

# **Script Encoding Working Group**

# Recommendations to UTC #183 (April 2025) on Script Proposals

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The Script Encoding Working Group met on February 14, March 7, and April 4, 2025, in order to review proposals. This document represents feedback on proposals that were available when the group met.

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# 1. New Characters

### 1.1 Saudi Riyal Sign #619

### **Documents:**

<u>L2/25-072</u>: Unicode request for Saudi riyal sign — Kirk Miller

<u>L2/25-073</u>: Proposal to Encode the New Saudi Riyal Symbol — Saleh Saeed Alkatheri

<u>L2/25-074</u>: Proposal to Update the Shape of the Saudi Riyal Symbol (U+FDFC) — Sultan Maqtari

<u>L2/25-075</u>: Proposal to add the currency sign for the SAUDI RIYAL to the UCS — Saudi Arabian Central Bank

# Related:

<u>L2/25-076</u>: SEW Recommendations on Encoding the Saudi Riyal Currency Symbol — SEW / Roozbeh Pournader, et al

- 1. [183-C??] Consensus: UTC accepts U+20C1 SAUDI RIYAL SIGN for encoding in the Currency Symbols block in Unicode Version 17.0 based on L2/25-075. [Ref: 1.1 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to include one accepted character U+20C1 SAUDI RIYAL SIGN based on L2/25-075, for Unicode 17.0. [Ref: 1.1 in L2/25-091]
- 3. **[183-A??] Action Item** for Roozbeh Pournarder, EDC: Propose text for section 22.1.1 Currency Symbols: U+20A0-U+20CF of the Core Specification briefly describing the new Saudi riyal based on L2/25-075, for Unicode 17.0. [Ref: 1.1 in L2/25-091]
- 4. [183-A??] Action Item for Kirk Miller, SAH: Send a font for U+20C1 SAUDI RIYAL SIGN to Michel Suignard, for Unicode 17.0. [Ref: 1.1 in L2/25-091]
- 5. [183-C??] Consensus: Change the provisional code point for RUBLE SIGN WITH DOUBLE VERTICAL STEM from U+20C1 (cf. Consensus 181-C37) to U+20CF. [Ref: 1.1 in L2/25-091]
- 6. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to change the provisionally assigned codepoint U+20C1 RUBLE SIGN WITH DOUBLE VERTICAL STEM to U+20CF. [Ref: 1.1 in L2/25-091]

#### Comments:

On February 20, 2025, a new currency symbol, the Saudi riyal, was announced by the Saudi Central Bank and recommended for immediate use in finance and commerce. We have since received and reviewed several proposals for including this symbol in the Unicode Standard.

One of the key requirements of encoding new characters and symbols is an assurance that they will be used by the users of the standard. The easiest way to provide such assurance is to put forward evidence that the character or symbol is already being used in existing documents, publications and communications. This is often not the case for newly created currency symbols, whose adoption is in early stages. In such cases, the assurance can be equally fulfilled by an endorsement from a national bank or a government, strongly indicating the currency symbol will be used, promoted and supported. In the case of Saudi riyal, we received a proposal from the Saudi Arabian Central Bank and as such, this proposal meets the criteria in a way the other proposals cannot.

Given the urgency for using the new currency symbol, we recommend the character to be published in Unicode version 17.0, expected to be released in September 2025. It should be noted that encoding is only the first step in enabling a character usage in public digital interchange and it takes further time for vendors to include them in their fonts, keyboards, systems and devices. We strongly suggest any entities considering introducing a new currency symbol to coordinate with the Unicode Consortium during the process, so that the symbol would be available and more usable on the desired day.

The proposal L2/25-074 suggested changing the glyph of U+FDFC RIAL SIGN instead of encoding a new character and the document L2/25-076 explains why that is not appropriate.

# 1.2 Tulu-Tigalari Letter Archaic II #641 · #207

### **Documents:**

<u>L2/25-113</u>: Response on the Encoding of Tulu-Tigalari Letter Archaic II — Srinidhi A

### Related:

L2/22-260: Proposal to encode three characters in Tulu-Tigalari — Srinidhi A, Sridatta A

 $\underline{\mathsf{L2/22-248}}$ : Recommendations to UTC #173 October 2022 on Script Proposals — Deborah Anderson, et al

 $\underline{\mathsf{L2/12\text{-}225}}\text{: Proposal to encode 0D5F MALAYALAM LETTER ARCHAIC II} - \mathsf{Shriramana\ Sharma}$ 

### **Recommendation:**

- 1. [183-C??] Consensus: Provisionally assign one code point U+113DA TULU-TIGALARI LETTER ARCHAIC II in the Tulu-Tigalari block based on L2/22-260. [Ref: 1.2 in L2/25-091]
- 2. **[183-A??] Action Item** for Ken Whistler, RMG: Update the Pipeline to include one provisionally assigned code point U+113DA TULU-TIGALARI LETTER ARCHAIC II based on L2/22-260. [Ref: 1.2 in L2/25-091]
- 3. [183-A??] Action Item for Debbie Anderson, SAH: Send a font for U+113DA TULU-TIGALARI LETTER ARCHAIC II to Michel Suignard. [Ref: 1.2 in L2/25-091]

### Comments:

In L2/22-248, we recommended encoding two out of three proposed Tulu-Tigalari characters. The third character, TULU-TIGALARI LETTER ARCHAIC II, raised architectural discussions, namely about separate encoding of the character versus unification with the U+11383 TULU-TIGALARI LETTER II. Given that, at the time, encoding for Tulu-Tigalari script had not been published yet, the group decided to wait for the script to get into the standard first, have users implement it and come to us saying this is what they need.



Authors of the proposals have now come again to us and reiterated their need for this character. The group had no objections against encoding this character atomically, which already has a precedence in •O• U+0D5F MALAYALAM LETTER ARCHAIC II.

# 1.3 Proposal to Encode One Manchu Letter #371

#### **Documents:**

<u>L2/25-080</u>: Proposal to Encode One Mongolian Letter — CheonHyeong Sim, et al

#### Recommendation:

- 1. [183-C??] Consensus: Change the name of code point U+1879 provisionally assigned by 178-C30 from MONGOLIAN LETTER MANCHU ALTERNATE UE to MONGOLIAN LETTER ALTERNATE UE as described in L2/25-080. [Ref: 1.3 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to reflect the renaming of provisionally assigned character U+1879 MONGOLIAN LETTER MANCHU ALTERNATE UE to MONGOLIAN LETTER ALTERNATE UE as described in L2/25-080. [Ref: 1.3 in L2/25-091]

### **Comments:**

We received an updated proposal to encode one character for transliteration of Mongolian language using the Manchu letters. This character had been provisionally assigned at the January 2024 UTC meeting (178-C30), but removed from 16.0 after a request from China's national body at the 2024 WG2 meeting. We recommended changes to the proposal to address China national body's concern and we are satisfied the changes were implemented in this document.



# 1.4 Tangut Ideograph tsia<sup>2</sup> #645

### **Documents:**

N5303: Proposal to encode one Tangut ideograph — Andrew West, Viacheslav Zaytsev

#### Recommendation:

- 1. [183-C??] Consensus: Provisionally assign one code point U+18D1F TANGUT IDEOGRAPH-18D1F in the Tangut Supplement block based on N5303. [Ref: 1.4 in L2/25-091]
- 2. **[183-A??] Action Item** for Ken Whistler, RMG: Update the Pipeline to include one provisionally assigned code point U+18D1F TANGUT IDEOGRAPH-18D1F based on N5305. [Ref: 1.4 in L2/25-091]
- 3. [183-A??] Action Item for Debbie Anderson, SAH: Work with the proposal author to send a font for U+18D1F TANGUT IDEOGRAPH-18D1F to Michel Suignard. [Ref: 1.4 in L2/25-091]

#### Comments:

This is a proposal to encode one Tangut ideograph, which is listed in a dictionary as a glyph variation of U+17A11. Although the two characters have the same fanqie pronunciation, they are constructed from different characters, and thus should be considered to be alternative characters for the syllable tśia², not glyph variants of the same character. Dr. Sun Bojun, one of the main Tangut experts from China, expressed agreement with the proposal.



# 1.5 Cyrillic yeru with stroke #633

### **Documents:**

<u>L2/25-112</u>: Unicode request for Cyrillic letter jeru with connecting bar — Kirk Miller

### **Recommendation:**

- 1. [183-C??] Consensus: Provisionally assign one code point U+1C8B CYRILLIC SMALL LETTER YERU WITH CONNECTING BAR in the Cyrillic Extended-C block based on L2/25-112. [Ref: 1.5 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to include one provisionally assigned code point U+1C8B CYRILLIC SMALL LETTER YERU WITH CONNECTING BAR based on L2/25-112. [Ref: 1.5 in L2/25-091]
- 3. [183-A??] Action Item for Kirk Miller, SAH: Send a font for U+1C8B CYRILLIC SMALL LETTER YERU WITH CONNECTING BAR to Michel Suignard. [Ref: 1.5 in L2/25-091]

### Comments:

We received a proposal for a Cyrillic phonetic letter attested in multiple sources, which the group felt was well justified for encoding. The character is used in both IPA notation that is otherwise completely Latin and also in Cyrillic notation, which usually has IPA Latin characters mixed in, so a question of script extensions was raised to cover both scripts.

