# Scheherazade New / Harmattan / Lateef - Font Feature comparison

Scheherazade New, Harmattan and Lateef are OpenType-enabled font families that support the Arabic script. They include a number of optional features that provide alternative rendering that might be preferable for use in some contexts. The sections below enumerate the details of these features. Some of the features have different default settings or the feature may only be implemented in one or two of the fonts. Whether these features are available to users will depend on both the application and the rendering technology being used. Some applications let the user control certain features such as Character Variants to turn on the rendering of variant characters. However, at this point, most applications do not make use of those features so another solution is needed to show the variant characters. TypeTuner creates tuned fonts that use the variant glyph in place of the standard glyph. TypeTuner also provides the ability to turn on support for the Kurdish, Kyrgyz, Rohingya, Sindhi, Urdu, and Wolof language variants.

See Using Font Features. Although that page is not targeted at Arabic script support, it does provide a comprehensive list of applications that make full use of the OpenType font technology.

See also Arabic Fonts — Application Support. It provides a fairly comprehensive list of applications that make full use of the OpenType font technology.

This page uses web fonts (WOFF) to demonstrate font features and should display correctly in all modern browsers.

If this document is not displaying correctly a PDF version is also provided in the documentation/pdf folder of the release package.

# End of Ayah (U+06DD), Disputed End of Ayah (U+08E2), and subtending marks (U+0600..U+0605, U+0890..U+0891)

These Arabic characters are intended to enclose or hold one or more digits.

Specific technical details of how to use them are discussed in the Arabic fonts FAQ -- Subtending marks.

Additionally, all three fonts include two simplified alternates for U+06DD ARABIC END OF AYAH under the Stylistic Alternates (salt) feature, but at this time we know of no OpenType-based applications that can access these. The two alternates are also available through the Character Variants feature discussed below

# **Customizing with TypeTuner**

For applications that do not make use of the OpenType Character Variants, you can now download fonts customized with the variant glyphs you choose. Read this document, visit TypeTuner Web, then choose the variants and download your font.

#### Language

Unfortunately, the UI needed to access the language-specific behavior is not yet present in many applications. LibreOffice and Microsoft Word 2016 support language-specific behavior for Kurdish, Sindhi and Urdu (but not Kyrgyz, Rohingya or Wolof). Some Harfbuzz-based apps, e.g., XeTeX, can access language-specific behavior.

#### **Kurdish (Northern)**

Affects: U+06BE

Language	Scheherazade New	Harmattan	Lateef	Feature Setting
Default	a agg	ලිදින න	ه ههه	
Kurdish (Northern)	ه ههم	ఖ్యం వ	ه ههھ	lang='ku'

#### Kyrgyz

Affects: U+0626

Language	Scheherazade New	Harmattan	Lateef	Feature Setting
Default	ئ ئئئ	ئ ئئئ	ئ ئئئ	
Kyrgyz	ئى ئىئى	ئى ئئئى	ئى ئىئى	lang='ky'

#### Rohingya

Affects: U+064C, U+064E, U+0650, U+06F4, U+06F6, U+06F7

Language	Scheherazade New	Harmattan	Lateef	Feature Setting
Default	بٌ بٌ ٧ ۶ ٧	٧۶۴٠٠٠	۴ بٌ ۴ ۷	
Rohingya	۲ ٤ ٿِ ٿِ	۲٦٤ ٿِ ٿِ	<b>۲٦٤</b> ٽِ ڳ	lang='rhg'

#### Sindhi

Affects: U+0645, U+064E, U+0650, U+06F6, U+06F7

Language	Scheherazade New	Harmattan	Lateef	Feature Setting
Default	بً م ممم ۷۶	بِّ م ممم ۷۶	بًّ م ممم ۷۶	
Sindhi	بِّ م ممم ۲ >	بِّ م ممم ٦ ک	بِّ م ممم ۲ ک	lang='sd'

#### Urdu

Affects: U+064E, U+0650, U+06F4, U+06F6, U+06F7

Language	Scheherazade New	Harmattan	Lateef	Feature Setting
Default	بٌ ۴ ۶ ۷	۷۶۴ پِ	بٌ ۴ ۶ ۷	
Urdu	۷ ۲ ۴ ٿِ	۷٦٢ ٽِ	بِّ ۲٦٣	lang='ur'

