Unicode Technical Note xx - Representing Tifinagh in Unicode (proposed draft)

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This is a work in progress. Additional information on language usage is most welcome.

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 - Tahaggart Tamahaq, Tamahaq (Tuareg) [thv]
 - Tayart Tamajeq, [thz]
 - Tawallammat Tamajaq [ttq]
- Other languages with little or no information
 - Awjilah [auj]
 - · Ghadamès [gha]
 - Taznatit [grr]
 - Nafusi (Zuwara dialect) [jbn]
 - Numidian [nxm]
 - Tetserret [tez]
 - Zenaga [zen]
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Introduction

Tifinagh is encoded in the U+2D30..U+2D7F block of Unicode. The encoding in the Tifinagh block is based on the modern alphabet called Neo-Tifinagh. It also includes the characters required for modern Tuareg.

This document gives guidance on the encoding of *modern orthographies* using the Tifinagh script (no attempt is made to document all the variants used in ancient Tifinagh orthographies). Since the script is used for a number of orthographies covering different languages, the development of this document is ongoing. In terms of the Unicode standard, this document is purely informative since it is concerned with issues not covered by that standard.

This document also gives guidance on font development for the different *modern* orthographies and languages.

The Unicode Model

Basic Consonants

The basic consonants are relatively obvious and can be discovered by viewing the Unicode charts.

Vowels

Vowels are not as clearly defined. Four vowels have been encoded for Neo-Tifinagh. However, different traditional Tifinagh orthographies may demonstrate vowels using combining marks in different ways. These vowels are primarily used as an aid in learning to read.

SIL-Niger

Vowels						
Tfng	÷	Ÿ	4	ĝ	?	÷.
USV	2D30 + 0302	2D30 + 0306	2D62 + 0323	2D62 + 0302	2D53 + 0302	2D67 + 0302

APT

Vowels						
Tfng	•	<	4		9	II
USV	2D30	2D66	2D62	2D67	2D53	not encoded?

Hawad

Vowels					
Tfng	X	Ÿ	Χ	Σ	Σ
USV	2D5D 0307	2D5D 0308	2D5D	2D49 0307	2D49 0308

Punctuation

Western-style punctuation signs are used in Tifinagh. Words are separated by a space.

A few languages use a special separator mark which has been encoded in the Tifinagh block. The languages using the separator mark will be indicated in the section on that language. Otherwise, punctuation is not listed in each section.

Punctuation								
Tfng		,	;	:	?	!		J
USV	002E	002C	003B	003A	003F	0021	2026	2D70

Digits

There is no common way to write numbers using Tifinagh script. The IRCAM Tifinagh uses the usual Western-style digits.

Variant Glyphs

This chart includes a sampling of some of the possible glyph variants in current use. It does not demonstrate all of the possible historical glyph variants. In addition, because of the issues relating to Writing Direction, there are variants which are mirrored or turned for right to left text or even for vertical text. The default directional variants are included below under Directional Glyphs.

Because these glyphs are taken from various fonts, the height of a particular glyph should not be considered significant.

	2D3	2D4	2D5	2D6	2D7
0	o • • ya	① Ⅲ Ⅲ yah or Tuareg yab	‡†‡≠ Tuareg yagn	ΔΥ yav) tazarast
1	⊖⊟∃ yab	Ø Berber yah	! Tuareg yang	∐ yaw	
2	⊕⊞ yabh	! ≣ Tuareg yah	6 yap	5 / 2 ΛΙ ∩Ι ⊔Π Π _{yay}	
3	Χ Ջ yag	人 yahh	8∷ 5 yu or Tuareg yaw	Ж % 	
4	X & Y U ∀ ス yaghh	ተል yaa	O □ yar	↑ Γ Tawellemet yaz	
5	X Berber yaj	X yakh	Q O yarr	¥ ¥ yazz	
6	'l' .l. yaj	:: Tuareg yakh	屮 yagh	< ye	
7	∧ ∩ yad	Z yaq	: ≡ Tuareg yagh	II yo	
8	V ∪ yadh	··· Tuareg yaq	∷ Ayer yagh or Adrar yaj		
9	E E € yadd	≨∑E yi	⊙ ⊡ yas		
А	∃∃∋ yaddh	I yazh	ØÓ# yass		
В	e ÷ yey	X X X Ahaggar yazh	CC CC C 8 yash		
С	HⅡIH yaf	# Tuareg yazh	++ yat		
D	尺 yak	<mark>И II II</mark> yal	X yath		
Е	: 1 1 1 1 1 Tuareg yak	ЕСЦ yam	€ 乙 ⊥ yach		
F					

2D3	2D4	2D5	2D6	2D7
K	I	E€F∃	ш о	<u></u>
yakhh	yan	yatt	tamatart	joiner

Bi- Tri-consonants

Bi-consonants are additional letterforms used in the Tifinagh script, particularly for Tuareg, to represent a consonant cluster—a sequence of two consonants without an intervening vowel. These bi-consonants, sometimes also referred to as bigraphs, are not directly encoded as single characters in the Unicode Standard. Instead, they are represented as a sequence of the two consonant letters, separated either by U+200D ZERO WIDTH JOINER or by U+2D7F TIFINAGH CONSONANT JOINER.

When a bi-consonant is considered obligatory in text, it is represented by the two consonant letters, with U+2D7F TIFINAGH CONSONANT JOINER inserted between them. This use of U+2D7F is comparable in function to the use of U+0652 ARABIC SUKUN to indicate the absence of a vowel after a consonant in the Arabic script. However, instead of appearing as a visible mark in the text, U+2D7F TIFINAGH CONSONANT JOINER indicates the presence of a bi-consonant, which should then be rendered with a preformed glyph for the sequence. U+200D ZERO WIDTH JOINER should be used when the bi-consonant is not considered obligatory.