It was noted that IPA characters do not need to be Latin, as this notation freely mixes scripts; that many other characters would need such extension if we went down this route; and that there are security implications in mixing scripts. The group eventually agreed that there won't be any benefit for script extensions.



# 1.6 W with palatal hook #622

### **Documents:**

<u>L2/25-077</u>: Unicode request for w with palatal hook — Denis Moyogo Jacquerye, Kirk Miller

#### Related:

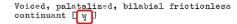
L2/24-050: Unicode request for letters with palatal hook — Kirk Miller

#### Recommendation:

- 1. [183-C??] Consensus: Provisionally assign one code point U+1DF82 LATIN SMALL LETTER W WITH PALATAL HOOK in the Latin Extended-G block based on L2/25-077. [Ref: 1.6 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to include one provisionally assigned code point U+1DF82 LATIN SMALL LETTER W WITH PALATAL HOOK based on L2/25-077. [Ref: 1.6 in L2/25-091]
- 3. [183-A??] Action Item for Kirk Miller, SAH: Send a font for U+1DF82 LATIN SMALL LETTER W WITH PALATAL HOOK to Michel Suignard. [Ref: 1.6 in L2/25-091]

#### Comments:

We briefly discussed this proposal for LATIN SMALL LETTER W WITH PALATAL HOOK, a character that was in the 1979 official version of the IPA chart before the retirement of palatal hook, and was already presented in a previous proposal for characters with a palatal



hook (L2/24-050). However, for this character, there was no other evidence of use in L2/24-050. The current proposal provides such evidence for the character, which the group felt was acceptable.

# 1.7 Compound IPA stress mark #613

#### **Documents:**

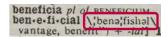
<u>L2/25-061</u>: Unicode request for compound stress mark — Kirk Miller

#### Recommendation:

- 1. [183-C??] Consensus: Provisionally assign one code point U+208F MODIFIER LETTER HIGH AND LOW VERTICAL LINE in the Superscripts and Subscripts block based on L2/25-061. [Ref: 1.7 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to include one provisionally assigned code point U+208F MODIFIER LETTER HIGH AND LOW VERTICAL LINE based on L2/25-061. [Ref: 1.7 in L2/25-091]
- 3. [183-A??] Action Item for Kirk Miller, SAH: Send a font for U+208F MODIFIER LETTER HIGH AND LOW VERTICAL LINE to Michel Suignard. [Ref: 1.7 in L2/25-091]
- 4. [183-A??] Action Item for Robin Leroy, PAG: In UAX14, update the list of characters for special Line\_Break classes including BB for new characters like MODIFIER LETTER HIGH AND LOW VERTICAL LINE. [Ref: 1.7 in L2/25-091]

### Comments:

We reviewed this proposal for an IPA stress mark used in dictionary pronunciation guides to denote a syllable that can be pronounced with either a primary or secondary stress. The mark has now been adopted by at least three different publishers both online and in print, so the group is satisfied it meets the bar for encoding.



# 1.8 Double tilde overlay #398

### **Documents:**

<u>L2/25-114</u>: Unicode request for letters with double tilde overlay — Kirk Miller

### Related:

<u>L2/23-262</u>: Unicode request for letters with overstruck tilde — Kirk Miller

- 1. [183-C??] Consensus: Provisionally assign 2 code points U+1DF83 LATIN SMALL LETTER N WITH DOUBLE MIDDLE TILDE and U+1DF84 LATIN SMALL LETTER R WITH DOUBLE MIDDLE TILDE as described in L2/25-114. [Ref: 1.8 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to include 2 provisionally assigned code points U+1DF83 LATIN SMALL LETTER N WITH DOUBLE MIDDLE TILDE and U+1DF84 LATIN SMALL LETTER R WITH DOUBLE MIDDLE TILDE as described in L2/25-114. [Ref: 1.8 in L2/25-091]
- 3. [183-A??] Action Item for Ken Whistler, EDC: Consider adding annotations for U+1DF83 LATIN SMALL LETTER N WITH DOUBLE MIDDLE TILDE and U+1DF84 LATIN SMALL LETTER R WITH DOUBLE MIDDLE TILDE as described in L2/25-114. [Ref: 1.8 in L2/25-091]
- 4. [183-A??] Action Item for Kirk Miller, SAH: Send a font for U+1DF83 LATIN SMALL LETTER N WITH DOUBLE MIDDLE TILDE and U+1DF84 LATIN SMALL LETTER R WITH DOUBLE MIDDLE TILDE to Michel Suignard. [Ref: 1.8 in L2/25-091]

This proposal was originally a request for combining double tilde overlay mark. In the IPA, doubling of marks works as an indication of a greater degree of the respective feature. However, since this mark interacts with the glyph itself, it's interactions with individual characters are unclear and the burden would be placed on the font designers if it were to combine arbitrarily. The group asked the author to propose atomic characters that were attested in text, which resulted in this proposal of two characters with double middle tilde.



# 2. New Symbols

# 2.1 Leibniz: 5 historic mathematical operators #559 · #289

### **Documents:**

L2/25-062: Proposal to encode 5 historic mathematical operators — Uwe Mayer, et al

### Related:

<u>L2/24-141</u>: Proposal to add historic scientific characters (WG2 N5277) — Uwe Mayer, et al <u>L2/24-142</u>: Leibniz project - Supplemental documents — Deborah Anderson, et al

### **Recommendation:**

- 1. [183-C??] Consensus: Provisionally assign 5 code points U+1CEF1..U+1CEF5 to historical mathematical operators as described in L2/25-062. [Ref: 2.1 in L2/25-091]
- 2. **[183-A??] Action Item** for Ken Whistler, RMG: Update the Pipeline to include 5 provisionally assigned code points U+1CEF1..U+1CEF5 for historical mathematical operators as described in L2/25-062. [Ref: 2.1 in L2/25-091]
- 3. [183-A??] Action Item for Ken Whistler, EDC: Consider improvements to the annotations, and add a cross-reference for U+1CEF3 LEIBNIZIAN MULTIPLICATION-DIVISION SIGN to U+00B1 PLUS-MINUS SIGN. [Ref: 2.1 in L2/25-091]
- 4. [183-A??] Action Item for David Carlisle, Asmus Freytag, PAG: Update UTR #25 taking into consideration characters in L2/25-062. [Ref: 2.1 in L2/25-091]
- 5. [183-A??] Action Item for Debbie Anderson, SAH: Work with the proposal author to send a font for U+1CEF1..U+1CEF5 (5 historical mathematical operators) to Michel Suignard. [Ref: 2.1 in L2/25-091]

#### Comments:

This is a proposal coming from a project of digitizing Leibniz's work. Originally part of one big proposal L2/24-141, we asked authors to split it into a couple of several smaller, focused proposals. This proposal is for five historic mathematical operators that the group felt are good candidates for encoding. The document contains both manuscript and typeset



evidence. The discussion was mostly about names of the characters and the current document reflects the names as recommended by the group.

# 2.2 Music: Bowing symbols #598

# **Documents:**

<u>L2/25-018</u>: Unicode request for musical bowing symbols

### **Recommendation:**

- 1. [183-C??] Consensus: Provisionally assign 2 code points U+1D280 MUSICAL SYMBOL COMBINING STEM BOW BEHIND BRIDGE and U+1D281 MUSICAL SYMBOL COMBINING STEM BOW ON TOP OF BRIDGE as described in L2/25-018. [Ref: 2.2 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to include 2 provisionally assigned code points U+1D280 MUSICAL SYMBOL COMBINING STEM BOW ON TOP OF BRIDGE as described in L2/25-018. [Ref: 2.2 in L2/25-091]
- 3. [183-A??] Action Item for Kirk Miller, SAH: Send a font for U+1D280..U+1D281 (bowing symbols) to Michel Suignard. [Ref: 2.2 in L2/25-091]

### Comments:

This proposal requests two bowing symbols, used to indicate special bowing techniques. The proposed characters are combining, along the analogy of U+1D166 MUSICAL SYMBOL COMBINING SPRECHGESANG STEM.



