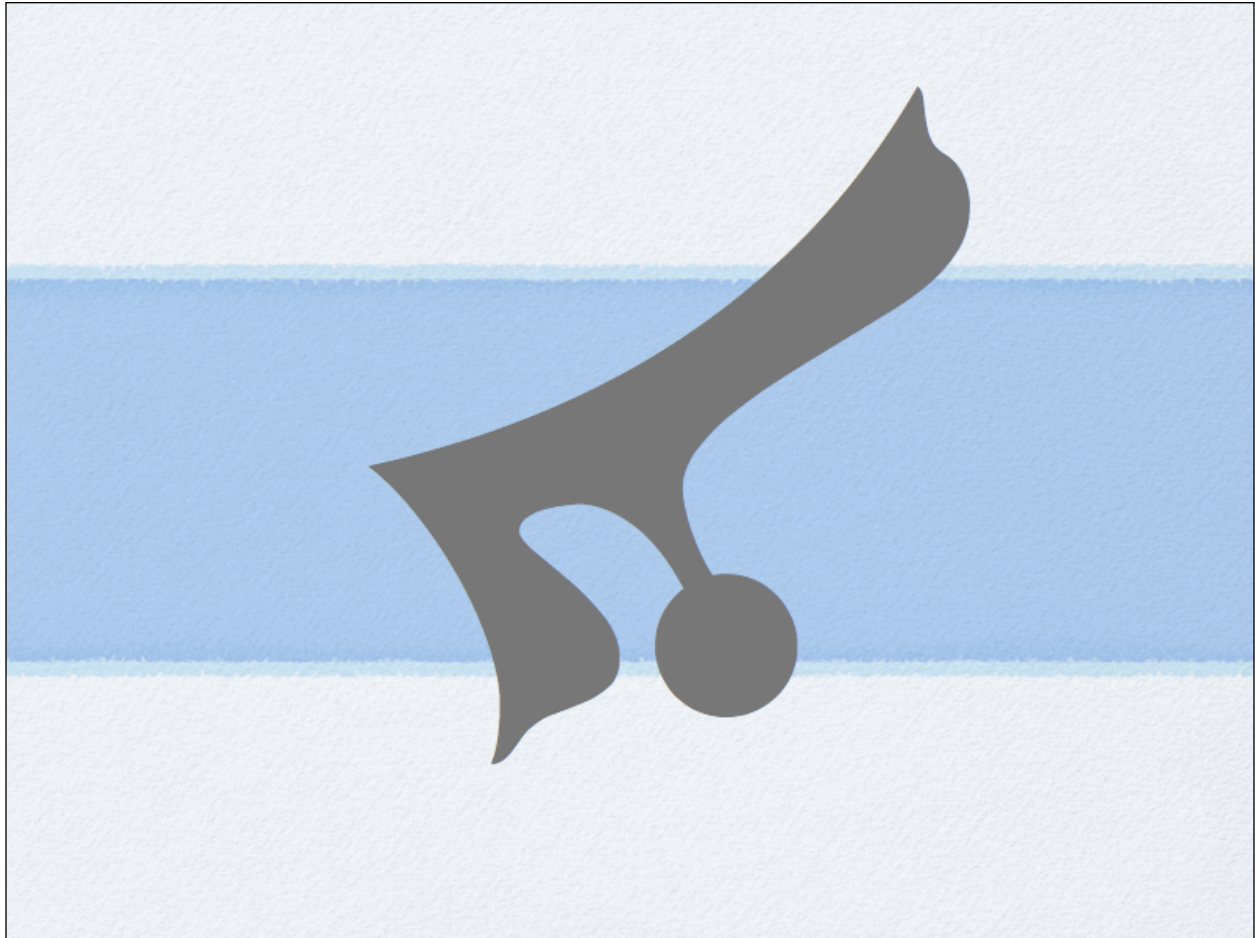


USING THE SYRIAC LANGUAGE KIT



VERSION 1.0 FOR OS X

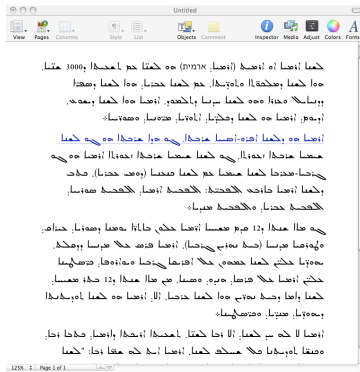
Ka'onohi Kai

JAN 2009

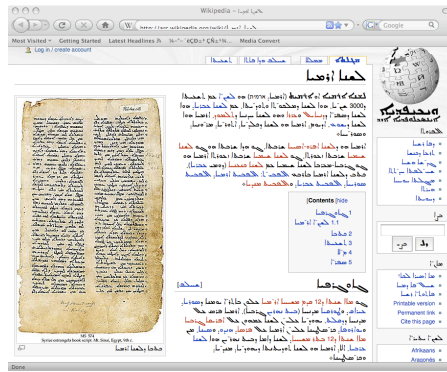
Introduction

The main purpose of this document is to provide basic information to users of our software package **Syriac Language Kit for OS X**, which allows users to create and view a wide variety of documents using the Syriac script. This document does not delve into the specifics of programming support for Syriac or language related issues.

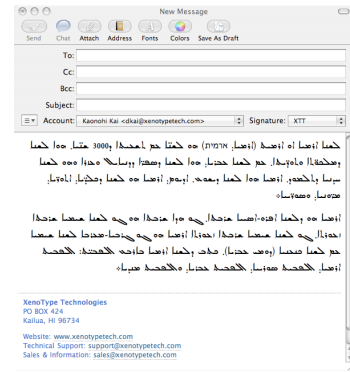
Please note that the Syriac language under discussion in this document uses several different typestyles. Currently only the West Syriac vowels and three different typestyles are supported to varying degrees. See later in this document for information specific to each typestyle or font, and the level of support that is available at this time. Unless otherwise noted, our comments are specific to the Darmasuf font.



Syriac Document (Pages, TextEdit, Bean)



Syriac Browsing (Firefox, Safari)



Syriac Email (Mail)

General Information

Consonants

The Syriac Language Kit has been designed to take advantage of the OS X technology that allows complex scripts to be rendered properly in compliant applications. Using this technology, users will now be able to view a variety of languages that use the Syriac script, send emails, compose documents, name documents in the Finder, etc.

While there are still some ongoing issues, it is hoped that the various Syriac speaking communities will benefit greatly from this new functionality.

