

Proposal to Encode Diwani Siyaq Numbers in Unicode

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1 Introduction

This is a proposal to encode Diwani Siyaq Numbers in the Unicode standard. It draws upon information originally presented in the following documents, which referred to the proposed block using the designation ‘Diwani Siyaq Numbers’, and it supersedes those documents:

- L2/07-414 “Proposal to Encode Siyaq Numerals”
- L2/09-140 “Diwani Numerals: Towards a Model for Encoding Numerals of the Siyaq Systems”
- L2/11-269 “Preliminary Proposal to Encode Diwani Siyaq Numbers in the UCS”

Discussions regarding the encoding model for Diwani Siyaq Numbers were presented in L2/09-140 and L2/11-269. Proposals to encode characters of the other three Siyaq systems have been submitted. These following documents contain information on the typology of the numbers and the notation system, and explain the necessity for encoding independent blocks for the four Siyaq systems:

- L2/15-072 “Proposal to Encode Ottoman Siyaq Numbers in Unicode”
- L2/15-121 “Proposal to Encode Indic Siyaq Numbers in Unicode”
- L2/15-122 “Proposal to Encode Persian Siyaq Numbers in Unicode”

2 Script Details

Name and allocation The proposed characters belong to a block named ‘Diwani Siyaq Numbers’. The block is allocated in the SMP at U+1ECC0..1ECFF. Character names are based upon the numeric values of the numbers.

Character Repertoire The proposed block contains 53 characters.

Representative glyphs The representative glyphs for Diwani Siyaq Number are derived from the metal types used for printing these numbers in *Exposé des signes de numération usités chez les peuples orientaux*

anciens et modernes by Antoine Paulin Pihan (Paris: L'imprimerie impériale, 1860), specimens of which are shown in figures 2 and 3.

Structure Diwani Siyaq Numbers represent units of a decimal positional system. The notation system is additive, that is, the value of a number is the sum of the values of the numerals that constitute it. There is no character for zero; it is inherently represented in the distinct numerals for the various decimal orders. There are numbers for the primary units, tens, hundreds, thousands, and ten thousands. Numbers of higher orders are represented using sequences of these characters.

Directionality Diwani Siyaq Numbers are written right-to-left in the regular manner of the Arabic script. The system differs from the Arabic-Indic digits, which are written left-to-right.

Ordering The ordering of Diwani Siyaq numbers is visual and reflects the method of expressing numbers in Arabic. In a numerical sequence the largest number occurs first and smaller units follow in sequential order. In compound numbers consisting of the primary units and the tens and ten thousands, the order is transposed and the primary number is placed before the larger number.

3 Characters Proposed

3.1 Primary numbers

The following 9 characters are used for representing primary numbers:

CHARACTER	ARABIC SOURCE	VALUE
ا	احد <i>aḥad</i>	1
لا	اثنان <i>iṭnān</i>	2
٤	ثلاثة <i>ṭalāṭa</i>	3
لعا	اربعة <i>arba‘a</i>	4
حا	خمسة <i>ḥamsa</i>	5
س	ستة <i>sitta</i>	6
بع	سبعة <i>sab‘a</i>	7
رها	ثمانية <i>ṭamāniya</i>	8
نعا	تسعة <i>tis‘a</i>	9

Alternate forms of the numbers THREE .. NINE are used in compound numbers (see section 3.6).

3.2 Tens

The following 9 characters are used for representing the tens:

CHARACTER	ARABIC SOURCE	VALUE
عا	عشرة <i>‘ašara</i>	10

٢٠	DIWANI SIYAQ NUMBER TWENTY	عشرون	<i>'iṣrūn</i>	20
٣٠	DIWANI SIYAQ NUMBER THIRTY	ثلاثون	<i>ṭalāṭūn</i>	30
٤٠	DIWANI SIYAQ NUMBER FORTY	اربعون	<i>arba'ūn</i>	40
٥٠	DIWANI SIYAQ NUMBER FIFTY	خمسون	<i>ḥamsūn</i>	50
٦٠	DIWANI SIYAQ NUMBER SIXTY	ستون	<i>sittūn</i>	60
٧٠	DIWANI SIYAQ NUMBER SEVENTY	سبعون	<i>sab'ūn</i>	70
٨٠	DIWANI SIYAQ NUMBER EIGHTY	ثمانون	<i>ṭamānūn</i>	80
٩٠	DIWANI SIYAQ NUMBER NINETY	تسعون	<i>tis'ūn</i>	90

3.3 Hundreds

The following 9 characters are used for representing the hundreds:

