

Universal Multiple-Octet Coded Character Set
 International Organization for Standardization
 Organisation Internationale de Normalisation
 Международная организация по стандартизации

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Title: Proposal for encoding the Parthian, Inscriptional Pahlavi, and Psalter Pahlavi scripts in the BMP of the UCS

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The three scripts proposed here were used to write a number of Indo-European languages, chiefly Parthian, and Middle Persian. They are descended from the Imperial Aramaic script used in Iran during the during the Achaemenid period (549–330 BCE), the Seleucid period (330–210 BCE) and the early Parthian period (210 BCE–224 CE). By the second century CE the **Parthian** script had evolved, and was used as the official script during the first part of the Sassanian period (224–651 CE). The main sources of Parthian are the inscriptions from Nisa (near present Ashgabat, Turkmenistan) and from Hecatompolis, as well as from texts in Manichean script, and a number of Sasanian multilingual inscriptions. In Pars in what is now southern Iran however the Aramaic script evolved differently, into the **Inscriptional Pahlavi** script, which was used regularly as a monumental script until the fifth century CE. The **Psalter Pahlavi** script was used in Chinese Turkestan and is so named because of its used in a fragmentary manuscript of the Psalms of David. This script itself developed (or decayed) into the ambiguous **Book Pahlavi** script which was replaced by the **Avestan** reformed script. Book Pahlavi will be the subject of a later proposal.

Processing

All three of these scripts are alphabetic scripts written right-to-left, in *scriptio continua* or with spaces between words. Parthian makes use of some standard ligatures, and the Psalter script is characterized the “touching behaviour” common to Avestan, though more research needs to be done to determine whether it is in fact “joining behaviour” as in Book Pahlavi.

Numbers and punctuation

All three scripts have their own numbers. Parthian and Inscriptional Pahlavi build up numbers out of 1, 10, 20, 100, and 1000; Psalter Pahlavi has additional numbers for 2, 3, and 4 and omits the number 1000. The numbers have right-to-left directionality. A PSALTER PAHLAVI PUNCTUATION MARK is attested, which is used at the beginning of a passage, at the end, and at various breaks within it (see Figure 8).

Names and ordering

The names used for the characters here are based on their Avestan equivalents. The order of the characters in the code charts is their alphabetical order.

Bibliography

Akbarzādeh, Dāriyūš. 2002 (1381 HE). *Katībah hā-yi Pahlavī aškāni (Pārthī) = Parthian inscriptions*. Vol. II. ISBN 964-5722-74-8

Akbarzādeh, Dāriyūš. 2003 (1382 HE). *Katībah hā-yi Pahlavī: sang nigārah, sikkīh, muhr, ašar-i muhr, zarf-i nabishtah = Pahlavi inscriptions: inscriptions, coins, seals, sealing impression*. Vol. I. ISBN Tehran: Pazineh Press. 964-5722-44-6

Baghbidi, Hassan Rezai. 2002 (1381 HE). *Dastur zabān Pārthī (Pahlavī aškāni) = A grammar of Parthian*

(*Arsacid Pahlavi*). Iranian Academy of Persian Language and Literature. ISBN 964-7531-05-2
 Faulmann, Carl. 1990 (1880). *Das Buch der Schrift*. Frankfurt am Main: Eichborn. ISBN 3-8218-1720-8
 Nyberg, Henrik Samuel. 1964 *A manual of Pahlavi*. Wiedbaden: Otto Harrassowitz. Reprinted 2003
 Tehran: Asatir. ISBN 964-331-131-7, 964-331-132-5
 Skjærvø, P. Oktor. 1996. "Aramaic scripts for Iranian languages" in *The World's Writing Systems*, ed.
 Peter T. Daniels & William Bright. New York; Oxford: Oxford University Press. ISBN 0-19-507993-0
 Taylor, Isaac. 1883. *The alphabet: an account of the origin and development of letters*. Vol. 1: Semitic
 alphabets; Vol. 2: Aryan alphabets. London: Kegan Paul.

