# Font Features for Scheherazade

The Scheherazade font includes a number of optional features that provide alternative rendering that might be preferable for use in some contexts. The chart below enumerates the details of these features. Whether these features are available to users will depend on both the application and the rendering technology (Graphite or OpenType) being used. Most features are available in both Graphite and OpenType, though there may be minor differences in their implementation.

In LibreOffice 3.4.2+ (http://www.libreoffice.org/download/) the features are available only when Graphite rendering is enabled (the default). Features can be turned on by choosing the font (i.e., Scheherazade), followed by a colon, followed by the feature ID, and then followed by the feature setting. So, for example, if the "Kurdish-style Heh" is desired, the font selection would be "Scheherazade:cv48=3".
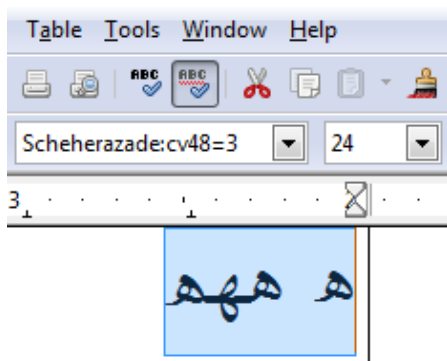
If you wish to apply two (or more) features, you can separate them with an "&". Thus, "Scheherazade:cv48=3&cv44=1" would apply the "Kurdish-style Heh" plus the "Sindhi-style Meem" feature.

In Mozilla Firefox, with either Graphite or OpenType rendering, features can be accessed using the appropriate CSS markup. A description of how to use the font features in Mozilla Firefox can be found here: http://scripts.sil.org/cms/scripts/page.php?site_id=projects&item_id=graphite_firefox#cf8a0574 (the technique described there works for both Graphite and OpenType).

Ideally the selection of these font features is done in application programs, but many applications do not yet support this functionality. In response to this lack of support for features, a program called TypeTuner (command line version: http://scripts.sil.org/TypeTuner and web-based version: http://scripts.sil.org/ttw) allows users to create derivative fonts with their own feature settings based on the needs of a local project or region.

You can also apply a language-based feature which will turn on all features associated with that language. The font would be set to "Scheherazade" and then you need to change your language in your application. In LibreOffice you should first enable complex text layout (Tools / Options / Language Settings / Languages and then select Enabled for complex text layout (CTL) Then, you can select your text, click on the status bar to change the language, select your language (if it is not displayed, click on "More..."). Microsoft Word 2010 also supports this feature. Before opening Word, you should go to
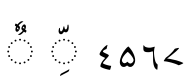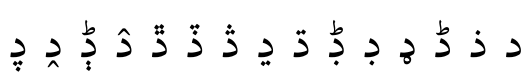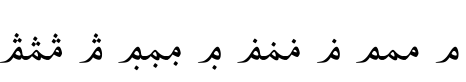
Start / All Programs / Microsoft Office / Microsoft Office 2010 Tools / Microsoft Office 2010 Language Preferences and add any editing languages you want to use. However, Word 2010 does not offer Kurdish as an editing language, so the only languages you can select are Urdu or Sindhi.

In the following screenshot, the Sindhi language has been selected.
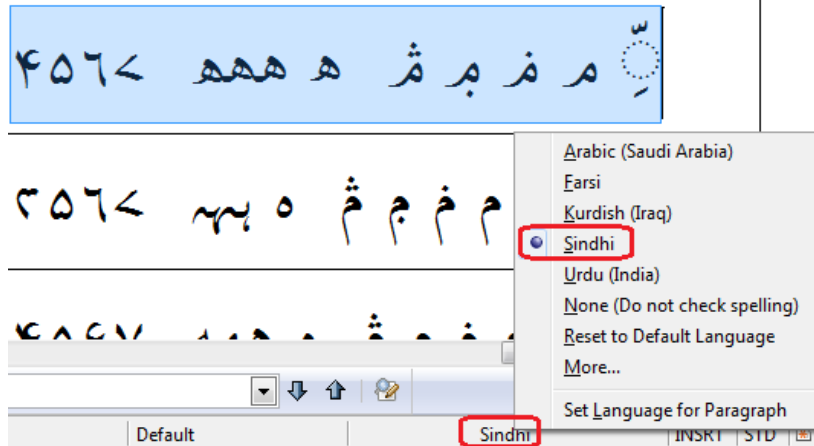
Ideally the selection of these font features is done in application programs, but many applications do not yet support this functionality. In response to this lack of support for features, a program called TypeTuner (command line version: http://scripts.sil.org/TypeTuner and web-based version: http://scripts.sil.org/ttw) allows users to create derivative fonts with their own feature settings based on the needs of a local project or region.