#### Wolof

Affects: U+062F, U+064E, U+0650, U+064F, U+0657

Language	Scheherazade New	Harmattan	Lateef	Feature Setting
Default	د بد بِّ بُ ب	د بد پ ب	د بد بِّ بُ بُ	
Wolof	۵ بد بِّ بُ بُ	<b>ب</b> ب ب ہ	د بد بِّ بُ	lang='wo'

#### **Character variants**

There are some character shape differences in different languages which use the Arabic script. These can be accessed by using OpenType Character Variants, or through the language support mentioned above.

#### Jeem/Hah

Affects: U+062C, U+062D, U+062E, U+0682, U+0683, U+0684, U+0685, U+0686, U+06BF, U+0757, U+0758, U+088A, U+08A2, U+08C1, U+08C5, U+08C6

reature Schenerazade New Harmattan Lateer reature Setting	Feature	Scheherazade New	Harmattan	Lateef Feature setting
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Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	ے چیج	ڇ ڇچڇ ج حجج خ		cv08=0
Handwritten	N/A	<ul> <li>ج٠٠٠ ٥ ح٧٥ ٥</li> <li>خ٠٠٠ ٥ ح٧٥ ٥</li> <li>६٠٠٠ ٥ څۀ ६ ﭼﻴጵ</li> <li>६٠٠٠ ६ څۀ ६</li> <li>६٠٠٠ ६ ६٠٠ ६</li> <li>६०० ६० ६० ६० ६० ६० ६० ६० ६० ६० ६० ६० ६०</li></ul>	N/A	cv08=1

**Dal**Affects: 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

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	د د ځ ډ	د ذ ڈ ډ ڊ ݙ ڌ ڍ ڎ ڏ ڐ ۮ ݙ ݚ ﭘ	2, \$ 2 3 3 3 2 3 5 2 3 5 2 3 5 2 3 5 2 5 2 5	cv12=0
Alternate	ۮۮڋڿڋڋڎڿڎ ۮڐۮڋڿڿ ۮڐۮڋ <u>ڿ</u> ڿ	ﺮ , , , , , , , , , , , , , , , , , , ,	N/A	cv12=1

#### Sad/Dad

Affects: U+0635, U+0636, U+069D, U+069E, U+06FB, U+08AF

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	ص صصص ض ضضض ڝ ڝڝڝ ڞ ڞڞڞ ڥٮڥڝ ڥ ۻ ۻضض	ص صصص ض ضضض ص صصص ش ششش چچچی چی جی جنجنج	ص صصص ض ضضض یں صیصیں ش ضشش چبھپھی پی ض ضضض	cv20=0
Half	N/A	م صصم خر ضضخ ير صِصِير څر څڅڅر چپچر پر خر ضِضِفر	N/A	cv20=1

#### Meem

Affects: U+0645, U+0765, U+0766, U+08A7

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	م ممم م منم م ممم م مثم	م ممم ف فففر ۾ مِمِمِ ۾ ڤڤڨ	م ممم م مَمْمَ م مِمِمِ مُ ثَثْثُمُ	cv44=0
Sindhi-style	م ممم فر منفر مر مجم فر فففر	م ممم م ففف م ممم څ څڅڅ	م ممم فر ففف به بهجم ثر ثشث	cv44=1

#### Heh

Affects: U+0647

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	aga o	مهه ه	ه ههه	cv48=0

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Kurdish-style	ه ههم	వాక్తివి వ	ه ههم	cv48=3
Sindhi-style	ه همو	മമമ മ	ه ههم	cv48=1
Urdu-style	مهم ٥	مہر ہ	مہرہ	cv48=2

#### **Heh Doachashmee**

Affects: U+06BE

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	a agg	අදන න	ه ههه	cv49=0
Knotted	ه ههم	മമമ മ	ه ههھ	cv49=1
Kurdish-style	a aga	മഭമ മ	ه ههھ	cv49=3