Unicode Character Properties

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10B80;PARTHIAN LETTER A;Lo;0;R;;;;N;;;;;
10B81;PARTHIAN LETTER BE;Lo;0;R;;;;N;;;;;
10B82;PARTHIAN LETTER GE;Lo;0;R;;;;N;;;;;
10B83;PARTHIAN LETTER DE;Lo;0;R;;;;N;;;;;
10B84;PARTHIAN LETTER HE;Lo;0;R;;;;N;;;;;
10B85;PARTHIAN LETTER WA;Lo;0;R;;;;N;;;;;
10B86;PARTHIAN LETTER ZE;Lo;0;R;;;;N;;;;;
10B87;PARTHIAN LETTER XE;Lo;0;R;;;;N;;;;;
10B88;PARTHIAN LETTER TTE;Lo;0;R;;;;N;;;;;
10B89;PARTHIAN LETTER YA;Lo;0;R;;;;N;;;;;
10B8A;PARTHIAN LETTER KE;Lo;0;R;;;;N;;;;;
10B8B;PARTHIAN LETTER LE;Lo;0;R;;;;N;;;;;
10B8C;PARTHIAN LETTER ME;Lo;0;R;;;;N;;;;;
10B8D;PARTHIAN LETTER NE;Lo;0;R;;;;N;;;;;
10B8E;PARTHIAN LETTER SE;Lo;0;R;;;;N;;;;;
10B8F;PARTHIAN LETTER O;Lo;0;R;;;;N;;;;;
10B90;PARTHIAN LETTER PE;Lo;0;R;;;;N;;;;;
10B91;PARTHIAN LETTER CE;Lo;0;R;;;;N;;;;;
10B92;PARTHIAN LETTER QE;Lo;0;R;;;;N;;;;;
10B93;PARTHIAN LETTER RE;Lo;0;R;;;;N;;;;;
10B94;PARTHIAN LETTER SHE;Lo;0;R;;;;N;;;;;
10B95;PARTHIAN LETTER TE;Lo;0;R;;;;N;;;;;
10B9B;PARTHIAN NUMBER ONE;No;0;R;;;1;N;;;;;
10B9C;PARTHIAN NUMBER TEN;No;0;R;;;10;N;;;;;
10B9D;PARTHIAN NUMBER TWENTY;No;0;R;;;20;N;;;;;
10B9E;PARTHIAN NUMBER ONE HUNDRED;No;0;R;;;100;N;;;;;
10B9F;PARTHIAN NUMBER ONE THOUSAND;No;0;R;;;1000;N;;;;;

10BA0;INSCRIPTIONAL PAHLAVI LETTER A;Lo;0;R;;;;N;;;;;
10BA1;INSCRIPTIONAL PAHLAVI LETTER BE;Lo;0;R;;;;N;;;;;
10BA2;INSCRIPTIONAL PAHLAVI LETTER GE;Lo;0;R;;;;N;;;;;
10BA3;INSCRIPTIONAL PAHLAVI LETTER DE;Lo;0;R;;;;N;;;;;
10BA4;INSCRIPTIONAL PAHLAVI LETTER HE;Lo;0;R;;;;N;;;;;
10BA5;INSCRIPTIONAL PAHLAVI LETTER WA;Lo;0;R;;;;N;;;;;
10BA6;INSCRIPTIONAL PAHLAVI LETTER ZE;Lo;0;R;;;;N;;;;;
10BA7;INSCRIPTIONAL PAHLAVI LETTER XE;Lo;0;R;;;;N;;;;;
10BA8;INSCRIPTIONAL PAHLAVI LETTER TTE;Lo;0;R;;;;N;;;;;
10BA9;INSCRIPTIONAL PAHLAVI LETTER YA;Lo;0;R;;;;N;;;;;
10BAA;INSCRIPTIONAL PAHLAVI LETTER KE;Lo;0;R;;;;N;;;;;
10BAB;INSCRIPTIONAL PAHLAVI LETTER LE;Lo;0;R;;;;N;;;;;
10BAC;INSCRIPTIONAL PAHLAVI LETTER ME;Lo;0;R;;;;N;;;;;
10BAD;INSCRIPTIONAL PAHLAVI LETTER NE;Lo;0;R;;;;N;;;;;
10BAE;INSCRIPTIONAL PAHLAVI LETTER SE;Lo;0;R;;;;N;;;;;
10BAF;INSCRIPTIONAL PAHLAVI LETTER PE;Lo;0;R;;;;N;;;;;
10BB0;INSCRIPTIONAL PAHLAVI LETTER CE;Lo;0;R;;;;N;;;;;
10BB1;INSCRIPTIONAL PAHLAVI LETTER SHE;Lo;0;R;;;;N;;;;;
10BB2;INSCRIPTIONAL PAHLAVI LETTER TE;Lo;0;R;;;;N;;;;;
10BBB;INSCRIPTIONAL PAHLAVI NUMBER ONE;No;0;R;;;1;N;;;;;
10BBC;INSCRIPTIONAL PAHLAVI NUMBER TEN;No;0;R;;;10;N;;;;;
10BBD;INSCRIPTIONAL PAHLAVI NUMBER TWENTY;No;0;R;;;20;N;;;;;
10BBE;INSCRIPTIONAL PAHLAVI NUMBER ONE HUNDRED;No;0;R;;;100;N;;;;;
10BBF;INSCRIPTIONAL PAHLAVI NUMBER ONE THOUSAND;No;0;R;;;1000;N;;;;;

