

Unicode request for LHM compound tone diacritic

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This request is for a ligature of the three basic IPA tone diacritics – grave + acute + macron – that fills a gap in [L2/23-208](#). This diacritic, 〈ጀ〉, indicates a peaking tone that rises from low to high pitch and falls back to mid pitch (LHM). It has been used for Nízaà, a Mambiloid language of Cameroon with a complex tone inventory (ISO 639-3: sgi). Kjelsvik (2002: 12) notes that the standard orthography splits the diacritic for a complex tone across the letters of a syllable for legibility, but this option is not available for CV syllables with only a single vowel letter. The linguistic description attempts to be more precise across all syllable types, but ‘a certain splitting up of the triple tones was unavoidable, since no triple-tone symbols [were] available’ in the Doulos font used. Nonetheless, the kerning applied in Figure 1. makes the intent clear.

Characters

ጀ 1AF3 COMBINING GRAVE-ACUTE-MACRON.

Properties

1AF3;COMBINING GRAVE-ACUTE-MACRON;Mn;230;NSM;;;;N;;;;

References

- Rolf Endresen (1991) Diachronic Aspects of the Phonology of Nizaa. *Journal of African Languages and Linguistics* 12 (2): 171–194.
- (1992) La phonologie de la langue nizaa (nizaà). *Nordic Journal of African Studies*, 1 (1): 28–52.
- (1995) *Diachronic and Comparative Aspects of Nizaa Tonology*. Presentation at the 23rd Annual Conference of African Linguistics, East Lansing, Michigan.
- Bjørghild Kjelsvik (2002) *Verb chains in Nizaa*. Cand. Philol. thesis, University of Oslo.

Chart

Combining Diacritical Marks Extended

1AB0

1ADF

	1AB	1AC	1AD	1AE	1AF
0	ꝑ	ꝑ ꝑ	ꝑ	ꝑ	ꝑ
1	ꝑ	ꝑ	ꝑ	ꝑ	ꝑ
2	ꝑ	ꝑ	ꝑ	ꝑ	ꝑ
3	ꝑ	ꝑ	ꝑ	ꝑ	ꝑ
4	ꝑ	ꝑ	ꝑ	ꝑ	
5	ꝑ	ꝑ	ꝑ	ꝑ	
6	ꝑ	ꝑ	ꝑ	ꝑ	
7	ꝑ	ꝑ	ꝑ	ꝑ	
8	ꝑ	ꝑ	ꝑ	ꝑ	
9	ꝑ	ꝑ	ꝑ	ꝑ	
A	ꝑ	ꝑ	ꝑ	ꝑ	
B	ꝑ	ꝑ	ꝑ	ꝑ	
C	ꝑ	ꝑ	ꝑ	ꝑ	
D	ꝑ	ꝑ	ꝑ	ꝑ	
E	ꝑ	ꝑ	ꝑ	ꝑ	
F	ꝑ	ꝑ	ꝑ	ꝑ	

Figures

Tone	CVV	CVC	CV
H	táá	tám	tá
M	taa	tam	ta
L	tàà	tàm	tà
LH	tàá	tăm	tă
HM	táá	tám	tā
HL	táà	tâm	tâ
MH	taá	tám	tă
ML	taà	tâm	tă
LHM	tää	tăm	tă
LHL	tää	tăm	tă
MHL	tää	tăm	tă

Figure 1. Kjelsvik (2002: 13). The ligature $\langle \circ \rangle$ (red) is requested. The ligature $\langle \circ \rangle$ (blue) was published in Unicode 17 at U+1AD8. These are typeset with kerned spacing diacritics.

NO.	TONE	VC	CVV	CVC
1.	H	/tá/	/táá/	/tám/
2.	M	/ta/	/taa/	/tam/
3.	L	/tà/	/tää/	/täm/
4.	LH	/ă/	/tää/	/tăm/
5.	HM	/tá-/	/táá/	/tám-/
6.	HL	/tă/	/táá/	/täm/
7.	MH	/ta'/	/taá/	/tam'/
8.	ML	/ta`/	/taà/	/tam`/
9.	LHM	/tă-/	/tää/	/täm-/

Figure 2. Endresen (1991: 175). Due to lack of font support, complex tone diacritics were hacked as sequences, as if they were an inherent tone + floating tone. Even the two-tone sequence $\langle \circ \rangle$ (blue) was not available, not being added until L2/04-246, but the publisher also hacked diacritics on *m*.

