This proposal includes the twenty basic Mayan vigesimal numerals from zero to nineteen, with horizontal bars. Though these and related glyphs (including the corresponding vertical-barred forms) were used in ancient Mayan petroglyphs and prehispanic codices, the use case for these glyphs is much stronger than the full hieroglyphs, as the numerals are in modern use, as part of text, not simply as "figures". For instance, all Guatemalan banknotes have their denomination written in Mayan numerals in one corner and Arabic numerals in another.





The numerals are, in order:

MAYAN NUMERAL ZERO: In hieroglyphic texts, this is typically represented in variants of one of three forms: shell form, quatrefoil or partial quatrefoil, or face form. The face form is clearly associated with a hieroglyphic style, and may have separate semantics; it is probably not appropriate for encoding separately from the rest of the hieroglyphic script, and will not be considered further in this proposal. Any of the shell or quatrefoil variants may be used for this glyph, as appropriate for a given font. The most common form, and the one to base the standard on, is a shell-based form. The overall shape is a horizontal leaflike form made of two similar arcs which meet in a point at either end, with two parallel lines to define the arc of the bottom edge, a single line to define the arc of the top edge, and multiple vertical or near-vertical lines between these, as in the upper left of the first figure below.

Shell form variants: (image source, http://www.veralistcenter.org/engage/event/220/art-and-science-transdisciplinary-lectures-anna-blume-art-historian/)



MAYAN NUMERAL ONE: This is most commonly represented by a simple dot. In some cases, by a dot with two placeholder shapes on either side.

MAYAN NUMERAL TWO: This is represented by two dots, horizontally. In some cases, there is a placeholder shape in between the two of them.

MAYAN NUMERAL THREE: This is represented by three dots, horizontally.

MAYAN NUMERAL FOUR: This is represented by four dots, horizontally.

MAYAN NUMERAL FIVE: This is represented by a single horizontal bar.

MAYAN NUMERAL SIX: This is represented by a single dot (or mayan numeral one) above a horizontal bar.

MAYAN NUMERAL SEVEN: This is represented by two dots (or a mayan numeral two) above a horizontal bar.

Mayan Numerals Proposal

MAYAN NUMERAL EIGHT: This is represented by three dots (or a mayan numeral three) above a horizontal bar.

MAYAN NUMERAL NINE: This is represented by four dots (or a mayan numeral four) above a horizontal bar.

MAYAN NUMERAL TEN: This is represented by two horizontal bars.

MAYAN NUMERAL ELEVEN: This is represented by a single dot (or mayan numeral one) above two horizontal bars.

MAYAN NUMERAL TWELVE: This is represented by two dots (or a mayan numeral two) above two horizontal bars.

MAYAN NUMERAL THIRTEEN: This is represented by a three dots (or a mayan numeral three) above two horizontal bars.

MAYAN NUMERAL FOURTEEN: This is represented by a four dots (or a mayan numeral four) above two horizontal bars.

MAYAN NUMERAL FIFTEEN: This is represented by three horizontal bars.

MAYAN NUMERAL SIXTEEN: This is represented by a single dot (or mayan numeral one) above three horizontal bars.

MAYAN NUMERAL SEVENTEEN: This is represented by two dots (or a mayan numeral two) above three horizontal bars.

MAYAN NUMERAL EIGHTEEN: This is represented by three dots (or a mayan numeral three) above three horizontal bars.

MAYAN NUMERAL NINETEEN: This is represented by four dots (or a mayan numeral four) above three horizontal bars.

Similarity to existing Unicode characters:

Several of the Mayan numerals, and most especially the numeral one, are similar to existing unicode characters. However, their use as a coherent numeric system, including in mathematical computations and sorting, would be greatly facilitated by encoding all of them together in a new block. Ideally, the numeral zero would be encoded such that its final two hexadecimal digits were 00, such as at position 00015500; in that case, the numeric value of each digit could be obtained by a simple bitmask operation, or in the case of the UTF8 representation, a bitmask and bit-shift.