10BC0;PSALTER PAHLAVI LETTER A;Lo;0;R;;;;N;;;;;
10BC1;PSALTER PAHLAVI LETTER BE;Lo;0;R;;;;N;;;;;
10BC2;PSALTER PAHLAVI LETTER GE;Lo;0;R;;;;N;;;;;
10BC3;PSALTER PAHLAVI LETTER DE;Lo;0;R;;;;N;;;;;
10BC4;PSALTER PAHLAVI LETTER HE;Lo;0;R;;;;N;;;;;
10BC5;PSALTER PAHLAVI LETTER WA;Lo;0;R;;;;N;;;;;
10BC6;PSALTER PAHLAVI LETTER ZE;Lo;0;R;;;;N;;;;;
10BC7;PSALTER PAHLAVI LETTER XE;Lo;0;R;;;;N;;;;;
10BC8;PSALTER PAHLAVI LETTER YA;Lo;0;R;;;;N;;;;;
10BC9;PSALTER PAHLAVI LETTER KE;Lo;0;R;;;;N;;;;;

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10BCA;PSALTER PAHLAVI LETTER LE;Lo;0;R;;;N;;;;
10BCB;PSALTER PAHLAVI LETTER ME;Lo;0;R;;;N;;;;
10BCC;PSALTER PAHLAVI LETTER NE;Lo;0;R;;;N;;;;
10BCD;PSALTER PAHLAVI LETTER SE;Lo;0;R;;;N;;;;
10BCE;PSALTER PAHLAVI LETTER PE;Lo;0;R;;;N;;;;
10BCF;PSALTER PAHLAVI LETTER CE;Lo;0;R;;;N;;;;
10BD0;PSALTER PAHLAVI LETTER SHE;Lo;0;R;;;N;;;;
10BD1;PSALTER PAHLAVI LETTER TE;Lo;0;R;;;N;;;;
10BD1;PSALTER PAHLAVI PUNCTUATION MARK;Po;0;AL;;;N;;;;
10BD9;PSALTER PAHLAVI NUMBER ONE;No;0;R;;;1;N;;;;
10BDA;PSALTER PAHLAVI NUMBER TWO;No;0;R;;;1;N;;;;
10BDB;PSALTER PAHLAVI NUMBER THREE;No;0;R;;;1;N;;;;
10BDC;PSALTER PAHLAVI NUMBER FOUR;No;0;R;;;1;N;;;;
10BDD;PSALTER PAHLAVI NUMBER TEN;No;0;R;;;10;N;;;;
10BDE;PSALTER PAHLAVI NUMBER TWENTY;No;0;R;;;20;N;;;;
10BDF;PSALTER PAHLAVI NUMBER ONE HUNDRED;No;0;R;;;100;N;;;;

Figures

THE IRANIAN ALPHABETS.

