



Logos Coptic Keyboard User Manual

Keyboard Version 1.1 designed with
Manual version 1.2, June 2010

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Installation

The Logos Coptic Keyboard is designed for Windows XP and later Microsoft operating systems. The keyboard theoretically will function in a Windows NT 4.0 environment, but most Coptic fonts may not function properly in NT.

The Logos Coptic Keyboard should work with any Unicode compliant Coptic font, though certain fonts may be missing certain characters. The recent improvements to Coptic introduced in Unicode 5.2 will be supported once fonts become available which use the new code points.

Windows 7 /
Windows Vista:

1. Log in as an Administrator.
2. Run keyboard installer. This is located in the file KBDLCOP/SETUP.EXE.
3. Modify language input settings. The newly installed Keyboard must be associated with an input locale. Because current versions of MS Windows do not support Coptic as an input locale, you will need to pick an input locale at random – it should be a left-to-right language that you don't plan on ever using (Corsican is not a bad option if you don't need that locale, since the abbreviation used for that locale is 'CO'). Go to **Control Panel | Clock, Language, and Region | Change keyboards or other input methods** | click the **Keyboards and Languages** tab | and click the **Change Keyboards** box. In the Installed Services pane, check to see if the input locale you've chosen is already installed. If it is currently installed, look at the keyboard it is mapped to. If the input locale is already mapped to Logos Coptic Keyboard, then your association is already installed. All other users click the **Add** button | select your chosen locale from the Input Language drop-down | check the **Keyboard** box (this may be checked automatically) | choose **Logos Coptic Keyboard** from the drop-down list (you will probably need to select 'Show more...' to find this Keyboard on the list) | click **OK** | click **Apply** | click **Apply**.

Windows XP:

1. Log in as an Administrator.
2. Run keyboard installer. This is located in the file KBDLCOP/SETUP.EXE.
3. Modify language input settings. The newly installed Keyboard must be associated with an input locale. Because current versions of MS Windows do not support Coptic as an

input locale, you will need to pick an input locale at random – it should be a left-to-right language that you don't plan on ever using (Corsican is not a bad option if you don't need that locale, since the abbreviation used for that locale is 'CO'). Go to **Control Panel | Regional and Language Options** | click the **Languages** tab | and click the **Details** box. In the Installed Services pane, check to see if the input locale you've chosen is already installed. If it is currently installed, look at the keyboard it is mapped to. If the input locale is already mapped to Logos Coptic Keyboard, then your association is already installed. All other users click the **Add** button | select your chosen locale from the Input Language drop-down | check the **Keyboard layout/IME** box (this may be checked automatically) | choose **Logos Coptic Keyboard** from the drop-down list | click **OK** | click **Apply** | click **Apply**.

Windows 2000:

Windows 2000 does not have an input locale for Coptic, so Coptic needs to be installed under another unused input locale.

1. Log in as an Administrator.
2. Run keyboard installer. The keyboard can be installed directly from KBDLCOP/SETUP.EXE. (You can verify if the keyboard is already installed by going to the **Control Panel | Add or Remove Programs** and looking for ' Logos Coptic Keyboard' on your list of installed programs.)
3. Modify language input settings. The newly installed Keyboard must be associated with a random language input locale. The input locale should be one you don't plan on using for its real locale, and should be a left-to-right language. Go to **Control Panel | Regional Options | Input Locales** | Click **Add** | under Keyboard layout/IME choose **Logos Coptic Keyboard** | click **OK** | Click **Apply** | Click **OK**. Follow the onscreen instructions.

Hot Keys:

Windows 7, Vista, XP and 2000 support the LeftAlt+Shift hot key to switch through a list of input locales. You may reassign this hot key, or assign custom hot keys for switching directly to the input locale you chose for Coptic (or any other input locale) in the Regional Options of the Control Panel; Consult your operating system documentation for assistance.

Uninstallation

Because Microsoft is fairly protective of regional and language settings, if you need to install a newer version of this keyboard, you may need to manually uninstall the old version - future

installers may not be able to upgrade your current set-up. Uninstallation procedures are as follows:

1. Close all applications that might be using the input locale you've chosen for Coptic.
2. In your Regional Options, remove the Logos Coptic Keyboard from the association with the chosen Input Locale. (See step 4 in the installation instructions for your operating system for the location of this dialog.)
3. Go to **Control Panel | Add or Remove Programs** | click on **Logos Coptic Keyboard** | and click **Remove**.