# 3. Changes to Characters

### 3.1 Arabic Crown letters #634 · #353

### **Documents:**

<u>ID20250313143220</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

#### Recommendation:

- 1. [183-C??] Consensus: Change the name of code point U+10EF9 provisionally assigned by 180-C22 from ARABIC CROWN to ARABIC MARK CROWN as per feedback ID20250313143220 from Eduardo Marin Silva. [Ref: 3.1 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to reflect the renaming of provisionally assigned character U+10EF9 ARABIC CROWN to ARABIC MARK CROWN as described as per feedback ID20250313143220 from Eduardo Marin Silva. [Ref: 3.1 in L2/25-091]

#### Comments:

We received feedback to change the names of provisionally assigned Arabic crown letters from ARABIC CROWN LETTER to ARABIC LETTER CROWN and the combining sign to ARABIC COMBINING CROWN. The group prefers the current naming for the letters, since the orthography was introduced as an equivalent to casing in the Latin script. We have LATIN CAPITAL LETTERs and LATIN SMALL LETTERs, so in the same way we assigned ARABIC CROWN LETTERs. As for the combining character, the group agrees that the name can be improved; however, the word COMBINING is currently not being used for the Arabic script. Instead, there are a couple of Arabic combining characters using the word MARK.

# 3.2 Zanabazar and Soyombo cluster-initial RA #557

#### **Documents:**

<u>L2/25-119</u>: Indic Categories for Zanabazar and Soyombo RAs — Jan Kučera, et al

#### Related:

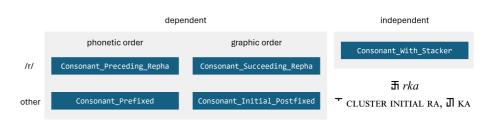
<u>L2/24-228</u>: Recommendations to UTC #181 (November 2024) on Script Proposals — Jan Kučera, et al <u>L2/15-337</u>: Proposal to Encode the Zanabazar Square Script (replaces L2/14-024) — Anshuman Pandey

### **Recommendation:**

- 1. [183-C??] Consensus: Update the Indic\_Syllabic\_Category of U+11A3A ZANABAZAR SQUARE CLUSTER-INITIAL LETTER RA to Consonant\_With\_Stacker and Indic\_Positional\_Category to not applicable as described in L2/25-119, for Unicode 17.0. [Ref: 3.2 in L2/25-091]
- 2. [183-C??] Consensus: Update the Indic\_Syllabic\_Category of U+11A86 SOYOMBO CLUSTER-INITIAL LETTER RA to Consonant\_Preceding\_Repha as described in L2/25-119, for Unicode 17.0. [Ref: 3.2 in L2/25-091]
- 3. [183-A??] Action Item for Roozbeh Pournader, PAG: Change the Indic\_Syllabic\_Category for U+11A3A ZANABAZAR SQUARE CLUSTER-INITIAL LETTER RA to Consonant\_With\_Stacker (and remove it from IndicPositionalCategory.txt) and for U+11A86 SOYOMBO CLUSTER-INITIAL LETTER RA to Consonant\_Preceding\_Repha, as described in L2/25-119, for Unicode 17.0. [Ref: 3.2 in L2/25-091]

### Comments:

This is a document summarizing an investigation assigned by 158-A106 based on public feedback PRI #389 by David Corbett. After clarification of the Indic syllabic categories in section 5.3 of L2/24-228, the category values of two characters, the Zanabazar and the Soyombo cluster-initial RAs, came into question.



It was concluded the Zanabazar RA behaves like in a Tibetan orthography, pushing the following glyph down, and should therefore be Consonant\_With\_Stacker. The Soyombo RA is currently Consonant\_Prefixed, which has the correct behavior, but consonants with this behavior that sound like /r/ should have the value Consonant\_Preceding\_Repha instead per the recent guidelines.

# 3.3 Tangut Radical/Stroke Corrections #642

### **Documents:**

<u>L2/25-120</u>: Tangut Radical/Stroke Corrections — Andrew West

- 1. [183-C??] Consensus: Update the Radical Stroke value of 197 Tangut ideographs as described in L2/25-120, for Unicode 17.0. [Ref: 3.3 in L2/25-091]
- 2. **[183-A??] Action Item** for Michel Suignard, PAG: Update the Radical Stroke index of 197 Tangut ideographs in TangutSources.txt for Unicode 17.0 as per L2/25-120. [Ref: 3.3 in L2/25-091]

#### Comments:

After a review of the radical/stroke values under the kRSTUnicode key in TangutSource.txt, Andrew West discovered incorrect values for both new and old characters. This proposal is asking for corrections of those values for already encoded characters (192 in 14.0 and 5 in 13.0).

The feedback was reviewed with Dr. Sun, who expressed agreement with the review.

# 3.4 Tangut Radical/Stroke corrections for U+17D0B #636

#### **Documents:**

<u>ID20250313164603</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025) <u>ID20250325190524</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

#### Recommendation:

- 1. [183-C??] Consensus: Update the Radical Stroke value for U+17D0B TANGUT IDEOGRAPH-17D0B as described in the feedback ID20250325190524 from Andrew West, for Unicode 17.0. [Ref: 3.4 in L2/25-091]
- 2. [183-A??] Action Item for Michel Suignard, PAG: Update the Radical Stroke index of U+17D0B TANGUT IDEOGRAPH-17D0B in TangutSources.txt from 198.6 to 783.7 for Unicode 17.0 as per feedback ID20250325190524 from Andrew West. [Ref: 3.4 in L2/25-091]

#### Comments:

Continuing the outcomes of Andrew West's Tangut radical strokes review, this feedback is asking for an update of the radical/stroke value for a character that is having an extra stroke added for Unicode 17.0.

The feedback was reviewed with Dr. Sun, who expressed an agreement with the report.

# 3.5 Tangut (correction to radical values for 4 Tangut ideographs) #643

## **Documents:**

<u>ID20250325183905</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

### **Recommendation:**

- 1. [183-C??] Consensus: Update the Radical Stroke value for 4 Tangut ideographs U+187F9, U+18D0A, U+18D0B and U+18D0F as described in the feedback ID20250325183905 from Andrew West, for Unicode 17.0. [Ref: 3.5 in L2/25-091]
- 2. **[183-A??] Action Item** for Michel Suignard, PAG: Update the Radical Stroke index of 4 Tangut ideographs U+187F9, U+18D0A, U+18D0B and U+18D0F in TangutSources.txt for Unicode 17.0 as per feedback ID20250325183905 from Andrew West. [Ref: 3.5 in L2/25-091]

### **Comments:**

Continuing the outcomes of Andrew West's Tangut radical strokes review, this feedback is asking for corrections of radical/stroke values for 4 characters accepted for publication in Unicode 17.0.

The feedback was reviewed with Dr. Sun, who expressed an agreement with the report.

# 3.6 Names for phonetic characters #618 · #561

### **Documents:**

<u>ID20250220051924</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025) <u>L2/25-097</u>: Response to feedback on the names of phonetic characters in L2/24-234R and L2/25-016 — Kirk Miller

# Related:

<u>L2/24-234R</u>: Unicode request for barred letters (revised) — Kirk Miller, et al <u>L2/25-016</u>: Unicode request for letters of the RFE phonetic alphabet — Kirk Miller

- 1. [183-C??] Consensus: Change the name of 5 code points provisionally assigned to barred letters and barred modifier letters by 181-C33 as described in L2/25-097. [Ref: 3.6 in L2/25-091]
- 2. **[183-A??] Action Item** for Ken Whistler, RMG: Update the Pipeline to reflect the renaming of 5 provisionally assigned characters 1DF43, 1DF54 and 1DFCD..1DFCF as described in L2/25-064. [Ref: 3.6 in L2/25-091]

We received feedback on names of several provisionally assigned characters, with which the proposal author as well as the group agreed.

# 3.7 On the naming on some musical symbols #445 · #602

### **Documents:**

<u>ID20241227092147</u>: Comments on Public Review Issues (July 2, 2024 - Oct 16, 2024)

<u>ID20250128150339</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

<u>L2/25-065</u>: Response to feedback on the accidentals in L2/24-174 — Gavin Jared Bala, Kirk Miller

#### Related:

<u>L2/24-174</u>: Unicode request for Turkish and Arabic accidentals — Bala and Miller

#### Recommendation:

- 1. [183-C??] Consensus: Change the name of code point U+1D258 provisionally assigned by 180-C40 from MUSICAL SYMBOL ARABIC THREE QUARTER TONE FLAT to MUSICAL SYMBOL FLAT WITH DOUBLE STEM as described in L2/25-065. [Ref: 3.7 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to reflect the renaming of provisionally assigned character U+1D258 MUSICAL SYMBOL ARABIC THREE QUARTER TONE FLAT to MUSICAL SYMBOL FLAT WITH DOUBLE STEM as described in L2/25-065. [Ref: 3.7 in L2/25-091]

### Comments:

We received feedback suggesting to rename provisionally assigned accidentals in a way that the stroke direction is part of the name (e.g. MUSICAL SYMBOL FLAT WITH STROKE -> MUSICAL SYMBOL FLAT WITH HORIZONTAL STROKE). The original proposal author submitted a response explaining the names as provisionally assigned are consistent with existing characters except for one case which we support updating.



