# Universal Multiple-Octet Coded Character Set International Organization for Standardization Organisation internationale de normalisation Международная организация по стандартизации 

Doc Type: Working Group Document<br>Title: Proposal to add additional historic syllables for Vai to the UCS<br>Source: Michael Everson<br>Status: Individual Contribution<br>Action: For consideration by JTC1/SC2/WG2 and UTC<br>Date: 2007-04-17

Document N2948R named The Book of Ndole as one of the primary sources for characters for Vai. During the preparation of a diplomatic edition of that document, a number of characters have been discovered which were not previously proposed for encoding. Two of these characters are proposed here. Of the remaining characters, some have been tentatively identified but more research is needed. Those characters are not as urgently required because they are not used in the narrative text proper, but rather on a page which appears to be a list of archaic or obscure characters (see Figure 5). More study of that folio is needed. In the code charts appended to this proposal are also highlighted a number of characters whose glyphs have been improved in consultation with Vai users and contacts in SIL International.

## Unicode character properties

```
A62A;VAI SYLLABLE NDOLE MA;LO;0;L;;;;;N;;;;;
A62B;VAI SYLLABLE NDOLE DO;LO;0;L;;;;;N;;;;;
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Figures


Figure 1. Folio 7 r of The Book of Ndole, showing two instances of vai syllable ndole do.
R: = 11 dh in $\psi$ : ? $\tau$ भ











Figure 2. Folio 12r of The Book of Ndole,
showing an instance of val syllable dole ma next to val syllable ma. The word mama means 'grandmother'


Figure 3. Folio 18r of The Book of Ndole,
showing two instances of val syllable dole ma next to val syllable ma


Figure 4. Part of Koelle's 1849 chart of the Vai syllabary, showing val syllable ma next to val syllable ndole ma. Koelle transcribes them as $m a ́$ and $m \bar{a}$.


Figure 5. Folio 42r of The Book of Ndole,
showing a range of characters still being studied for possible future inclusion in the standard.

## A. Administrative <br> 1. Title

Proposal to add additional historic syllables for Vai to the UCS
2. Requester's name

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

Individual contribution.
4. Submission date

2007-04-17
5. Requester's reference (if applicable)
6. Choose one of the following:

6a. This is a complete proposal
Yes.
6b. More information will be provided later
No.

## B. Technical - General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)
No.
1b. Proposed name of script
1c. The proposal is for addition of character(s) to an existing block
Yes
1d. Name of the existing block
Vai
2. Number of characters in proposal
2.
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 A.

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?
No.
6 b . 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)?
No.
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.)?
Yes.
2b. If YES, with whom?
Mohamed Nyei and Charles Riley.
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?
No.
4a. The context of use for the proposed characters (type of use; common or rare)
Used historically and in modern editions.

## 4b. Reference

5a. Are the proposed characters in current use by the user community?
No.
5b. If YES, where?
6a. After giving due considerations to the principles in the $\mathrm{P} \& \mathrm{P}$ document must the proposed characters be entirely in the BMP?
Yes.
6 b . If YES, is a rationale provided?
Yes.
6c. If YES, reference
Keep with other Vai characters.
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

No.
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?