### Kyrgyz OE

Affects: U+06C5

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Loop	و	Э	g	cv51=0
Bar	و	9	و	cv51=1

#### Yeh Hamza

Affects: U+0626

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	ئ ئ	ئئ	ئئ	cv54=0

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Right hamza	ئى ئى	ئئئ	ئى ئى	cv54=1

#### Maddah

Affects: U+0622, U+0627, U+0653, U+0653

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Small	<b></b> ក្ក	ិរា	៍រ័រ័	cv60=0
Large	៊ា	ិរិរិ	N/A	cv60=1

## Shadda+kasra placement

Affects: U+064D, U+0650 with U+0651

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Default	<b>ِ</b> ٞ	៉្ <u></u> គ ៉្	ڔٞٞڔؙٞ	cv62=0
Lowered	្ខ័ 🚆 ៉ឺ 😷	៉្ន <b>ុ</b> ៉្	<i>ڔ</i> ٞڔۜ <i>۫</i> ڔٞ	cv62=1
Raised	ٿِّ ٿِّ	ૄ ૣ૾૾૾૾૽	ڔٞٞڔٙٞ	cv62=2

#### Damma

Affects: U+064F

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Default	<u></u> ి	ံ ငှ	ڔؙ	cv70=0
Filled	ં •	்	<b>઼</b> ٛڹ	cv70=1
Short	<i>૽</i>	<u>ీ</u>	ِ بُ ثُ	cv70=2

#### **Dammatan**

Affects: U+064C

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	بْ ث	૿૽ ૡ઼	ే సి	cv72=0
Six-nine	ీ చీ	ં હ્	ే '	cv72=1

#### **Inverted Damma**

Affects: U+0657

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Default	<b>؛</b> •	ံ	ڹؙ	cv74=0
Hollow	<b>؛</b> •	ံ	ံ ငံ	cv74=1
Filled	<b>ံ</b> •ံ	<b>ب</b> ث	<b>ٺ</b> ٺ	cv74=2

#### **Superscript Alef**

Affects: U+0670 on all yeh, sad and seen-like characters U+0620, U+0626, U+0633, U+0634, U+0635, U+0636, U+063B, U+063E, U+0649, U+064A, U+0678, U+069B, U+069B, U+069D, U+069D, U+069D, U+06CD, U+06CD, U+06DD, U+06DD, U+06FA, U+06FB, U+075C, U+076D, U+077D, U+077D, U+077F, U+077F, U+077F, U+08A8, U+08A9, U+08AF, U+08BA

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Default	ی لیا ئ ئی س	ی پی ک نی کی سلسل کا پیار	کا پہلے ک <i>ی ٹی</i> س سس ش	cv76=0
	سلسل شل شلشل صل	شٰ شلشٰ ص طص ض	شش ص صص ض ضض ي	
	صلصل صل طلصل ي	ظض يُ يُيُ يَ يَٰ يَٰيَ يُ	يُن اللَّهُ	
	کی ی لیے ی ٹی کی	يَٰی ٰ کی لیے کی لیے کی ٹکی	<sup>ا</sup> على الله الله الله الله الله الله الله ال	
	لى كي ليي عمل علما	ښ ښلښ	شْشْ مِلْ طِيلِ أَنْ طُطُ يَ	
	ښل ښلبنل سپل سپلمپيل	ڜڵڜڶڝ طڝ ڞ	يٰی ک بی کٰ پٰیٰ کٖ ٻٰہٖ کِ پٰیٰ	
	بٹل شپشل صل صلصل	ڟڞ۬ یٰ یٰیٰ یٰ بیٰ یٰ	ش شش ط طبط س شس	