	ARAMEAN.		PEHLEVI.				INDO-BACTRIAN.	ARMENIAN. (Reversed.)	GEORGIAN. (Reversed.)			
	SATRAPIES & EGYPT.	PAL-MYRA.	ARSACIDAN.		SASSANIAN.					PARSI.		
			Coins & Gems.	Haji-abad B.	Haji-abad A.	Coins.				MS.		
			Sec. iv. & iii. B.C.	Sec. ii. A.D.	Sec. i. & ii. A.D.	Sec. iii. A.D.				Sec. iii. A.D.	Sec. iv. to vi. A.D.	Modern
א	𐤀	𐤁	𐬀	𐬁	𐬂	𐬃	𐬄	𐬅	𐬆	𐬇	𐬈	𐬉
ב	𐤂	𐤃	𐬊	𐬋	𐬌	𐬍	𐬎	𐬏	𐬐	𐬑	𐬒	𐬓
ג	𐤄	𐤅	𐬔	𐬕	𐬖	𐬗	𐬘	𐬙	𐬚	𐬛	𐬜	𐬝
ד	𐤆	𐤇	𐬘	𐬙	𐬚	𐬛	𐬜	𐬝	𐬞	𐬟	𐬠	𐬡
ה	𐤈	𐤉	𐬠	𐬡	𐬢	𐬣	𐬤	𐬥	𐬦	𐬧	𐬨	𐬩
ו	𐤊	𐤋	𐬢	𐬣	𐬤	𐬥	𐬦	𐬧	𐬨	𐬩	𐬪	𐬫
ז	𐤌	𐤍	𐬤	𐬥	𐬦	𐬧	𐬨	𐬩	𐬪	𐬫	𐬬	𐬭
ח	𐤎	𐤏	𐬥	𐬦	𐬧	𐬨	𐬩	𐬪	𐬫	𐬬	𐬭	𐬮
ט	𐤐	𐤑	𐬦	𐬧	𐬨	𐬩	𐬪	𐬫	𐬬	𐬭	𐬮	𐬯
י	𐤒	𐤓	𐬧	𐬨	𐬩	𐬪	𐬫	𐬬	𐬭	𐬮	𐬯	𐬰
כ	𐤔	𐤕	𐬨	𐬩	𐬪	𐬫	𐬬	𐬭	𐬮	𐬯	𐬰	𐬱
ל	𐤖	𐤗	𐬩	𐬪	𐬫	𐬬	𐬭	𐬮	𐬯	𐬰	𐬱	𐬲
מ	𐤘	𐤙	𐬪	𐬫	𐬬	𐬭	𐬮	𐬯	𐬰	𐬱	𐬲	𐬳
נ	𐤚	𐤛	𐬫	𐬬	𐬭	𐬮	𐬯	𐬰	𐬱	𐬲	𐬳	𐬴
ס	𐤜	𐤝	𐬬	𐬭	𐬮	𐬯	𐬰	𐬱	𐬲	𐬳	𐬴	𐬵
ע	𐤞	𐤟	𐬭	𐬮	𐬯	𐬰	𐬱	𐬲	𐬳	𐬴	𐬵	𐬶
פ	𐤠	𐤡	𐬮	𐬯	𐬰	𐬱	𐬲	𐬳	𐬴	𐬵	𐬶	𐬷
צ	𐤢	𐤣	𐬯	𐬰	𐬱	𐬲	𐬳	𐬴	𐬵	𐬶	𐬷	𐬸
ק	𐤤	𐤥	𐬰	𐬱	𐬲	𐬳	𐬴	𐬵	𐬶	𐬷	𐬸	𐬹
ר	𐤦	𐤧	𐬱	𐬲	𐬳	𐬴	𐬵	𐬶	𐬷	𐬸	𐬹	𐬺
ש	𐤨	𐤩	𐬲	𐬳	𐬴	𐬵	𐬶	𐬷	𐬸	𐬹	𐬺	𐬻
ת	𐤪	𐤫	𐬳	𐬴	𐬵	𐬶	𐬷	𐬸	𐬹	𐬺	𐬻	𐬼
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.		

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Figure 1. Table of Iranian alphabets, from Taylor 1883. The Arsacidan columns show Parthian script, and the Sassanian columns show Inscriptional Pahlavi script. The Parsi column is Book Pahlavi.

Alphabets.

Hebrew	Meša'	Aramaic papyri	Palmyr. inscriptions	Nabat. inscriptions. Sinai	Parthian inscriptions	Persian inscriptions	Psalter	Book Pahlavi	Trans-literation
א	𐎠	𐎡	𐎢	𐎣	𐎤	𐎥	𐎦	𐎧	'
ב	𐎡	𐎢	𐎣	𐎤, 𐎥, 𐎦	𐎧	𐎨	𐎩	𐎪	b
ג	𐎢	𐎣	𐎤	𐎥, 𐎦	𐎧	𐎨	𐎩	𐎪 (g)	g
ד	𐎣	𐎤, 𐎥	𐎦	𐎧, 𐎨	𐎩	𐎪	𐎫	𐎬 (d) (g. d)	d
ה	𐎤	𐎥	𐎦	𐎧, 𐎨	𐎩	𐎪	𐎫	𐎬 (h) (h. h)	-h
ו	𐎥	𐎦	𐎧	𐎨, 𐎩	𐎪	𐎫	𐎬	𐎭	w
ז	𐎦, 𐎧	𐎧	𐎨	𐎩	𐎪	𐎫	𐎬	𐎭	z
ח	𐎧	𐎨	𐎩	𐎪, 𐎫	𐎬	𐎭	𐎮	𐎯	h, h
ט	𐎨	𐎩	𐎪	𐎫, 𐎬	𐎭	𐎮	-	-	T
י	𐎩	𐎪	𐎫	𐎬, 𐎭	𐎮	𐎯	𐎰	𐎱 (j, j')	y (j')
כ. 𐎫	𐎪	𐎫	𐎬	𐎭, 𐎮	𐎯	𐎰	𐎱	𐎲	k
ל	𐎫	𐎬	𐎭	𐎮, 𐎯	𐎰	𐎱	𐎲	𐎳 (l)	l
מ. 𐎯	𐎬	𐎭	𐎮	𐎯, 𐎰, 𐎱	𐎲	𐎳	𐎴	𐎵	m
נ. 𐎰	𐎭	𐎮	𐎯	𐎰, 𐎱	𐎲	𐎳	𐎴	𐎵	n
ס	𐎮	𐎯	𐎰	𐎱	𐎲	𐎳	𐎴	𐎵, 𐎶	s
ע	𐎯	𐎰	𐎱	𐎲, 𐎳	𐎴	𐎵	𐎶	𐎷	c
פ. 𐎱	𐎰	𐎱	𐎲	𐎳, 𐎴	𐎵	𐎶	𐎷	𐎸	p
צ. 𐎲	𐎱	𐎲	𐎳	𐎴, 𐎵	𐎶	𐎷	𐎸	𐎹	c, s
ק	𐎲	𐎳	𐎴	𐎵, 𐎶	𐎷	-	-	-	q
ר	𐎳	𐎴	𐎵	𐎶, 𐎷, 𐎸	𐎷	𐎸	𐎹	𐎺	r
ש	𐎴	𐎵	𐎶	𐎷, 𐎸, 𐎹	𐎸	𐎹	𐎺	𐎻	s
ת	𐎵	𐎶	𐎷	𐎸, 𐎹	𐎹	𐎺	𐎻, 𐎼	𐎽	t

