

Akatab - Font Features

Akatab is an OpenType-enabled font family that supports the Tifinagh script. It includes a number of optional user-selected features that may be useful or required for particular uses or languages. This document lists all the user-selected features. These features are primarily specified using four-letter tags (e.g. 'cv17'). For more information on how to access OpenType features in specific environments and applications, see [Using Font Features](#).

Akatab also provides for a number of common features such as ligature formation, contextual substitution and diacritic positioning. It also provides right-to-left rendering of text. Most applications will make use of these features when the proper sequence of characters is entered.

This page uses web fonts (WOFF2) to demonstrate font features and should display correctly in all modern browsers. For detailed information, see [Using SIL Fonts on Web Pages](#). For a more concise example of how to use Akatab as a web font, see [Akatab Webfont Example](#).

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

User-selected feature list

Character variants

Alternate YA

Affects: U+2D30

Feature	Sample	Sample right-to-left	Feature setting
Standard	•	•	cv01=0
Circle	◦	◦	cv01=1

Alternate YAF

Affects: U+2D3C

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵢ	ⵢ	cv02=0
I-shape	ⵢ	ⵢ	cv02=1
Open top and bottom	ⵢ	ⵢ	cv14=1 (or cv02=2)

Alternate YAGHH

Affects: U+2D34

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵡ	ⵡ	cv03=0
Round bottom	ⵡ	ⵡ	cv03=1

Alternate YAGN

Affects: U+2D50

Feature	Sample	Sample right-to-left	Feature setting
Standard	𐤎	𐤎	cv04=0
Lowered bottom stroke	𐤎̑	𐤎̑	cv04=1

Alternate YU

Affects: U+2D53

Feature	Sample	Sample right-to-left	Feature setting
Standard	𐤚	𐤚	cv05=0
Short strokes	𐤚̑	𐤚̑	cv05=1

Alternate YAZ

Affects: U+2D63

Feature	Sample	Sample right-to-left	Feature setting
Standard	𐤛	𐤛	cv06=0
Squared	𐤛̑	𐤛̑	cv06=1

Alternate AHAGGAR YAZH

Affects: U+2D4B

Feature	Sample	Sample right-to-left	Feature setting
Standard	𐤜	𐤜	cv07=0
Squared	𐤜̑	𐤜̑	cv07=1

Alternate YAB

Affects: U+2D31

Feature	Sample	Sample right-to-left	Feature setting
Standard	𐤝	𐤝	cv08=0
Rectangle style	𐤝̑	𐤝̑	cv08=1

Alternate YAG

Affects: U+2D33

Feature	Sample	Sample right-to-left	Feature setting
Standard	𐤞	𐤞	cv09=0
Rounded top	𐤞̑	𐤞̑	cv09=1

Alternate YAJ

Affects: U+2D36

Feature	Sample	Sample right-to-left	Feature setting
Standard	Ĳ	Ĳ	cv10=0
Lower dots	Ĳ̣	Ĳ̣	cv10=1

Alternate YAH (Tuareg yab)

Affects: U+2D40

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵀ	ⵀ	cv11=0
Rectangle style	ⵀ̐	ⵀ̐	cv11=1

Alternate YASH

Affects: U+2D5B

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵉ	ⵉ	cv12=0
8 shape	ⵉ̈	ⵉ̈	cv12=1

Alternate YATT

Affects: U+2D5F

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵏ	ⵏ	cv13=0
F shape	ⵏ̐	ⵏ̐	cv13=1

Alternate YADH

Affects: U+2D38

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵔ	ⵔ	cv15=0
Rounded bottom	ⵔ̐	ⵔ̐	cv15=1

Alternate YAL and YAL

Affects: U+2D4D U+2D4F

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵚ ⵛ ⵜ ⵝ ⵞ	ⵞ ⵝ ⵜ ⵛ ⵚ	cv19=0
Slanted	ⵚ̐ ⵛ̐ ⵜ̐ ⵝ̐ ⵞ̐	ⵞ̐ ⵝ̐ ⵜ̐ ⵛ̐ ⵚ̐	cv19=1