CHARACTER	ARABIC SOURCE	VALUE
١٠٠	مائة <i>mi'a</i>	100
٢٠٠	مائتان <i>mi'ātān</i>	200
٣٠٠	ثلاث مائة <i>ṭalāṭu mi'a</i>	300
٤٠٠	اربع مائة <i>arba'u mi'a</i>	400
٥٠٠	خمس مائة <i>ḥamsu mi'a</i>	500
٦٠٠	ست مائة <i>sittu mi'a</i>	600
٧٠٠	سبع مائة <i>sab'u mi'a</i>	700
٨٠٠	ثمان مائة <i>ṭamānu mi'a</i>	800
٩٠٠	تسع مائة <i>tis'u mi'a</i>	900

3.4 Thousands

The following 9 characters are used for representing the thousands:

CHARACTER	ARABIC SOURCE	VALUE
١٠٠٠	الف <i>alf</i>	1,000
٢٠٠٠	الفان <i>alfān</i>	2,000
٣٠٠٠	ثلاثة الاف <i>ṭalāṭa ālāf</i>	3,000
٤٠٠٠	اربعة الاف <i>arba'a ālāf</i>	4,000
٥٠٠٠	خمسة الاف <i>ḥamsa ālāf</i>	5,000
٦٠٠٠	ستة الاف <i>sitta ālāf</i>	6,000

بعالی	DIWANI SIYAQ NUMBER SEVEN THOUSAND	سبعة الاف	<i>sab'a ālāf</i>	7,000
هالی	DIWANI SIYAQ NUMBER EIGHT THOUSAND	ثمانية الاف	<i>tamāniya ālāf</i>	8,000
عالی	DIWANI SIYAQ NUMBER NINE THOUSAND	تسعة الاف	<i>tis'a ālāf</i>	9,000

3.5 Ten Thousands

The following 9 characters are used for representing the ten thousands:

CHARACTER	ARABIC SOURCE	VALUE	
عالی	عشرة الاف	<i>'ašara ālāf</i>	10,000
٢٠	عشرون الفا	<i>'išrūn alfan</i>	20,000
٣٠	ثلاثون الفا	<i>talātūn alfan</i>	30,000
٤٠	اربعون الفا	<i>arba'ūn alfan</i>	40,000
٥٠	خمسون الفا	<i>ḥamsūn alfan</i>	50,000
٦٠	ستون الفا	<i>sittūn alfan</i>	60,000
٧٠	سبعون الفا	<i>sab'ūn alfan</i>	70,000
٨٠	ثمانون الفا	<i>tamānūn alfan</i>	80,000
٩٠	تسعون الفا	<i>tis'ūn alfan</i>	90,000

3.6 Alternate forms

The following 8 characters are used for representing certain primary units and TEN in compound numbers (see section 3.7):

CHARACTER	
لا	DIWANI SIYAQ ALTERNATE NUMBER THREE
لور	DIWANI SIYAQ ALTERNATE NUMBER FOUR
ح	DIWANI SIYAQ ALTERNATE NUMBER FIVE
ر	DIWANI SIYAQ ALTERNATE NUMBER SIX
ر٧	DIWANI SIYAQ ALTERNATE NUMBER SEVEN
ر٨	DIWANI SIYAQ ALTERNATE NUMBER EIGHT
ر٩	DIWANI SIYAQ ALTERNATE NUMBER NINE
١٠	DIWANI SIYAQ ALTERNATE NUMBER TEN

The alternate forms of the primary numbers are used for representing the unit in compound numbers. The

alternate form is not a glyphic variant, but is used in place of the regular form in compounds involving the tens, ten thousands, and hundred thousands.

In general, the alternate form is produced by removing the left ascending terminal of the regular form of a number. The exception is ALTERNATE NUMBER THREE, which appears to be a secondary abbreviation of Arabic ثلاثة *talāta* “three”. A comparison of the regular and alternate forms of the primary numbers are shown below:

	Regular	Alternate		Regular	Alternate
THREE	٣	لا	SEVEN	٧	يو
FOUR	لعا	لور	EIGHT	٨	٢
FIVE	حا	ح	NINE	٩	نو
SIX	٦	ر	TEN	عا	٤

The ALTERNATE NUMBER TEN is shown in figure 3. The existence of an alternate form for TEN is somewhat unusual because the context of its usage is unclear. It may be used for expressing ‘ten thousand’, but a distinctive form for this number already exists. It is included in the proposed repertoire because of its attestation in Pihan.

3.7 Orthography

The primary, tens, hundreds, thousands, and ten thousands are expressed using the distinctive character for each unit. Larger numbers are placed before smaller number. The exception are compound numbers of the primary units used for representing multiples of the tens and tens thousands, in which the order is transposed.