Modern as opposed to ancient use:

Encoding a full set of ancient Mayan hieroglyphs in Unicode is a daunting task. Not all hieroglyphs have been deciphered; their rules for combining are complex and variable; the textual styles evolved over more than a thousand years of use and a broad and diverse geographical area; and it is not even always fully established when two different extant glyphs should be thought of as examples of the same hieroglyph. However, the numerals are a separate case. Their meaning is well-understood, and indeed they are used in modern text in several contexts: Guatemalan banknotes:

The denomination of each banknote is written in Arabic numerals in one corner, and Mayan numerals in another corner (top left for the 1 Quetzal bill; top right for the 5, 10, 20, 50, and 100 Quetzal bills; and bottom left for the 200 Quetzal bill). The now-defunct 25 and 50 centavo bills also had Mayan numerals.



School textbooks: In Mexico and Central America, elementary and/or middle schools typically have a unit on Mayan mathematics, in which the numerals and vigesimal (base-20) system are explained and several simple arithmetic problems are posed using the numerals.

Books on Mayan subjects: For over 40 years, books on Mayan subjects have occasionally used Mayan numerals for page numbers. This practice has grown more common and is now the rule for Mayan-centric publishers, who also often use the numerals for numbering chapters, sections, and subsections, as well as in the table of contents. Examples of such publishers include, in Guatemalam Cholsamaj, Maya' Wuj, and PRODESSA; and in Mexico, Uady, Sedeculta, and Editorial Dante. The combined catalogues of these publishers now include well over a hundred such books. These include books in Spanish as well as in Mayan languages (languages which collectively have over 6 million native speakers.)

Other: Similar to the case with books, usage of Mayan numerals has extended to ephemera such as school worksheets and newspaper inserts. Also of note is the Mayan numeral thirteen in the logo of the Mexican television channel "Azteca Trece".

Other Mayan characters?

As already noted, encoding all Mayan hieroglyphs into Unicode would require extreme expertise, and even then, might be impractical at this time. The numerals are clearly the best place to start. The question is, does this open the door for requests for other Mayan characters?

After the numerals, the most commonly-used and widely-known Mayan characters are the calender-related glyphs, and in particular the day signs and month signs. These are important in traditional Mayan belief systems, as well as being used for modern dates, and of course by Mayan archaeologists and epigraphers. Jewelry involving these glyphs is a popular item for sale to tourists at Mayan archeological sites.

However, the number of people who could recognize even the 20 day signs, which are the most common calenderrelated glyphs, is undoubtedly tiny compared to the number who can read the numerals. At least tens of millions of schoolchildren have studied the Mayan numerals; whereas I'd be surprised if more than ten thousand people could name all the day glyphs. Furthermore, even when used in books, the day glyphs serve more as "figures" or graphical elements, rather than being incorporated into the text or serving textual functions as the numerals often are.

Thus, this proposal takes the position that the need for the numerals to be in unicode is urgent, while that for the calender-related glyphs is far less so.

Presentation:

The Mayan numerals, in modern use, exist in both vertical-barred form, written left-to-right, and horizontal-barred form, written top-to-bottom. In both cases, the most significant digits are written first. The horizontal-barred form is most common, and is thus the focus of the current proposal. Although this means that multi-digit numbers would be written top-to-bottom, the current proposal does not contemplate including this text flow as part of the standard; users of the glyphs would be responsible for positioning them correctly using their own tools.

To BMP or not to BMP?

Mayan Numerals Proposal

This is a limited set of characters in relatively wide modern use, so an argument could certainly be made for including them in the BMP. However, they can also be considered to be a modern usage evolved more-or-less directly from their ancient forms, and as such they would properly fit in the SMP area tentatively reserved for ancient Mayan hieroglyphs (00015500-000159FF). Though this proposal mostly views these characters in their modern usage, for the purposes of code point allocation, it is probably better to take the latter view, and place them in the SMP rather than the BMP.

Nd or No?

It is unclear whether these characters should have the category Nd (numeric decimal digit) or No (numeric:other). The mayan numerals are digits in a true positional number system including zero, and should be encoded in a contiguous range, like the decimal digits, and unlike any of the numeric:other glyphs such as Roman numerals. However, they are not decimal, but vigesimal. For instance, in a three-digit Mayan number, the positional values are 400, 20, and 1, rather than 100, 10, and 1.

This proposal contemplates using the overall category Nd, but adding a new "Vigesimal_Digit=yes" property, akin to "ASCII_Hex_Digit=Yes". If this is judged not to be feasible, then the No (numeric:other) category can be used instead.

