



# Everson Typography

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## Computer Locale Requirements for Afghanistan

The United Nations Development Programme Country Office for Afghanistan has commissioned a report on the language support required for Pashto and Dari, Afghanistan's national languages. In addition, the Project Team (Michael Everson of Everson Typography, Dublin, and Roozbeh Pournader of the FarsiWeb Project, Tehran) will, if possible, collect similar information for several other languages, whose populations are estimated to be greater than 100,000. The languages are listed below with their genetic affiliations and estimated populations (taken from the SIL International *Ethnologue*).

**Pashto:** South-western Pashto (8,000,000), North-eastern Pashto (100,000)

**Persian:** Dari (5,600,000), Hazaragi (1,403,000), Aimaq (480,000)

**Dardic:** Southwest Pashayi (108,000)

**Balochi:** Western Balochi (200,000)

**Turkic:** Southern Uzbek (1,403,000), Turkmen (500,000)

**Dravidian:** Brahui (200,000)

The reason this survey has been commissioned is that none of the major computer manufacturers currently supports any of these languages, and this causes serious problems for all aspects of Information Technology for the entire country. Support of any language involves inputting, display and printing, processing, and support of a user's locale information.

The results of this survey will be made available to all companies (such as Apple, HP, IBM, Microsoft, and Sun) via the Unicode Consortium's public and private e-mail discussion lists, as well as press releases in Afghanistan and elsewhere. The data collected will be formatted in locale specifications via the ICU (International Components for Unicode) website hosted at [oss.software.ibm.com/cgi-bin/icu/lx/en\\_US/utf-8/?](http://oss.software.ibm.com/cgi-bin/icu/lx/en_US/utf-8/?). In this way, the Afghan preferred formats for language, date format (including month and day names and calendar), time format, number format, and currency format, will be available to software vendors who can provide software which will be of use to the people of Afghanistan, at governmental and local level.

Keyboard drivers for Arabic-script languages come in two varieties: QWERTY-based input methods typically preferred by people educated outside of Arabic-script countries, and ergonomic-based keyboards (Arabic and Farsi keyboards are similar but for language-specific letters). The survey will investigate current practice in Afghanistan and make recommendations.

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Two of the most important elements of the data sought in this survey are the letters used in Afghanistan's languages, and the alphabetical order in which data is expected to be sorted. We also need to determine the specific shaping requirements for each language so that font vendors can ensure that their fonts contain support for the languages of Afghanistan. Currently many fonts only support Arabic and Farsi, and only sometimes Urdu. The report deliverable of this project will be made available (via the Unicode Consortium) to all font vendors, ensuring that Arabic-script fonts will include support for the major languages of Afghanistan.



Michael Everson



Roozbeh Pournader

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## The Pashayi Alphabet

Please review the alphabet presented below. This alphabet has been put together using a number of different sources, so there may be errors in it. Variant forms for some of the letters are given in parentheses below.

Are all of the letters used in your language included? Are *all* of the shapes presented correct? Are any missing? Are there variants of any of these letters which can be used? Are the letters in the correct alphabetical order? Can any groups or collections of individual letters be considered equivalent in sorting? Would any of the letters listed below be considered incorrect if they were to appear in text in your language?

UCS	Latin	isolated	final	medial	initial
0622	ā	آ	آ	—	—
0627	alef	ا	ا	—	—
0621	ḥamza	ء	—	—	—
0623	alef ḥamza	أ	أ	—	—
0624	vav ḥamza	و	و	—	—
0626	ye ḥamza	ي	ي	ي	ي
0628	be	ب	ب	ب	ب
067E	pe	پ	پ	پ	پ
062A	te	ت	ت	ت	ت
062B	se	ث	ث	ث	ث
062C	jim	ج	ج	ج	ج
0686	che	چ	چ	چ	چ
062D	ḥe	ح	ح	ح	ح
062E	khe	خ	خ	خ	خ
062F	dal	د	د	—	—
0630	zal	ذ	ذ	—	—
0631	re	ر	ر	—	—
0632	ze	ز	ز	—	—
0698	zhe	ژ	ژ	—	—
0633	sin	س	س	س	س
0634	shin	ش	ش	ش	ش
0635	ṣad	ص	ص	ص	ص
0636	ẓad	ض	ض	ض	ض
0637	tā	ط	ط	ط	ط