Design Concepts

The Logos Syriac Keyboard maps every character on the Coptic code page, all the Coptic characters on the Greek code page, all the punctuation marks and diacritical marks listed in the Unicode proposal for Coptic encoding, and European numerals and general punctuation marks.

The keyboard was designed to match the layout of the Logos Biblical Greek Keyboard so that users familiar with one layout would have few obstacles to switching between Coptic and Greek, which share the same basic alphabet even though the rest of the marks vary. The Logos Biblical Greek Keyboard and, by extension, the Logos Coptic Keyboard were designed to work with QWERTY keyboards, placing letters on keys that make as much phonetic sense to English speakers as possible. Because Coptic has more letters than Greek and English, a choice had to be made between assigning Coptic letters to completely arbitrary locations, such as on punctuation or number keys, or to place them on alternate shift states, such as AltGr and Shift+AltGr (AltGr is the right Alt key, or the combination of LeftAlt + Ctrl). Because it is easier to remember that *shei* is AltGr+s than that *shei* is /, and because there is some value in keeping punctuation and diacritical assignments the same between the Greek and Hebrew keyboards, the choice for a phonetic layout making use of the AltGr and Shift+AltGr states was settled on. Some users who type a lot of Coptic – or who don't type Greek at all, and thus cross-keyboard consistency isn't a factor – may prefer arbitrary assignments on the unshifted and Shift states for faster entry. One of the many advantages of Unicode is that the physical keyboard is abstracted from the font encoding, so users of any given Unicode font may use another keyboard, or make their own, if this one doesn't suit their purposes.

Alphabet

The main design goal of the Logos Coptic Keyboard is to facilitate easy input of Coptic on a QWERTY keyboard by placing Coptic characters on their most logical English phonetic equivalents. Because there is no one-to-one equivalency across the alphabets, there will be some letters that are placed on QWERTY keys based on similarity in glyph shapes and a few placements that are more or less arbitrary. In addition, the larger Coptic alphabet requires the use of the AltGr and the Shift+AltGr states to provide the best phonetic equivalent placements for Coptic additions to the Greek alphabet where the most logical key is already taken by one of the ‘Greek’ characters.

A phonetic relationship between English and Coptic has always been preserved where possible – similar shapes are never matched when a better phonetic option is available. For example, the *xsi* is placed on **x**, its closest phonetic equivalent, rather than reserving **x** for *chi*, which looks like an x. *Chi* is placed on the letter **c**, because in English, the letter c can be a hard sound similar to k, making it a logical phonetic placement (**k** being already used by *kappa*).

However, since there are two ‘e’ class vowels in Greek, the *epsilon* and the *eta*, the *eta* is assigned to **h**, since the capital form of that letter looks much like a capital H.

Here the compatibility with the Logos Biblical Greek Keyboard can be seen. One might expect that *hori* would be on the **h** key, since phonetic relationships are preferred over glyphic similarities, but users of the Greek Keyboard will expect **h** to produce an *eta*, so *hori* is moved to **AltGr+h**, with the capital Hori on **Shift+AltGr+h**.

The following table shows how letters with similar sounds have been assigned:

	Assignment based on:		
Greek Letter	phonetics	glyph	AltGr
<i>epsilon</i>	e		
<i>eta</i>		h	
<i>hori</i>			h
<i>tau</i>	t		
<i>theta</i>		q	
<i>dei</i>			t, d*
<i>kappa</i>	k		
<i>chi</i>	c		
<i>xsi</i>	x		
<i>khei</i>			k
<i>omicron</i>	o		
<i>omega</i>		w	

<i>pi</i>	p		
<i>phi</i>	f		
<i>fei</i>			f
<i>psi</i>		y	
<i>upsilon</i>	u		
<i>sigma</i>	s		
<i>shei</i>	v*		s, v*
<i>shima</i>			c
<i>gamma</i>	g		
<i>gangia</i>	j*		g, j*

The *shei* is placed on both the AltGr over-loading of **s** and on the **v**. In the Logos Biblical Greek Keyboard, **v** is used for the *final sigma*. Since Unicode Coptic doesn't have a separate code point for *final sigma*, this was an opportunity to assign a common AltGr letter to the unshifted state for quicker typing. But because this isn't a phonetic assignment, the letter is also on the AltGr state. Shei is duplicated a third time on AltGr+v so if users associate the AltGr state with the Coptic additions to the Greek alphabet, but associate v with shei, this combination will produce the desired character.