Character properties:

These characters should have the following properties:

00015500;MAYAN	NUMERAL	ZER0;Nd;0;L;;0;0;0;N;;;;;;
00015501;MAYAN	NUMERAL	ONE;Nd;0;L;;1;1;1;N;;;;;
00015502;MAYAN	NUMERAL	TWO;Nd;0;L;;2;2;2;N;;;;;
00015503;MAYAN	NUMERAL	THREE;Nd;0;L;;3;3;3;N;;;;;
00015504;MAYAN	NUMERAL	FOUR;Nd;0;L;;4;4;4;N;;;;;
00015505;MAYAN	NUMERAL	FIVE;Nd;0;L;;5;5;5;N;;;;;
00015506;MAYAN	NUMERAL	SIX;Nd;0;L;;6;6;6;N;;;;;
00015507;MAYAN	NUMERAL	SEVEN;Nd;0;L;;7;7;7;N;;;;;
00015508;MAYAN	NUMERAL	EIGHT;Nd;0;L;;8;8;8;N;;;;;;
00015509;MAYAN	NUMERAL	NINE;Nd;0;L;;9;9;9;N;;;;;
0001550A;MAYAN	NUMERAL	TEN;Nd;0;L;;10;10;10;N;;;;;
0001550B;MAYAN	NUMERAL	ELEVEN;Nd;0;L;;11;11;11;N;;;;;
0001550C;MAYAN	NUMERAL	TWELVE;Nd;0;L;;12;12;12;N;;;;;
0001550D;MAYAN	NUMERAL	THIRTEEN;Nd;0;L;;13;13;13;N;;;;;
0001550E;MAYAN	NUMERAL	<pre>FOURTEEN;Nd;0;L;;14;14;14;N;;;;;</pre>
0001550F;MAYAN	NUMERAL	FIFTEEN;Nd;0;L;;15;15;15;N;;;;;
00015510;MAYAN	NUMERAL	SIXTEEN;Nd;0;L;;16;16;16;N;;;;;
00015511;MAYAN	NUMERAL	SEVENTEEN;Nd;0;L;;17;17;17;N;;;;;
00015512;MAYAN	NUMERAL	EIGHTEEN;Nd;0;L;;18;18;18;N;;;;;
00015513;MAYAN	NUMERAL	NINETEEN;Nd;0;L;;19;19;19;N;;;;;

Supporting documents: Scans from the following books and educational materials which use Mayan numerals as textual elements. Note that this is merely a few examples of the available items, with a focus on older works, as the number of works in recent years which use these numerals is far to large to enumerate.

Morley, Sylvanus G., *The Ancient Maya*. Stanford University Press, 1946. Each page has a chapter number as a (single-digit) Mayan numeral underneath the page number in Arabic numerals. The copyright year is given on the copyright page in Mayan numerals, above the full copyright information in English. (The copyright year is actually written incorrectly; with an error of 800, that is to say, missing the top 4 dots in the first of three digits.)

Sánchez, George I., *Arithmetic in Maya*. 1961. Page numbers are given in both Arabic and Mayan numerals, and Mayan numerals are used extensively in the text. Note: the "zero" is just an empty circle, and the numerals are much taller than a line of text.

Mayan Numerals Proposal

Wright, Ronald. *Time Among the Maya: Travels in Belize, Guatemala, and Mexico*. Grove Press, 1989. Mayan day counts are given throughout the text as section heads for each day of travel. These day counts, as with all traditional day counts, include a single Mayan digit in vertical format, along with a day sign.

Jorge Raymundo Velásquez ... [et al.]; ed. Flavio Mucía Patal. *K'amöl rub'ey ri tijonel, richin rokisaxik ri kaqchikel wuj : richin ri ruka'n tanaj chi rij ri retamaxik rusik'ixik chuqa' ri rutz'ib'axik ruwäch wuj.* Universidad Rafael Landívar, Instituto de Lingüística, 1999. Book of testimonies in Kaqchikel, with Arabic and Mayan page numbers.

Montgomery, John. *How to Read Maya Hieroglyphs*. Hippocrene Books, 2002. Each chapter has the appropriate Mayan numeral on its first page.