# 3.8 Musical Symbol Buzz Roll #608 · #601 · #447

#### **Documents:**

<u>L2/25-064</u>: Response to feedback on the buzz roll in L2/24-213 — Gavin Jared Bala, Kirk Miller <u>ID20241227110909</u>: Comments on Public Review Issues (July 2, 2024 - Oct 16, 2024)

### Related:

<u>L2/24-213</u>: Unicode request for additional tremoli — Bala and Miller <u>L2/25-010</u>: Recommendations to UTC #182 (January 2025) on Script Proposals — Jan Kučera, et al

## **Recommendation:**

- 1. [183-C??] Consensus: Change the name, glyph and properties of a code point U+1D25F MUSICAL SYMBOL BUZZ ROLL provisionally assigned by 181-C39 to MUSICAL SYMBOL COMBINING BUZZ ROLL STEM, a combining mark with Canonical\_Combining\_Class value of Attached\_Above\_Right (216), as described in L2/25-064. [Ref: 3.8 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to reflect the renaming of provisionally assigned character U+1D25F MUSICAL SYMBOL BUZZ ROLL to MUSICAL SYMBOL COMBINING BUZZ ROLL STEM as described in L2/25-064. [Ref: 3.8 in L2/25-091]
- 3. [183-A??] Action Item for Kirk Miller, SAH: Send an updated font for U+1D25F MUSICAL SYMBOL COMBINING BUZZ ROLL STEM to Michel Suignard. [Ref: 3.8 in L2/25-091]

### Comments:

This is a response by authors of L2/24-213 to feedback ID20241227110909 from Eduardo Marín Silva that we discussed and agreed to in the last report. The feedback asked for changing the glyph (to have "z" on a stem) and name (to MUSICAL SYMBOL COMBINING BUZZ ROLL STEM), following the model of an existing character, U+1D166 MUSICAL SYMBOL COMBINING SPRECHGESANG STEM. The authors of the original proposal concur with the suggestion and we support the proposed changes.





# 3.9 Bamum Name Corrections (16.0 Beta Feedback) #587

### **Documents:**

ID20240504174305: Accumulated Feedback on PRI #502

# Related:

L2/24-166: Recommendations to UTC #180 July 2024 on Script Proposals — Deborah Anderson, et al

- 1. [183-C??] Consensus: Create the following formal aliases of type "correction" for Unicode 17.0: BAMUM LETTER PHASE-B PUNGGAAM for U+16881 BAMUM LETTER PHASE-B PUNGAAM, BAMUM LETTER PHASE-B NGGOM for U+1688E BAMUM LETTER PHASE-B NGOM, BAMUM LETTER PHASE-C SHETFON for U+168DC BAMUM LETTER PHASE-C SETFON, BAMUM LETTER PHASE-E NGGOP for U+1697D BAMUM LETTER PHASE-E NGOP. [Ref: 3.9 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, PAG: Update the NamesList.txt to add formal aliases to 4 Bamum characters: BAMUM LETTER PHASE-B PUNGAAM, BAMUM LETTER PHASE-B NGGOM for U+1688E BAMUM LETTER PHASE-B NGOM, BAMUM LETTER PHASE-C SHETFON for U+168DC BAMUM LETTER PHASE-C SETFON, BAMUM LETTER PHASE-E NGGOP for U+1697D BAMUM LETTER PHASE-E NGOP. [Ref: 3.9 in L2/25-091]

### **Comments:**

In section 22 of our recommendations to UTC #180 (L2/24-161), we listed 16.0 beta feedback ID20240504174305 from Alexander Kunde as in progress. The feedback was suggesting formal aliases to several Bamum characters and we have been awaiting confirmation of the suggestions by experts. We have now received confirmation for 4 of the characters and suggest adding corresponding formal aliases.

Note that the feedback also suggested corrections to U+16963 BAMUM LETTER PHASE-D MBAA SEVEN and U+16839 BAMUM LETTER PHASE-A FIRI, which is still pending confirmation from experts.

# 4. Other

# 4.1 Afaka roadmap #626

### **Documents:**

L2/25-078: Unicode request for Afaka block — Kirk Miller

L2/12-228: Revised proposal for encoding the Afáka script in the SMP (WG2 N4292) — Michael Everson

#### Related:

L2/10-476: Preliminary proposal for encoding the Afaka script in the SMP (WG2 N3972) — Michael Everson / SEI

### Recommendation:

1. **[183-A??] Action Item** for V.S. Umamaheswaran, RMP: Update the Roadmap moving Afaka from U+16C80..U+16C8F to U+16D00..U+16D3F, and moving Tikamuli from U+16D00..U+16D3F to U+16C80..U+16CBF. [Ref: 4.1 in L2/25-091]

# **Comments:**

This document reports on ongoing work on Afaka, and requests a block for four columns, noting that in the future there may be an additional request for 10-12 columns. Currently the Afaka block has 5 columns allocated to it, U+16C80.. U+16CCF, based on L2/12-228 which contained 65 characters. The 1910 version of the script can be accommodated in four columns (64 characters), with open slots for 6 characters. The 2024 version of the script has over 200 characters, though it isn't clear how widely spread this version is.

а	E	₹	8
М	9	+	Ж

We agree that four columns for the 1910 repertoire seems reasonable for now. The group recommended Afaka be moved to U+16D00..U+16D3F together with scripts that are progressing, requiring Tikamuli to be moved.

# 4.2 Request to disunify b and g #508

### **Documents:**

 $\underline{L2/25-067}$ : Unicode request for annotations to B  $\bar{b}$ ,  $\bar{D}$   $\bar{d}$  and  $\bar{G}$   $\bar{g}$  — Kirk Miller, Timothy Usher

### Related:

<u>L2/03-190</u>: Proposal to Encode Additional Phonetic Symbols — Peter Constable

- 1. [183-A??] Action Item for Ken Whistler, EDC: Consider adding annotations for 9 existing Latin characters and for U+1DF5A, U+1DF5E, and U+1DF5F as described in L2/24-273. [Ref: 4.2 in L2/25-091]
- 2. **[183-A??] Action Item** for Ken Whistler, EDC: Document the alternative glyph shapes of Latin letters b, d, and g with stroke in section 7.1 (Latin) of the Core Specification as suggested in L2/25-067, section "Core Spec". [Ref: 4.2 in L2/25-091]

We originally received this in 2024 as a request to disunify U+0180 LATIN SMALL LETTER B WITH STROKE and U+01E5 LATIN SMALL LETTER G WITH STROKE, and their capitals U+0243 LATIN CAPITAL LETTER B WITH STROKE and U+01E4 LATIN CAPITAL LETTER G WITH STROKE, adding new characters whose glyphs have the bar through the bowl of the letters, instead of the stem for b and B.

Casing pairs of stem-struck glyphs

Bb, Dd, Gg

Casing pairs of bowl-struck glyphs

Bb, Dd, Gg or Gg

Some members of the group disagreed with this proposal. It attempts to solve a font problem by proposing new characters, opening up to requests for characters based solely on their appearance

without demonstrating how they are distinct elements. Note that the characters being proposed for disunification have been in the standard for over 18 years.

There was a suggestion to use variation sequences for the different glyph shapes, but these should be used when there is a contrast. Furthermore, variation sequences still require font support and it was noted they are not especially universally well-supported on the web.

Earlier work on phonetic symbols in L2/03-190 showed b with stroke through its bowl, but it was not proposed at the time, since those barred forms were considered variants.

The result of the SEW discussion of the proposal to disunify characters was an action item for the author to revise his document to propose annotations for the existing characters listing the languages and glyph details involved.

As a result, we received a proposal that suggests adding explanatory text about the alternative glyph shapes to the core specification and annotations to the characters in question, which the group is happy to support.

# 4.3 Katakana and Hiragana digraphs annotations #635

#### **Documents:**

<u>ID20250313143220</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

#### Related:

<u>L2/24-150</u>: Proposal for missing three Kana-Ligatures — Kojitani

### **Recommendation:**

1. [183-A??] Action Item for Ken Whistler, EDC: Consider adding annotation 'represents the Japanese word "yori" (from or than)' to U+309F HIRAGANA DIGRAPH YORI and 'represents the Japanese word "koto" (thing)' to U+30FF KATAKANA DIGRAPH KOTO. [Ref: 4.3 in L2/25-091]

### Comments:

This is a feedback appreciating the meaning of digraphs recently added to the Kana Extended-A block and suggesting to provide similar annotations for other digraphs. The group agreed this is a reasonable suggestion and proposes annotations provided by Ken Lunde.