Likewise, since Coptic doesn't have an iota subscript, the 'j' key is unassigned, so *gangia* is placed on **j** of the unshifted state and **AltGr+g** and **AltGr+j**.

One other duplications of note: *dja* is placed on both **AltGr+t** and **AltGr+d**.

While Unicode classifies Stigma as a letter, it is only used as a numeral, so it has been assigned to **AltGr+6** as 6 is the numerical value, and all the other Coptic additions to the Greek alphabet can be found on the AltGr state as well.

Superlinear Line

Coptic uses a line over alphabetic characters for a number of purposes. A combining overline, which will join with adjacent combining overlines, is used to indicate either that the letters represent their numerical value, or that the letters under the line are an abbreviation. A macron, an overline that typically does not join with adjacent letters, is used to indicate that there is an 'e' pronounced before the letter. Both marks are supported in this keyboard, with the macron located at **!** (shift+1) and the combining overline located at **+** (shift+=).

In addition, the grave (encoded at ****) is sometimes used instead of the macron to signal the preceding 'e' sound.

A double combining overline is also used to indicate thousands, and this is encoded at **AltGr+=**.

other diacritical marks

The most commonly used diacritical marks, besides those listed above, are the diaeresis, encoded on the reversed prime key ` , and the acute accent, encoded at /.

Many other diacritics are supported by this keyboard at the same location as the Logos Biblical Greek Keyboard, and can be found on the charts at the back of this document.

Numbers

European numerals are available in the unshifted state.

In addition to the overlines already documented, the *Greek numeral sign* and *lower Greek numeral sign* are encoded at **Shift+3** and **Shift+4** respectively, and the Coptic sign for ½ is encoded at **AltGr+2**, with the *stigma* on **AltGr+6** and the *sampi* (900) on **Ctrl+9**. (The Ctrl and Shift+Ctrl states, discussed below, contain many archaic letter forms.)

Punctuation

The most common Coptic punctuation marks can be entered from the unshifted state and the Shift state. In addition, many different forms of punctuation marks, including a full range of different forms of quotation marks and brackets, are spread out across the various shift states.

The proper code point for the apostrophe is 02bc, which is mapped to the ' (apostrophe/single straight quote) key on the keyboard.

However, there is a Coptic Morphology divider that sometimes looks like an apostrophe (its shape in the Unicode documentation looks like a spacing form of the grave accent, but sometimes it points up rather than down in printed Coptic). This mark is located on the double straight quote key (**shift+'**).

Some Coptic fonts do not contain the apostrophe character, however, but 2019, the right single quote, is available on **AltGr+]**. (Note that the behavior of 2019 and 02bc are different in applications relying on ICU code, so this character substitution may be fine for display purposes, but unsatisfactory for computational purposes relating to indexing or searching.)

The Nubian punctuation marks are placed, along with the Nubian characters, on the Ctrl and Ctrl+Shift states.

Nubian and archaic letters

Various Nubian and Old Coptic letters are placed on the Ctrl state (and Shift+Ctrl for the capitals), and then duplicated on the SGCaps and Shift+SGCaps states. SGCaps stands for Swiss German Caps after the first keyboard to use these two new states. The SGCaps states are activated by toggling the Caps Lock key.

The reason Ctrl and Shift+Ctrl are duplicated on SGCaps and Shift+SGCaps is that some applications won't allow input from the Ctrl state, because they trap the Ctrl key

for application specific hotkeys. SGCaps, however, must be toggled on and off, thus it is fewer keystrokes to use the Ctrl state in applications that allow it.

There are too many letter forms to place each of these on their phonetic equivalent, so in most cases unused keys positioned physically close to the phonetic equivalent key have been used.