5	حا	<FIVE>
	خمسة	‘five’
50	حا	<FIFTY>
	خمسون	‘fifty’
55	ححا	ALTERNATE NUMBER FIVE, FIFTY
	خمسة و خمسون	‘five and fifty’
505	ححا	<FIVE HUNDRED, FIVE>
	خمس مائة و خمسة	‘five hundred and five’
510	حعا	<FIVE HUNDRED, TEN>
	خمس و عشرة	<i>hamsu wa ‘ašara</i>

515	حمارعا خمس مائة و خمسة عشر	<حما FIVE HUNDRED, ح ALTERNATE NUMBER FIVE, عا TEN> 'five hundred and five-ten'
5,005	حالىحا خمسة الاف و خمسة	<حالى FIVE THOUSAND, حا FIVE> 'five thousand and five'
5,100	حالىبا خمسة الاف و مائة	<حالى FIVE THOUSAND, با ONE HUNDRED> 'five thousand and one hundred'
50,000	حلا خمسون الفا	<حلا FIFTY THOUSAND> 'fifty thousand'
50,005	حلاحا خمسون الفا و خمسة	<حلا FIFTY THOUSAND, حا FIVE> 'fifty thousand and five'
50,510	حلاحماعا خمسون الفا و خمس و عشرة	<حلا FIFTY THOUSAND, حما FIVE HUNDRED, عا TEN> 'fifty thousand, and five hundred and ten'
55,000	رحلا خمسة و خمسون الفا	<ح ALTERNATE NUMBER FIVE, حلا FIFTY THOUSAND> 'five and fifty thousand'
55,005	رحلاحا خمسة و خمسون الفا و خمسة	<ح ALTERNATE NUMBER FIVE, حلا FIFTY THOUSAND, حا FIVE> 'five and fifty thousand, and five'
500,000	رحالى خمس مائة الف	<ح ALTERNATE NUMBER FIVE, با ONE HUNDRED, الى ONE THOU- SAND, حالى FIVE THOUSAND, حما FIVE HUNDRED, حا FIVE> 'five hundred thousand'
505,505	رحالىحالىحماحا خمس مائة الف و خمسة الاف و خمس مائة و خمسة	<ح ALTERNATE NUMBER FIVE, با ONE HUNDRED, الى ONE THOU- SAND, حالى FIVE THOUSAND, حما FIVE HUNDRED, حا FIVE> 'five hundred thousand / and five thousand / and five hundred / and five'
555,555	حمارحلاحمارحا خمس مائة الف و خمسة الاف و خمس مائة و خمسة	<حما FIVE HUNDRED, ح ALTERNATE NUMBER FIVE, حلا FIFTY THOUSAND, حما FIVE HUNDRED, ح ALTERNATE NUMBER FIVE, حا FIFTY>

خمس مائة و خمسة و ‘five hundred / and five and fifty thousand / and five-hundred
 خمسون الفا و خمس مائة / and five and fifty’
 و خمسة و خمسون

Compound numbers of primary units Compound numbers involving the primary units and the tens, ten thousands, and hundred thousands units are written transposed with the primary unit placed before the larger number. Compounds involving 3–9 are written using the alternate forms of the primary numbers. Below are representations of 11–19. Compounds from 21–99 are written according to the same pattern.

11	اعا	<ا ONE, عا TEN>
	احد عشر	<i>aḥad ‘ašara</i>
12	لاعا	<لا TWO, عا TEN>
	اثنا عشر	<i>iṭnā ‘ašara</i>
13	للاعا	<لا ALTERNATE NUMBER THREE, عا TEN>
	ثلاثة عشر	<i>talāṭa ‘ašara</i>
14	لوعا	<لو ALTERNATE NUMBER FOUR, عا TEN>
	اربعة عشر	<i>arba ‘a ‘ašara</i>
15	روعا	<رو ALTERNATE NUMBER FIVE, عا TEN>
	خمسة عشر	<i>ḥamsa ‘ašara</i>
16	رعا	<ر ALTERNATE NUMBER SIX, عا TEN>
	ستة عشر	<i>sitta ‘ašara</i>
17	روعا	<رو ALTERNATE NUMBER SEVEN, عا TEN>
	سبعة عشر	<i>sab ‘a ‘ašara</i>
18	رعا	<ر ALTERNATE NUMBER EIGHT, عا TEN>
	ثمانية عشر	<i>tamāniya ‘ašara</i>
19	روعا	<رو ALTERNATE NUMBER NINE, عا TEN>
	تسعة عشر	<i>tis ‘a ‘ašara</i>

Hundred thousands The hundred thousands may be represented in two ways. As shown in figure 2, one method uses the compound **الف** <با ONE HUNDRED, الف ONE THOUSAND> for specifying the unit mark. Multiples of the order involving 3–9 are represented using the alternate form of the primary number.

