



Everson Typography

48B Gleann na Carraige, Cill Fhionntain

Baile Átha Cliath 13, Éire

Guthán • +353 86 807 9169 • Telephone

Ríomhphost • everson@evertime.com • E-mail

Líon • www.evertime.com • Web

2003-01-04

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/?. 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.

Computer Locale Requirements for Afghanistan

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

Computer Locale Requirements for Afghanistan

The Western Balochi 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 |
|------|-------|----------|-------|--------|---------|
| 0627 | alef | ا | ا | — | — |
| 0621 | ḥamza | ء | — | — | — |
| 0628 | be | ب | ب | ب | ب |
| 067E | pe | پ | پ | پ | پ |
| 062A | te | ت | ت | ت | ت |
| 0679 | ṭe | ط | ط | ط | ط |
| 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 | — | — |
| 068C | dhal | ذ | ذ | — | — |
| | dhal | ذ | ذ | — | — |
| 0688 | ḍal | ḍ | ḍ | — | — |
| 0630 | zal | ز | ز | — | — |
| 0631 | re | ر | ر | — | — |
| 0691 | ṛe | 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 |

Computer Locale Requirements for Afghanistan

| | | | | | |
|-------|------------|---|---|---|---|
| 0636 | zad | ض | ض | ظ | ظ |
| 0637 | toy | ط | ط | ط | ط |
| 0638 | zoy | 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 |
| 06BA | nun ghunna | ن | ن | ن | ن |
| 0648 | waw | و | و | — | — |
| | o | و | و | — | — |
| 0647 | he | ه | ه | ه | ه |
| (06BE | he dochesm | ه | ه | ه | ه |
| 06CC | ye | ی | ی | ی | ی |
| | yye | ی | ی | ی | ی |
| 0626 | ye ʰamza | ئ | ئ | ئ | ئ |
| (064A | Arab ye | ی | ی | ی | ی |
| 06D2 | ye barree | ی | ی | — | — |
| | nasal | — | — | — | — |
| | killer | — | — | — | — |

Computer Locale Requirements of Afghanistan

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 Balochi 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 Balochi 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 Balochi language? If yes, please describe them.

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

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

| Number | Number spelled out in the Balochi language |
|--------|--|
| zero | |
| one | |
| two | |
| three | |

Computer Locale Requirements of Afghanistan

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

Computer Locale Requirements of Afghanistan

| | |
|-----------------------------|--|
| 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 Balochi language?
- 1.6. How do you spell the negative number $-56,789$ (minus fifty-six thousand seven hundred and eighty-nine) in the Balochi language?

Computer Locale Requirements of Afghanistan

2 Monetary Formatting

- 2.1. Do you know of any special symbol for the afghani currency in texts written in the Balochi 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 Balochi 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 Balochi language? For example, please write the *negative* amount 1,234 afghanis in Balochi.

3 Date and Time Conventions

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

Computer Locale Requirements of Afghanistan

| Day name | Day name in the Balochi 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 Balochi language?

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

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

Computer Locale Requirements of Afghanistan

| | | |
|--------------------|--|--|
| 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 Balochi language:

| Form | Iranian example | Balochi 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 Balochi language. Do you know of any abbreviations for Gregorian month names in the Balochi language? If yes, please write them down in addition to the long form.

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

Computer Locale Requirements of Afghanistan

| | | |
|----------|--|--|
| 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 Balochi language:

| Form | European English example | Balochi 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.

Computer Locale Requirements of Afghanistan

- 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 Balochi 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 Balochi language.
- 3.14. Please write the full date and time “Tuesday, 21 September 1982, 09:07:04” in the Balochi language.
- 3.15. How do you write the phrase “Afghanistan Time” or “Afghanistan Standard Time” or in the Balochi 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 Balochi language?

Computer Locale Requirements of Afghanistan

4 Affirmative and Negative Answers

- 4.1. What are the words for “Yes” and “No” in the Balochi 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 Balochi 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 Balochi alphabet which are used in Balochi language texts, loanwords, or personal names (for instance, TEH MARBUTA, ð)? If yes, please list all such letters here and estimate their frequency in Balochi texts.

Computer Locale Requirements of Afghanistan

6 Use of Special Characters

- 6.1. Which symbols does the Balochi language use for quotation marks? Please write “Afghanistan” in quotation marks in the Balochi language.

- 6.2. Please list the punctuation marks used in the Balochi 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 Balochi 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 Balochi language? (We refer to the equivalent of “Mr” or “Ms” in English, or the suffixes “-san” or “-sama” in Japanese.) Please fill the following

Computer Locale Requirements of Afghanistan

form with their equivalents in Balochi. 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.

| Title | Balochi translation (if any) | Example |
|------------------------|-------------------------------------|----------------|
| (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 Balochi language?

9 Coding of National Entities

- 9.1. How do you write the word "Balochi" in the Balochi language?
- 9.2. How do you write the word "Afghanistan" in the Balochi language?
- 9.3. How do you write the word "Afghanistan afghani" (the monetary unit) in the Balochi language?

Computer Locale Requirements of Afghanistan

- 9.4. Please name the most authoritative monolingual dictionary of the Balochi language.
- 9.5. Please name the most authoritative bilingual dictionaries from English to Balochi and from Balochi to English (or any other major language of the world).
- 9.6. Please name the most authoritative reference about the grammar of the Balochi language in the Balochi language itself.
- 9.7. Please name the most authoritative reference about the grammar of the Balochi 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 Balochi language? If yes, please mention it.

10 Keyboard Layout

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

Computer Locale Requirements of Afghanistan

| | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | / | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | - | = | | ← | |
| NORMAL | | q | w | e | r | t | y | u | i | o | p | [|] | | | |
| | → | | | | | | | | | | | | | | ↩ | |
| | | a | s | d | f | g | h | j | k | l | ; | ' | \ | | | |
| | ⏏ | | | | | | | | | | | | | | | |
| | ' | z | x | c | v | b | n | m | , | . | / | | | | | |
| | ⏏ | | | | | | | | | | | | | | ⏏ | |
| SHIFTED | | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | _ | + | | ← |
| | | Q | W | E | R | T | Y | U | I | O | P | { | } | | | |
| | → | | | | | | | | | | | | | | ↩ | |
| | | 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 Balochi 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.