Some of the bi-consonants have ascenders. These should ascend above the normal height of the Tifinagh consonants

Although rare, tri-consonants do exist. This document will use the term bi-consonant even when it may be a tri-consonant.

This chart does not demonstrate all of the possible historical glyph variants. Although this chart demonstrates the use of U+2D7F TIFINAGH CONSONANT JOINER, fonts should support either U+2D7F (obligatory bi-consonants) or U+200D (optional bi-consonants).

USV	2D7F between characters	→	Glyph (2D7F)
1 /bt/ 2D31 2D5C	θ ++ +	→	⊕+⊕
2 /g't/ 2D33 2D5C	X ++ +	→	⋉ +
3 /g't/ 2D34 2D5C	X ++ +	→	⊻ +
4 /gt/ 2D36 2D5C	T ++ +	→	ΉŦ
5 /ft/ 2D3C 2D5C	H ++ +	→	¥ 14 14 14 14 1
6 /bt/ 2D40 2D5C	O ++ +	\rightarrow	O +
7 /yt/ 2D49 2D5C	ξ + <u></u> + †	\rightarrow	ξ,
8 /zt/ 2D4B 2D5C	χ ++ +	\rightarrow	*
9 /zt/ 2D4C 2D5C	# ++ +	\rightarrow	###
10 /lk/ 2D4D 2D3E	И ++ :	\rightarrow	İ
11 /lt/ 2D4D 2D5C	И ++ +	\rightarrow	н ⊪ н н х
12 /mb/ 2D4E 2D40	C ++ 0	\rightarrow	© ⊖
13 /ms/ 2D4E 2D59	C + <u></u> + 0	\rightarrow	0
14 /mt/ 2D4E 2D5C	C + <u></u> + +	\rightarrow	₽₽₽₽
15 /nb/ 2D4F 2D31	l + <u></u> + θ	\rightarrow	Ð
16 /ng/ 2D4F 2D34	I ++ X	\rightarrow	x
17 /nġ/ 2D4F 2D36	I ++ T	→	V ¥ :1.
18 /nd/ 2D4F 2D37	l ++ Λ	\rightarrow	Λ X
19 /nd/ 2D4F 2D38	I ++ V	\rightarrow	v V
20 /nd/ 2D4F 2D39	I ++ E	\rightarrow	Ĕω

usv	2D7F between characters	→	Glyph (2D7F)
21 /nf/ 2D4F 2D3C	I ++ H	→	X X I I
22 /nft/ 2D4F 2D3C 2D5C	l + <u></u> + 光 + <u></u> + †	\rightarrow	Ж
23 /nk/ 2D4F 2D3E	l + <u></u> + :	\rightarrow	ĵ î
24 /nb/ 2D4F 2D40	I ++ 0	\rightarrow	Φ
25 /nj/ 2D4F 2D4C	l ++ #	\rightarrow	# #
26 /nɣ/ 2D4F 2D57	l ++ :	\rightarrow	1.
27 /ns/ 2D4F 2D59	l ++ 0	\rightarrow	⊕ ⊕
28 /nš/ 2D4F 2D5B	I ++ G	\rightarrow	€
29 /nt/ 2D4F 2D5C	I + <u></u> + +	\rightarrow	T + F
30 /č/ 2D4F 2D5E	l + <u></u> + €	\rightarrow	ಅ
31 /nz/ 2D4F 2D63	I ++ X	\rightarrow	k
32 /nz/ 2D4F 2D64	I ++ I	\rightarrow	<u> </u>
33 /wt/ 2D53 2D5C	° ++ +	\rightarrow	*
34 /rb/ 2D54 2D31	Ο ++ Θ	\rightarrow	0
35 /rj/ 2D54 2D36	O ++ T	\rightarrow	#
36 /rd/ 2D54 2D37	Ο ++ Λ	\rightarrow	(E)
37 /rk/ 2D54 2D3D	O ++ K	\rightarrow	⊕
38 /rk/ 2D54 2D3E	O + <u></u> + :	\rightarrow	ÖÖ
39 /rn/ 2D54 2D4F	O ++ I	\rightarrow	QΦ
40 /rs/ 2D54 2D59	0 ++ 0	\rightarrow	0
USV	2D7F between characters	→	Glyph (2D7F)
41 /rt/ 2D54 2D5C	0 ++ +	\rightarrow	O+ ⊕ ⊕ ⊞
42 /gt/ 2D56 2D5C	ᆛ + <u></u> + †	\rightarrow	Ŧ
43 /sk/ 2D59 2D3E	⊙ ++ :	\rightarrow	Ö
44 /sn/ 2D59 2D4F	0 + <u></u> + I	\rightarrow	Ф
45 /st/ 2D59 2D5C	0 ++ +	→	

USV	2D7F between characters	→	Glyph (2D7F)
			$\bigcirc + \oplus \oplus \oplus \Box +$
46 /šk/ 2D5B 2D3E	C ++ :·	\rightarrow	Ë
47 /šn/ 2D5B 2D4F	C ++ I	→	Ç
48 /št/ 2D5B 2D5C	C ++ +	→	CH CH CH
49 /ts/ 2D5C 2D59	+ ++ 0	→	Ł
50 /wt/ 2D61 2D5C	∐ ++ +	→	+
51 /yt/ 2D62 2D5C	5 ++ +	→	\$
52 /zt/ 2D63 2D5C	X ++ +	→	*
53 /zt/ 2D65 2D5C	¥ + <u></u> + +	→	Ħ

This should not be considered an exhaustive list of all bi-consonants used for Tifinagh, nor are the shapes of the bi-consonants necessarily definitive. There are a wide range of glyph variants.