100,000	مائة الف مائة الف	< م ONE HUNDRED, الف ONE THOUSAND > <i>mi`a alf</i>
200,000	مئتا الف مئتا الف	< لا TWO, م ONE HUNDRED, الف ONE THOUSAND > <i>mi`atā alf</i>
300,000	ثلاث مائة الف ثلاث مائة الف	< ٣ ALTERNATE NUMBER THREE, م ONE HUNDRED, الف ONE THOUSAND > <i>talātu mi`a alf</i>
400,000	اربع مائة الف اربع مائة الف	< ل FOUR ALTERNATE NUMBER FOUR, م ONE HUNDRED, الف ONE THOUSAND > <i>arba`u mi`a alf</i>
500,000	خمسة مائة الف خمسة مائة الف	< ح ALTERNATE NUMBER FIVE, م ONE HUNDRED, الف ONE THOUSAND > <i>hamsu mi`a alf</i>
600,000	ست مائة الف ست مائة الف	< ٦ ALTERNATE NUMBER SIX, م ONE HUNDRED, الف ONE THOUSAND > <i>sittu mi`a alf</i>
700,000	سبع مائة الف سبع مائة الف	< ع ALTERNATE NUMBER SEVEN, م ONE HUNDRED, الف ONE THOUSAND > <i>sab`u mi`a alf</i>
800,000	ثمان مائة الف ثمان مائة الف	< ٨ ALTERNATE NUMBER EIGHT, م ONE HUNDRED, الف ONE THOUSAND > <i>tamānu mi`a alf</i>
900,000	تسعة مائة الف تسعة مائة الف	< ع ALTERNATE NUMBER NINE, م ONE HUNDRED, الف ONE THOUSAND > <i>tis`u mi`a alf</i>

According to the expression of the hundred thousands in Arabic, another method would be to use the respective number for the hundreds followed by الف ONE THOUSAND.

200,000	مئتا الف مئتا الف	< م TWO HUNDRED, الف ONE THOUSAND > <i>mi`atā alf</i>
300,000	ثلاث مائة الف ثلاث مائة الف	< م THREE HUNDRED, الف ONE THOUSAND > <i>talātu mi`a alf</i>
900,000	تسعة مائة الف تسعة مائة الف	< م NINE HUNDRED, الف ONE THOUSAND > <i>tis`u mi`a alf</i>

Larger orders The sources consulted for this proposal do not provide information regarding the representation of orders larger than the hundred thousands. However, based upon the methods of writing the millions in other Siyaq systems, as well as the traditional expression of such orders in Arabic, it is possible to present hypothetical representations of the millions in Diwani Siyaq. One million is expressed in Arabic using repetition of ‘one thousand’, such that الف الف *alf alf* ‘thousand (and) thousand’ means ‘one million’.

1,000,000	الف الف الف الف	<الف ONE THOUSAND, الف ONE THOUSAND> <i>alf alf</i>
2,000,000	الف الف الفان الف	<الف TWO THOUSAND, الف ONE THOUSAND> <i>alfān alf</i>
3,000,000	الف الف ثلاث الاف الف	<الف THREE THOUSAND, الف ONE THOUSAND> <i>talāta ālāf alf</i>
9,000,000	الف الف تسعة الاف الف	<الف NINE THOUSAND, الف ONE THOUSAND> <i>tis‘a ālāf alf</i>

3.8 Glyphic Variants

There are glyphic variants for some characters. These are not encoded separately and are to be managed through fonts.

	Regular	Variant
DIWANI SIYAQ NUMBER THREE HUNDRED	ثلما	سهما
DIWANI SIYAQ NUMBER ONE THOUSAND	الف	الف

3.9 Character Properties

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1ECC1;DIWANI SIYAQ NUMBER ONE;No;0;AL;;;1;N;;;;;
1ECC2;DIWANI SIYAQ NUMBER TWO;No;0;AL;;;2;N;;;;;
1ECC3;DIWANI SIYAQ NUMBER THREE;No;0;AL;;;3;N;;;;;
1ECC4;DIWANI SIYAQ NUMBER FOUR;No;0;AL;;;4;N;;;;;
1ECC5;DIWANI SIYAQ NUMBER FIVE;No;0;AL;;;5;N;;;;;
1ECC6;DIWANI SIYAQ NUMBER SIX;No;0;AL;;;6;N;;;;;
1ECC7;DIWANI SIYAQ NUMBER SEVEN;No;0;AL;;;7;N;;;;;
1ECC8;DIWANI SIYAQ NUMBER EIGHT;No;0;AL;;;8;N;;;;;
1ECC9;DIWANI SIYAQ NUMBER NINE;No;0;AL;;;9;N;;;;;
1ECCA;DIWANI SIYAQ NUMBER TEN;No;0;AL;;;10;N;;;;;
1ECCB;DIWANI SIYAQ NUMBER TWENTY;No;0;AL;;;20;N;;;;;
1ECCC;DIWANI SIYAQ NUMBER THIRTY;No;0;AL;;;30;N;;;;;
1ECCD;DIWANI SIYAQ NUMBER FORTY;No;0;AL;;;40;N;;;;;
1ECC E;DIWANI SIYAQ NUMBER FIFTY;No;0;AL;;;50;N;;;;;
1ECCF;DIWANI SIYAQ NUMBER SIXTY;No;0;AL;;;60;N;;;;;
1ECD0;DIWANI SIYAQ NUMBER SEVENTY;No;0;AL;;;70;N;;;;;
1ECD1;DIWANI SIYAQ NUMBER EIGHTY;No;0;AL;;;80;N;;;;;