B'alam Rodríguez, Pakal; Rodríguez, Raxche'. *Maya' Ajilab'al/Cuadrícula Matemática*. Cholsamaj/Maja' Wuj 2007. Teaching aid; large table-mat for forming and doing arithmetic with "Mayan numerals" made of sticks and beads. Includes tables of Mayan numerals, of positional multipliers, and of the Kaqchikel suffixes associated with these positional multipliers.

Nerei (pseud.), *Los Hermanos Que Se Volvieron Micos.* Piedra Santa, 2010. A children's book in Spanish with Arabic and Mayan page numbers.

Saquimux, Herminia. *Lucha política de mujeres mayas kaqchikeles y ch'orti's en defensa del territorio : (historia y memoria de vida)* Centro para la Acción Legal en Derechos Humanos, 2010. Book in Spanish with Arabic and Mayan page numbers.

Ruth Moya. *Del tiempo y los nawales ... : testimonios de la tradición oral en boca de niños maya k'iche', kaqchikel y tz'utujil de Guatemala* Asociación Maya Uk'ux B'e / Ibis, 2012. Book in Spanish with Arabic and Mayan page numbers.

reader the "proving" of this answer. Try it both in Maya and in Arabic translation.

To illustrate problems with a more complex divisor and









HOW TO READ MAYA HIEROGLYPHS

JOHN MONTGOMERY

HIPPOCRENE BOOKS, INC. New York





Plate 8

Grolier Codex. Maya hiero glyphic books were typical made from barkpaper pounde flat and folded accordion fashion to form pages, the whitewashed with stucco for clean white writing surface. The most recently discovered Man book, the Grolier Codex (si named for the location where t was first exhibited) contains caendrical and astronomical infor mation, including data related to Venus. Only four of the hieroglyphic books survive, many of the Maya books were burned during the sixteent century on the orders of the Franciscan priest Diego Landa, who went on to wro the most significant ear account of Maya hieroglyph writing. Photographs © Just Kerr (K4822 & K4822.7).

CHAPTER 9

....

The Major Events

It must have been an impressive war. From surviving sculptures and murals we can envision cadres of javelin-throwers, dart-slingers, clubwielders, warriors arrayed in ferocious animal-helmets, in feather-crested shields and quilted cotton armor. Drawn up perhaps in a surprise attack, they descended upon the minor but important town of Pakab' in the present-day Mexican state of Tabasco, inflicting upon the enemy a resounding military defeat on January 18, A.D. 794. In the ensuing chaos the king's captains and others of the army managed to secure at least nine illustrious captives, binding them around the biceps with rope and dragging them back to the regional capital at Yokib'. There, bloodied and dazed, they were presented to the ruler as battle trophies destined for ball game sacrifices and other forms of torture.¹ TOZZER I IRHADY

That Maya inscriptions record battles and other momentous events scholars can no longer deny. Indeed, as early as the beginning of the twentieth century, a few enterprising epigraphers had suggested the presence of historical narrative and personal names—suggestions ignored by scholars for nearly half a century. Breakthroughs by Heinrich Berlin and Tatiana Proskouriakoff proved definitively that Maya texts incorporate important historical information.

Event glyphs, or more formally the verbs of Maya discourse, reflect an exciting array of actions undertaken by the principal subject of Maya inscriptions, who was usually the *ch'ul ajaw* or king. Whether in reference

Time Among the Maya

Travels in Belize, Guatemala, and Mexico

RONALD WRIGHT

AN OWL BOOK Henry Holt and Company New York

Chapter 6

8 Etz'nab

Etz'nab: Knife; day of the obsidian sacrificial blade.

No message for me at the embassy. But what about the message I left? The secretary stopped polishing her nails and picked at a few papers on the desk. "Here it is—I forgot to file it. Silly me!"

After lunch, I decide to make an overnight trip to the ruins of Quiriguá, a place I've never seen. Maybe when I get back David will have arrived. The local Budget rental car franchise fixes me up with a Mitsubishi Colt for twenty dollars a day. Only sixteen thousand kilometers on the clock; a few pieces of trim are missing and two tires are prematurely bald: cars have a hard life here.