Alternate punctuation

Affects: U+0021 U+002C U+002E

Feature	Sample	Sample right-to-left	Feature setting
Standard Latin	! , .		cv20=0
Decorative	! , .		cv20=1

Ligature variants

Alternate YAB YAT

Affects: U+2D31 U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	⊖+	+⊖	cv31=0
Interior T	⊕	⊕	cv31=1

Alternate YAR YAT

Affects: U+2D54 U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	○+	+○	cv32=0
Large interior T	⊕	⊕	cv32=1
Small interior T	⊕	⊕	cv32=2

Alternate YAS YAT

Affects: U+2D59 U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	⊙+	+⊙	cv33=0
Large interior T lower dot	⊕	⊕	cv33=1
Small interior T	⊕	⊕	cv33=2
Large interior T upper dot	⊕	⊕	cv33=3

Alternate YAM YAT

Affects: U+2D4E U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	cv34=0
Mid exterior T	᳚᳚	᳚᳚	cv34=1
Low interior T	᳚	᳚	cv34=2
Center T	᳚᳚	᳚᳚	cv34=3

Alternate YAF YAT

Affects: U+2D3C U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚᳚	᳚᳚	cv35=0
Single bar, middle exterior T	᳚᳚	᳚᳚	cv02=1
Double bar, middle exterior T	᳚᳚	᳚᳚	cv35=1
Single bar, middle interior T	᳚᳚	᳚᳚	cv35=2 (or cv02=1)
Open top & bottom, interior T	᳚᳚	᳚᳚	cv14=1 (or cv02=2)

Alternate YAN TUAREG YAK

Affects: U+2D4F U+2D3E

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	cv36=0
Double cluster dots	᳚	᳚	cv36=1

Alternate YAN YAT

Affects: U+2D4F U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	cv37=0
Side bar	᳚	᳚	cv37=1
Top bar	᳚	᳚	cv37=2

Alternate YAL YAT

Affects: U+2D4D U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	cv38=0
Internal T	᳚	᳚	cv38=1

Alternate YAN YAJ

Affects: U+2D4F U+2D36

Feature	Sample	Sample right-to-left	Feature setting
Standard	ɲ	ɲ	cv43=0
Top and bottom dots	ɲ̣̤	ɲ̣̤	cv43=1

Alternate YAN YAS

Affects: U+2D4F U+2D59

Feature	Sample	Sample right-to-left	Feature setting
Standard	ɲ̥	ɲ̥	cv44=0
Interior YAN	ɲ̥̣̤	ɲ̥̣̤	cv44=1

Alternate YAN TUAREG YAZH

Affects: U+2D4F U+2D4C

Feature	Sample	Sample right-to-left	Feature setting
Standard	ɲ̥̥	ɲ̥̥	cv45=0
Exterior circles	ɲ̥̥̣̤	ɲ̥̥̣̤	cv45=1

Alternate YAR TUAREG YAK

Affects: U+2D54 U+2D3E

Feature	Sample	Sample right-to-left	Feature setting
Standard	ɲ̥̥̥	ɲ̥̥̥	cv46=0
Double cluster dots	ɲ̥̥̥̣̤	ɲ̥̥̥̣̤	cv46=1

Alternate YASH TUAREG YAK

Affects: U+2D5B U+2D3E

Feature	Sample	Sample right-to-left	Feature setting
Standard	ɲ̥̥̥̥	ɲ̥̥̥̥	cv47=0
Double cluster dots	ɲ̥̥̥̥̣̤	ɲ̥̥̥̥̣̤	cv47=1
8 shape	ɲ̥̥̥̥̥	ɲ̥̥̥̥̥	cv12=1
8 shape, double cluster dots	ɲ̥̥̥̥̥̣̤	ɲ̥̥̥̥̥̣̤	cv47=2