The following font features are available in Scheherazade:

Feature Name	Feature ID	Feature Setting (top-most in each section is default)	Example	Implementation Notes[1]
Language			مُ ممم مٌ ڡٮڡٮم مِ بٮٮم ثُ ثٮثٮم ٥ ههه ٤٥٦٧	G,O,T
Kurdish (Northern)	kmr	Language set to Kurdish XeTeX: "Scheherazade/GR:language=kmr" (Graphite) XeTeX: "Scheherazade:language=kmr" (OpenType) HTML: lang="kmr"	مُ ممم مٌ ڡٮڡٮم مِ بٮٮم ثُ ثٮثٮم ه ههه ٤٥٦٧	
Sindhi	sd	Language set to Sindhi XeTeX: "Scheherazade/GR:language=sd" (Graphite) XeTeX: "Scheherazade:language=sd" (OpenType) HTML: lang="sd"	مُ ممم مٌ ڡٮڡٮم مِ بٮٮم ثُ ثٮثٮم ه ههه ٤٥٦٧	
Urdu	ur	Language set to Urdu XeTeX: "Scheherazade/GR:language=ur" (Graphite) XeTeX: "Scheherazade:language=ur" (OpenType) HTML: lang="ur"	مُ ممم مٌ ڡٮڡٮم مِ بٮٮم ثُ ثٮثٮم ٥ ٮٮٮ ٤٥٦٧	
Rohingya	rhg	Language set to Rohingya XeTeX: "Scheherazade/GR:language=rhg" (Graphite) XeTeX: "Scheherazade:language=rhg" (OpenType) HTML: lang="rhg"	٤٥٦٧	G,T
Dal (U+062F, U+0630, U+0688, U+0689, U+068A, U+068B, U+068C, U+068D, U+068E, U+068F, U+0690, U+06EE, U+0759, U+075A, U+08AE)	cv12	0=Standard	د ذ ڈ ڊ ڋ ڌ ڍ ڎ ڏ ڐ ۮ ݙ ݚ ڮ	G,O,T
		1=Alternate XeTeX: "Scheherazade/GR:Dal=Alternate"	د ذ ڈ ڊ ڋ ڌ ڍ ڎ ڏ ڐ ۮ ݙ ݚ ڮ	
Meem (U+0645, U+0765, U+0766, U+08A7)	cv44	0=Standard	مُ ممم مٌ ڡٮڡٮم مِ بٮٮم ثُ ثٮثٮم	G,O,T
		1=Sindhi-style XeTeX: "Scheherazade/GR:Meem=Sindhi-style"	مُ ممم مٌ ڡٮڡٮم مِ بٮٮم ثُ ثٮثٮم	

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1   **TypeTuner legend: G**=Implemented in Graphite; **O**=Implemented in OpenType; **T**=Implemented in TypeTuner (command line version: http://scripts.sil.org/TypeTuner and web-based version: http://scripts.sil.org/ttw) .