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1ECD2;DIWANI SIYAQ NUMBER NINETY;No;0;AL;;;90;N;;;;;
1ECD3;DIWANI SIYAQ NUMBER ONE HUNDRED;No;0;AL;;;100;N;;;;;
1ECD4;DIWANI SIYAQ NUMBER TWO HUNDRED;No;0;AL;;;200;N;;;;;
1ECD5;DIWANI SIYAQ NUMBER THREE HUNDRED;No;0;AL;;;300;N;;;;;
1ECD6;DIWANI SIYAQ NUMBER FOUR HUNDRED;No;0;AL;;;400;N;;;;;
1ECD7;DIWANI SIYAQ NUMBER FIVE HUNDRED;No;0;AL;;;500;N;;;;;
1ECD8;DIWANI SIYAQ NUMBER SIX HUNDRED;No;0;AL;;;600;N;;;;;
1ECD9;DIWANI SIYAQ NUMBER SEVEN HUNDRED;No;0;AL;;;700;N;;;;;
1ECDA;DIWANI SIYAQ NUMBER EIGHT HUNDRED;No;0;AL;;;800;N;;;;;
1ECDB;DIWANI SIYAQ NUMBER NINE HUNDRED;No;0;AL;;;900;N;;;;;
1ECDC;DIWANI SIYAQ NUMBER ONE THOUSAND;No;0;AL;;;1000;N;;;;;
1ECDD;DIWANI SIYAQ NUMBER TWO THOUSAND;No;0;AL;;;2000;N;;;;;
1ECDE;DIWANI SIYAQ NUMBER THREE THOUSAND;No;0;AL;;;3000;N;;;;;
1ECDF;DIWANI SIYAQ NUMBER FOUR THOUSAND;No;0;AL;;;4000;N;;;;;
1ECE0;DIWANI SIYAQ NUMBER FIVE THOUSAND;No;0;AL;;;5000;N;;;;;
1ECE1;DIWANI SIYAQ NUMBER SIX THOUSAND;No;0;AL;;;6000;N;;;;;
1ECE2;DIWANI SIYAQ NUMBER SEVEN THOUSAND;No;0;AL;;;7000;N;;;;;
1ECE3;DIWANI SIYAQ NUMBER EIGHT THOUSAND;No;0;AL;;;8000;N;;;;;
1ECE4;DIWANI SIYAQ NUMBER NINE THOUSAND;No;0;AL;;;9000;N;;;;;
1ECE5;DIWANI SIYAQ NUMBER TEN THOUSAND;No;0;AL;;;10000;N;;;;;
1ECE6;DIWANI SIYAQ NUMBER TWENTY THOUSAND;No;0;AL;;;20000;N;;;;;
1ECE7;DIWANI SIYAQ NUMBER THIRTY THOUSAND;No;0;AL;;;30000;N;;;;;
1ECE8;DIWANI SIYAQ NUMBER FORTY THOUSAND;No;0;AL;;;40000;N;;;;;
1ECE9;DIWANI SIYAQ NUMBER FIFTY THOUSAND;No;0;AL;;;50000;N;;;;;
1ECEA;DIWANI SIYAQ NUMBER SIXTY THOUSAND;No;0;AL;;;60000;N;;;;;
1ECEB;DIWANI SIYAQ NUMBER SEVENTY THOUSAND;No;0;AL;;;70000;N;;;;;
1ECEC;DIWANI SIYAQ NUMBER EIGHTY THOUSAND;No;0;AL;;;80000;N;;;;;
1ECED;DIWANI SIYAQ NUMBER NINETY THOUSAND;No;0;AL;;;90000;N;;;;;
1EDED;DIWANI SIYAQ ALTERNATE NUMBER THREE;No;0;AL;;;3;N;;;;;
1ECEFF;DIWANI SIYAQ ALTERNATE NUMBER FOUR;No;0;AL;;;4;N;;;;;
1ECF0;DIWANI SIYAQ ALTERNATE NUMBER FIVE;No;0;AL;;;5;N;;;;;
1ECF1;DIWANI SIYAQ ALTERNATE NUMBER SIX;No;0;AL;;;6;N;;;;;
1ECF2;DIWANI SIYAQ ALTERNATE NUMBER SEVEN;No;0;AL;;;7;N;;;;;
1ECF3;DIWANI SIYAQ ALTERNATE NUMBER EIGHT;No;0;AL;;;8;N;;;;;
1ECF4;DIWANI SIYAQ ALTERNATE NUMBER NINE;No;0;AL;;;9;N;;;;;
1ECF5;DIWANI SIYAQ ALTERNATE NUMBER TEN;No;0;AL;;;10;N;;;;;