Bi-consonants are only included in each language section when there are known variants.

Contextual Shaping

Contextul shaping should be implemented when the design of U+2D4D TIFINAGH LETTER YAL and U+2D4F TIFINAGH LETTER YAN are simply vertical strokes.

Contextual Shaping						
II	+	II	+	II	\rightarrow	or \\
2D4D		2D4D		2D4D		
II	+	I	+	II	\rightarrow	or \
2D4D		2D4F		2D4D		
1	+	II	+	1	\rightarrow	or \
2D4F		2D4D		2D4F		
I	+	1	+	1	→	or \
2D4F		2D4F		2D4F		

Contextual shaping will only be included in each language section when there is known shaping.

Writing Direction

In early inscriptions, Tifinagh was written horizontally from left to right, from right to left, vertically (bottom to top, top to bottom) or even in boustrophedon. However, the most frequently used directionality in the modern-day Tifinagh script is horizontal from left to right.

Given that left-to-right directionality seems to be the most widely used one in the Maghreb and in Niger, the strong directionality of Tifinagh is defined to be left-to-right. When needed, it is possible to explicitly declare a right-to-left directionality. The glyphs will then have to be mirrored, according to the rules in effect for the specified variant. If the glyphs are to be mirrored, then this must be implemented in the font.

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

$$0$$
I++ +0:|| 0 +1:||+ $\mathbb{L} \le$ (Senatet tsokalén wr teğğehnet émi.)

Using the same text, right-to-left behaviour is demonstrated using U+202E RIGHT-TO-LEFT OVERRIDE:

The following text demonstrates both Tifinagh directional behaviours using the U+202E RIGHT-TO-LEFT OVERRIDE and U+202C POP DIRECTIONAL FORMATTING:

$$0|+++0$$
; $||^{1}:0+|^{2}=0$

Directional Glyphs

Because the script can be written in multiple directions, the glyphs must be mirrored for right-to-left text, turned 90° for bottom-to-top text, or turned -90° for top-to-bottom text. Below is a sampling of some of the different shapes required for differing directions. Some glyphs, like a circle, could look the same in any direction. However, unless the glyphs are monoline, there will be slight variations in the glyph design. Where there are glyph variants, the number of glyphs required for different directions will increase exponentially.

	→	←	1	1	
2D30	o	o	0	o	
2D31	Θ	Θ	Φ	Φ	
2D32	\oplus	Ф	⊕	Ф	
2D33	X	X	\bowtie	×	
2D34	X	X	×	×	
2D35	X	X	M	×	
2D36	T	Т	⊢	≓	
2D37	٨	٨	<	>	
2D38	V	V	>	<	
2D39	Е	3	ш	т	



	→	←	1	↓
	3	Е	т	ш
2D3B	<u>o</u>	<u>o</u>	oļo	oļo
2D3C	н	Н	X	片
2D3D	K	R	K	Я
2D3E	:	:	··.	·.·
2D3F	К	Я	M	K
2D40	Φ	Φ	θ	Ө
2D41	Ø	Ø	Ø	Ø
2D42	•	1	••••	••••
2D43	λ	λ	~	>
2D44	Н	Н	-C	-
2D45	X	X	×	×
2D46	::	::	::	::
2D47	Z	7	Ы	N
2D48	•••	•••	:	•
2D49	٤	3	W	M
2D4A	I	I	н	н
2D4B	χ	χ	\times	×
2D4C	#	#	#	#
2D4D	И	N	Z	Z
2D4E	С	3	П	П
2D4F	1	1	_	_

	→	←	1	1
2D50	‡	‡	#	#
2D51	!	!		
2D52	6	2	10	0/
2D53	0	0	00	00
2D54	0	0	0	0
2D55	Q	Q	Q	Q
2D56	Y	Y	3 -	-C
2D57	:	:	•••	•••
2D58	×	×	×	×
2D59	0	0	0	0
2D5A	Ø	Ø	Ø	Q
2D5B	C	ື	ဗ	ဓ
2D5C	+	+	+	+
2D5D	X	Χ	×	×
2D5E	€	3	&	ക
2D5F	E	∄	±Ι	(T)
2D60	Δ	Δ	◁	\triangleright
2D61	Ц	Ц	⊐	⊏
2D62	5	7	N	M
2D63	Ж	Ж	×	×
2D64	1	1	_	7
2D65	*	*	ж	ж
2D66	<	>	٧	٨
2D67			1	1

Resources

It is important to realize that a keyboard only outputs codepoints. A font will support codepoints; but a font may also include variant glyphs for specific languages. A carefully chosen keyboard *and* font are both required in order to display the correct behavior for a particular language.

Keyboarding

The only standard keyboard known at the moment is the Moroccan standard keyboard for Neo-Tiginagh. A keyboard based on the Moroccan standard keyboard is supported in Microsoft Windows.

Keyman is a cross-platform keyboarding application. Four keyboards are available for the Tifinagh script:

- Tifinagh (Basic) Basic [tzm]
- Tifinagh (Full) Basic [tzm, thz, tda, thv, kab, mzb, shi, shy, rif, tmh, zen, zgh]
- · Tawallammat Tifinagh (SIL) [ttq, tzm]
- Tuareg Tifinagh [taq, thv]

lexilogos.com input

Neo-Tifinagh Character Picker

Tifinagh Character Picker

Fonts

These fonts provide support for some or all of the Tifinagh block.