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
	صل ضط کی لیی کی بیلی کی لیکی کی لیلی کی لیلی شل ششل ضل خلفل شل شاشل شل شاشل شل شاشل میل مناسل شل شاشل کی لیکی کی لیکی کی لیلی کی لیکی کی لیکی کی لیلی کی لیکی کی لیکی کی لیلی کی گیری کی لیکی کی لیلی کی گیری کی لیکی کی لیلی کی سلسل کی لیکی کی لیلی کی گیری کی لیکی کی لیلی کی گیری کی گیری کی گیری کی گیری کی گیری کی گیری کی	یٰیٰ کٖ ہٖیٖ پ پپ ش شلش خی طخی ش شلش سٔ شلس ش شلش سٔ سُس ش شلش کی اُلی کی اُلی کی الگی ک پاپ کیا گئی کی الگی کی چاچی کیا کیا کی اُلی کی کیا چاچی کیا گئیا	سَٰ سَٰسَٰ شَٰ شَٰسَ الله الله الله الله الله الله الله الل	
Large	ك پچائ ئيا سل سلسل شل ششل صل صصل ضل ضاضل ئ پيئ ئي ئي ئي ئي ئي سنل ښښل پپل پپلپل ښل شاښل پپل پپلپل شل شاخل عل يي خابي بي شل شاخل خل خاجل شل شاخل خل خاجل شل شاخل خل سندل شل شاخل خل سندل شل شاخل خل سندل شل شاخل خل سندل شاخل شاخل خل سندل شاخل شاخل خل سندل شاخل شاخل خل	وا پاوا ئ بلئ سل سلس شل شلش صل صل صل ضل شلگ علی الله علی ضلط ضل الله علی الله الله الله الله الله الله الله ال	عَلَيْ عَلَيْ سَلَ سَسَلَ شَلَّ عَلَيْ عَلَى سَلَ سَلَ شَلَّ عَلَيْ عَلَى سَلَ سَلَّ شَلَّ عَلَيْ عَلِيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلِي عَلِيْ عَلَيْ عَلِي عَلَيْ عَلِي عَلَيْ عَلِي عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْ عَلَيْكِ عَلَيْ عَلَيْكِ عَلَيْ عَلَيْكِ عَلَيْكُوا عَلَيْكُ عَلَيْكُ عَلَيْكُ عَلَيْكُ عَلَيْكُ عَلَيْكُوا عَلَيْكُ عَلَيْكُو عَلَيْكُوا عَلَيْ	cv76=1

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
	چلچل کي ليي			
Small	ك الحائد عائد الله الله الله الله الله الله الله الل	وا پاوا ئ ئائ سا سلسا شا شلشا صا طصا ضا ضاضا ئ بکی کا تیا ی شای کا بلی یا یا ئا ئائ بنس بنلبنس پس پلسپس پشا پنس بنلبنس پس پلسپس پشا شلشا کا یلی کا بہا ی شلشا شا بنا بنس شا شلشا شا شلسل شا شلشا سا شلسل شا شلشا کا یکی گا یکی پا	كَ بِهِيْ كُنْ تُكُى سَ سَسَلَ شَٰ شَشْ صَ صَصَ صَصَ صَٰ طَضَ كُ يُكُىٰ تَٰ يُتٰى ثَىٰ يَٰتَىٰ كَ يَٰكِيٰ يَٰي تَٰى تُئَى بَنْ بَنْبِنَ بِيلَ سِيْسِ شِنْ شَشْ مَنْ مَنْ يَٰنَى كَ بِنِي بِي يَٰي شَشْشُ صَٰ مَنْ مَنْ مَنْ مَنْ مَنْ مَنْ مَنْ مَنْ	cv76=2
	<u> </u>			

#### Sukun

Affects: U+0652

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Closed	ံ	ံ	<b>಼</b> ْ	cv78=0
Open down	<u></u>	<b>ိ</b> ငှ	ب ٛ	cv78=1

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Open left	<u></u> ئ	<b>ိ</b> ပု	بْ ْ	cv78=2

#### **End of ayah**

Affects: U+06DD

Firefox allows you to use U+06DD followed by the digits and proper rendering occurs. Some applications require the following:

- precede the entire sequence (subtending mark plus following digits) with 202D LEFT-TO-RIGHT OVERRIDE
- follow the entire sequence with U+202C POP DIRECTIONAL FORMATTING.

Surrounding the sequence with U+202D and U+202C seems to give the most reliable results in different browsers. However, we have not found a solution that works in Internet Explorer/Edge.

In the example below, the following codepoints are used: U+202D U+06DD U+0031 U+0032 U+0033 U+202C U+202D U+06DD U+0611 U+0622 U+0663 U+202C.