### 4.4 Sidetic #637 · #213

### **Documents:**

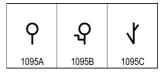
<u>L2/25-133</u>: Update on Sidetic — Alfredo Rizza, Michaela Zinko

# Related:

<u>L2/23-019</u>: Revised proposal to encode Sidetic in Unicode — Anshuman Pandey

- 1. [183-C??] Consensus: Rescind the provisional assignment and approval of U+1095A SIDETIC LETTER N27, U+1095B SIDETIC LETTER N28, and U+1095C SIDETIC LETTER N29 for Unicode 17.0 (174-C17, 181-C61). [Ref: 4.4 in L2/25-091]
- 2. [183-A??] Action Item for Ken Whistler, RMG: Update the Pipeline to remove U+1095A..U+1095C SIDETIC LETTER N27..N29. [Ref: 4.4 in L2/25-091]

We received an informational document with updates on recent scholarship on Sidetic signs proposed in L2/23-019. As indicated in the document and confirmed by research by Robin Leroy and Ken Whistler, the Nollé's sign list from 2001 numbers 26 signs N1 to N26 and this numbering, including the N prefix, is consistently used in literature until recent times. In contrast, the names of signs N27..N29 seem to be an invention of L2/23-019 and not referred to as such in the literature.



Given the active usage, the group felt we should go ahead with the N01..N26 signs as accepted and supported by evidence, while we should delay encoding of the last three ones. If eventually encoded, they would need different names, so we suggest their both approval and provisional assignment be rescinded.

# 4.5 Unikemet value spelling

### **Documents:**

ID20250309004255: Accumulated Feedback on PRI #519

### **Recommendation:**

1. [183-A??] Action Item for Michel Suignard, SAH: Update Unikemet.txt to fix spelling of the word "Classsifer" to "Classifier". [Ref: 4.5 in L2/25-091]

### **Comments:**

This is a feedback asking for editorial corrections for the provisional kEH\_Func property in Unikemet.txt, which we agree with.

# 4.6 UAX#57 kEH\_NoMirror Behavior

#### **Documents:**

ID20250402161524: Accumulated Feedback on PRI #519

### Recommendation:

1. [183-A??] Action Item for Michel Suignard, SAH: Consider updating section 3.6, Mirroring and Rotation, of UAX #57 to clarify the meaning kEH\_NoMirror and its interaction with U+13340 EGYPTIAN HIEROGLYPH U012, as per feedback ID20250402161524 by Will Lawver. [Ref: 4.6 in L2/25-091]

### **Comments:**

This is a feedback asking for clarification of section 3.6 of UAX #57. It appears to say that characters with kEH\_NoMirror value of Y are not mirrored in RTL text, but the author is suggesting the intent might have been that such characters are not mirrored using U+13440 EGYPTIAN HIEROGLYPH MIRROR HORIZONTALLY, as described in the core specification. Either way, the description of kEH\_NoMirror should mention U+13440.

# 4.7 UAX#57 kEH\_UniK Syntax

## **Documents:**

ID20250309144545: Accumulated Feedback on PRI #519

### Recommendation:

1. **[183-A??] Action Item** for Michel Suignard, SAH: Update UAX #57 to remove any spaces from the kEH\_UniK Syntax regular expression. [Ref: 4.7 in L2/25-091]

## **Comments:**

This is a feedback asking for removal of extraneous space in the kEH\_UniK Syntax regular expression in UAX #57, which we agree with.

# 5. No Action Required

# 5.1 Maldivian Rufiyaa Sign #632

### **Documents:**

L2/25-122: Proposal to encode Maldivian Rufiyaa Sign in the Unicode Standard — Naail Abdul Rahman, Abdulla Shafeeu

### Recommendation:

This is a proposal for the Maldivian currency symbol for the Rufiyaa, with ISO 4217 code MVR, which dates to 1947. A new symbol was introduced in 2022. The proposal does not come from the Maldivian Monetary Authority and as such, some members were asking for more evidence of use of the currency in the wider community and of the need for digital interchange. Alternatively, a letter of support from the authority could be provided.



We recommend the name be changed from MALDIVIAN RUFIYAA SIGN to RUFIYAA SIGN, since current practice is generally to not include the name of the country in the character name, unless this would create an ambiguity among users. We do not consider RUPEE and RUFIYAA to create such ambiguity. The currency sign should have Bidi\_Class value of ET and Line\_Break value of PR. The property "Unicode 1 Name" should be dropped from the proposal.

We are awaiting an updated version of the proposal.

# 5.2 Bopomofo should be classed "Limited\_Use" for default identifiers #617

### Related:

<u>L2/24-019</u>: Requirements and Process for Changing Script Status for Identifier Use — Asmus Freytag <u>L2/25-087</u>: UTC #183 properties feedback & recommendations — PAG / Josh Hadley Unicode Identifiers and Syntax

### Recommendation:

The SEW group has no objections to the recommendation of classifying Bopomofo as "Limited Use" in UAX #31 as proposed by the PAG group in L2/25-087.

# 5.3 N'ko Phonetic Extensions for Malian Languages #374

#### **Documents:**

<u>L2/25-081</u>: Revised Proposal to Encode N'ko Phonetic Extensions for Malian Languages — Boubacar Diakite, Neil Patel

#### Recommendation:

No action is requested of the UTC.

### **Comments:**

In 2023, we received a preliminary proposal to encode N'ko phonetic extensions, expanding the character repertoire to cover all phonemes and tones needed to represent all African languages. This document is focusing on Mali, where N'ko is



most commonly used. A new language policy has been put in place in 2023, adopting all 13 national languages as official, but there are efforts to minimize the number of scripts needed to cover these languages. The proposed phonetic extensions to N'ko would make it a strong candidate for a national writing system.

The group was concerned about the stability of the proposed characters and lack of current usage. We recommended the authors focus on attested characters only and provide evidence of usage beyond the system creator, who is an author of the proposal. The current document is a revised proposal incorporating some of our feedback, but the discussion is still ongoing.

The feedback to authors includes comments on stability, clarification of sources (noting that educational material itself does not guarantee encoding), clarification on which characters are encoded, proposed and not proposed and a few other questions regarding individual characters.

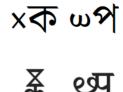
# **5.4 Devanagari JIHVAMULIYA and UPADHMANIYA** #625

### **Documents:**

L2/25-121: Proposal to encode JIHVAMULIYA and UPADHMANIYA in Devanagari — Srinidhi A

# Recommendation:

This is a proposal for encoding Devanagari specific Jihvāmūlīya and Upadhmānīya. The current characters in Vedic block, U+1CF5 VEDIC SIGN JIHVAMULIYA and U+1CF6 VEDIC SIGN UPADHMANIYA, were encoded based on Bengali sources, and we have been encoding script-specific characters for these signs in the past. The reason for disunification is different shaping behavior: in Devanagari, the signs form conjuncts.





The group has raised concerns about the current usage. It seems that at least some fonts use the existing characters in a way that this proposal is asking for, and we would like to avoid creating two different ways to encode the same text. We suggest authors look into the current practice, consider the disruption of disunification to existing documents and propose the best solution going forward.

# 5.5 Tulu (modern) #336

### **Documents:**

L2/25-026: Supportive Document for Tulu Unicode Proposal — Karnataka Tulu Sahitya Academy

L2/25-027: KTA support letter — Kerala Tulu Academy

L2/25-063: Proposal to Encode 4 Characters and 1 Half-Vowel, and 12 Numerals in Tulu-Tigalari — Dr. Pravinraj S Rao, et al

<u>L2/25-082</u>: Continued Proposal Document to Encode Tulu — Dr. Akash Raj Jain

<u>L2/25-083</u>: KTSA Authorisation letters — Karnataka Tulu Sahitya Academy

<u>L2/25-095</u>: Updated Proposal to Encode Modern Tulu in Unicode — Dr. Akash Raj Jain

L2/25-096: Modern Tulu Unicode: Key Concerns for Recognition, Integration, and Digital Sustainability — Vivekananda S

<u>L2/25-116</u>: Request for Expedited Encoding of Tulu Script — Captain Brijesh Chowta

### **Recommendation:**

No action is requested of the UTC.

### **Comments:**

We keep receiving various proposals and letters of support in encoding modern Tulu script. While the various parties are converging on unification with Tulu-Tigalari and encoding only a few characters missing for the modern Tulu, they also expressed agreement with the concerns raised in L2/25-096, which asks a considerable amount of questions of varying relevance to Unicode about the consequences of the unification (or disunification) approach. We are expecting further communication once the concerns are addressed.

# 5.6 Tai Yo CCC #623 · #116

### Documents:

<u>ID20250222051403</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025) <u>ID20250224054744</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

## Related:

L2/22-289: Final Proposal to encode the Tai Yo Script (replaces L2/22-208) (revised) — Viet Khoi Nguyen, et al

### Recommendation:

This is a feedback asking to change combining classes of five Tai Yo combining marks from Above, which is the correct placement when the Tai Yo text is turned on its side to fit into a horizontal layout, to Right, which would be the correct placement when laid out vertically, following the model of U+18A9 MONGOLIAN LETTER ALI GALI DAGALGA.

