluctant to include new precomposed characters. Those are easier to use for programmers, but they impose an heavy work to font makers. In fact, there are billions of possible combinations, and allowing new ones would open the door to new requests. Life would have been simpler for us with a precomposed yod. The

“Informatique and Egyptology” congress asked for this solution to be chosen. However, it would probably have needed a lot of institutional lobbying to succeed.

So, we will use decomposed characters. Note that the problem is temporary. In a few years, all software will deal correctly with the complex fonts needed to process such characters.

Currently, the Unicode consortium hasn't taken a decision – and in fact, leaves the choice opened, which is a bit strange. There are three “official” ways of rendering a yod:

- you can use i + “U+0313 Combining Comma Above” : *ï*; *İ*. Note that the exact rendering depends on the font (here, I used Gentium plus). Normally, the problem with this rendering is that the accent is placed over the capital “I”, whereas the normally Egyptological usage is to place it in front of the “I”. (in EgyptoSerif, the rendering is *ï* and *İ*).
- you can use i + “U+0357 Combining Right Half Ring Above”: “*ı̣*”. In my opinion, the shape of the half ring does not correspond to carefully printed books, and probably comes from the creative re-use of characters like “c” in printing shops (when egyptologists used typewriters, they would sometime “create” aleph characters by using “c” as exponents).
- Last, you can use i + U+0486, which is the choice I have made, following Michael Everson's proposal at *Informatique et Egyptologie*. This is the best encoding in the long run. It is not used for other purposes, so one can decided safely what the sequence I + ‘ should look like.

The only problem is that all those encodings depend heavily on the collaboration between a font and a software for correct rendering. Normally, for instance, i + (any accent) should suppress the dot on the i. The situation is improving (as of 2016).

The last solution has another (really temporary) problem: many fonts contain an erroneous shape of the accent, like a toppled “T”.

We have chosen to support the last solution U+0486, but our font give the same rendering for U+0313. *ïİİ*.

## Why no IFAO-compatible keyboard?

When unicode did not have a yod and an aleph, the IFAO press, which wanted to use unicode, decided to use similar-looking characters to render aleph and ayin. They still support this (and some databases, like trismegistos, too). I could easily produce a keyboard with their encoding (and actually, I did it for my own use). You can edit one of my keyboards and produce an IFAO-compatible keyboard too, but I won't distribute it. The reason is that I want to encourage the adoption of standard Unicode encoding. We now have alph, ayin, and yod in Unicode, let's use them.