Figure 2. Table of Iranian alphabets, from from Nyberg 1964.

The Parthian inscriptions column refers to Parthian, the Persian inscriptions column refers to Inscriptional Pahlavi. Psalter Pahlavi and Book Pahlavi are also shown.

TABLE 48.1: *Main West Iranian Scripts Developed from Aramaic*

Aramaic	Early Parthian (Nisa)	Parthian inscr's	Principal Phonetic Values (Parthian)	Middle Persian inscr's	Psalter	Early Cursive Pahlavi	Book Pahlavi	Principal Phonetic Values (MPers.)
ʾ	𐎠	𐎡	a, ā	𐎠	𐎡	𐎠	𐎠	a, ā
b	𐎡	𐎢	b, w	𐎢	𐎣	𐎢	𐎢	b, w
g	𐎣	𐎤	g, γ	𐎣	𐎤		𐎤 𐎥	g, γ
d	𐎤 = ʿ, r	𐎥	d, δ	𐎤	𐎥	𐎤	𐎤 𐎥	d, y
h (h)	𐎦	𐎧		𐎦	𐎧		𐎦	
w	𐎧	𐎨	w, ǝ, ũ	2 = ʿ, r	𐎧 = ʿ, r	𐎧	𐎧	w, ǝ, ũ
z	𐎨	𐎩	z, ž	𐎨	𐎩		𐎨	z
h (h)	𐎪	𐎫	h, x	𐎪	𐎫	𐎪	𐎪	h, x
!	𐎬	𐎭		𐎬				
y	𐎭	𐎮	y, ē, ĩ	𐎭	𐎮	𐎭	𐎭 𐎮	y, ē, ĩ, j
k	𐎮	𐎯	k, g	𐎮	𐎯	𐎮	𐎮	k, g
l (δ)	𐎰	𐎱	l	𐎰	𐎱	𐎰	𐎰	l, r
m	𐎲	𐎳	m	𐎲	𐎳	𐎲	𐎲	m
n	𐎴	𐎵	n	𐎴	𐎵	𐎴	𐎴	n
s	𐎶	𐎷	s	𐎶	𐎷	𐎶	𐎶 𐎷	s, h
ʿ	𐎸/𐎹 = d, r	𐎸 = r		2 = w, r	𐎸 = w, r	𐎸	𐎸	∅
p	𐎺	𐎻	p, b	𐎺	𐎻	𐎺 𐎻	𐎺	p, b, f
š (c)		𐎽	č	𐎽	𐎾	𐎽	𐎽 𐎾	č, j, z
q	𐎿	𐏀		𐎿	𐏀	𐎿	𐎿	
r	𐏁 = d, ʿ	𐏁 = ʿ	r	2 = w, ʿ	𐏁 = w, ʿ	𐏁	𐏁	r
š	𐏃	𐏄	š, ž	𐏃	𐏄	𐏃	𐏃	š
t	𐏆	𐏇	t, d	𐏆	𐏇	𐏆	𐏆	t, d

Figure 3. Table of Iranian alphabets, from from Skjærvø 1996.