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0638	zā	ظ	ظ	ظ	ظ
0639	ʿein	ع	ع	ع	ع
063A	ghein	غ	غ	غ	غ
0641	fe	ف	ف	ف	ف
0642	qaf	ق	ق	ق	ق
06A9	kaf	ك	ك	ك	ك
(0643	Arab kaf	ك	ك	ك	ك)
06AF	gaf	گ	گ	گ	گ
0644	lam	ل	ل	ل	ل
0645	mim	م	م	م	م
0646	nun	ن	ن	ن	ن
0648	vav	و	و	—	—
0647	he	ه	ه	ه	ه
(0629	te gerd	ة	ة	—	—)
(06BE	he dochesm	ه	ه	ه	ه)
06CC	ye	ی	ی	ی	ی
(064A	Arab ye	ي	ي	ی	ی)

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Please write as neatly and clearly as possible. Feel free to use the back side of the sheets or attach additional sheets if necessary, but if you do so please mention it in the space provided for answers.

## 1 Numeric Formatting

1.1. How do you write the number 90,876,543.21 in the Pashayi language? Are there any special requirements regarding the decimal separator, the thousands separator, or the shapes of the digits? Is it possible for the digits to be grouped in groups of other than three?

1.2. How do you write the percentage 22.5% in the Pashayi language? Should the percent sign appear on the right or the left? Should there be a space between the number and the percent sign? Do you have any special considerations regarding the percent sign in the Pashayi language? If yes, please describe them.

1.3. How do you write the number 6.22E23 or  $-6.22 \times 10^{23}$  (in scientific notation) in the Pashayi language?

1.4. Please spell out the following numbers in the Pashayi language.

Number	Number spelled out in the Pashayi language
zero	
one	
two	
three	

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four	
five	
six	
seven	
eight	
nine	
ten	
eleven	
twelve	
thirteen	
fourteen	
fifteen	
sixteen	
seventeen	
eighteen	
nineteen	
twenty	
twenty-one	
thirty	
forty	
fifty	

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sixty	
seventy	
eighty	
ninety	
one hundred	
two hundred	
three hundred	
four hundred	
five hundred	
six hundred	
seven hundred	
eight hundred	
nine hundred	
one thousand	
two thousand	
one million (1,000,000)	
one billion (1,000,000,000)	

- 1.5. How do you spell the number 123.45 (one hundred and twenty-three point four five) in the Pashayi language?
- 1.6. How do you spell the negative number  $-56,789$  (minus fifty-six thousand seven hundred and eighty-nine) in the Pashayi language?

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## 2 Monetary Formatting

- 2.1. Do you know of any special symbol for the afghani currency in texts written in the Pashayi language? If yes, a) Is it common? b) Do you recommend its usage? c) Do you know about its historical origins? If yes, please mention them. d) Do you know about any typographical variations? If yes, please mention them.
  
- 2.2. Are there subdivisions of the afghani (e.g., one-hundredth) in accounting usage? If yes, a) How many decimal places are usually given after the decimal separator? b) Does that subdivision of afghani have a name? If yes, please write it here.
  
- 2.3. How do you represent the amount 12,345,678 afghanis in the Pashayi language? How should the amount be formatted to maximize legibility (e.g., by using spaces, thousands separators, etc., between the digits)? Do you put a space between the amount and the currency symbol? Should the currency symbol appear to the left of the amount or to the right?
  
- 2.4. For accounting purposes, how do you represent *negative* afghani amounts in the Pashayi language? For example, please write the *negative* amount 1,234 afghanis in Pashayi.