| A56E | 9 | VAI SYLLABLE MA | A5A5 | VAI SYLLABLE THU |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\rightarrow$ A62A $\mathscr{H}$ vai syllable ndole ma | A5A6 KI | VAI SYLLABLE DHU |
| A56F | I | VAI SYLLABLE NA | A5A7 Wl | VAI SYLLABLE DHHU |
| A570 | y | VAI SYLLABLE NYA | A5A8 $\vdash$ | VAI SYLLABLE LU |
| Syllables in－00 |  |  | A5A9 $\sim_{\sim}^{\sim}$ | VAI SYLLABLE RU |
|  |  |  | A5AA $\stackrel{\sim}{\circ}$ | VAI SYLLABLE DU |
| A571 | ＇ | VAI SYLLABLE OO | A5AB 俑 | VAI SYLLABLE NDU |
| A572 | ＇ | VAI SYLLABLE OON | A5AC 111 | VAI SYLLABLE SU |
| A573 | 早 | VAI SYLLABLE HOO | A5AD ！ 1 | VAI SYLLABLE SHU |
| A574 | T | VAI SYLLABLE WOO | A5AE 111 | VAI SYLLABLE ZU |
| A575 | ¢ | VAI SYLLABLE WOON | A5AF 11 | VAI SYLLABLE ZHU |
| A576 | S | VAI SYLLABLE POO | A5B0 lib | VAI SYLLABLE CU |
| A577 | S | VAI SYLLABLE BHOO | A5B1 Њ | VAI SYLLABLE JU |
| A578 | $\mathfrak{F}$ | VAI SYLLABLE BOO | A5B2 W | VAI SYLLABLE NJU |
| A579 | $\cdots$ | VAI SYLLABLE MBOO | A5B3 H： | VAI SYLLABLE YU |
| A57A | $\diamond$ | VAI SYLLABLE KPOO | A5B4 $\odot$ | VAI SYLLABLE KU |
| A57B | $\bigcirc$ | VAI SYLLABLE MGBOO | A5B5 | VAI SYLLABLE NGGU |
| A57C | $\square$ | VAI SYLLABLE GBOO | A5B6 9 | VAI SYLLABLE GU |
| A57D | 7 | VAI SYLLABLE FOO | A5B7 M | VAI SYLLABLE MU |
| A57E | $\nsim$ | VAI SYLLABLE VOO | A5B8 田 | VAI SYLLABLE NU |
| A57F | ： C | VAI SYLLABLE TOO | A5B9 | VAI SYLLABLE NYU |
| A580 | ： 6 | VAI SYLLABLE THOO | Syllables in－0 |  |
| A581 | 4 T | VAI SYLLABLE DHOO |  |  |
| A582 | Y： | VAI SYLLABLE DHHOO | A5BA | VAI SYLLABLE O |
| A583 | c， | VAI SYLLABLE LOO | A5BB $)($ | VAI SYLLABLE ON |
| A584 | c | VAI SYLLABLE ROO | A5BC $)$ C | VAI SYLLABLE NGON |
| A585 | 出 | VAI SYLLABLE DOO | A5BD | VAI SYLLABLE HO |
| A586 | $y_{0}$ | VAI SYLLABLE NDOO | A5BE ］［ | VAI SYLLABLE HON |
| A587 | ய | VAI SYLLABLE SOO | A5BF | VAI SYLLABLE WO |
|  |  | $\rightarrow$ A612 $\lll$ vai syllable ndole soo | $A 5 C 0$ \＃ | VAI SYLLABLE WON |
| A588 | 山 | VAI SYLLABLE SHOO | A5C1 ¢о $^{\circ}$ | VAI SYLLABLE PO |
| A589 | 8 | VAI SYLLABLE ZOO | A5C2 offo | VAI SYLLABLE BHO |
| A58A | ：8： | VAI SYLLABLE ZHOO | A5C3 6 | VAI SYLLABLE BO |
| A58B | ：$:$ | VAI SYLLABLE COO | A5C4 | VAI SYLLABLE MBO |
| A58C | $\cdots$ | VAI SYLLABLE JOO | A5C5 극 | VAI SYLLABLE KPO |
| A58D | $\cdots$ | VAI SYLLABLE NJOO | A5C6 | VAI SYLLABLE MGBO |