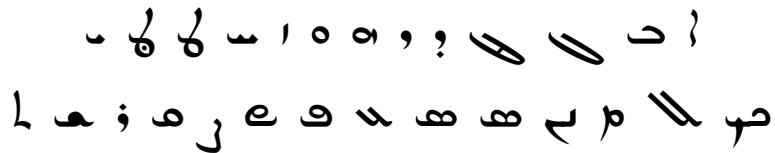
We welcome all comments and suggestions for future improvements.

The fonts have been tested under OS X 10.4 and 10.5 only.

The Writing System

Consonants

The Syriac script, as implemented in Unicode, consists of nearly 80 basic shapes, or nominal glyphs, which can be further divided into consonants, vowels, punctuation and a variety of diacritics. The 27 base glyphs are shown here:



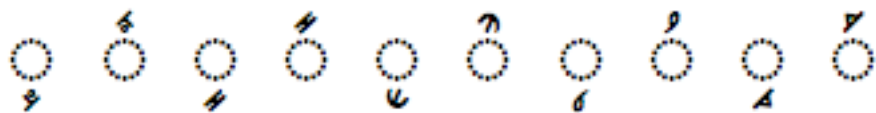
Although Garshuni variants are included in this release, six recent Unicode additions for Persian and Sogdian variants are not supported in this version.

Of particular note, the undotted DALATH/RISH is encoded as a separate character to support documents where both variants are used simultaneously; FINAL SEMKATH is supported with a glyph shape but that shape and its behavior are currently the same as the standard SEMKATH in our font — documents created with this character will preserve the underlying distinction between the two though their visual appearance is currently identical; East Syriac texts also use a superscripted ALAPH; and there is a single common ligature YUDH HE ܝܗ.

Each of these characters has at least two separate forms while most have four depending on the position and environment they occur in — isolated, initial, medial and final. The user doesn't generally need to think about these different forms as the font will provide the correct shape depending on the context. It may at times be desirable to illustrate various forms for pedagogical purposes and the kit can help you do that with special Unicode characters.