The highway down toward Guatemala's corner of the Caribbean, wedged between Belize and Honduras, is straight and riddled with holes. So many roads have been built in the highlands for military purposes that there's little money left to repair the country's arteries. Old men with wheelbarrows are shoveling clay into potholes the size of bomb craters. They have to dodge the traffic, hopping to the shoulder, then darting back onto the tarmac between each convoy of roaring trucks—a dance they share with the vultures feeding on flattened iguanas. Sometimes they're guarded by a cardboard cutout policeman, propped in the middle of the road with right arm

863.99221.2 Los hermanos que se volvieron micos / Adaptación A541 de Nerei, Pseud. ; Ilus. Carlos Piedra Santa. -Guatemala : Piedra Santa. 2010.

20 p. : IL. : 21 cm. — (Colección: Las historias del Popol Vuh)

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 CUENTOS Y LEYENDAS
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 Nerei, Pseud.

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La joven Ixkik' dio a luz a Junajpu e Xbalamke. Ixkik' vivía con la abuela Ixmukane y dos hermanos mayores, Jun Batz' y Jun Chowen. Ellos eran medio hermanos de Junajpu e Xbalamke.





ILUSTRACIONES:



Los campesinos mayas vendían sus granos, o los productos que elaboraban, en los mercados de los pueblos y ciudades.



6 =



© Pakal B'alam Rodríguez y Raxche' Rodríguez, 2007

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168,42





THE ANCIENT

SYLVANUS GRISWOLD MORLEY ASSOCIATE OF THE CARNEGIE INSTITUTION OF WASHINGTON

MAYA "ROMAN" AND "ARABIC" NOTATIONS

Like ourselves, the ancient Maya made use of two different notations in writing their numbers: (I) bar-and-dot numerals which may be compared to our own Roman notation, and (2) head-variant numerals, which may be likened to our Arabic notation.

In the first notation, the dot • has a numerical value of I and the bar — a numerical value of V, and by varying combinations of these two symbols, the numbers from I to XIX inclusive were written as shown in Figure 23. The numbers *above* XIX, however, involved the use of their positional mathematical system, already mentioned, and will be described later.

• • •		•	•	t
• •	•]	•	:	S
• •	ء (: E	•	-
م •	0.0	• -	•	Ь
•	+	-		Р

FIG. 23.—Glyphs for the numbers o and I to XIX inclusive, in bar-and-dot notation, the Maya "Roman Notation": (a) zero; (b) I; (c) II; (d) III; (e) IV; (f) V; (g) VI; (h) VII; (i) VIII; (j) IX; (k) X; (l) XI; (m) XII; (n) XIII; (o) XIV; (p) XV; (q) XVII; (r) XVIII; (r) XVIII; (r) XIIX.

It is readily apparent from Figure 23 that the Maya bar-anddot notation was superior to Roman notation in two respects. To write the numbers from I to XIX inclusive in Roman notation, it is necessary to employ three symbols—the letters I, V, and X and two arithmetical processes—addition and subtraction: VI is V plus I, but IV is V minus I.

On the other hand, in Maya bar-and-dot notation, in order to

write the numbers from I to XIX inclusive, it is necessary to employ only two symbols—the dot and the bar—and only one arithmetical process, namely addition. In other words, Maya bar-279 and-dot notation used not only one symbol less to write the numbers from I to XIX inclusive than Roman notation requires, but also one arithmetical process less.

The second notation employed by the ancient Maya in writing their numbers made use of different types of human heads to represent the numbers from 1 to 13, inclusive, and zero. The Maya head-notation is comparable to our own Arabic notation, wherein there are ten different symbols representing zero and the first nine numbers—0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. These fourteen Maya head-variant numerals are nothing more nor less than the heads of the patron deities of the first fourteen numbers described in the preceding chapter.

It will be remembered that in forming the days of the *tzolkin*, 13 numbers from 1 to 13 inclusive were prefixed to the glyphs for the twenty days in succession. There is evidence that the ancient Maya regarded the first thirteen numbers and zero as *the primary numbers*, since each one of them has a special head to represent it, that is each of those numbers has its own patron deity (Plate 30, a).²

The head-variant for 10 is the death's head, or skull, and in forming the head-variants for the numbers from 14 to 19 inclusive, the fleshless lower jaw of the death's head (Plate 30, a) was the part used to represent the value of 10 in these composite heads for these six higher numbers. Thus if the fleshless lower jaw is applied to the lower part of the head for 6, which is characterized by a pair of crossed sticks in the large eye socket, the resulting head will be that for 16; that is, 10 + 6 (see Plate 30, a, where, to the head for 6, a fleshless lower jaw has been attached). Or again, if this same fleshless lower jaw is applied to the lower part of the head for 9, which is characterized by a circle of dots on the lower cheek (Plate 30, a), the resulting head will be that for 19; or 10 + 9; further, by applying the fleshless lower jaw to the

² The head-variant for the number 11 has not yet been surely identified.