۷. الفبای پارسی (کتیبه‌ای)		
آرامی امپراتوری (هخامنشی)	پارسی	برابره‌ای حروف در خط فارسی
𐎠	𐎡	ا
𐎡	𐎢	ب
𐎢	𐎣	گ
𐎣	𐎤	د
𐎤	𐎥	ه
𐎥	𐎦	و
𐎦	𐎧	ز
𐎧	𐎨	ح
𐎨	𐎩	ط
𐎩	𐎪	ی
𐎪	𐎫	ک
𐎫	𐎬	ل
𐎬	𐎭	م
𐎭	𐎮	ن
𐎮	𐎯	س
𐎯	𐎰	ع
𐎰	𐎱	پ
𐎱	𐎲	ص
𐎲	𐎳	ق
𐎳	𐎴	ر
𐎴	𐎵	ش
𐎵	𐎶	ت

Figure 4. Table of Iranian alphabets, including Book Pahlavi, from Baghbidi 2002. In the left column Imperial Aramaic is shown, with Parthian in the centre column.

	z	𐎠	A/ʔ	𐎡
	y	𐎡	H/h	𐎢
𐎦 + 𐎡 =	p	𐎣	š	𐎤
𐎦 + 𐎢/𐎣 =	s	𐎥	n	𐎦
𐎦 + 𐎤 =	d	𐎧	m	𐎨
𐎦 + 𐎩 =	O	𐎪	H	𐎬
𐎦 + 𐎫 =	b	𐎮	Q	𐎰
𐎦 + 𐎭 =	g	𐎯	t	𐎲
𐎦 + 𐎮 =	r	𐎱	l	𐎴
𐎦 + 𐎰 =	k	𐎳	š	𐎶
𐎦 + 𐎲 =	T	𐎵	w	𐎸

Figure 5. Table of Parthian letters from Akbarzadeh 2002, showing the Parthian letters and their standard ligatures 𐎦𐎡 *tw*, 𐎦𐎢 *yw/nw*, 𐎦𐎤 *xw*, 𐎦𐎧 *gw*, 𐎦𐎨 *rw*, and 𐎦𐎩 *ʔ*.

جدول الفباى پهلوى

حرف نویسی	زبور پهلوى	پهلوى كتابى	پهلوى كتيبه اى
Ⲁ A	𐭀	𐭀	𐭀
b	𐭁	𐭁	𐭁
g	𐭂	𐭂/𐭃	𐭂
d	𐭃	𐭃/𐭄	𐭃
E	𐭄	𐭄	𐭄
w	𐭅	𐭅	𐭅
z	𐭆	𐭆	𐭆
h	𐭇	𐭇	𐭇
t	𐭈	𐭈	𐭈
y	𐭉	𐭉	𐭉
k	𐭊	𐭊	𐭊
l	𐭋	𐭋	𐭋
m	𐭌	𐭌	𐭌
n	𐭍	𐭍	𐭍
s	𐭎	𐭎/𐭏	𐭎
O	𐭏	𐭏	𐭏
p	𐭐	𐭐	𐭐
c	𐭑	𐭑	𐭑
Q	𐭒	𐭒	𐭒
r	𐭓	𐭓	𐭓
s	𐭔	𐭔	𐭔
t	𐭕	𐭕	𐭕

Figure 6. Table of Iranian alphabets, showing Psalter Pahlavi on the left, Book Pahlavi in the centre, and Inscriptional Pahlavi on the right, from Akbarzadeh 2002.

- (۱) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿
- (۲) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿
- (۳) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿
- (۴) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿
- (۵) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿
- (۶) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿
- (۷) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿
- (۸) 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿

Figure 7. Sample of Parthian text from Akbarzadeh 2002, showing the numbers 𐭀𐭁𐭂𐭃 24, 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿 170, and 𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉 8 in lines 4, 5, and 6.

Inscription of Hajjiabad.

I.

The Pahlavik Text.

- ① כחברנו גנה לו דוקון ובלחוב פחותה
- ② דלעון דלעב ברובן פ ברבובין דנפ שומר דין
- ③ וצמון בנו דוקון ובלחוב עבמתשמך דלעון דלעב
- ④ ברובן דנפ שומר דין וצמון פתמכותה ככ תצנת
- ⑤ דלעב כ עזל לן גנה מלוב שגומ דקדמה משמקין
- ⑥ ככומען ככרן כ עזמון שגומ נכון פמו זכור
- ⑦ מחבולדמה פ מלוב לנפ למה שמו לככב כדומ כוש
- ⑧ מלוב רנפ מלוב נפלא שגומ פתמכותה פ ומתה עז
- ⑨ פצ שמו כונן מונן על לככב שגומ עזמו ומתה
- ⑩ מונן וצמון לן עזמון שגומ שמו פתמכותה
- ⑪ כונן עזמו דנפ וצמון לככב מונן וצמון פמו
- ⑫ גנה כול מות מחבולדמה פ מלוב פלח
- ⑬ שמו מות שגומ דנפ מלוב פלח שמו
- ⑭ עזמון פתמכותה וצמון לככב מונן

Figure 8. Inscription from Hajjiabad in Parthian script, from Nyberg 1964.