The exception to this rule is the h-class letters. Because of the large number of different letters that make an 'h' sound, the physical shape of the letter was often used to determine placement. The *l-shaped ha*, for instance, is assigned to **Ctrl+l**.

The *old Coptic alef* and *ayin* marks are assigned to **Ctrl+'** and **Ctrl+`**, as those keys are used for *aleph* and *ayin* in the unshifted state of the Logos Biblical Hebrew Keyboard.

Symbols

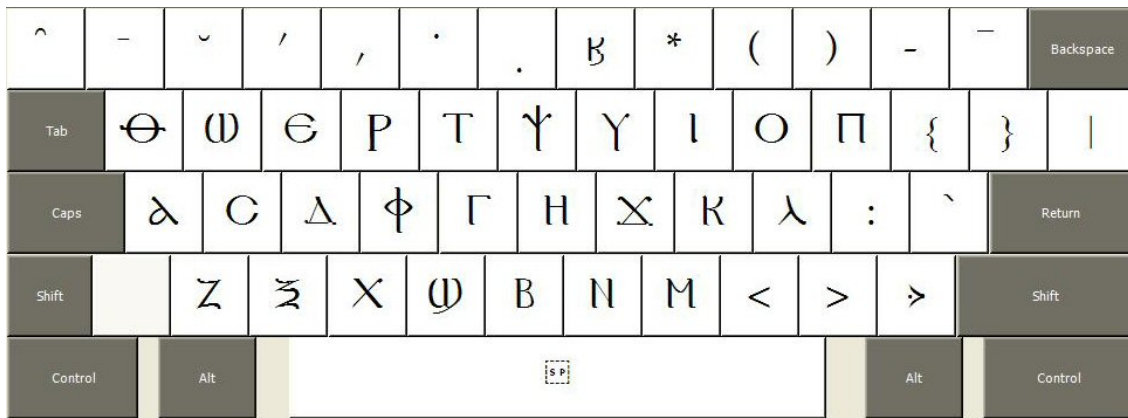
Unicode Coptic supports many common symbols used in liturgical Coptic texts, such as *the Chi Rho* (a symbol made from the first two letter of the word Christ, and used in place of the name Jesus Christ). Without introducing some shift states that are not supported by most applications, there was no way to phonetically assign these marks, so they have all been placed on the Shift+AltGr state, on the top row of the keyboard from ` to 5, so at least they are all on close proximity.

The *kai symbol*, meaning 'and' is placed on the ampersand at **shift+7**.

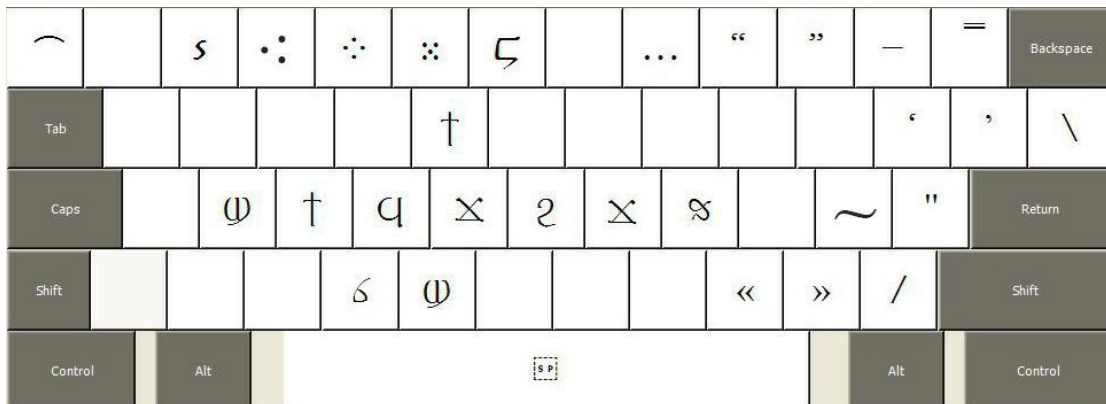
Keyboard Images



Unshifted State



Shift State



AltGr State
(Right Alt key or Ctrl+Alt)

