

Developer documentation

About the fonts

SIL currently has six Arabic script fonts. These can be divided into three groups.

Nastaliq. Graphite only.

Only covers characters that are used by languages using the Nastaliq script.

- Awami Nastaliq

Naskh. OpenType only

These fonts are in the Kano style of writing. Only covers characters that are used by a subset of West African languages.

- Alkalami
- Ruwudu

Naskh. OpenType and Graphite.

Attempts to cover all the characters in the Arabic BMP blocks, excluding Presentations Forms.

- Harmattan - for use in West Africa, although we have discovered it is more widely used because it is quite readable on mobile devices.
- Scheherazade New - a widely used Naskh font.
- Lateef - developed for the Sindhi language and nearby languages. However, it is more widely used because it gives nice contrast for section headings and titles.

font-arab-tools

absGlyphList.xls

This spreadsheet is used to manage the glyphs used in the Naskh fonts. `glyph_data.csv` can be extracted from `absGlyphList` for each font.

Do we need to move the ABS features Google spreadsheet to an `.xls` or `.csv` in this repo?

bin

- `make_glyphdata.py` - this is used to extract `glyph_data.csv` from the `absGlyphList.csv`. Example from `absGlyphList` folder, run `../bin/make_glyphdata.py -f S` would output the `glyph_data.csv` file required for the Scheherazade New font. `glyph_data.csv` would then need to be copied to the `font-scheherazade\source` folder.

Each font folder should have `updatescripts.sh` which will copy the following files from the `font-arab-tools\bin` folder to the `font\tools\bin` folder. - `absgenclasses.py` - used for autogenerating classes based (output to `classes.xml` in the font project) on what is in this file and using the font `glyph_data.csv`. - `absgenftml.py` - used to generate ftml tests from the font's `glyph_data.csv` and UFO. It also uses the joining groups from the UCD.

How are these used? - `absGenFTML` - does this work with `absgenftml.py`? - `create_enc_ttfb.bat` - what is this for? - `makeTTFB.pl` - `makeEncFile.pl` - `makeLamAlefLigs.py` - this is related to autogenerating the lam-alef ligatures - `makeUCDextract.pl` - `ucdXML.py` -

Awami Nastaliq

We need developer documentation somewhere, not necessarily here. Currently it is in Google Docs.

Naskh, Kano-style

These two fonts could potentially use the same codebase as each other in the future. However, Alkalami has many swash tailed glyphs that Rubutun did not need. At this point the two fonts have the same character set.

- `master.feax` - Master source file for OpenType logic. Note this file utilizes FEA extensions provided by pysilfont. Many/most of the classes have been hand-generated and might benefit from moving to autogenerated classes.

The Alkalami font has a lot of contextual substitutions for all the deep swashes. Ruwudu does not require those.

Naskh, SHL

We are currently in the process of making these three projects use the same codebase. We will add to the documentation as we go along.

Create documentation based on Qs that the developer has asked.

- `main.feax` - Master source file for OpenType logic. Note this file utilizes FEA extensions provided by pysilfont.
 - `gsub.feax` - (Substitution) lookups
 - `gpos.feax` - Positioning Lookups
 - `customKerning.feax` - This file performs the kerning that is needed for collision avoidance.
 - `customShifting.feax` - This file performs the shifting that is needed for collision avoidance. It must go after mark attachment.

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