We have investigated this issue and want to point out that different scripts are vertical in different ways. Both Tai Yo and Mongolian are encoded to have the same orientation behavior as Latin, instead of CJK: In horizontal lines, users expect these scripts to have a rotated fallback orientation, instead of staying upright like CJK. Consequently, Tai Yo characters have Vertical\_Orientation = R (Rotated, same as Latin), instead of U (Upright, same as CJK). The representative glyphs in code charts show the expected glyph orientation in horizontal layout, which is the default in modern architectures.

As such, the CCC values of marks in Tai Yo should be consistent with how combining marks behave on Latin characters. Therefore, the current value of 230 (Above) is correct. Note that in vertical layout, combining marks with CCC value of 230 (Above) appear on the right side of Latin characters.

The CCC value of the mentioned U+18A9 MONGOLIAN LETTER ALI GALI DAGALGA appears, in fact, to be a mistake. When Mongolian was originally encoded, there was little understanding about how multiscript layout and shaping would work. The script has only three combining marks encoded, which are highly marginal in usage. The usage of Dagalga is not well understood, but our understanding is that it should've been assigned the value of 220 (Below). Unfortunately, this cannot be changed due to Unicode Character Encoding Stability Policies.

### 5.7 TOMOBIKI location #624 · #515

### **Documents:**

<u>ID20250222065449</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025) <u>ID20250313143220</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

#### Related:

L2/24-151: Proposal for two geometric shapes for Japanese traditional calendars (revised) — Gen Kojitani

### Recommendation:

No action is requested of the UTC.

### **Comments:**

We received two independent feedback reports questioning the location of a provisionally assigned character U+1F1AE TOMOBIKI SYMBOL in the Enclosed Alphanumeric Supplement block, one proposing the Enclosed Ideographic Supplement block instead as it already has plenty of Japanese characters, while the other proposing the Geometric Shapes Extended block instead as the character is not an enclosed alphanumeric.



Almost all of the characters in the 1F100 block are from East Asian character sets, and in particular, everything in the 1F19x and 1F1Ax columns are from Japanese standards already, except for the U+1F1AD MASK WORK SYMBOL. The main distinction between 1F1xx and 1F2xx is that the former are East Asian enclosure symbols that enclose letters, numbers, and symbols, whereas 1F2xx is for East Asian enclosure symbols that enclose ideographs (or kana).

Similarly for the other suggestion. The symbol is a circle around a symbolic concept, the status of the concept not being of much relevance. We are confident the symbol will be used in other contexts besides the Japanese calendar, as is the case with other geometric-type symbols.

### 5.8 Katakana Letter Small Archaic Ye #612

### Documents:

<u>L2/25-036</u>: Proposal to Encode One Small Kana Letter — CheonHyeong Sim

### Related:

L2/25-090: CJK & Unihan Working Group Recommendations for UTC #183 Meeting — CJK / Ken Lunde

### **Recommendation:**

The SEW group has no objections to the recommendations regarding L2/25-036 as proposed by the CJK group in L2/25-090.

# 5.9 Katakana Letter Small NE #611

### Documents:

<u>L2/25-042</u>: Proposal to add Katakana Letter Small Ne — Kentaro Bimbatti

<u>L2/25-060</u>: Addendum to Proposal to add Katakana Letter Small Ne to Unicode — Kentaro Bimbatti

#### Related:

L2/25-090: CJK & Unihan Working Group Recommendations for UTC #183 Meeting — CJK / Ken Lunde

#### Recommendation:

No action is requested of the UTC.

#### **Comments:**

This is a proposal for a small katakana *ne*, sometimes used in Japanese in place of the hiragana *ne* at the end of sentences. It is a stylistic variation for writing a grammatical particle, indicating a softer, friendlier tone.



The group concluded that this usage is a typographical distinction, not an orthographical one, and as such should be made by a higher-level protocol, such as rich text or markup. We are not opposed to encoding small katakana *ne* in principle, but the usage demonstrated in this proposal does not meet the bar for plain text interchange.

# 5.10 Vietnamese apex #415

#### **Documents:**

<u>L2/25-066</u>: Annotation request for Vietnamese apex — Minh Nguyen, Kirk Miller <u>L2/25-130</u>: Unicode request for Vietnamese apex — Minh Nguyen, Kirk Miller

#### Related:

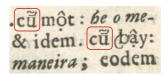
<u>L2/24-103</u>: Clarification of use and forms of certain combining characters — Wills <u>L2/24-228</u>: Recommendations to UTC #181 (November 2024) on Script Proposals — Jan Kučera, et al

#### Recommendation:

No action is requested of the UTC.

#### Comments:

These documents come from a continued effort at expressing tilde in Middle Vietnamese Latin orthography, which marked a syllable-final nasal consonant. We already discussed potential candidates for this character in L2/24-228 and recommended using U+1DC4 COMBINING MACRON-ACUTE for this purpose. The UTC had assigned 181-A107 to annotate U+1DC4 as such and this has been done.



The latest proposal claims that SEW has determined that it would be inappropriate for Unicode to advocate the use of U+1DC3 COMBINING SUSPENSION MARK or of the U+0483 COMBINING CYRILLIC TITLO due to the need to specify such use in the script assignment. We would like to clarify that the script with which characters are associated can be adjusted using script extensions. The concern raised was that switching from one diacritic to another would be a disruption to existing texts, including published scholarship – evidence was found by SEW participants of U+1DC4 being used in scholarship in at least five independent publications in different languages. This concern applies regardless of whether a new character is introduced or switching to an existing one is recommended. The fact that some sources use U+0303 COMBINING TILDE despite it appearing contrastively with the apex (as noted in section 4.3 of L2/24-228) does not justify encoding a new character.

The document raises a concern that the IPA usage of U+1DC4 for tones could conflict with its orthographic usage in Middle Vietnamese, but no evidence of a co-occurrence, let alone a contrast, was shown. It was noted that many diacritics have different functions in IPA and Vietnamese orthography anyway.

There was no consensus on encoding a new character.

# 5.11 Greek letters with palatal hook #486 · #531

# **Documents:**

L2/25-043: On the decision to rename and change the glyphs of Greek phonetic letters — Eduardo Marin Silva

### Related:

L2/24-228R: Recommendations to UTC #181 (November 2024) on Script Proposals — Jan Kučera, et al

<u>ID20240809154445</u>: Comments on Public Review Issues (July 2, 2024 - Oct 16, 2024)

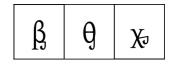
<u>L2/24-202</u>: Phonetic characters: Greek and Latin? — Jacquerye

<u>L2/24-146</u>: Unicode request for Greek letters with palatal hook — Miller

<u>L2/24-145</u>: Unicode request for modifier psi and omega — Miller

### **Recommendation:**

We received a document by Eduardo Marín Silva, the author of feedback ID20240809154445 we addressed in L2/24-228R, expressing disagreement with our response and putting further arguments why the provisionally assigned codepoints 1DF3B..1DF3D LATIN SMALL LETTER BETA/THETA/CHI WITH PALATAL HOOK should be Greek letters in a Greek block.



The author mentions that he wants a response to his arguments. Unfortunately, the SEW and the UTC are neither empowered nor staffed to write detailed responses to all proposals. SEW and UTC are mainly staffed by experts who are volunteering their very limited time to attend the various meetings and publish the standard. The SEW suggests the unicode@ or unicore@ mailing lists for arguments about encoding characters.

SEW experts indeed read proposals, and make detailed arguments about them at various meetings. In the specific case of the three Greek/Latin characters, the subject has been discussed in length at several meetings of the SEW and on its private forums. SEW has heard informed arguments from each side of the Greek/Latin preference. We agree that there are good arguments on both sides, but the Latin side was found to be narrowly more convincing and so it was recommended to the UTC. The UTC then formally accepted that recommendation.

Several group members have raised concerns about modern software still not handling or displaying IPA text optimally, due to this mixing of Latin and Greek characters. We are still looking forward to technical and well-researched proposals that can improve the situation, specifically potential modifications to Script and Script\_Extensions properties and UAX #24, as well as a potential Unicode Script Itemization Algorithm. We believe that character names and block location are of secondary importance in such a solution, while character properties and algorithms are primary.

As for glyph shapes in Unicode code charts, it is reasonable to expect that the most common shape for the characters as evidenced in the source material should be preferred. The actual glyphs published in the standard go through various updates and changes before publication. If the glyphs published in the alpha or beta releases ended up different from what the proposal author expects, feedback could be submitted to improve them.