- Noto Sans Tifinagh
- Akatab currently only covers part of the Tifinagh block for Tamahaq, Tamashek, and Tawallammat languages
- Tagmukay only covers part of the Tifinagh block for the Tawallammat Tamajaq language
- Catrinity
- IRCAM Tifinagh fonts supports Neo-Tifinagh
- Hapax font set
- MPH 2B Damase
- DejaVu

Languages Using Neo-Tifinagh script

Central Atlas Tamazight, Standard Moroccan Tamazight

Source: Tifinaghe-IRCAM, Omniglot, Tamazight: Neo-Tifinagh orthography notes, and Souad Sahraoui (pages 307-308)

Language tags: tzm-Tfng, zgh

Opentype language system tag: BBR

SLDR: zgh

Keyman keyboard: Tifinagh (Basic) Basic [tzm]

Keyman keyboard: Tifinagh (Full) Basic [tzm, thz, tda, thv, kab, mzb, shi, shy, rif, tmh, zen, zgh]

Characters									
Tfng	0	θ	X	٨	Ε	<u>e</u>	Н	K	Φ
USV	2D30	2D31	2D33	2D37	2D39	2D3B	2D3C	2D3D	2D40
Latn	/a/	/b/	/g/	/d/	/ḍ/	/e/	/f/	/k/	/h/
Tfng	٨	Н	X	Z	٤	I	И	С	I
USV	2D43	2D44	2D45	2D47	2D49	2D4A	2D4D	2D4E	2D4F
Latn	/ḥ/	/ε/	/x/	/q/	/i/	/j/	/l/	/m/	/n/
Tfng	0	0	Q	Y	0	Ø	C	+	E
USV	2D53	2D54	2D55	2D56	2D59	2D5A	2D5B	2D5C	2D5F
Latn	/u/	/r/	/ŗ/	/ɣ/	/s/	/ș/	/c/	/t/	/ţ/
Tfng	Ц	5	Ж	*	и				
USV	2D61	2D62	2D63	2D65	2D6F				
Latn	/w/	/y/	/z/	/ <u>z</u> /	/ w /				

Known glyph variants

The Unicode chart glyphs are based on Neo-Tifinagh shapes; thus, no glyph variants are required.

Bi-consonants

Bi-consonants are not "required" in Neo-Tifinagh. If a font supports bi-consonants, the two consonants separated by the ZWJ should thus form a bi-consonant. If a font does not support bi-consonants, they should simply appear as separate consonants.

Contextual Shaping

Neo-Tifinagh does not use contextual shaping for the "I" and "n". This is because the glyphs are distinguishable from each other when side by side.

Collation

Kabyle, Amazigh, Taqbaylit

Source: Omniglot and SNIMA 2004

Language tag: kab-Tfng

Opentype language system tag: BBR

Characters									
Tfng	0	θ	X	X	٨	Е	<u>e</u>	н	K
USV	2D30	2D31	2D33	2D35	2D37	2D39	2D3B	2D3C	2D3D
Latn	/a/	/b/	/g/	/ǧ/	/d/	/ḍ/	/e/	/f/	/k/
Tfng	Ø	٨	Н	X	Z	٤	I	И	Г
USV	2D41	2D43	2D44	2D45	2D47	2D49	2D4A	2D4D	2D4E
Latn	/h/	/ḥ/	/ε/	/x/	/q/	/i/	/j/	/I/	/m/
Tfng	I	0	0	Q	Y	0	Ø	C	+
USV	2D4F	2D53	2D54	2D55	2D56	2D59	2D5A	2D5B	2D5C
Latn	/n/	/u/	/r/	/ŗ/	/ɣ/	/s/	/ș/	/c/	/t/
Tfng	€	E	Ц	5	Ж	*	u		
USV	2D5E	2D5F	2D61	2D62	2D63	2D65	2D6F		
Latn	/č/	/ţ/	/w/	/y/	/z/	/ <u>z</u> /	/w/		

Known glyph variants

A variant of U+2D4d is used: |

Bi-consonants

Bi-consonants are not "required" in Neo-Tifinagh. If a font supports bi-consonants, the two consonants separated by the ZWJ should thus form a bi-consonant. If a font does not support bi-consonants, they should simply appear as separate consonants.

Collation

Languages Using Traditional Tifinagh script

Chenoua, Tacenwit

Source: Savage, 2003 pages 2-3

This source lists a set of characters that are used in a Algerian school text book entitled "Adlis" printed in 1988 (pages 12,13). It is unknown how widely used this book (or the characters) are actually used.

Language tag: cnu-Tfng

Characters									
Tfng	•	•	X	X	٨	Е	÷	30	K
USV	2D30	2D30 0302	2D33	2D35	2D37	2D39	2D3B	2D3C	2D3D
Latn	/a/	/ε/	/g/	/ğ/	/d/	/ḍ/	/c/	/f/	/k/
Tfng	Φ	٨	Ж	Z	Σ	I	11	С	1
USV	2D40	2D43	2D45	2D47	2D49	2D4A	2D4D	2D4E	2D4F
Latn	/b/	/ḥ/	/x/	/q/	/i/	/j/	/l/	/m/	/n/
Tfng	:	0	0	C	+	E	Ш	П	ж
USV	2D53	2D54	2D59	2D5B	2D5C	2D5F	2D61	2D62	2D63
Latn	/u/	/r/	/s/	/c/	/t/	/ţ/	/w/	/y/	/z/