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Linebreaking Linebreaking properties in the format of LineBreak.txt:

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1ECC1..1ECF5;AL # No [53] DIWANI SIYAQ NUMBER ONE .. ALTERNATE NUMBER NINE
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3.10 Confusion Data

Given below are Arabic sequencates that may mimic the forms of Diwani Siyaq Numbers:

Diwani Siyaq Numbers	Arabic
ONE	; ALEF
TWO	; LAM, ALEF
THREE	; DOTLESS BEH, DOTLESS BEH, YEH BARREE
FOUR	; LAM, DOTLESS BEH, AIN, ALEF
FIVE	; HAH, ALEF
SIX	; TATWEEL, ALEF
SEVEN	; HEH GOAL, AIN, ALEF
EIGHT	; HEH GOAL, ALEF
NINE	; DOTLESS BEH, AIN, ALEF
TEN	; AIN, ALEF
TWENTY	; HAMZA, DOTLESS BEH
THIRTY	; DOTLESS BEH, LAM, MEEM, ALEF

FORTY ; LAM, DOTLESS BEH, AIN, ALEF
 FIFTY ; HAH, ALEF
 SIXTY ; TATWEEL, ALEF
 SEVENTY ; HEH GOAL, AIN, ALEF
 EIGHTY ; DOTLESS BEH, ALEF
 NINETY ; DOTLESS BEH, AIN, ALEF
 ONE HUNDRED ; MEEM, ALEF
 TWO HUNDRED ; MEEM, ALEF, LAM, HEH GOAL
 THREE HUNDRED ; SEEN, MEEM, ALEF
 FOUR HUNDRED ; ALEF, AIN, MEEM, ALEF
 FIVE HUNDRED ; HAH, MEEM, ALEF
 SIX HUNDRED ; SEEN, TATWEEL, MEEM, ALEF
 SEVEN HUNDRED ; LAM, MEEM, ALEF
 EIGHT HUNDRED ; LAM, MEEM, ALEF
 NINE HUNDRED ; LAAM, AIN, MEEM, ALEF
 ONE THOUSAND ; ALEF, LAM, FEH
 TWO THOUSAND ; AIN, DOTLESS BEH, FEH
 THREE THOUSAND ; DOTLESS BEH, DOTLESS BEH, FEH
 FOUR THOUSAND ; LAM, LAM, AIN, FEH
 FIVE THOUSAND ; HAH, ALEF, LAM, FEH
 SIX THOUSAND ; SEEN, ALEF, LAM, FEH
 SEVEN THOUSAND ; HEH GOAL, AIN, TATWEEL
 EIGHT THOUSAND ; HEH GOAL, TATWEEL
 NINE THOUSAND ; LAM, AIN, TATWEEL
 TEN THOUSAND ; AIN, LAM, ALEF
 TWENTY THOUSAND ; AIN, DOTLESS BEH, LAM, ALEF
 THIRTY THOUSAND ; DOTLESS BEH, DOTLESS BEH, LAM, ALEF
 FORTY THOUSAND ; LAM, LAM, AIN, LAM, ALEF
 FIFTY THOUSAND ; HAH, LAM, ALEF
 SIXTY THOUSAND ; SEEN, LAM, ALEF
 SEVENTY THOUSAND ; HEH GOAL, AIN, LAM, ALEF
 EIGHTY THOUSAND ; HEH GOAL, LAM, ALEF
 NINETY THOUSAND ; LAM, AIN, LAM, ALEF
 ALTERNATE NUMBER THREE ; LAM, LAM, ALEF
 ALTERNATE NUMBER FOUR ; LAM, DOTLESS BEH, medial AIN
 ALTERNATE NUMBER FIVE ; initial HAH
 ALTERNATE NUMBER SIX ; initial SEEN
 ALTERNATE NUMBER SEVEN ; DOTLESS BEH, medial AIN
 ALTERNATE NUMBER EIGHT ; medial HEH GOAL
 ALTERNATE NUMBER NINE ; LAM, medial AIN
 ALTERNATE NUMBER TEN ; HAMZA