Feature Name	Feature ID	Feature Setting (top-most in each section is default)	Example	Implementation Notes
Heh (U+0647)	cv48	0=Standard	ه ههه	G,O,T
		3=Kurdish-style XeTeX: "Scheherazade/GR:Heh=Kurdish-style"	ه ههه	
		1=Sindhi-style XeTeX: "Scheherazade/GR:Heh=Sindhi-style"	ه ههه	
		2=Urdu-style XeTeX: "Scheherazade/GR:Heh=Urdu-style"	ه هہ	
Arabic U (U+0677, U+06C7)	cv50	0=Standard	ؤ ۇ	G,O,T
		1=Filled XeTeX: "Scheherazade/GR:Arabic U=Filled"	ؤ ۇ	
Maddah (U+0622, U+0627+U+0653, U+0653)	cv60	0=Small	آ آ ٓ	G,O,T
		1=Large XeTeX: "Scheherazade/GR:Maddah=Large"	آ آ ٓ	
Shadda+kasra placement (U+064D, U+0650 with U+0651)	cv62	0=Raised	بِّ ٍّ بِّ	G,O,T
		1=Lowered XeTeX: "Scheherazade/GR:Shadda+kasra placement=Lowered"	بِّ ٍّ بِّ	
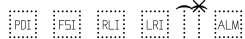
Feature Name	Feature ID	Feature Setting (top-most in each section is default)	Example	Implementation Notes
Damma (U+064F)	cv70	0=Standard	بُ ◌ُ	G,O,T
		1=Filled XeTeX: "Scheherazade/GR:Damma=Short"	بُ ◌ُ	
		2=Short XeTeX: "Scheherazade/GR:Damma=Filled"	بُ ◌ُ	
Dammatan (U+064C)	cv72	0=Standard	بٌ ◌ٌ	G,O,T
		1=Six-nine XeTeX: "Scheherazade/GR:Dammatan=Six-nine"	بٌ ◌ٌ	
Inverted Damma (U+0657)	cv74	0=Standard	بٗ ◌ٗ	G,O,T
		1=Hollow XeTeX: "Scheherazade/GR:Inverted Damma=Hollow"	بٗ ◌ٗ	
Superscript Alef (U+0670 on all yeh, sad and seen-like characters U+0649 U+064A U+06D0 U+06D1 U+0777 U+06CC U+0635 U+0636 U+069D U+069E U+06FB U+08AF U+0633 U+0634 U+069A U+069B U+069C U+06FA U+075C U+076D U+0770 U+077D U+077E)	cv76	0=Small	ئٰ ئئٰ ىٰ ٮٰىٰ يٰ ٮٮٰيٰ ىٰ ئئٰ يٰ ٮٮٰيٰ يٰ ٮٮٰيٰ يٰ ٮٮٰيٰ ىٰ يٰٮٮٰيٰ يٰ ٮٮٰيٰ ىٰ ٮٮٰيٰ يٰ ٮٮٰيٰ ىٰ ٮٮٰيٰ يٰ ٮٮٰيٰ ىٰ ٮٮٰيٰ ىٰ ٮٮٰيٰ ىٰ ٮٮٰيٰ صٰ صٰصٰ ضٰ ضٰضٰ صٰ صٰصٰ	G,O,T

Feature Name	Feature ID	Feature Setting (top-most in each section is default)	Example	Implementation Notes
			ضٰ ضٰضٰ ضٰ ضٰضٰضٰ صٰ صٰصٰصٰ سٰ سٰسٰسٰ شٰ شٰشٰشٰ بٰ بٰبٰبٰ پٰ پٰپٰپٰ پٰ پٰپٰپٰ بٰ بٰبٰبٰ تٰ تٰتٰتٰ نٰ نٰنٰنٰ ٹٰ ٹٰٹٰٹٰ سٰ سٰسٰسٰ شٰ شٰشٰشٰ	
		1=Large XeTeX: "Scheherazade/GR:Superscript Alef=Large"	ئٰ ئٰئٰ ئٰ ئٰئٰئٰ يٰ يٰيٰيٰ بٰ بٰبٰبٰ پٰ پٰپٰپٰ يٰ يٰيٰيٰ ئٰ ئٰئٰئٰ يٰ يٰيٰيٰ ئٰ ئٰئٰئٰ ئٰ ئٰئٰئٰ يٰ يٰيٰيٰ ئٰ ئٰئٰئٰ يٰ يٰيٰيٰ صٰ صٰصٰصٰ ضٰ ضٰضٰضٰ صٰ صٰصٰصٰ ضٰ ضٰضٰضٰ بٰ بٰبٰبٰ صٰ صٰصٰصٰ سٰ سٰسٰسٰ شٰ شٰشٰشٰ بٰ بٰبٰبٰ پٰ پٰپٰپٰ پٰ پٰپٰپٰ بٰ بٰبٰبٰ تٰ تٰتٰتٰ نٰ نٰنٰنٰ ٹٰ ٹٰٹٰٹٰ سٰ سٰسٰسٰ شٰ شٰشٰشٰ	