## 3 Date and Time Conventions

- 3.1. Please write down the names of the days of the week in the Pashayi language. Do you know of any abbreviations for the the days of week in the Pashayi language? If yes, please write them down in addition to the long form.



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Day name	Day name in the Pashayi language	Abbreviations (if any)
Saturday		
Sunday		
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		

3.2. Which day is considered to be the first day of the week in the Pashayi language?

3.3. Please write down the names of Persian month names in the Pashayi language. Do you know of any abbreviations for Persian month names in the Pashayi language? If yes, please write them down in addition to the long form.

Month name in Iran	Month name in the Pashayi language	Abbreviations (if any)
Farvardin ..... فروردین		
Ordibehesht .... اردیبهشت		
Khordad ..... خرداد		
Tir ..... تیر		
Mordad ..... مرداد		
Shahrivar ..... شهریور		
Mehr ..... مهر		
Aban ..... آبان		
Azar ..... آذر		

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Dey .....	دی	
Bahman .....	بهمن	
Esfand .....	اسفند	

3.4. Please write the Persian date 30 Shahrivar 1361 (۳۰ شهریور ۱۳۶۱) in long form, short form, and in numeric format in the Pashayi language:

Form	Iranian example	Pashayi form (if any)
long	سه شنبه، ۳۰ شهریور ۱۳۶۱	
short	۳۰ شهریور ۱۳۶۱	
numeric	۱۳۶۱/۶/۳۰	

3.5. Please write down the names of Gregorian month names in the Pashayi language. Do you know of any abbreviations for Gregorian month names in the Pashayi language? If yes, please write them down in addition to the long form.

Month name	Month name in the Pashayi language	Abbreviations (if any)
January		
February		
March		
April		
May		
June		
July		
August		
September		

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October		
November		
December		

- 3.6. Please write the Gregorian date 1982-09-21 (21 September 1982) in long form, short form, very short form, and in numeric format in the Pashayi language:

Form	European English example	Pashayi form (if any)
long	Tuesday, 21 September 1982	
short	21 September 1982	
very short	21 Sep 1982	
numeric	21/09/1982	

- 3.7. How do you distinguish the dates written in the Gregorian calendar from the dates in the Persian and Islamic calendars? Do you use any abbreviations for distinguishing the Persian calendar (Hejri-e Shamsi), the Lunar Islamic calendar (Hejri-e Ghamari), and the Gregorian calendar? If yes, please write them here.
- 3.8. Do you use any abbreviations for the negative or positive dates in the Gregorian calendar (such as the BC/AD or BCE/CE used in English)? If yes, please write them here.
- 3.9. Do you use any abbreviations for the negative dates in the Persian or Lunar Islamic calendars? If yes, please write them here.

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- 3.10. Which is more commonly used in Afghanistan, the 12-hour clock, or the 24-hour clock? Is this the same as official use? Do you have any considerations regarding the usage? If yes, please write them here.
- 3.11. Are there any abbreviations or short names for a.m. and p.m. in the Pashayi language? If yes, please write them here. Please also write out the long names (in English, a.m. = ante meridiem, and p.m. = post meridiem).
- 3.12. Please write the following times of day in the format common in Afghanistan. Do you prefer the hours to be written with a leading zero or without one?

Time of day	Localized time of day
15:04:30	
07:20:05	

- 3.13. Please write the full date and time “Tuesday, 30 Shahrivar 1361, 09:07:04” in the Pashayi language.
- 3.14. Please write the full date and time “Tuesday, 21 September 1982, 09:07:04” in the Pashayi language.
- 3.15. How do you write the phrase “Afghanistan Time” or “Afghanistan Standard Time” or in the Pashayi language?
- 3.16. How do you write the phrases “Greenwich Mean Time” and “Coordinated Universal Time” (GMT and UTC, the standard time references) in the Pashayi language?

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## 4 Affirmative and Negative Answers

- 4.1. What are the words for “Yes” and “No” in the Pashayi language? Please list all common words in written usage, especially those which could be used to answer questions in a computer interface.