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	1ECC	1ECD	1ECE	1ECF
0		بعا 1ECD0	حالی 1ECE0	ح 1ECF0
1	ا 1ECC1	ب 1ECD1	سالی 1ECE1	ر 1ECF1
2	لا 1ECC2	بعا 1ECD2	بعالی 1ECE2	مر 1ECF2
3	ک 1ECC3	ما 1ECD3	پهالی 1ECE3	چ 1ECF3
4	لعا 1ECC4	مار 1ECD4	بعالی 1ECE4	رو 1ECF4
5	حا 1ECC5	لما 1ECD5	عالی 1ECE5	ء 1ECF5
6	سا 1ECC6	لعا 1ECD6	پهالی 1ECE6	
7	بعا 1ECC7	حما 1ECD7	سلا 1ECE7	
8	پا 1ECC8	سعا 1ECD8	لعللا 1ECE8	
9	بعا 1ECC9	بعا 1ECD9	حلا 1ECE9	
A	عا 1ECCA	سعا 1ECDA	سلا 1ECEA	
B	پا 1ECCB	بعا 1ECDB	بعللا 1ECEB	
C	ک 1ECCC	الی 1ECDC	سلا 1ECEC	
D	لعا 1ECCD	الی 1ECDD	بعللا 1ECED	
E	حا 1ECC E	سالی 1ECDE	للا 1ECE E	
F	سا 1ECC F	بعالی 1ECDF	لرو 1ECE F	

Primary numbers

1ECC1	ا	DIWANI SIYAQ NUMBER ONE
1ECC2	ب	DIWANI SIYAQ NUMBER TWO
1ECC3	ک	DIWANI SIYAQ NUMBER THREE
1ECC4	لعا	DIWANI SIYAQ NUMBER FOUR
1ECC5	حا	DIWANI SIYAQ NUMBER FIVE
1ECC6	سا	DIWANI SIYAQ NUMBER SIX
1ECC7	بعا	DIWANI SIYAQ NUMBER SEVEN
1ECC8	پا	DIWANI SIYAQ NUMBER EIGHT
1ECC9	بعا	DIWANI SIYAQ NUMBER NINE

Tens

1ECCA	عا	DIWANI SIYAQ NUMBER TEN
1ECCB	پا	DIWANI SIYAQ NUMBER TWENTY
1ECCC	ک	DIWANI SIYAQ NUMBER THIRTY
1ECCD	لعا	DIWANI SIYAQ NUMBER FORTY
1ECC E	حا	DIWANI SIYAQ NUMBER FIFTY
1ECCF	سا	DIWANI SIYAQ NUMBER SIXTY
1ECD0	بعا	DIWANI SIYAQ NUMBER SEVENTY
1ECD1	ک	DIWANI SIYAQ NUMBER EIGHTY
1ECD2	بعا	DIWANI SIYAQ NUMBER NINETY

Hundreds

1ECD3	ما	DIWANI SIYAQ NUMBER ONE HUNDRED = hundreds multiplier
1ECD4	مار	DIWANI SIYAQ NUMBER TWO HUNDRED
1ECD5	لما	DIWANI SIYAQ NUMBER THREE HUNDRED
1ECD6	لعا	DIWANI SIYAQ NUMBER FOUR HUNDRED
1ECD7	حا	DIWANI SIYAQ NUMBER FIVE HUNDRED
1ECD8	سعا	DIWANI SIYAQ NUMBER SIX HUNDRED
1ECD9	بعا	DIWANI SIYAQ NUMBER SEVEN HUNDRED
1ECDA	ک	DIWANI SIYAQ NUMBER EIGHT HUNDRED
1ECDB	بعا	DIWANI SIYAQ NUMBER NINE HUNDRED

Thousands

1ECD C	الی	DIWANI SIYAQ NUMBER ONE THOUSAND = thousands multiplier
1ECD D	الی	DIWANI SIYAQ NUMBER TWO THOUSAND
1ECD E	سالی	DIWANI SIYAQ NUMBER THREE THOUSAND
1ECD F	لعالی	DIWANI SIYAQ NUMBER FOUR THOUSAND
1ECE0	حالی	DIWANI SIYAQ NUMBER FIVE THOUSAND
1ECE1	سالی	DIWANI SIYAQ NUMBER SIX THOUSAND
1ECE2	بعالی	DIWANI SIYAQ NUMBER SEVEN THOUSAND
1ECE3	پهالی	DIWANI SIYAQ NUMBER EIGHT THOUSAND
1ECE4	سعالی	DIWANI SIYAQ NUMBER NINE THOUSAND
1ECE5	عالی	DIWANI SIYAQ NUMBER TEN THOUSAND
1ECE6	پهالی	DIWANI SIYAQ NUMBER TWENTY THOUSAND
1ECE7	سلا	DIWANI SIYAQ NUMBER THIRTY THOUSAND
1ECE8	لعا	DIWANI SIYAQ NUMBER FORTY THOUSAND
1ECE9	حلا	DIWANI SIYAQ NUMBER FIFTY THOUSAND
1ECEA	سلا	DIWANI SIYAQ NUMBER SIXTY THOUSAND
1ECEB	بعا	DIWANI SIYAQ NUMBER SEVENTY THOUSAND
1ECEC	سلا	DIWANI SIYAQ NUMBER EIGHTY THOUSAND
1ECED	بعا	DIWANI SIYAQ NUMBER NINETY THOUSAND