Glyph variants

USV				
2D30	0	>	•	
2D3B	<u>o</u>	>	÷	
2D3C	н	>	JC	
2D49	٤	>	Σ	
2D4D	И	>	11	
2D53	0	>	:	
2D5B	C	>	e	
2D5C	+	>	+	
2D62	5	>	П	

Ghomara, Shilha

Source: Omniglot

Language tag: gho-Tfng

Opentype language system tag: BBR

Characters									
Tfng	0	θ	X	٨	Е	Н	K	Φ	Χ
USV	2D30	2D31	2D33	2D37	2D39	203C	2D3D	2D40	2D43
Latn	/a/	/b/	/g/	/d/	/ḍ/	/f/	/k/	/h/	/ḥ/
Tfng	Н	Х	Z	٤	I	И	Е	I	0
USV	2D44	2D45	2D47	2D49	204A	2D4D	2D4E	2D4F	2D53
Latn	/ε/	/x/	/q/	/i/	/ž/	/1/	/m/	/n/	/u/
Tfng	0	Q	Y	0	Q	C	+	E	Ш
USV	2D54	2D55	2D56	2D59	205A	2D5B	2D5C	2D5F	2D61
Latn	/r/	/ŗ/	/ɣ/	/s/	/ș/	/š/	/t/	/ţ/	/w/
Tfng	5	Ж	*	u					
USV	2D62	2D63	2D65	2D6F					
Latn	/y/	/z/	/ <u>z</u> /	/ w /					

Known glyph variants

A variant of U+2D4d is used: |

Bi-consonants

Unknown.

Collation

Tumzabt

Source: Savage, 2003 pages 2-3

This source lists a set of characters that are used in a Algerian school text book entitled "Adlis" printed in 1988 (pages 12,13). It is unknown how widely used this book (or the characters) are actually used.

Language tag: mzb-Tfng

Characters									
Tfng	•	?	X	X	٨	Е	÷	30	K
USV	2D30	2D30 0302	2D33	2D35	2D37	2D39	2D3B	2D3C	2D3D
Latn	/a/	/ε/	/g/	/ǧ/	/d/	/ḍ/	/c/	/f/	/k/
Tfng	Φ	λ	Х	Z	Σ	I	II	С	1
USV	2D40	2D43	2D45	2D47	2D49	2D4A	2D4D	2D4E	2D4F
Latn	/b/	/ḥ/	/x/	/q/	/i/	/j/	/l/	/m/	/n/
Tfng	:	0	0	C	+	E	Ц	П	Ж
USV	2D53	2D54	2D59	2D5B	2D5C	2D5F	2D61	2D62	2D63
Latn	/u/	/r/	/s/	/c/	/t/	/ţ/	/w/	/y/	/z/

Glyph variants

usv				
2D30	0	>	•	
2D3B	<u>o</u>	>	÷	
2D3C	н	>	30	
2D49	٤	>	Σ	
2D4D	И	>	li .	
2D53	0	>	:	
2D5B	C	>	¢	
2D5C	+	>	+	
2D62	5	>	П	

Tarifit, Riffian

Source: Omniglot and Tarifit New Testament

Language tag: rif-Tfng

Opentype language system tag: BBR

Characters									
Tfng	o	θ	X	٨	Е	응	н	K	Φ
USV	2D30	2D31	2D33	2D37	2D39	2D3B	2D3C	2D3D	2D40
Latn	/a/	/b/	/g/	/d/	/ḍ/	/ə/	f	k	/h/
Tfng	٨	Н	X	Z	٤	I	И	С	1
USV	2D43	2D44	2D45	2D47	2D49	2D4A	2D4D	2D4E	2D4F
Latn	/ḥ/	/ε/	/x/	/q/	/i/	/j/	/1/	/m/	/n/
Tfng	0	0	Q	Y	0	Ø	C	+	€
USV	2D53	2D54	2D55	2D56	2D59	2D5A	2D5B	2D5C	2D5E
Latn	/u/	/r/	/ŗ/	/ɣ/	/s/	/ș/	/c/	/t/	/č/
Tfng	E	Ш	5	Ж	*	u			
USV	2D5F	2D61	2D62	2D63	2D65	2D6F			
Latn	/ţ/	/w/	/y/	/z/	/ <u>z</u> /	/w/			

Collation

o<Θ<Χ<<Χ"<Λ<Ε<៖<Η<Γ<!><O<Q<\V< <O<G<€<+<E<U<Σ<X<X<#

Glyph variants and Bi-consonants

Unknown.

Tachelhit

Source: shi (SLDR)

Language tag: shi

Opentype language system tag: BBR

Characters									
Tfng	0	Θ	X	٨	Е	<u>e</u>	Н	K	Φ
USV	2D30	2D31	2D33	2D37	2D39	2D3B	2D3C	2D3D	2D40
Tfng	Χ	Н	Х	Z	٤	I	И	Г	1
USV	2D43	2D44	2D45	2D47	2D49	2D4A	2D4D	2D4E	2D4F
Tfng	0	0	Q	Y	0	Ø	C	+	E
USV	2D53	2D54	2D55	2D56	2D59	2D5A	2D5B	2D5C	2D5F
Tfng	Ц	5	Ж	*	u				
USV	2D61	2D62	2D63	2D65	2D6F				

Glyph variants and Bi-consonants

Unknown.

Collation

Tachawit, Tacawit

Source: Savage, 2003 pages 2-3

This source lists a set of characters that are used in a Algerian school text book entitled "Adlis" printed in 1988 (pages 12,13). It is unknown how widely used this book (or the characters) are actually used.