# 5.12 Leibniz: Cossic characters #545 · #289

#### Documents:

<u>L2/25-123</u>: Proposal to encode 11 cossic characters — Mayer, et al

### Related:

<u>L2/24-142</u>: Leibniz project - Supplemental documents — Deborah Anderson, et al

### **Recommendation:**

This and the following few topics are proposals split from the project of digitizing Leibniz's work. This one is proposing a few *cossic* characters, a term referring to written or printed treatises on algebra.

8	29	3	Ç
Ç	8	ß	م

It should be reiterated that Unicode is not an encyclopedia of characters and we do not group

characters by proposals. There is no reason why characters need to be kept together because they are part of a set, as we have for example seen recently with the Japanese calendar symbols. Characters can be thought of as part of various different sets at the same time, and some characters considered to be part of a set might already be encoded elsewhere. Similarly, in the case of this proposal, the idea of a *cossic* set of characters is not helpful – if some characters of the set are identical to or unifiable with already existing ones, there is no need for encoding duplicate characters. As an example, the evidence in the proposal shows 'b' for *bissursolidum* as a part of the set, but authors are right not to propose it, as this is already covered either by U+0062 LATIN SMALL LETTER B or U+1D44F MATHEMATICAL ITALIC SMALL B. Users are free to compose and publish lists of encoded characters forming sets of interest as they see need for their purpose.

While some of our previous feedback has been incorporated, authors disagreed with other parts of the feedback. One point of disagreement seems to be on the word ITALIC in the name MATHEMATICAL ITALIC SHARP S suggested by the group. Authors argue that in most cases, the character is upright, while they consider editions where they are italic inconsistent. However, it is noted that the italic typesetting is consistent in a way that it is affecting all other characters (such as the ordinary *c*) too.

Another disagreement is on the representation of LOWERCASE KURRENT Z SIGN, which the group suggests should be handled by introducing a new variant selector to represent *kurrent* forms of mathematical script letters, i.e. the character should be encoded as a variant of U+1D4CF z MATHEMATICAL SCRIPT SMALL Z rather than encoded as a separate character. Authors argue that the connection to U+1D4CF is arbitrary and that this would disconnect *kurrent* z from the other Leibniz symbols. They also argue that introduction of incidental variation sequences for alphanumeric symbols would be a new precedent in the mathematical block. However, the block already contains variation sequences for chancery and roundhand style of script characters, and it is reasonable to expect we might run into other characters in the *kurrent* form (a distinct writing style used historically in Germany and Central Europe).

It is clear that the above-mentioned issues will be difficult to resolve in discussions through proposal updates and meeting reports, hence SEW suggests a separate meeting with authors to discuss the way forward.

It was also noted in the last SEW meeting that the names of the radix signs could be improved. RADIX SIGN 1 is 4th root (where U+221A SQUARE ROOT is in fact radix sign 1) etc. We suggest the signs follow the naming of U+221A, i.e. FOURTH ROOT, EIGHTH ROOT and SIXTEENTH ROOT.

# 5.13 Leibniz: 17 geometric shapes #589

### **Documents:**

<u>L2/25-126</u>: Proposal to encode 17 geometric shapes — Mayer, et al

### Recommendation:

No action is requested of the UTC.

### Comments:

In this proposal, authors are requesting encoding of several geometric shapes used for mathematical texts both in manuscripts and print. The group is generally in favor of encoding the proposed characters, with the following suggestions:

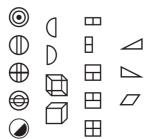
- Use 1F7D8 for the BULLET IN DOUBLE CIRCLE and 1F781..1F78F for the remaining characters.
- Swap the names of the triangles, i.e. LOWER LEFT and LOWER RIGHT should correspond to the corner with right angle (cf. U+25FA ≥ LOWER LEFT TRIANGLE and U+25FF ≥ LOWER RIGHT TRIANGLE).
- Improve the naming of the squares to be more descriptive and to indicate the desired size
  consistent with existing characters. The suggested names are: HORIZONTAL DOUBLE WHITE SMALL
  SQUARE, VERTICAL DOUBLE WHITE SMALL SQUARE, WHITE SQUARE WITH BOTTOM HALF BISECTED, WHITE SQUARE WITH TOP HALF
  BISECTED, WHITE SQUARE WITH HORIZONTAL AND VERTICAL BISECTING LINES.

We are awaiting a final revision of the proposal.

# 5.14 Leibniz: 10 mathematical symbols #590

# **Documents:**

L2/25-124: Proposal to encode 10 mathematical symbols — Mayer, et al



No action is requested of the UTC.

#### **Comments:**

This is a proposal for symbols representing angles and sectors (and a hyperbole). We have provided authors some feedback on naming of the characters, which the proposal authors are discussing. A question arose about whether ANGLE-1 is unifiable with U+2221 & MEASURED ANGLE (the difference being whether the arc extends beyond the rays). It has been noted that in modern practice, such difference lies within the



glyphic range of the existing character, see e.g. *ROBERTSON, Wills.* <u>Symbols defined by unicode-math</u>, p. 17. If necessary, this could be controlled by a variation sequence. The group noted that ANGLE-1 and ANGLE-2 are frequently used in current-day geometry, and not specific to Leibniz.

There were also suggestions of different names for various symbols, including ANGLE-2, ANGLE-3 and ANGLE-4. The SEW considers character names that simply number alternatives as generally inferior to the descriptive names that allow identification of the intended character based on its name. The existing cases for -1, -2 type names are mostly for characters where the underlying concept is numbered, such as tones, die faces etc. The exceptions are some cases where there are alternative representations of the same mark without features that are easily differentiated in a description.

We are hoping to discuss the options with the authors in a separate meeting. As noted above, there is no benefit keeping the proposed characters colocated, and being part of a set does not prevent unification with existing characters.

# 5.15 Leibniz: 7 historic alchemical symbols #539

### **Documents:**

<u>L2/25-131</u>: Proposal to encode 7 historic alchemical symbols — Mayer, et al <u>L2/25-132</u>: Towards the encoding of new alchemical symbols — Kirk Miller, Andreas Stötzner

#### Recommendation:

No action is requested of the UTC.

#### Comments:

The last proposal from the project of digitizing Leibniz manuscripts in this report is requesting 7 alchemical symbols. We had provided some feedback to the authors and received a response, but the group hasn't yet had a chance to discuss it in depth. We note that the proposed ALCHEMICAL SYMBOL FOR HORA-2 is identical to U+29D6 X WHITE HOURGLASS. There was some disagreement on whether the proposed ALCHEMICAL SYMBOL FOR OIL BOILED is an allograph of U+1F746 & ALCHEMICAL SYMBOL FOR OIL, and how much rotated it is. We would generally expect the proposal to demonstrate a semantic difference, of which some members were not convinced. We are expecting further discussion.



### 5.16 Annotations to 2 math characters #380

### **Documents:**

L2/25-068: Unicode request for annotations to two mathematical characters — Neil Rees, Kirk Miller

### **Recommendation:**

No action is requested of the UTC.

### Comments:

We received a proposal requesting annotating two mathematical characters, U+1D438 MATHEMATICAL ITALIC CAPITAL E and U+1D452 MATHEMATICAL ITALIC SMALL E, as also used in Arbëresh orthography. The orthography uses upright and italic *e* contrastively. The mathematical characters do not form a casing pair,

n te zënit e te dëmburavet vën nde pên, e ju vrasen

which affects text search, no existing font supports combining them with the necessary diacritics or provides small caps forms of the letters. Authors were hoping that with such annotation, font vendors might improve such support.

Unfortunately, we cannot recommend using any mathematical characters for orthographical use. Apart from the issues already discovered, math characters have different spacing requirements and complex layout interacting with adjacent symbols. They also cause issues for screen readers and other accessibility tools. The group was not convinced about the need for interchange of the italic characters in plain text. Authors can use rich text or other higher-level protocol, or special fonts, to publish digitized texts using this orthography.

# 5.17 Comment on name for one asteroid symbol #615 · #303

### **Documents:**

<u>ID20250202164816</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)

#### Related:

<u>L2/23-207</u>: Unicode request for historical asteroid symbols — Gavin Jared Bala, Kirk Miller

#### Recommendation:

No action is requested of the UTC.

#### **Comments:**

This is a feedback suggesting to shorten the name for the character U+1CECD ASTRONOMICAL SYMBOL FOR ASTEROID PROSERPINA accepted for Unicode 17.0 to ASTEROID PROSERPINA (the simple name PROSERPINA, which the other similar characters in the set follow, had already been taken).



We would like to point out that changing a name at this stage comes with a cost that is higher than not doing so, so there was a consensus to recommend no action. It has been furthermore noted that the current name is modeled after U+26E2 ASTRONOMICAL SYMBOL FOR URANUS, while the proposed ASTEROID PROSERPINA does not have a precedent.