Vowels

There are traditionally two popular vowel systems, Eastern and Western, used in different environments. The current version of the kit only supports the West Syriac system at this time. Glyphs are included for both sets of vowels in our Darmasuq font but only the West Syriac version is functional — attempting to use East Syriac vowels will cause the font to display incorrectly at this time. A fourth font with specific support for East Syriac vowels will be released in the future and the Darmasuq font will be updated to allow support for East Syriac vowels as well.



As you can see, there are two forms of each vowel — one for use above a base glyph and another for use below. In the present version, adjustments are made to the above forms so that they don't collide with certain characters and other diacritics. In most situations these vowel marks will provide suitable legibility but there are enhancements planned for a later release that will round out the few remaining areas.

Syriac letters can also occur with Arabic vowel marks but support for this feature is not planned at this time.

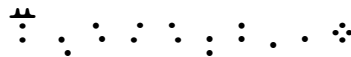
Diacritics

By many accounts, Syriac uses a bewildering array of dots and lines that are intended for a wide (and sometimes uncertain) variety of uses. Although we provide glyph shapes in the font for most of these, only the more common ones have been enhanced to function properly in this version. They are specifically the plural mark (SEYAME), QUSHSHAYA, RUKKAKHA, a horizontal line below (the otiose pronunciation mark) and to a certain extent the OBLIQUE LINE ABOVE and OBLIQUE LINE BELOW.

SEYAME and the otiose pronunciation mark can occur with most base glyphs in our font except for the Garshuni variants; QUSHSHAYA and RUKKAKHA are supported with ܩܘܫܫܝܝܐ only; and OBLIQUE LINE ABOVE and OBLIQUE LINE BELOW have been implemented for most situations.

Punctuation

Syriac uses a wide variety of punctuation and most of the Syriac-specific marks are included in this version. Support for some Arabic right-to-left forms are also available in the Darmasuq font.



Ligatures

The typestyle that serves as the basis for our Darmasuq design can use a large number of ligatures, when contextual forms are taken into consideration. Some of these are required and formed by default while others are discretionary. We provide support for three of these by default (ALAPH-LAMADH, LAMADH-LAMADH and SADHE-NUN) and continue to experiment with the best way to allow users to access other discretionary forms — nearly all of the discretionary forms do not have corresponding ligatures in the other typestyles we provide. (Note that ALAPH-LAMADH is broken in isolation so it is shown here with MIM.)



There is also another set of supported characters that some would argue are not really 'ligatures' but are nevertheless treated in the same manner as far as the computer is concerned. These characters are used for foreign sounds and are combinations of a base character plus one of several combining marks.



Although you can form these combinations, they have not been harmonized to work well with all of the various vowels and diacritics.

Compatibility

The subject of compatibility is somewhat complicated as most of the issues involved are outside of the user's control. But some basic information is helpful for all users.

OS X provides a built-in technology that allows font vendors to provide information in the font that can then be used to render text properly for a given language. Software developers need to build in support for this core technology before text can be rendered in a particular application (or, as Mellel has done, provide their own mechanism for doing so).

Nearly all of Apple's own software takes advantage of this technology; many open-source projects and a growing number of 3rd party software do so as well. But, some of the larger companies have failed to support this core technology in OS X — most notably, Adobe and Microsoft. Each of them has chosen their own methodology for displaying complex scripts such as Syriac, but only Adobe currently provides limited support in their Mac products. Microsoft offers none. Failure to do so means that complex scripts cannot be rendered correctly in Adobe and Microsoft products and that products such as ours cannot be used with their applications.

For most purposes, users will be able to use an Apple product or open-source application to create nearly any type of document. Browsing capabilities are available through Safari or the latest version of Firefox; Mail can be used to send and receive Syriac emails; Pages and Keynotes can be used for page layout and presentations; OpenOffice can be used for word processing (in compatible Word .doc format), spreadsheets; Bean and TextEdit for simple text processing, etc. etc.

Nevertheless, there are still some problem areas that cannot be addressed by our fonts.

- **Users who install the Meltho fonts will have trouble viewing web pages**

This is because of the way OS X searches for fonts. When you view a web page in a foreign script, Safari searches hierarchically through your Fonts folders and uses the first font it finds to display the requested text. If you have Meltho fonts installed, it will find these first, before ours. But because the Meltho fonts don't contain the correct tables, Syriac text will not display properly with them.