Language tag: shy-Tfng

Characters									
Tfng	•	?	X	X	٨	Е	÷	30	K
USV	2D30	2D30 0302	2D33	2D35	2D37	2D39	2D3B	2D3C	2D3D
Latn	/a/	/ε/	/g/	/ğ/	/d/	/ḍ/	/c/	/f/	/k/
Tfng	Φ	٨	Х	Z	Σ	I	11	Е	I
USV	2D40	2D43	2D45	2D47	2D49	2D4A	2D4D	2D4E	2D4F
Latn	/b/	/ḥ/	/x/	/q/	/i/	/j/	/l/	/m/	/n/
Tfng	:	0	0	C	+	E	Ц	П	Ж
USV	2D53	2D54	2D59	2D5B	2D5C	2D5F	2D61	2D62	2D63
Latn	/u/	/r/	/s/	/c/	/t/	/ţ/	/w/	/y/	/z/

Glyph variants

USV			
2D30	o	>	•
2D3B	<u>o</u>	>	•
2D3C	н	>	30
2D49	٤	>	Σ
2D4D	И	>	II
2D53	0	>	:
2D5B	C	>	e
2D5C	+	>	+
2D62	5	>	П

Siwi

Source: Omniglot

Language tag: siz-Tfng

Opentype language system tag: BBR

Characters									
Tfng	0	θ	X	T	٨	Е	<u>e</u>	Н	K
USV	2D30	2D31	2D33	2D36	2D37	2D39	2D3B	2D3C	2D3D
Latn	/a/	/b/	/g/	/j/	/d/	/ḍ/	/ə/	/f/	/k/
Tfng	Φ	٨	Н	X	Z	٤	И	Е	1
USV	2D40	2D43	2D44	2D45	2D47	2D49	2D4D	2D4E	2D4F
Latn	/h/	/ḥ/	/'/	/x/	/q/	/i/	/I/	/m/	/n/
Tfng	0	0	Q	Y	0	Ø	G	+	€
USV	2D53	2D54	2D55	2D56	2D59	2D5A	2D5B	2D5C	2D5E
Latn	/u/	/r/	/ŗ/	/ǧ/	/s/	/ș/	/š/	/t/	/č/
Tfng	E	Ц	5	Ж	*	u			
USV	2D5F	2D61	2D62	2D63	2D65	2D6F			
Latn	/ţ/	/w/	/y/	/z/	/ <u>z</u> /	/w/			

Other characters			
Tfng	٥ξ	00	00
USV	2D30 2D49	2D30 2D53	2D54 2D54
Latin	/ai/ /e/	/au/ /o/	/rr/

Glyph variants and Bi-consonants

Unknown.

Collation

Tamasheq

Source: Omniglot

Language tag: taq-Tfng

Opentype language system tag: TAQ (preferred) or TMH

Characters									
Tfng	o	Θ	X	T	٨	Е	Н	:	i
USV	2D30	2D31	2D34	2D36	2D37	2D39	2D3C	2D3E	2D42
Latn	/a/	/b/	/g/	/j/	/d/	/ḍ/	/f/	/k/	/h/
Tfng	٨	Н	::	•••	٤	χ	#	И	С
USV	2D43	2D44	2D46	2D48	2D49	2D4B	2D4C	2D4D	2D4E
Latn	/ḥ/	/ε/	/x/	/q/	/i/	/ž/	/ <u>z</u> /	/l/	/m/
			•	_	_	_	~-	•	
Tfng	ı	!	0	0	•	0	Ø	C	+
Tfng USV	I 2D4F	! 2D51	2D53	O 2D54	: 2D57	O 2D59	9 2D5A	2D5B	† 2D5C
_] 2D4F /n/								
USV		2D51	2D53 /o//	2D54	2D57	2D59	2D5A	2D5B	2D5C
USV Latn	/n/	2D51 /ŋ/	2D53 /o// u/	2D54 /r/	2D57 /ɣ/	2D59 /s/	2D5A	2D5B	2D5C

Glyph variants and Bi-consonants

Unknown.

Collation

Tamasheq (Mali)

Source: Savage, 2000 (pages 145-147, 154)

Language tag: taq-Tfng-ML

Opentype language system tag: TAQ (preferred) or TMH

Characters									
Tfng	0	Θ	ï	Λ	Е	I	>	i	::
USV	2D30	2D31	2D36	2D37	2D39	2D3C	2D3E	2D42	2D46
Latn	/ a /	/b/	/g/	/d/	/ḍ/	/f/	/k/	/h/	/x/
Tfng	•••	٤	X	#	II	С	1	:	0
USV	2D48	2D49	2D4B	2D4C	2D4D	2D4E	2D4F	2D53	2D54
Latn	/q/	/y/	/ž/	/ <u>z</u> /	/1/	/m/	/n/	/w/	/r/
Tfng	:	×	0	#	8	+	F	*	Π
USV	2D57	2D58	2D59	2D5A	2D5B	2D5C	2D5F	2D63	unencoded?
Latn	/ɣ/	/j/	/s/	/ș/	/š/	/t/	/ţ/	/z/	/ <u> </u> /

Glyph variants

Ciypii varianto				
USV				
2D30	0	>	•	
2D3C	Н	>	I	
2D4D	И	>	II	
2D5C	+	>	+	
2D5A	Q	>	#	
2D5F	E	>	F	
2D63	Ж	>	*	