| A58E | ｜： | VAI SYLLABLE YOO | A5C7 ${ }^{\text {A }}$ | VAI SYLLABLE GBO |
| A58F | 4 | VAI SYLLABLE KOO | A5C8 ${ }_{\text {，}}$ | VAI SYLLABLE GBON |
| A590 | $\mathscr{L}_{1}$ | VAI SYLLABLE NGGOO | A5C9 8 | VAI SYLLABLE FO |
| A591 | 7 | VAI SYLLABLE GOO | A5CA $\%$ | VAI SYLLABLE VO |
| A592 | $\bullet$ | VAI SYLLABLE MOO | A5CB E | VAI SYLLABLE TO |
| A593 | $y_{\text {j }}$ | VAI SYLLABLE NOO | A5CC w | VAI SYLLABLE THO |
| A594 | T： | VAI SYLLABLE NYOO | A5CD $\stackrel{\square}{-}$ | VAI SYLLABLE DHO |
| Syllables in－u |  |  | A5CE ${ }^{-}$ | VAI SYLLABLE DHHO |
|  |  |  | A5CF $\delta$ | VAI SYLLABLE LO |
| A595 | ب． | VAI SYLLABLE U | A5D0 § | VAI SYLLABLE RO |
| A596 | بy | VAI SYLLABLE UN | A5D1 | VAI SYLLABLE DO |
| A597 | K | VAI SYLLABLE HU |  | －read as logogram lo＇in＇in the Book of Ndole |
| A598 | （1） | VAI SYLLABLE HUN |  | $\rightarrow$ A62B $Q$ vai syllable ndole do |
| A599 | Y | VAI SYLLABLE WU | A5D2 | VAI SYLLABLE NDO |
| A59A | \％ | VAI SYLLABLE WUN | A5D3 F | VAI SYLLABLE SO |
| A59B | \＃ | VAI SYLLABLE PU | A5D4 F． | VAI SYLLABLE SHO |
| A59C | $\bigcirc$ | VAI SYLLABLE BHU | A5D5 F | VAI SYLLABLE ZO |
| A59D | 8 | VAI SYLLABLE BU | A5D6 ．f． | VAI SYLLABLE ZHO |
| A59E | 8. | VAI SYLLABLE MBU | A5D7 ${ }^{\text {B }}$ | VAI SYLLABLE CO |
| A59F | \％ | VAI SYLLABLE KPU | A5D8 $\mathbb{B}$ | VAI SYLLABLE JO |
| A5A0 | ＋ | VAI SYLLABLE MGBU | A5D9 ${ }^{\text {B }}$ | VAI SYLLABLE NJO |
| A5A1 | ${ }^{0}$ | VAI SYLLABLE GBU | A5DA 8 | VAI SYLLABLE YO |
| A5A2 | ofo | VAI SYLLABLE FU | A5DB R | VAI SYLLABLE KO |
| A5A3 | 9fo | VAI SYLLABLE VU | A5DC | VAI SYLLABLE NGGO |
| A5A4 | $\stackrel{\square}{\square}$ | VAI SYLLABLE TU |  |  |


| A5DD | ．o．VAI SYLLABLE GO |
| :---: | :---: |
| A5DE | ¢ VAI SYLLABLE MO |
| A5DF | S VAI SYLLABLE NO |
| A5E0 | 22 VAI SYLLABLE NYO |
| Syllables in－e |  |
| A5E1 | \＆VAI SYLLABLE E |
| A5E2 | aul VAI SYLLABLE EN |
| A5E3 | K VAI SYLLABLE NGEN |
| A5E4 | \％VAI SYLLABLE HE |
| A5E5 | \％．VAI SYLLABLE HEN |
| A5E6 | $\tau$ VAI SYLLABLE WE |
| A5E7 | \＆VAI SYLLABLE WEN |
| A5E8 | ＜VAI SYLLABLE PE |
| A5E9 | ＜VAI SYLLABLE BHE |
| A5EA | IC VAI SYLLABLE BE |
| A5EB | l．C VAI SYLLABLE MBE |
| A5EC | $\bigcirc$ VAI SYLLABLE KPE |
| A5ED | $\because$ VAI SYLLABLE KPEN |
| A5EE | $\because$ VAI SYLLABLE MGBE |
| A5EF | $\bowtie$ VAI SYLLABLE GBE |
| A5FO | 凶 VAI SYLLABLE GBEN |
| A5F1 | 5 VAI SYLLABLE FE |