Feature Name	Feature ID	Feature Setting (top-most in each section is default)	Example	Implementation Notes
Sukun (U+0652)	cv78	0=Closed	بْ ⭕	G,O,T
		1=Open down XeTeX: "Scheherazade/GR:Sukun=Open down"	بْ ⭕	
		2=Open left XeTeX: "Scheherazade/GR:Sukun=Open left"	بْ ⭕	
End of ayah (U+06DD)	cv80	0=Standard	۝123	G,O,T
		1=Simplified A XeTeX: "Scheherazade/GR:End of ayah=Simplified A"	(123)	
		2=Simplified B XeTeX: "Scheherazade/GR:End of ayah=Simplified B"	[123]	
Eastern digits (U+06F4, U+06F6, U+06F7)	cv82	0=Standard	۴۵۶۷	G,O,T
		1=Sindhi-style XeTeX: "Scheherazade/GR:Eastern digits=Sindhi-style"	۴۵۶۷	
		2=Urdu-style XeTeX: "Scheherazade/GR:Eastern digits=Urdu-style"	۳۵۶۷	
		4=Rohingya-style XeTeX: "Scheherazade/GR:Eastern digits=Rohingya-style"	٤۵۶۷	

Feature Name	Feature ID	Feature Setting (top-most in each section is default)	Example	Implementation Notes
Comma (U+060C, U+061B)	cv84	0=Upward	؛ ،	G,O,T
		1=Downward XeTeX: "Scheherazade/GR:Comma=Downward"	؛ ،	
Jeh hack (U+0698)	cv90	0=Standard	ژ	G,O,T
		1=Dot Hat XeTeX: "Scheherazade/GR:Jeh hack=Dot Hat"	ژ ²	
Dotless head of khah hack (U+06E1)	cv92	0=Standard	بْ	G,O,T
		1=Jazm XeTeX: "Scheherazade/GR:Dotless head of khah hack=Jazm"	بْ ³	
Line spacing		Tight 1.0 Compatible Normal Loose	Allows for adjustment of the default line spacing in the font (values shown are ordered in increasing line spacing).	T

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2   This character has been accepted into the Unicode Standard version 7.0 at U+08B2. It is encoded in Scheherazade. However, since the character will not render properly in OpenType until it is implemented into various applications, we have retained the "hack" that was in the previous version of this font.

3   This character has been accepted into the Unicode Standard version 7.0 at U+08FF. It is encoded in Scheherazade. However, since the character will not render properly in OpenType until it is implemented into various applications, we have retained the "hack" that was in the previous version of this font.

Feature Name	Feature ID	Feature Setting (top-most in each section is default)	Example	Implementation Notes
Show invisible characters (U+061C, U+200C, U+200D, U+200E, U+200F, U+202A, U+202B, U+202C, U+202D, U+202E, U+2066, U+2067, U+2068, U+2069, U+206C, U+206D)	invs	0=False		G
		1=True XeTeX: "Scheherazade/GR:Show invisible characters=True"	PDI FSI RLI LRI ⌢⤬ ALM	

Language specific features

Behavior	default	Kurdish	Rohingya	Sindhi	Urdu
shadda+kasra	ّٟ	ّٟ	ّٟ	ّٟ	ّٟ
U+0645 meem shaping	م ممم م	م ممم م	م ممم م	م ممم م	م ممم م
U+0647 heh shaping	ه ههه ه	ه ههه ه	ه ههه ه	ه ههه ه	ه ببه ه
Digits: Eastern (U+06F4..U+06F7)	۴۵۶۷	۴۵۶۷	٤٥٦٧	۴۵٦٧	۳۵٦٧