ISO/IEC JTC 1/SC 2/WG 2 PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS				
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646				
Please fill all the sections A, B and C below.				
guidelines and details before filling this form.				
Please ensure you are using the latest Form from <u>http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html</u> . See also <u>http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html</u> for latest <i>Roadmaps</i> .				
A. Administrative				
1. Title: Mayan Numerals				
2. Requester's name: Jameson Quinn				
3. Requester type (Member body/Liaison/Individual contribution): Individual contribution				
4. Submission date: September 22, 2016				
5. Requester's reference (if applicable):				
6. Choose one of the following:				
This is a complete proposal:				
(or) More information will be provided later:				
B. Technical – General				
1. Choose one of the following:				
a. This proposal is for a new script (set of characters):				
Proposed name of script: <u>Mayan Numerals</u>				
b. The proposal is for addition of character(s) to an existing block:				
2. Number of characters in proposal:				
3. Proposed category (select one from below - see section 2.2 of P&P document):				
A-Contemporary x 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				
4. Is a repertoire including character names provided?				
a. If YES, are the names in accordance with the "character naming guidelines"				
in Annex L of P&P document?				
b. Are the character shapes attached in a legible form suitable for review?				
5. Fonts related:				
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the				
standard ?				
h Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp.site, oto.):				
Jameson Quinn (jameson quinn@qmail.com)				
6 References				
a Are references (to other character sets, dictionaries, descriptive texts etc.) provided?				
b. Are published examples of use (such as samples from newspapers, magazines, or other sources)				
of proposed characters attached?				
7. Special encoding issues:				
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)?				
8. Additional Information:				
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 <u>http://www.unicode.org</u> for such information on other scripts. Also see				
Unicode Unaracter Database (<u>nttp://www.unicode.org/reports/tr44/</u>) and associated Unicode Technical Reports for				

The Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)
Mayan Numerals Proposal

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	no			
If YES explain				
2. Has contact been made to members of the user community (for example: National Body,				
user groups of the script or characters, other experts, etc.)?	yes			
If YES, with whom? Loimay Garcia, Acad. de Lenguas Mayas de Guat. (ioimay07@gr	nall.com)			
If YES, available relevant documents:				
3. Information on the user community for the proposed characters (for example:	Vaa			
size, demographics, information technology use, or publishing use) is included?	res			
4. The context of use for the proposed characters (type of use; common or rare)	ommon			
Reference: Includes Guatemalan banknotes; schoolbooks on Mayan math; other Mayan-rela	ted books			
5. Are the proposed characters in current use by the user community?	yes			
If YES, where? Reference:				
6. After giving due considerations to the principles in the P&P document must the proposed characters be	entirely			
in the BMP?	no			
If YES, is a rationale provided?				
If YES, reference:				
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	yes			
8. Can any of the proposed characters be considered a presentation form of an existing				
character or character sequence?	no			
If YES, is a rationale for its inclusion provided?				
If YES, reference:				
9. Can any of the proposed characters be encoded using a composed character sequence of either				
existing characters or other proposed characters?	no			
If YES, is a rationale for its inclusion provided?				
If YES, reference:				
10. Can any of the proposed character(s) be considered to be similar (in appearance or function)				
to, or could be confused with, an existing character?	yes			
If YES, is a rationale for its inclusion provided?	yes			
If YES, reference:				
11. Does the proposal include use of combining characters and/or use of composite sequences?	<u>no</u>			
If YES, is a rationale for such use provided?				
If YES, reference:				
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	, <u> </u>			
If YES, reference:				
12. Does the proposal contain characters with any special properties such as				
control function or similar semantics?				
If YES, describe in detail (include attachment if necessary)				
Is. Does the proposal contain any loeographic compatibility characters?				
If YES, are the equivalent corresponding unified ideographic characters identified?				