## 5 Character Set Considerations

- 5.1. Do you know of any character sets being used for representation of the Pashayi language on computers? Please provide us with any possible references about these character sets or their history, or kindly provide such information yourself.

- 5.2. Do you know of any letters outside the Pashayi alphabet which are used in Pashayi language texts, loanwords, or personal names (for instance, TEH MARBUTA, š)? If yes, please list all such letters here and estimate their frequency in Pashayi texts.

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## 6 Use of Special Characters

- 6.1. Which symbols does the Pashayi language use for quotation marks? Please write “Afghanistan” in quotation marks in the Pashayi language.
  
- 6.2. Please list the punctuation marks used in the Pashayi language along with their names and use. (Compare them with a similar symbol in the English language if that will help.)
  
- 6.3. Do you know of any special Koranic annotation marks used in Korans published in Afghanistan? If yes, please list them here.

## 7 Character Rendition

- 7.1. Do you know of any special rendering requirement of letters of the Pashayi alphabet (such as different forms of HEH or YEH)? If yes, please describe them here.

## 8 Personal Names Rules

- 8.1. How does one address men and women in the Pashayi language? (We refer to the equivalent of “Mr” or “Ms” in English, or the suffixes “-san” or “-sama” in Japanese.) Please fill the following

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form with their equivalents in Pashayi. You may leave the box empty if the phrase is not common in addressing people. Please provide an example of a complete name with title in each case.

<b>Title</b>	<b>Pashayi translation (if any)</b>	<b>Example</b>
(Gender-neutral title)		
Mr		
Ms		
Mrs		
Miss		

- 8.2. In some languages, the way people's names are used can be unique. Sometimes the personal name precedes the surname, sometimes the reverse. Often patronymics or birthplaces are found as elements of names. And some people have only a single name. What practice or practices are used in the Pashayi language?

## 9 Coding of National Entities

9.1. How do you write the word "Pashayi" in the Pashayi language?

9.2. How do you write the word "Afghanistan" in the Pashayi language?

9.3. How do you write the word "Afghanistan afghani" (the monetary unit) in the Pashayi language?

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- 9.4. Please name the most authoritative monolingual dictionary of the Pashayi language.
  
- 9.5. Please name the most authoritative bilingual dictionaries from English to Pashayi and from Pashayi to English (or any other major language of the world).
  
- 9.6. Please name the most authoritative reference about the grammar of the Pashayi language in the Pashayi language itself.
  
- 9.7. Please name the most authoritative reference about the grammar of the Pashayi language in English (or any other major language of the world).
  
- 9.8. Do you know of any government-approved or authoritative reference (such as a national standard) specifying a standard orthography for the Pashayi language? If yes, please mention it.

## 10 Keyboard Layout

- 10.1. Do you know about any common keyboard layouts used for the Pashayi language? Do you recommend any specific one? If yes, please fill the following form with your recommendation:



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	/	1	2	3	4	5	6	7	8	9	0	-	=		←
		q	w	e	r	t	y	u	i	o	p	[	]		
NORMAL	→														↩
		a	s	d	f	g	h	j	k	l	;	'	\		
	⇧														
	'	z	x	c	v	b	n	m	,	.	/				
	⇧														⇧

  

	-	1	2	3	4	5	6	7	8	9	0	_	+		←
		Q	W	E	R	T	Y	U	I	O	P	{	}		
SHIFTED	→														↩
		A	S	D	F	G	H	J	K	L	:	"			
	⇧														
	~	Z	X	C	V	B	N	M	<	>	?				
	⇧														⇧

10.2. Do you have any concerns about special letters, symbols, or characters that should be on a Pashayi keyboard layout but usually are not? If yes, please mention them here.

## 11 Other References

11.1. Do you know of any government-approved, or authoritative references (such as a national standard) that specify answers to some of the questions above? If yes, please name them.

Thank you for your participation in this survey.