Third party products, such as PithHelmet, are available to help you control what fonts are used to display web pages. Otherwise, the only options are to remove the Meltho fonts from your Fonts folder or use Firefox and choose our fonts explicitly.

*This is **not** an issue for Firefox 3 users, where the user can select specific fonts for different languages and override the default OS X behavior.*

- **Mellel cannot display Syriac text correctly with our fonts**

Although Mellel works with the Meltho fonts, it does not support or understand the native OS X information provided in our fonts to render Syriac correctly.

There is a chance at some point in the future that we may attempt to modify the Meltho fonts so that they work outside of Mellel as well.

- **SEYAME causes text to be broken in web pages**

The use of SEYAME (which is technically just the DIERESIS) and other characters from a Unicode block outside of Syriac will cause Syriac text to break contextual forms when viewed in web pages. This is caused by a similar condition as explained above. The problem exists only within the Safari web browser, and occurs only as far as the display in Safari is concerned, i.e., the text is fine and that same problem text cut and pasted into a compatible document will display just fine when an appropriate Syriac font is applied.

*This is **not** an issue for Firefox 3 users, where the user can select specific fonts for different languages and override the default OS X behavior.*

- **Some applications do not handle Syriac properly in all environments**

Numbers and Firefox do not always display the contextual, joined forms of Syriac in menus or dialog box titles. Numbers has trouble displaying the right-to-left nature of Syriac under certain circumstances.

With Numbers, this can usually be overcome by adding one of two special formatting characters (U+202E or U+200F) that force text to be displayed right-to-left. These characters must currently be typed using the special Unicode Hex Input keyboard.

For Firefox, the user has no direct control over this. Adventurous users may want to experiment with a utility such as Silk.

Known Bugs

There are several known bugs in this first release version. We hope to deal with all of them in the next release.

- **ALAPH does not always display in the correct contextual form**

In most situations ALAPH does display and form correctly but depending on some very specific contexts, an incorrect initial form appears instead of a mid-word form. There are some questions surrounding this issue because not all usage is in agreement and different typestyles have different traditions for the display of ALAPH.

- **TextEdit 1.4 (OS X 10.4) occasionally ignores some ligatures**

It is not clear when and why this happens but cutting and pasting the text into a new document will cause the text to reflow and display correctly. This is not an issue under OS X 10.5.

- **Certain combinations of vowel plus diacritic collide**

Although we have attempted to address all common combinations, users may run across combinations that are not yet available in the font.

- **Eastern Syriac vowels are not currently supported**

This support is planned for a later release.

- **The ligature ALAPH-LAMADH is broken in isolation.**

Syriac Keyboards

You can use any Unicode Syriac keyboard to input Syriac text with our fonts. Most users will probably be familiar with one of two popular layouts for the Macintosh.

www.reissermichael.de/syriac/

www2.warwick.ac.uk/fac/arts/classics/staff/pormann/syriac/

We do not currently offer a comprehensive keyboard layout for Syriac.

In general, the kit makes no assumptions about possible valid sequences so it is possible to create sequences that do not occur in the language. For this reason, you will need to have an understanding of the language and the script to use the kit effectively.

User Controllable Features

Thanks to the forward thinking people at Apple, it's possible for developers to offer typographic features that the user can control and implement at will. Applications that support Apple's Unicode imaging technology can provide access to any such features via a Typography palette. In compatible applications, you can access this palette from the **Font** panel.

Curious users will find access to some additional ligatures that are appropriate in some contexts. These ligatures do not exist in all typestyles so while we work out how to best implement them, the feature remains undocumented.

The additional ligatures include GAMAL-LAMADH, GAMAL-AIN, TETH-LAMADH, TETH-AIN and KAPH-LAMADH.

Technical Support

If you have a question or an issue that is not addressed in this document, you can contact us directly for technical support. Technical support is always available to registered users via e-mail. This is the most efficient way to contact us and all e-mail questions requesting technical support will be addressed as quickly as possible.

Before sending e-mail, be sure that you have installed the kit properly and that you have consulted this document.

You can contact XenoType Technologies in one of the following ways:

EMAIL: support@xenotypetech.com

WEB SITE: www.xenotypetech.com

MAIL: **XenoType Technologies**
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Kailua, HI 96734
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