

Uyghur in OS X PIGEON (4.0)

June, 2005

INTRODUCTION

Thanks to guys like Tom and Benham at the Apple and Mellel forums, I now understand the technical issues behind Uyghur in OS X, and more importantly how to enable the Uyghur fonts to work on a system wide level (which means other applications!). However, it will take a lot of work to do so. The other big development in Pigeon is Nathan's *Kashgar Font Converter Utility* for *Nisus Writer Classic* documents.

NEW IN PIGEON

- Uyghur in Tiger? Caution to Panther Users.
- How to enable Uyghur fonts to work on a system-wide level and all *cocoa* applications.
- The long awaited *Kashgar Font Converter Utility*.
- The Standard "Uyghur-Roman" alphabet that Uyghurs use in email, internet, etc.
- The latest in each word processor's ability to type Uyghur: New updated information!
- The end-all comprehensive web site with Uyghur unicode fonts
- Ukelele was updated
- MacFixIt.com's recommended check list to do **before** running any OS updates.

UYGHUR IN TIGER?

As far as I can tell from on line forums, there has been no changes in OS X's text engine to support "Arabic" style OpenType fonts. What that means for us, is that there are no changes from Panther to Tiger regarding the handling of Uyghur fonts.

Can we the *UyghurArabicUnicode* keyboard be used in Tiger? Unfortunately, I do not own a copy of Tiger to test this out. However, my hunch is that the *UyghurArabicUnicode* keyboard will not be compatible with Tiger.

I do not recommend you trying it out. If you know what you are doing and are willing to do test it, then please do and write to me your results. However, be warned that it could cause problems for your system.

HOW TO ENABLE UYGHUR FONTS TO WORK ON A SYSTEM WIDE LEVEL

I will start off by explaining the technical issues behind why OS X does not handle Uyghur fonts. Then, I'll explain the way that I plan to enable the fonts to work in OS X.

The elements involved in this discussion:

- 1) an operating system's text engine. This is the software that enables fonts to work on your computer
- 2) Font technology. The technology used to make the font itself
- 3) Right-to-left fonts

This discussion will only refer to "Arabic" style fonts. What is written below is not true regarding "Roman" style and other language fonts.

The text engine in OS X is programmed to handle a font technology called *Apple Advanced Typography* (AAT). OS X's text engine looks for AAT information in the font to know how the font should appear on the screen. Apple's Arabic fonts that come with OS X have, of course, AAT information in them. So you can type Arabic in OS X while using Apple's Arabic fonts.

The reason the Uyghur unicode fonts, that we and the rest of the Uyghur PC world are using, will not work in OS X is because those fonts were designed with *OpenType* font technology. *OpenType* was developed by Adobe and Microsoft. And, OS X's text engine does not know how to handle "Arabic" style OpenType fonts.

You may ask, "If that's true, then why do Uyghur fonts work in Mellel and Adobe Creative Suite Middle Eastern Version in OS X?" Mellel and Adobe have their own text engines built into the programs to handle OpenType right-to-left fonts. So their text engines "bypass" OS X's text engine, enabling Uyghur fonts to work properly. Very cool huh?! These companies are not waiting around for Apple, and helping us all out in the process.

The solution:

There are two ways to enable Uyghur fonts to work properly in OS X. One is for Apple to enable it's text engine to support OpenType right-to-left fonts. The other way is to add *Apple Advanced Typography* (ATT) information into the Uyghur fonts themselves. I doubt Apple will do much for the first, and so I plan to do the second.

Benham, who I met on the Mellel forums, has figured out how to add AAT information into Persian fonts (a modified Arabic script like Uyghur), and has offered me help in doing the same for Uyghur fonts. This does not mean he's going to do it for me, but he's giving me what I need to do it. Adding AAT information into Uyghur fonts means learning how to use Apple's *Font Tools* (command line utilities). It's not an easy process, and so I'm doing it bit by bit as I have time.

If there is anyone out there who is familiar with Apple's *Font Tools* (OS X), and want's to help, please email me. My address is at the bottom.

THE KASHGAR FONT CONVERTER UTILITY

Nathan has finished a utility that converts *Nisus Writer Classic* documents typed with the *Kashgar* font into fonts that we are now using in OS X. The utility is currently being beta tested, and will be out soon! I'm sure many of you from back-in-the-day of Nisus and OS 7/8/9, will really appreciate this.

FONTS

Here is a much better site listing probably all the Uyghur unicode fonts that the "Uyghur-PC-world" is using. <http://www.ukij.org/fontlar/>

THE STANDARD "UYGHUR-ROMAN" ALPHABET TO USE IN EMAIL, INTERNET, ETC.

The attached PDF, *Uyghur-Roman Script*", is the alphabet that Uyghurs use when typing Uyghur without Uyghur fonts. For example, when you are typing an email to someone, you should use this alphabet when typing Uyghur with "English" letters.

Why are you calling it "Roman"? If I used the word "Latin", it may confuse people with the old Uyghur Latin script, which it is **not**. I didn't call it "Uyghur-English" because some of the letters are not English letters. I chose "Roman" because the non-English letters are taken from the "Roman" category, sub-category "Accented Latin" in the *Character Palette* in OS X.

LATEST IN EACH WORD PROCESSING PROGRAM'S ABILITY TO TYPE UYGHUR

1. **Mellel** (1.8 and up): **Yes**. For those of you who like columns, Mellel 2.0, being released in a few months, will have them, among other things. The current version is 1.9.1. The Mellel homepage is www.redlers.com.
2. **Adobe Creative Suite ME (Middle Eastern Version)**: **Yes**. I have this, and it works beautifully in Illustrator, InDesign, Photoshop, and Acrobat. The downside is the price tag. This is a professional design suite.
3. **Microsoft Office** (V. X and Office 2004): No right-to-left scripting support.

4. **Anything from Apple (TextEdit, Mail, etc.):** No... not until they include support in their text engine for OpenType "Arabic" fonts, and/or I... read above for the solution.
5. **Nisus Writer Express:** No. However, on May 18, 2005 Nisus wrote in their newsletter,

Nisus Writer Express will fully support right to left input in the next version, Express 2.5. right-to-left support.

This does not guarantee that we will be able to type Uyghur in it. If Nisus has it's own text engine with OpenType support, then we should be able to. Otherwise, it will be relying on OS X's text engine. Those of you who get 2.5 could test it, and let me know. I do not own NWE.

6. **NeoOffice/J** (1.1 *Release Candidate* with Arabic add-on pack): Almost.
7. **AbiWord** (2.2.7): No

UKELELE KEYBOARD MAKING UTILITY

Ukelele was updated (1.5) on Jan. 25, 2005. Here's the link:

http://208.145.80.131/cms/scripts/page.php?site_id=nrsi&item_id=ukelele

OS UPDATING CHECKLIST, A MUST BEFORE RUNNING OS UPDATES

Before you run any OS updates, I strongly suggest that you go through the *Mac OS X Updating FAQ* article that was suggested to me at MacFixIt.com. It's thorough and could save you from a lot of problems. I just used it to update my system to 10.3.9, and I have never felt so sure running an update as I did this time.

<http://www.macmaps.com/upgradefaq.html>

If you have any questions, additions, or corrections to the Uyghur in OS X Project, please email me: allornothing@keptprivate.com.

If you did not receive this from the above email address, and would like to be added to the Uyghur in OS X newsletter list, please email me at the above address.