Bi-Consonants

Di Conconunto			
USV	2D7F between characters	→	Glyph
2D4F 2D37	I ++	\rightarrow	X
2D59 2D4F	⊙ + <u></u> + I	\rightarrow	φ
2D4F 2D5C	I + + +	\rightarrow	Т
2D4F 2D3E	++ ;	\rightarrow	Ĵ.
2D4F 2D3C	I + + 3C	\rightarrow	I
2D54 2D5C	O + _ + +	\rightarrow	\oplus
2D59 2D5C	⊙ + <u>_</u> + +	\rightarrow	⊕
2D49 2D5C		\rightarrow	

USV	2D7F between characters	→	Glyph
	ξ + + +		ξ,
2D4D 2D5C	+ _ + +	\rightarrow	#
2D53 2D5C	: + + +	\rightarrow	;
2D4C 2D5C	# ++ +	→	#
2D4E 2D5C	C + + +	\rightarrow	C ₊
2D3C 2D5C][++ +	\rightarrow	Ŧ

Contextual Shaping

Contextual Shaping						
II	+	11	+	II	\rightarrow	II ^{II} II
2D4D		2D4D		2D4D		
II	+	I	+	II	\rightarrow	¹
2D4D		2D4F		2D4D		
1	+	II	+	1	\rightarrow	1111
2D4F		2D4D		2D4F		
1	+	1	+	1	\rightarrow	111
2D4F		2D4F		2D4F		

Collation

Tuareg (Azawagh dialect of Niger-Mali), Tagdal

Source: L2/04-142 (pages 8 & 31)

Language tag: tda-Tfng

Characters									
Tfng	•	ï	Е	30	>	Φ	i	::	
USV	2D30	2D36	2D39	2D3C	2D3E	2D40	2D42	2D46	2D48
Latn	/a/	/g/	/d/	/f/	/k/	/b/	/h/	/q/	/x/
Tfng	#	11	С	1	:	0	÷	0	c
USV	2D4C	2D4D	2D4E	2D4F	2D53	2D54	2D57	2D59	2D5B
Latn	/j/	/1/	/m/	/n/	/w/	/r/	/ɣ/	/s/	/š/
Tfng	+	4	*	1					
USV	2D5C	2D62	2D63	2D64					
Latn	/t/	/y/	/z/	/ <u>z</u> /					/

Glyph variants

USV			
2D30	o	>	•
2D3C	н	>	30
2D4D	И	>	II
2D53	0	>	:

Bi-consonants

Unknown.

Collation

Tahaggart Tamahaq, Tamahaq (Tuareg)

Source: Alphabet Chart (personal files)

Language tag: thv-Tfng

Opentype language system tag: THV (preferred) or TMH

Keyman keyboard: Tuareg Tifinagh [taq, thv]

Font: Akatab

Characters									
Tfng	•	Θ	8	ï	Λ	Е	30	>	•
USV	2D30	2D31	2D34	2D36	2D37	2D39	2D3C	2D3E	2D42
Latn	/a/	/b/	/g/	/ǧ/	/d/	ģ	/f/	/k/	/h/
Tfng									

Characters									
	::	•••	٤	X	#	II	С	1	‡
USV	2D46	2D48	2D49	2D4B	2D4C	2D4D	2D4E	2D4F	2D50
Latn	/x/	/q/	/ɣ/	/j/	/ <u>z</u> /	/d/	/m/	/n/	/ŋ/
Tfng	:	0	:	0	c	+	E	*	
USV	2D53	2D54	2D57	2D59	2D5B	2D5C	2D5F	2D63	
Latn	/u/	/r/	/ɣ/	/s/	/š/	/t/	/ţ/	/z/	

Glyph variants

USV				
2D30	o	>	•	
2D34	X	>	X	
2D3C	н	>	30	
2D4B	χ	>	X	
2D4D	И	>	11	
2D50	‡	>	†	
2D53	0	>	:	
2D5B	C	>	¢	
2D63	Ж	>	*	

Bi-consonants

Unknown.

Collation

Tayart Tamajeq, Tuareg (Aïr dialect of Niger)

Source: Omniglot and L2/04-142 (pages 8 & 31)

Language tag: thz-Tfng

Opentype language system tag: THZ (preferred) or TMH

The order of these characters is based on Unicode codepoints, not on the order listed in the sources. The two sources have an inconsistent character set. This is a combination of the two.

Characters									
Tfng	0	X	T.	٨	Е	<u> </u>	Н	:	Φ
USV	2D30	2D33	2D36	2D37	2D39	203B	2D3C	2D3E	2D40
Latn	/a/	/g/	/ǧ/	/d/	/ḍ/	/ə/	/f/	/k/	/b/
Tfng	i	::	•••	٤	#	И	С	1	!
USV	2D42	2D46	2D48	2D49	2D4C	2D4D	2D4E	2D4F	2D51
Latn	/h/	/x/	/q/	/i/	/j/	/l/	/m/	/n/	/ŋ/
Tfng	0	0	Q	:	0	Ø	C	+	E
USV	2D53	2D54	2D55	2D57	2D59	2D5A	2D5B	2D5C	2D5F
Latn	/w/ / u/	/r/	/r/	/ɣ/	/s/	/ \$ /	/š/	/t/	/ţ/
Tfng	5	1/#	*	<		J			
USV	2D62	2D63 / 2D64	2D65	2D66	2D67	2D70			
Latn	/y/	/z/	/ <u>z</u> /	/e/	/o/				

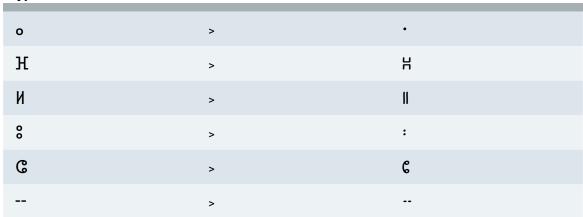
It is unclear if this is meant to be a required bi-consonant.