Alternate YASH YAT

Affects: U+2D5B U+2D5C

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	cv48=0
Internal T	᳚	᳚	cv48=1

Stylistic sets

Alternate YA

Affects: U+2D30

Feature	Sample	Sample right-to-left	Feature setting
Standard	•	•	ss01=0
Circle	◦	◦	ss01=1

Alternate YAF

Affects: U+2D3C

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	ss02=0
I-shape	᳚	᳚	ss02=1
Open top and bottom	᳚	᳚	ss14=1

Alternate YAGHH

Affects: U+2D34

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	ss03=0
Round bottom	᳚	᳚	ss03=1

Alternate YAGN

Affects: U+2D50

Feature	Sample	Sample right-to-left	Feature setting
Standard	᳚	᳚	ss04=0
Lowered bottom stroke	᳚	᳚	ss04=1

Alternate YU

Affects: U+2D53

Feature	Sample	Sample right-to-left	Feature setting
Standard	:	:	ss05=0
Short strokes	⋮	⋮	ss05=1

Alternate YAZ

Affects: U+2D63

Feature	Sample	Sample right-to-left	Feature setting
Standard	⌘	⌘	ss06=0
Squared	⌘̐	⌘̐	ss06=1

Alternate Ahaggar YAZH

Affects: U+2D4B

Feature	Sample	Sample right-to-left	Feature setting
Standard	⌘	⌘	ss07=0
Squared	⌘̐	⌘̐	ss07=1

Alternate YAB

Affects: U+2D31

Feature	Sample	Sample right-to-left	Feature setting
Standard	⊖	⊖	ss08=0
Rectangle style	⊖̐	⊖̐	ss08=1

Alternate YAG

Affects: U+2D33

Feature	Sample	Sample right-to-left	Feature setting
Standard	⌘	⌘	ss09=0
Rounded top	⌘̐	⌘̐	ss09=1

Alternate YAJ

Affects: U+2D36

Feature	Sample	Sample right-to-left	Feature setting
Standard	⋮̐	⋮̐	ss10=0
Lower dots	⋮̐̑	⋮̐̑	ss10=1

Alternate YAH (Tuareg yab)

Affects: U+2D40

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵀ	ⵀ	ss11=0
Rectangle style	ⵀ	ⵀ	ss11=1

Alternate YASH

Affects: U+2D5B

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵉ	ⵉ	ss12=0
8 shape	8	8	ss12=1

Alternate YATT

Affects: U+2D5F

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵑ	ⵑ	ss13=0
F shape	F	Ɔ	ss13=1

Alternate YADH

Affects: U+2D38

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵄ	ⵄ	ss15=0
Rounded bottom	ⵄ	ⵄ	ss15=1

Alternate YAL and YAL

Affects: U+2D4D U+2D4F

Feature	Sample	Sample right-to-left	Feature setting
Standard	ⵊ ⵊ ⵊ ⵊ ⵊ	ⵊ ⵊ ⵊ ⵊ ⵊ	ss19=0
Slanted	ⵊ ⵊ ⵊ ⵊ ⵊ	ⵊ ⵊ ⵊ ⵊ ⵊ	ss19=1

Alternate punctuation

Affects: U+0021 U+002C U+002E

Feature	Sample	Sample right-to-left	Feature setting
Standard Latin	! , .		ss20=0
Decorative	! , .		ss20=1

Common features list

The Akatab fonts contain logic that uses features to render certain glyphs and sequences properly. This logic processes the sequence of glyphs and produces the proper visual representation.

The sections below show the use of some formatting characters, notably the TIFINAGH CONSONANT JOINER (U+2D7F) and RIGHT-TO-LEFT OVERRIDE (U+202E). A recommended keyboard for Tifinagh characters and these special characters can be downloaded at the [Keyman Tuareg Tifinagh keyboard](#) web site.