# 5.18 Phobos and Deimos symbols #607

#### **Documents:**

<u>L2/25-079</u>: Phobos and Deimos symbols — Gavin Jared Bala, Kirk Miller

#### Recommendation:

No action is requested of the UTC.

#### **Comments:**

We received an informational document for reference and feedback. It discusses symbols for two moons of Mars, Phobos and Deimos. The group notes that the examples provided are not of text elements and therefore do not constitute evidence for encoding. Similarly, a graphic symbol with conventional meaning does not represent sufficient evidence for encoding for plain text interchange.





# 6. In Process

### **Documents:**

<u>L2/25-039</u>: Revised Proposal for Encoding the Mwangwego Script in the UCS — Oreen Yousuf, Daniel Yacob

<u>L2/25-110</u>: Considerations about Egyptian Hieroglyph legacy characters — Michel Suignard

 $\underline{\text{L2/25-111}}\text{: Converging towards a Small Seal encoding proposal} - \text{Michel Suignard}$ 

L2/25-115: Proposal to encode Superscript digits used in Quran published in Pakistan — Lateef Sagar Shaikh

<u>L2/25-125</u>: Follow-up glyph modifications for the alchemical symbols block — Kirk Miller

<u>L2/25-129</u>: Proposal to encode Rma script to UCS — Eiso Chan, et al

<u>L2/25-134</u>: Proposal to encode Sirmauri in Unicode — Anshuman Pandey, Biswajit Mandal

<u>ID20250313140920</u>: Comments on Public Review Issues (Jan 3, 2025 - April 2, 2025) — Michelle Perham

L2/25-135: Final Proposal for Encoding the Mwangwego Script in the UCS — Oreen Yousuf, Daniel Yacob

<u>L2/25-136</u>: Proposal to encode the Minim Dag Noore script in the UCS — Oreen Yousuf

# **Appendix**

### List of documents covered by this proposal:

- $\underline{\textbf{N5303}} : \textbf{Proposal to encode one Tangut ideograph} \textbf{Andrew West, Via cheslav Zaytsev}$
- L2/12-228: Revised proposal for encoding the Afáka script in the SMP (WG2 N4292) Michael Everson
- L2/25-018: Unicode request for musical bowing symbols
- L2/25-026: Supportive Document for Tulu Unicode Proposal Karnataka Tulu Sahitya Academy
- <u>L2/25-027</u>: KTA support letter Kerala Tulu Academy
- L2/25-036: Proposal to Encode One Small Kana Letter CheonHyeong Sim
- L2/25-039: Revised Proposal for Encoding the Mwangwego Script in the UCS Oreen Yousuf, Daniel Yacob
- L2/25-042: Proposal to add Katakana Letter Small Ne Kentaro Bimbatti
- L2/25-043: On the decision to rename and change the glyphs of Greek phonetic letters Eduardo Marin Silva
- L2/25-060: Addendum to Proposal to add Katakana Letter Small Ne to Unicode Kentaro Bimbatti
- <u>L2/25-061</u>: Unicode request for compound stress mark Kirk Miller
- <u>L2/25-062</u>: Proposal to encode 5 historic mathematical operators Uwe Mayer, et al
- L2/25-063: Proposal to Encode 4 Characters and 1 Half-Vowel, and 12 Numerals in Tulu-Tigalari Dr. Pravinraj S Rao, et al
- L2/25-064: Response to feedback on the buzz roll in L2/24-213 Gavin Jared Bala, Kirk Miller
- L2/25-065: Response to feedback on the accidentals in L2/24-174 Gavin Jared Bala, Kirk Miller
- <u>L2/25-066</u>: Annotation request for Vietnamese apex Minh Nguyen, Kirk Miller
- L2/25-067: Unicode request for annotations to B b, D đ and G g Kirk Miller, Timothy Usher
- <u>L2/25-068</u>: Unicode request for annotations to two mathematical characters Neil Rees, Kirk Miller
- L2/25-072: Unicode request for Saudi riyal sign Kirk Miller
- <u>L2/25-073</u>: Proposal to Encode the New Saudi Riyal Symbol Saleh Saeed Alkatheri
- L2/25-074: Proposal to Update the Shape of the Saudi Riyal Symbol (U+FDFC) Sultan Maqtari
- <u>L2/25-075</u>: Proposal to add the currency sign for the SAUDI RIYAL to the UCS Saudi Arabian Central Bank
- <u>L2/25-077</u>: Unicode request for w with palatal hook Denis Moyogo Jacquerye, Kirk Miller
- L2/25-078: Unicode request for Afaka block Kirk Miller
- <u>L2/25-079</u>: Phobos and Deimos symbols Gavin Jared Bala, Kirk Miller
- <u>L2/25-080</u>: Proposal to Encode One Mongolian Letter CheonHyeong Sim, et al
- <u>L2/25-081</u>: Revised Proposal to Encode N'ko Phonetic Extensions for Malian Languages Boubacar Diakite, Neil Patel
- L2/25-082: Continued Proposal Document to Encode Tulu Dr. Akash Raj Jain
- <u>L2/25-083</u>: KTSA Authorisation letters Karnataka Tulu Sahitya Academy
- <u>L2/25-095</u>: Updated Proposal to Encode Modern Tulu in Unicode Dr. Akash Raj Jain
- <u>L2/25-096</u>: Modern Tulu Unicode: Key Concerns for Recognition, Integration, and Digital Sustainability Vivekananda S
- L2/25-097: Response to feedback on the names of phonetic characters in L2/24-234R and L2/25-016 Kirk Miller
- <u>L2/25-110</u>: Considerations about Egyptian Hieroglyph legacy characters Michel Suignard
- <u>L2/25-111</u>: Converging towards a Small Seal encoding proposal Michel Suignard
- <u>L2/25-112</u>: Unicode request for Cyrillic letter jeru with connecting bar Kirk Miller
- <u>L2/25-113</u>: Response on the Encoding of Tulu-Tigalari Letter Archaic II Srinidhi A
- L2/25-114: Unicode request for letters with double tilde overlay Kirk Miller
- L2/25-115: Proposal to encode Superscript digits used in Quran published in Pakistan Lateef Sagar Shaikh
- <u>L2/25-116</u>: Request for Expedited Encoding of Tulu Script Captain Brijesh Chowta
- <u>L2/25-119</u>: Indic Categories for Zanabazar and Soyombo RAs Jan Kučera, et al
- <u>L2/25-120</u>: Tangut Radical/Stroke Corrections Andrew West
- L2/25-121: Proposal to encode JIHVAMULIYA and UPADHMANIYA in Devanagari Srinidhi A
- L2/25-122: Proposal to encode Maldivian Rufiyaa Sign in the Unicode Standard Naail Abdul Rahman, Abdulla Shafeeu
- L2/25-123: Proposal to encode 11 cossic characters Mayer, et al
- <u>L2/25-124</u>: Proposal to encode 10 mathematical symbols Mayer, et al
- <u>L2/25-125</u>: Follow-up glyph modifications for the alchemical symbols block Kirk Miller
- <u>L2/25-126</u>: Proposal to encode 17 geometric shapes Mayer, et al
- <u>L2/25-129</u>: Proposal to encode Rma script to UCS Eiso Chan, et al
- <u>L2/25-130</u>: Unicode request for Vietnamese apex Minh Nguyen, Kirk Miller
- L2/25-131: Proposal to encode 7 historic alchemical symbols Mayer, et al
- L2/25-132: Towards the encoding of new alchemical symbols Kirk Miller, Andreas Stötzner
- L2/25-133: Update on Sidetic Alfredo Rizza, Michaela Zinko
- L2/25-134: Proposal to encode Sirmauri in Unicode Anshuman Pandey, Biswajit Mandal
- L2/25-135: Final Proposal for Encoding the Mwangwego Script in the UCS Oreen Yousuf, Daniel Yacob
- <u>L2/25-136</u>: Proposal to encode the Minim Dag Noore script in the UCS Oreen Yousuf

# List of feedback covered by this proposal:

ID20240504174305: Accumulated Feedback on PRI #502

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<u>ID20241227092147</u>: Comments on Public Review Issues (July 2, 2024 - Oct 16, 2024)
<u>ID20241227110909</u>: Comments on Public Review Issues (July 2, 2024 - Oct 16, 2024)
<u>ID20250128150339</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
ID20250202164816: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250220051924</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250222051403</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250222065449</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250224054744</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250309004255</u>: Accumulated Feedback on PRI #519
ID20250309144545: Accumulated Feedback on PRI #519
ID20250313140920: Comments on Public Review Issues (Jan 3, 2025 - April 2, 2025) — Michelle Perham
<u>ID20250313143220</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250313143220</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250313143220</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250313164603</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
<u>ID20250325183905</u>: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
ID20250325190524: Comments on Public Review Issues (January 3, 2025 - April 2, 2025)
ID20250402161524: Accumulated Feedback on PRI #519
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