TABLE XXX - Row 10B: PARTHIAN

	10B8	10B9
0	𐭪	𐭫
1	𐭬	𐭭
2	𐭮	𐭯
3	𐭰	𐭱
4	𐭲	𐭳
5	𐭵	𐭶
6	𐭷	
7	𐭹	
8	𐭺	
9	𐭻	
A	𐭽	
B	𐭿	𐭾
C	𐭿	𐭿
D	𐭿	𐭿
E	𐭿	𐭿
F	𐭿	𐭿

G = 00
P = 01

TABLE XX - Row 10B: PARTHIAN

hex	Name
80	PARTHIAN LETTER A
81	PARTHIAN LETTER BE
82	PARTHIAN LETTER GE
83	PARTHIAN LETTER DE
84	PARTHIAN LETTER HE
85	PARTHIAN LETTER WA
86	PARTHIAN LETTER ZE
87	PARTHIAN LETTER XE
88	PARTHIAN LETTER TTE
89	PARTHIAN LETTER YA
8A	PARTHIAN LETTER KE
8B	PARTHIAN LETTER LE
8C	PARTHIAN LETTER ME
8D	PARTHIAN LETTER NE
8E	PARTHIAN LETTER SE
8F	PARTHIAN LETTER O
90	PARTHIAN LETTER PE
91	PARTHIAN LETTER CE
92	PARTHIAN LETTER QE
93	PARTHIAN LETTER RE
94	PARTHIAN LETTER SHE
95	PARTHIAN LETTER TE
96	(This position shall not be used)
97	(This position shall not be used)
98	(This position shall not be used)
99	(This position shall not be used)
9A	(This position shall not be used)
9B	PARTHIAN NUMBER ONE
9C	PARTHIAN NUMBER TEN
9D	PARTHIAN NUMBER TWENTY
9E	PARTHIAN NUMBER ONE HUNDRED
9F	PARTHIAN NUMBER ONE THOUSAND

hex	Name

Group 00

Plane 01

Row 10B

TABLE XXX - Row 10B: INSCRIPTIONAL PAHLAVI

	10BA	10BB
0	𐭕	𐭕
1	𐭕	𐭕
2	𐭕	𐭕
3	𐭕	
4	𐭕	
5	𐭕	
6	𐭕	
7	𐭕	
8	𐭕	
9	𐭕	
A	𐭕	
B	𐭕	𐭕
C	𐭕	𐭕
D	𐭕	𐭕
E	𐭕	𐭕
F	𐭕	𐭕

G = 00
P = 01

TABLE XXX - Row 10B: INSCRIPTIONAL PAHLAVI

hex	Name
A0	INSCRIPTIONAL PAHLAVI LETTER A
A1	INSCRIPTIONAL PAHLAVI LETTER BE
A2	INSCRIPTIONAL PAHLAVI LETTER GE
A3	INSCRIPTIONAL PAHLAVI LETTER DE
A4	INSCRIPTIONAL PAHLAVI LETTER HE
A5	INSCRIPTIONAL PAHLAVI LETTER WA
A6	INSCRIPTIONAL PAHLAVI LETTER ZE
A7	INSCRIPTIONAL PAHLAVI LETTER XE
A8	INSCRIPTIONAL PAHLAVI LETTER TTE
A9	INSCRIPTIONAL PAHLAVI LETTER YA
AA	INSCRIPTIONAL PAHLAVI LETTER KE
AB	INSCRIPTIONAL PAHLAVI LETTER LE
AC	INSCRIPTIONAL PAHLAVI LETTER ME
AD	INSCRIPTIONAL PAHLAVI LETTER NE
AE	INSCRIPTIONAL PAHLAVI LETTER SE
AF	INSCRIPTIONAL PAHLAVI LETTER PE
B0	INSCRIPTIONAL PAHLAVI LETTER CE
B1	INSCRIPTIONAL PAHLAVI LETTER SHE
B2	INSCRIPTIONAL PAHLAVI LETTER TE
B3	(This position shall not be used)
B4	(This position shall not be used)
B5	(This position shall not be used)
B6	(This position shall not be used)
B7	(This position shall not be used)
B8	(This position shall not be used)
B9	(This position shall not be used)
BA	(This position shall not be used)
BB	INSCRIPTIONAL PAHLAVI NUMBER ONE
BC	INSCRIPTIONAL PAHLAVI NUMBER TEN
BD	INSCRIPTIONAL PAHLAVI NUMBER TWENTY
BE	INSCRIPTIONAL PAHLAVI NUMBER ONE HUNDRED
BF	INSCRIPTIONAL PAHLAVI NUMBER ONE THOUSAND