Alternate forms

1ECE E	لا	DIWANI SIYAQ ALTERNATE NUMBER THREE
1EC E F	لرو	DIWANI SIYAQ ALTERNATE NUMBER FOUR
1EC F0	ح	DIWANI SIYAQ ALTERNATE NUMBER FIVE
1EC F1	ر	DIWANI SIYAQ ALTERNATE NUMBER SIX
1EC F2	مر	DIWANI SIYAQ ALTERNATE NUMBER SEVEN
1EC F3	چ	DIWANI SIYAQ ALTERNATE NUMBER EIGHT
1EC F4	رو	DIWANI SIYAQ ALTERNATE NUMBER NINE
1EC F5	ء	DIWANI SIYAQ ALTERNATE NUMBER TEN

	x1	x10	x100	x1,000	x10,000	x100,000
1	ا	عا	با	الف	عالف	مالف
2	لا	لا	مال	الفى	لا٧٦	لا٧٦الف
3	٥	٥٦	٥٦٧٨	٥٦٧٨٩	٥٦٧٨٩٠	٥٦٧٨٩٠١
4	لعا	لعا	لعا	لعا	لعا	لعا
5	حا	حا	حا	حالف	حلا	حوالف
6	سا	سا	سا	سالف	سلا	سوالف
7	بعا	بعا	بعا	بعالف	بعلا	بعوالف
8	رها	رها	رها	رهالف	رلا	روهالف
9	زعا	زعا	زعا	زعالف	زلا	زهالف

Table 1: Diwani forms of the Siyaq numbers for six decimal orders.

LES CHIFFRES « DÏVÂNÏ » CHEZ LES ARABES (1)

CHIFFRES	VALEUR	CHIFFRES	VALEUR	CHIFFRES	VALEUR
ا	1	لعو	19	الف ou الف	1,000
لا	2	لع	20	الفى	2,000
لا ou لا	3	لعا	30	مالف	3,000
لعلا	4	لعلا	40	لعالف	4,000
حلا	5	حلا	50	حالف	5,000
اللا	6	اللا	60	سالف	6,000
بعلا	7	بعلا	70	بعالف	7,000
هللا	8	هللا	80	هالف	8,000
لعللا	9	لعللا	90	لعلالف	9,000
علا	10	علا	100	عالف	10,000
علا	11	علا	200	علا	20,000
للا	12	للا ou لعا	300	للا	30,000
لعا	13	لعا	400	لعللا	40,000
لعو	14	لعو	500	للا	50,000
لعا	15	لعا	600	للا	60,000
لعا	16	لعا	700	للا	70,000
لعا	17	لعا	800	للا	80,000
لعا	18	لعا	900	للا	90,000

(1) D'après un manuscrit du *Vocabulaire arabe-persan* de ZAMAKHCHARÏ (Bibliothèque Nationale, ancien fonds arabe n° 1256), reproduits dans la *Grammaire arabe* de SILVESTRE DE SACY et dans l'ouvrage de A.-P. Pihan.

Figure 1: Table showing Diwani Siyaq Numbers (from Kazem-Zadeh 1915: Plate VII).

UNITÉS.		DIZAINES.		CENTAINES.	
ا	1	عا	10	ما	100
لا	2	٤٥	20	مار	200
لا او لا	3	٤٥	30	لما او سما	300
لعا	4	لعا	40	لعا	400
حا	5	حا	50	حما	500
سا	6	سا	60	سما	600
بع	7	بع	70	بعما	700
ها	8	ها	80	هما	800
ع	9	ع	90	عما	900
MILLE.		DIZAINES DE MILLE.		CENTAINES DE MILLE.	
الف او الف	1,000	عالف	10,000	مالف	100,000
الف	2,000	٤٥٥	20,000	لامالف	200,000
سالف	3,000	سلا	30,000	سمالف	300,000
لعالف	4,000	لعالا	40,000	لومالف	400,000
حالف	5,000	حلا	50,000		
سالف	6,000	سلا	60,000		
بعالف	7,000	بعلا	70,000		
هالف	8,000	هلا	80,000		
عالف	9,000	علا	90,000		

Figure 2: Table showing Diwani Siyaq Numbers (from Pihan 1860: 211).

EXEMPLES DE QUELQUES NOMBRES COMPOSÉS.

او	11	بع	17	لالعا	42
لاو	12	٤٥	18	هلع	48
٤٥	13	ع	19	مالف	141
لعو	14	او	21	مالا	152
حو	15	لعو	24	مار	206
س	16	حسا	35	لماحو	315

Figure 3: Table showing multiples of the primary units of the tens order in Diwani Siyaq notation (from Pihan 1860: 212).

Addendum to Acknowledgments

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