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard		(123) (1717)	(123) (177)	cv80=0
Simplified A	(123) (177)	(123) (1717)	(123) (177)	cv80=1
Simplified B	123 (177	123 144	123	cv80=2

The DISPUTED END OF AYAH (U+08E2) is also now available in the font. It works in the same way as End of ayah.

(Scheherazade New)

۵ ۳٤٥ (Harmattan)

۵ (Lateef)

#### **Honorific ligatures**

Affects: U+FD40..U+FD4F, U+FDCF, U+FDFA..U+FDFB, U+FDFD..U+FDFF

Feature	Scheherazade New	Feature setting
Calligraphic	الله ويَكُم والله الله الله الله الله الله الله الل	cv81=0
	عَلَيْنَ عَلَيْكُ مِنْلِلَهُ الْخَيْلُ الْمِثْلِلَةِ الْخِيْرِ فَخَيْلُ خَيْلًا الْمِثْلِلَةِ الْخِيرِ فَخَيْل	
Simplified	َ اللّهِ وَ اللّهِ عَنْ اللّهُ عَنْ اللّهُ عُنْ اللّهُ عُنْ اللّهُ عُنَّا اللّهُ عَلَيْهِ الْمَيْلِامِ السّالِم رَحِمُهُ وَصَلّمُ عِنْ اللّهُ عَنْ اللّهِ عَنْ عَنْ اللّهُ عَنْ اللّهُ عَلَيْهِ عَلَيْهِ اللّهِ عَلَيْهِ عَلَي	cv81=1
	سَلَامْهُ صَلَحَالِكُ جَلالَهُ لِللَّهِ الرَّمْخُ الرِّحْمَةِ الرِّحْمَةِ الرِّحْمَةِ الرِّحَمْةِ الرَّحْمَةِ الرَّحْمَةُ الرّحْمَةُ الْحَمْمُ الْحَمْمُ الْحَمْمُ الْحَمْمُ الْحَمْمُ الْحَمْمُ الْ	

#### **Eastern digits**

Affects: U+06F4, U+06F6, U+06F7

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Standard	497	421	457	cv82=0
Kurdish-style	497	451	457	cv82=3
Rohingya-style	٤٦٧	٤٦٢	٤٦٧	cv82=4
Sindhi-style	47<	۴٦٢	477	cv82=1
Urdu-style	77<	۲۲۳	477	cv82=2

# **Proportional figures**

Tabular digits are the default for Latin digits. Lateef supports the OpenType **Proportional Figures (pnum)** for Latin digits.

Affects: U+0030..U+0039

Feature	Lateef	Feature setting
False	0123456789	pnum=0
True	0123456789	pnum=1

# **Tabular figures**

Proportional digits are the default for Arabic digits. Lateef supports the OpenType Tabular Figures (tnum) for Arabic digits.

Affects: U+0660..U+0669, U+06F0.. U+06F9

Feature	Lateef	Feature setting
False	•144501778 •14402778	tnum=0
True	۰۱۲۳٤٥٦٧٨٩ •۱۲۳۵۶٧٨٩	tnum=1

#### Comma

Affects: U+060C, U+061B

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Upward	٤ ،	٠, ١	<b>:</b>	cv84=0
Downward	ė e	; ;	; ,	cv84=1

#### **Decimal separator**

Affects: U+066B

Feature	Scheherazade New	Harmattan	Lateef	Feature setting
Small reh	ر	J	ر	cv85=0
Slash	1	1	1	cv85=1

#### Disable digit kerning (see FAQ) — Lateef and TypeTuner-only

The Arabic digits are proportional by default and Lateef includes kerning to improve the spacing of certain pairs of digits such as V/l. However there are some applications, including Microsoft Word for Windows, that process the digit kerning information incorrectly, actually making some digits too far apart and some too close together. We have added a special Typetuner feature that can be used to create a version of the Lateef fonts in which the digit kerning is *disabled*. When using those fonts in Microsoft Word the resulting digit spacing will be much nicer than Tabular, but not quite as good as it would be if the application's kerning worked correctly. This is discussed further in the FAQ.

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