hex	Name

Group 00

Plane 01

Row 10B

TABLE XXX - Row 10B: PSALTER PAHLAVI

	10BC	10BD
0	𐭥	𐭥𐭥
1	𐭥	𐭥
2	𐭥	
3	𐭥	
4	𐭥	
5	𐭥	
6	𐭥	
7	𐭥	
8	𐭥	𐭥
9	𐭥	𐭥
A	𐭥	𐭥
B	𐭥	𐭥
C	𐭥	𐭥
D	𐭥	𐭥
E	𐭥	𐭥
F	𐭥	𐭥

G = 00
P = 01

TABLE XXX - Row 10B: PSALTER PAHLAVI

hex	Name
C0	PSALTER PAHLAVI LETTER A
C1	PSALTER PAHLAVI LETTER BE
C2	PSALTER PAHLAVI LETTER GE
C3	PSALTER PAHLAVI LETTER DE
C4	PSALTER PAHLAVI LETTER HE
C5	PSALTER PAHLAVI LETTER WA
C6	PSALTER PAHLAVI LETTER ZE
C7	PSALTER PAHLAVI LETTER XE
C8	PSALTER PAHLAVI LETTER YA
C9	PSALTER PAHLAVI LETTER KE
CA	PSALTER PAHLAVI LETTER LE
CB	PSALTER PAHLAVI LETTER ME
CC	PSALTER PAHLAVI LETTER NE
CD	PSALTER PAHLAVI LETTER SE
CE	PSALTER PAHLAVI LETTER PE
CF	PSALTER PAHLAVI LETTER CE
D0	PSALTER PAHLAVI LETTER SHE
D1	PSALTER PAHLAVI LETTER TE
D2	(This position shall not be used)
D3	(This position shall not be used)
D4	(This position shall not be used)
D5	(This position shall not be used)
D6	(This position shall not be used)
D7	(This position shall not be used)
D8	PSALTER PAHLAVI PUNCTUATION MARK
D9	PSALTER PAHLAVI NUMBER ONE
DA	PSALTER PAHLAVI NUMBER TWO
DB	PSALTER PAHLAVI NUMBER THREE
DC	PSALTER PAHLAVI NUMBER FOUR
DD	PSALTER PAHLAVI NUMBER TEN
DE	PSALTER PAHLAVI NUMBER TWENTY
DF	PSALTER PAHLAVI NUMBER ONE HUNDRED

Group 00

hex	Name
-----	------

Plane 01

Row 108

A. Administrative

1. Title

Proposal for encoding the Parthian, Inscriptional Pahlavi, and Psalter Pahlavi scripts in the BMP of the UCS

2. Requester's name

Michael Everson

3. Requester type (Member body/Liaison/Individual contribution)

Individual contribution.

4. Submission date

2007-04-12

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

No.

6b. More information will be provided later

Yes.

B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

Yes.

1b. Proposed name of script

Parthian, Inscriptional Pahlavi, and Psalter Pahlavi.

1c. The proposal is for addition of character(s) to an existing block

No.

1d. Name of the existing block

2. Number of characters in proposal

76 (27, 24, 25).

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

Category E.

4a. Is a repertoire including character names provided?

Yes.

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

Yes.

4c. Are the character shapes attached in a legible form suitable for review?

Yes.

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

Michael Everson.

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, Fontographer.

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes.

7. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

Yes.

8. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see Unicode Character Database <http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

See above.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

No.

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

No.

2b. If YES, with whom?

2c. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Iranianists and other scholars.

4a. The context of use for the proposed characters (type of use; common or rare)

Rare; historical use.

4b. Reference

5a. Are the proposed characters in current use by the user community?

Yes.

5b. If YES, where?

Scholarly and popular publications.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

No.

6b. If YES, is a rationale provided?

6c. If YES, reference

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

Yes.

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

No.

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No.

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

No.

10b. If YES, is a rationale for its inclusion provided?

10c. If YES, reference

11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?

No.

11b. If YES, is a rationale for such use provided?

11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

No.

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

No.

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?