MN /h̄w-/ ‘bone’

Figure 3. Endresen (1991: 192). A hacked textual token.

H:	áá	á	ám
M:	aa	a	am
B:	àà	à	àm
HM	áá	á-	ám-
HB:	áà	â	âm
MH:	aá	á'	am'
MB:	aà	â'	am`
BH:	àá	ă	ăm
BHM:	ää	ă-	ám-

Figure 4. Endresen (1992: 46), again with a hacked glyph.

ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html for guidelines and details before filling this form.

Please ensure you are using the latest Form from std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html.
See also std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html for latest Roadmaps.

A. Administrative

1. Title:	<i>Compound tone diacritics II</i>
2. Requester's name:	<i>Kirk Miller</i>
3. Requester type (Member body/Liaison/Individual contribution):	<i>individual</i>
4. Submission date:	<i>2025 November 02</i>
5. Requester's reference (if applicable):	
6. Choose one of the following:	
This is a complete proposal:	<i>yes</i>
(or) More information will be provided later:	<i>no</i>

B. Technical – General

1. Choose one of the following:		
a. This proposal is for a new script (set of characters):	<i>no</i>	
Proposed name of script:		
b. The proposal is for addition of character(s) to an existing block:	<i>yes</i>	
Name of the existing block:	<i>Combining Diacritical Marks Extended</i>	
2. Number of characters in proposal:	<i>1</i>	
3. Proposed category (select one from below – see section 2.2 of P&P document):		
A-Contemporary <input checked="" type="checkbox"/>	B.1-Specialized (small collection) <input type="checkbox"/>	B.2-Specialized (large collection) <input type="checkbox"/>
C-Major extinct <input type="checkbox"/>	D-Attested extinct <input type="checkbox"/>	E-Minor extinct <input type="checkbox"/>
F-Archaic Hieroglyphic or Ideographic <input type="checkbox"/>	G-Obscure or questionable usage symbols <input type="checkbox"/>	
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?	<i>yes</i>	
b. Are the character shapes attached in a legible form suitable for review?	<i>yes</i>	
5. Fonts related:		
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?	<i>Kirk Miller</i>	
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):	<i>SIL (Gentium Release)</i>	
6. References:		
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?	<i>yes</i>	
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?	<i>yes</i>	
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)?	<i>no</i>	
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 www.unicode.org for such information on other scripts. Also see Unicode Character Database (www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.		

¹ 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)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	<input type="checkbox"/> <i>no</i>
If YES explain	<input type="text"/>
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.)?	<input type="checkbox"/> <i>yes</i>
If YES, with whom?	<input type="text"/> <i>Author is a member of the user community.</i>
If YES, available relevant documents:	<input type="text"/>
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	<input type="checkbox"/>
Reference:	<input type="text"/>
4. The context of use for the proposed characters (type of use; common or rare)	<input type="checkbox"/> <i>transcription</i>
Reference:	<input type="text"/>
5. Are the proposed characters in current use by the user community?	<input type="checkbox"/> <i>yes</i>
If YES, where? Reference:	<input type="text"/>
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	<input type="checkbox"/> <i>no</i>
If YES, is a rationale provided?	<input type="checkbox"/>
If YES, reference:	<input type="text"/>
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	<input type="checkbox"/> <i>yes</i>
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	<input type="checkbox"/> <i>no</i>
If YES, is a rationale for its inclusion provided?	<input type="checkbox"/>
If YES, reference:	<input type="text"/>
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	<input type="checkbox"/> <i>no</i>
If YES, is a rationale for its inclusion provided?	<input type="checkbox"/>
If YES, reference:	<input type="text"/>
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?	<input type="checkbox"/> <i>no</i>
If YES, is a rationale for its inclusion provided?	<input type="checkbox"/>
If YES, reference:	<input type="text"/>
11. Does the proposal include use of combining characters and/or use of composite sequences?	<input type="checkbox"/> <i>no</i>
If YES, is a rationale for such use provided?	<input type="checkbox"/>
If YES, reference:	<input type="text"/>
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	<input type="checkbox"/> <i>no</i>
If YES, reference:	<input type="text"/>
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	<input type="checkbox"/> <i>no</i>
If YES, describe in detail (include attachment if necessary)	<input type="text"/>
13. Does the proposal contain any Ideographic compatibility characters?	<input type="checkbox"/> <i>no</i>
If YES, are the equivalent corresponding unified ideographic characters identified?	<input type="checkbox"/>
If YES, reference:	<input type="text"/>