Contextual shaping

Two Tifinagh characters, TIFINAGH LETTER YAL (U+2D4D) and TIFINAGH LETTER YAN (U+2D4F), could cause ambiguity when they appear next to each other. To prevent uncertainty, the second character in the sequence is raised as in the example below:

ⵢⵢ ⵢⵢ ⵢⵢ ⵢⵢ ⵢⵢ

If the user's preference is slanted bars, the user-selected features *cv19* or *ss19* can be used, as illustrated in the user-selected font features section above.

Ligature formation

Bi-consonant ligatures are formed after typing the character sequences shown in the examples below. Type the first character, e.g. ⵓ (U+2D31), the TIFINAGH CONSONANT JOINER ◌◌◌◌ (U+2D7F), and then the second character, e.g. ⵐ, to get the ⵓⵐ ligature.

ⵓ ◌◌◌◌ → ⵓⵐ	ⵢ ⵗ → ⵢⵗ	ⵢ ⵙ → ⵢⵙ	ⵉ ⵓ → ⵉⵓ
ⵓ ◌◌◌◌ → ⵓⵐ	ⵢ ⵖ → ⵢⵖ	ⵢ ⵢ → ⵢⵢ	ⵢ ⵉ → ⵢⵉ
ⵓ ◌◌◌◌ → ⵓⵐ	ⵢ ⵓ → ⵢⵓ	ⵢ ⵓ → ⵢⵓ	ⵉ ⵓ → ⵉⵓ
ⵓ ◌◌◌◌ → ⵓⵐ	ⵢ ⵓ → ⵢⵓ	ⵢ ⵓ → ⵢⵓ	ⵓ ⵓ → ⵓⵓ
ⵓ ◌◌◌◌ → ⵓⵐ	ⵢ ⵓ → ⵢⵓ	ⵢ ⵓ → ⵢⵓ	ⵓ ⵓ → ⵓⵓ
ⵢ ⵓ → ⵢⵓ	ⵓ ⵓ → ⵓⵓ	ⵢ ⵓ → ⵢⵓ	ⵓ ⵓ → ⵓⵓ
ⵓ ⵓ → ⵓⵓ	ⵓ ⵓ → ⵓⵓ	ⵢ ⵓ → ⵢⵓ	ⵓ ⵓ → ⵓⵓ

Akatab bi-consonant ligature examples

Right-to-left Tifinagh

Historically, Tifinagh did not have a fixed direction. Modern Tifinagh is commonly printed as left-to-right text and [The Unicode Standard: Tifinagh section](#) specifies its directionality as strong left to right while recognizing it can be bidirectional. Akatab has glyph and rendering support for writing in both directions. To get right-to-left behaviour and then reverse the direction, the user can use two invisible formatting characters

to change the direction of the characters and the text as follows:

1. U+202E (RIGHT-TO-LEFT OVERRIDE) for right-to-left Tifinagh
The text that follows will be right-to-left. Additionally, the directionality of characters is changed to right-to-left.
2. U+202C (POP DIRECTIONAL FORMATTING) to revert direction for Tifinagh text
The text that follows reverts to the direction of the text before the previous U+202E character.

Akatab examples

The following text demonstrates Tifinagh left-to-right behaviour:

$$\Theta|++ + \Theta: ||^1 : 0 + \ddot{::}| + [\Sigma$$

The following text demonstrates Tifinagh right-to-left behaviour using the U+202E character:

$$\sum_j + | \ddot{\gamma} + 0 : |'' : \odot + + + | \odot$$

The following text demonstrates both Tifinagh directional behaviours using the U+202E and U+202C characters:

$$\odot | + + + \odot : || : \odot + \ddot{::} | + [\lessapprox \gtrapprox] + | \ddot{::} + \odot : |'' : \odot + + + | \odot$$