Other "letters"	
Tfng	+ C
USV	2D5C 2D5B
Latn	č

Punctuation

All punctuation required for Neo-Tifinagh is also required for thz. In addition, the separator mark is used: $U+2D70 \mathcal{L}$.

Glyph variants



Bi-consonants

Unknown.

Collation

Tawallammat Tamajaq

Source: Abdoussamed, and characters which are included in Tagmukay font and the keyboard below.

Language tag: ttq-Tfng, tmh-Tfng (macrolanguage)

Opentype language system tag: TTQ (preferred) or TMH

Keyman keyboard: Tawallammat Tifinagh (SIL) [ttq, tzm]

Font: Tagmukay

Characters									
Tfng	•	T	Е	H	:	Φ	:	::	
USV	2D30	2D36	2D39	2D3C	2D3E	2D40	2D42	2D46	2D48
Latn	/a/	/g/	/d/	/f/	/k/	/b/	/h/	/q/	/x/
Tfng	\$	#	II	Г	I	ļ	:	0	:
USV	2D49	2D4C	2D4D	2D4E	2D4F	2D51	2D53	2D54	2D57
Latn	/i/ / y/	/j/	/1/	/m/	/n/	/ŋ/	/w/	/r/	/c/
Tfng	0	C	+	4	Ж	1			
USV	2D59	2D5B	2D5C	2D62	2D63	2D64	2D67		
Latn	/s/	/š/	/t/	/y/	/z/	/z/	/o/		

Vowels

SIL and APT have differing orthographies for the same language

SIL

Vowels						
Tfng	?	Ÿ	4	ĝ	?	÷
USV	2D30 + 0302	2D30 + 0306	2D62 + 0323	2D62 + 0302	2D53 + 0302	2D67 + 0302
Latn	/a/	/ə/	/i/	/e/	/u/	/o/

APT

Vowels						
Tfng	•	<	4		9	II
USV	2D30	2D66	2D62	2D67	2D53	not encoded?
Latn	/a/	/ə/	/i/	/e/	/u/	/o/

Punctuation

All punctuation required for Neo-Tifinagh is also required for ttq. In addition, the separator mark is used: $U+2D70 \ J$.

Glyph variants

usv			
2D30	o	>	
2D3C	н	>	H
2D4D	И	>	II
2D53	0	>	:
2D5B	C	>	Ç
2D63	ж	>	*

Tri- Bi-Consonants

USV	2D7F between characters	→	Glyph
2D3C 2D5C	H ++ +	→	ሄ
2D4D 2D5C	+ + +	\rightarrow	X
2D4E 2D40	Г ++ Ф	→	Θ
2D4E 2D59	□ ++ ⊙	→	<u>©</u>
2D4E 2D5C	□ ++ +	→	E
2D4F 2D36	I ++ T	\rightarrow	II.
2D4F 2D39	I ++ E	→	ш
2D4F 2D3C	I ++ H	\rightarrow][
2D4F 2D3C 2D5C	l ++ 片 ++ 十	→	Ж
2D4F 2D3E	l ++ :	\rightarrow	‡
2D4F 2D4C	l ++ #	\rightarrow	# (₩)
2D4F 2D57	l ++ :	\rightarrow	Ί.
2D4F 2D59	l ++ ⊙	\rightarrow	(<u>)</u>
2D4F 2D5C	l ++ +	\rightarrow	F
2D4F 2D64	1 + + 1	\rightarrow	
2D54 2D5C	O ++ +	→	\oplus
2D59 2D5C	⊙ + + +	\rightarrow	•
2D5B 2D5C	β ++ +	\rightarrow	E

Contextual Shaping

Contextual Shaping						
I	+	II	+	II	\rightarrow	\\
2D4D		2D4D		2D4D		
II	+	I	+	II	\rightarrow	IIVII
2D4D		2D4F		2D4D		
1	+	II	+	1	\rightarrow	1//\1
2D4F		2D4D		2D4F		
1	+	I	+	I	\rightarrow	I\I
2D4F		2D4F		2D4F		

Other languages with little or no information

These language are reported to have used or are using Tifinagh script. However, no further information is available.

Awjilah

Language tag: auj - Tfng

Ghadamès

Language tag: gha-Tfng

Taznatit

Language tag: grr-Tfng

Nafusi (Zuwara dialect)

Source: Omniglot

Language tag: jbn-Tfng

Omniglot indicates this language can be written with Tifinagh, but no further information is given.

Numidian

Language tag: nxm-Tfng

Tetserret

Language tag: tez-Tfng

Zenaga

Language tag: zen-Tfng

Other Berber languages

These are Berber languages which do not appear to have ever used the Tifinagh script:

- Judeo-Berber [jbe]
- Tagargrent, Ouargli [oua]

- Sened [sds]
- Senhaja Berber [sjs]
- Sawknah [swn]
- Tidikelt Tamazight [tia]
- Temacine Tamazight [tjo]

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Omniglot - Riffian (Tarifit / +οΟΣΗΣ+ / تاریفیت / [rif]

Omniglot - Shilha (Tašəlḥiyt / +οCИλΣΣ+) [gho]

Omniglot - Siwi (ΤΝοΙΙΣΟΣΔοΙ / Jlan n isiwan) [siz]

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