| A5F2 | § VAI SYLLABLE VE |
| A5F3 | \＆VAI SYLLABLE TE |
| A5F4 | ：8：VAI SYLLABLE THE |
| A5F5 | VAI SYLLABLE DHE |
| A5F6 | VAI SYLLABLE DHHE |
| A5F7 | ＇，＇VAI SYLLABLE LE |
| A5F8 | ${ }_{\sim}^{\prime}{ }^{\prime}$＇VAI SYLLABLE RE |
| A5F9 | ！！VAI SYLLABLE DE |
| A5FA | 川 VAI SYLLABLE NDE |
| A5FB | $\psi$ VAI SYLLABLE SE |
| A5FC | بل VAI SYLLABLE SHE |
| A5FD | －VAI SYLLABLE ZE |
| A5FE | 雨 VAI SYLLABLE ZHE |
| A5FF | 5 VAI SYLLABLE CE |
| A600 | ？VAI SYLLABLE JE |
| A601 | § VAI SYLLABLE NJE |
| A602 | § VAI SYLLABLE YE |
| A603 | $\Psi$ VAI SYLLABLE KE |
| A604 | Y．VAI SYLLABLE NGGE |
| A605 | $\underline{\underline{\underline{\mu}} \text { 弟 VAI SYLLABLE NGGEN }}$ |
| A606 | Y VAI SYLLABLE GE |
| A607 | 出 VAI SYLLABLE GEN |
| A608 | IIII VAI SYLLABLE ME |
| A609 | $\chi$ VAI SYLLABLE NE |
| A60A | 毕 VAI SYLLABLE NYE |

## Syllable finals

A60B w VAI SYLLABLE NG
A60C＝VAI SYLLABLE LENGTHENER

## Punctuation

A60D＾VAI COMMA
A60E＊VAI FULL STOP
A60F ao VAI QUESTION MARK
Historic syllables
A610 $\because$ VAI SYLLABLE NDOLE FA $\rightarrow$ A558 3 vai syllable fa

A611 $\check{\pi}$ VAI SYLLABLE NDOLE KA
$\rightarrow$ A56A 4 vai syllable ka
A612 $\ll$ VAI SYLLABLE NDOLE SOO
$\rightarrow$ A587 Щ vai syllable soo

## Logograms

A613 $\varepsilon$ VAI SYMBOL FEENG
－logogram for＇thing＇
A614 uy VAI SYMBOL KEENG
－logogram for＇foot＇
A615 에 VAI SYMBOL TING
－logogram for＇island＇
A616 1 VAI SYMBOL NII
－logogram for＇cow＇
－also logogram for kpe kowu＇case of gin＇
A617 ل1 VAI SYMBOL BANG
－logogram for＇finished＇
A618 F VAI SYMBOL FAA
－logogram for＇die，kill＇
A619 $\quad$－VAI SYMBOL TAA
－logogram for＇go，carry，journey＇
A61A
－logogram for＇hear，understand＇
A61B y VAI SYMBOL DOONG
－logogram for＇enter＇
A61C $\nabla$ VAI SYMBOL KUNG
－logogram for＇head，be able＇
A61D $\Gamma$ VAI SYMBOL TONG
－logogram for＇be named＇
A61E ㄴ．VAI SYMBOL DO－O
－logogram for＇be small＇
A61F ¿ VAI SYMBOL JONG
－logogram for＇slave＇

## Digits

These are not in modern use
A620 © VAI DIGIT ZERO
A621 I VAI DIGIT ONE
A622 i VAI DIGIT TWO
A623 os VAI DIGIT THREE
A624 क VAI DIGIT FOUR
A625 $\quad$ b VAI DIGIT FIVE
A626 $\frac{6}{}$ VAI DIGIT SIX
A627 $\delta$ VAI DIGIT SEVEN
A628 8 Ü VAI DIGIT EIGHT
A629 \＆ VAI DIGIT NINE
Historic syllables
A62A Ie VAI SYLLABLE NDOLE MA
$\rightarrow$ A56E $\mathscr{M}$ vai syllable ma
A62B $q$ VAI SYLLABLE NDOLE DO
$\rightarrow$ A5D1 $\Phi$ vai syllable do

