



## L2/20-139: Proposal to Add Three UTC-Source Polysyllabic Ideographs to UAX #45

**Comments:** This document proposes that three ideographs be added to UAX #45 as new UTC-Source ideographs, and provides sufficient metadata and evidence. The ad hoc noted that the bottom component of the third ideograph, 令, does not match its evidence, which shows 令 instead. Given that this ideograph is expected to be used in Chinese-speaking regions, the component 令 is more suitable for its representative glyph, because it adheres to those regions' conventions. The ad hoc also noted that this particular ideograph is also considered a ligature form of the two-ideograph word 敕令.

**Recommendations (Unihan-UTC164-R02):** The ad hoc recommends to the UTC the following disposition ⇒ Accept three new UTC-Source ideographs as **UTC-03222**, **UTC-03223**, and **UTC-03224** with a UAX #45 status value of **N**, based on document L2/20-139 and Unihan-UTC164-R02 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to John Jenkins:** Add the following three new entries to *USourceData.txt* and their representative glyphs to *USourceGlyphs.pdf*, based on document L2/20-139 and Unihan-UTC164-R02 in document L2/20-168, for Unicode Version 14.0:

UTC-03222;N;;13.10;0130.011;𠄎𠄎書;UTCDoc L2/20-139 1;  
UTC-03223;N;;13.6;0129.191;𠄎𠄎合;UTCDoc L2/20-139 2;  
UTC-03224;N;;66.12;0475.321;𠄎𠄎敕令;UTCDoc L2/20-139 3;ligature form of 敕令

## L2/20-145: Proposal to Add to UAX #45 Three UTC-Source Ideographs for Units of Measurement

**Comments:** This document proposes that three ideographs be added to UAX #45 as new UTC-Source ideographs, and provides sufficient metadata and evidence. The ad hoc noted that the first ideograph, the one meaning *pound*, appears in both ideographic and Latinized forms in the evidence. The submitted representative glyph is based on the ideographic form.

**Recommendations (Unihan-UTC164-R03):** The ad hoc recommends to the UTC the following disposition ⇒ Accept three new UTC-Source ideographs as **UTC-03225**, **UTC-03226**, and **UTC-03227** with a UAX #45 status value of **N**, based on document L2/20-145 and Unihan-UTC164-R03 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to John Jenkins:** Add the following three new entries to *USourceData.txt* and their representative glyphs to *USourceGlyphs.pdf*, based on document L2/20-145 and Unihan-UTC164-R03 in document L2/20-168, for Unicode Version 14.0:

UTC-03225;N;;1.2;0076.141;𠄎一𠄎;UTCDoc L2/20-145 1;pound (unit of measurement)  
UTC-03226;N;;85.2;0604.091;𠄎𠄎𠄎;UTCDoc L2/20-145 2;fluid dram  
UTC-03227;N;;85.3;0607.051;𠄎𠄎𠄎;UTCDoc L2/20-145 3;fluid ounce

## L2/20-148: Collection of Un-encoded Chinese Characters from Tsinghua Bamboo Slips

## L2/20-167: Feedback on L2/20-148 Collection of Un-encoded Chinese Characters from Tsinghua Bamboo Slips

**Comments:** The ad hoc discussed this proposal, which is meant to provide material that can be turned into a formal proposal to encode nearly 1,000 additional ideographs. In light of the fact that the proposal is incomplete, such as providing no representative glyphs nor metadata whatsoever, no formal action can realistically be taken by the UTC. The ad hoc also noted that the scope of this proposal aligns better with the mission of the IRG. The ad hoc also discussed Andrew West's feedback document, L2/20-167, which indicated that 139 of the ideographs were included in the UK's submission for IRG Working Set 2017, and that some of them are unifiable. The ad hoc also recommended that UAX #45 be amended to indicate that submissions lacking representative glyphs, sufficient metadata, and sufficient evidence for IRG submission may be declined.

**Recommendations (Unihan-UTC164-R04):** The ad hoc recommends to the UTC the following disposition ⇒ Authorize a proposed update of UAX #45 for Unicode Version 14.0 to add text that indicates that submissions lacking representative glyphs, sufficient metadata, and sufficient evidence for IRG submission may be declined, based on document Unihan-UTC164-R04 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to John Jenkins and the Editorial Committee:** Create a proposed update of UAX #45 which adds a statement that indicates that submissions lacking representative glyphs, sufficient metadata, and sufficient evidence for IRG submission may be declined, based on Unihan-UTC164-R04 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to Rick McGowan:** Post the PRI for the proposed update of UAX #45, to close on September 18, 2020. **Assign an Action Item to Ken Lunde:** Respond to the proposal author, Snow Listener, indicating that the UTC declined to add the ideographs in L2/20-148 due to the lack of representative glyphs and metadata, but that the proposal author should consider working with an IRG member body, such as the UK per the fifth bullet in L2/20-167, to prepare this collection of ideographs for IRG submission.

## L2/20-165: Proposal to Deprecate the Kangxi Field in UAX #45

**Comments:** The ad hoc was completely in favor of deprecating Field 4 of *USourceData.txt*, and that its data should be removed for Unicode Version 14.0. The ad hoc also agreed that Field 4 should be repurposed in the future to record the *kTotalStrokes* property value, particularly because it is used by CLDR for collation purposes and is required metadata for IRG submissions, but cited concerns that some parsers may be impacted. The actual timing of repurposing Field 4 should be discussed by the UTC.

**Recommendations (Unihan-UTC164-R05):** The ad hoc recommends to the UTC the following disposition ⇒ Discuss the timing of repurposing Field 4 of *USourceData.txt* to be used for recording the *kTotalStrokes* property value. **Assign an Action Item to John Jenkins and the Editorial Committee:** Include in the proposed update of UAX #45 the deprecation of Field 4 of

*USourceData.txt*, based on document L2/20-165 and Unihan-UTC164-R05 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to John Jenkins:** Remove the data for Field 4 of *USourceData.txt*, based on document L2/20-165 and Unihan-UTC164-R05 in document L2/20-168, for Unicode Version 14.0.

## 2) UAX #38 / Unihan Database Public Feedback

The two items of public feedback in this section were discussed by the ad hoc, and for convenience, the *Unihan-changes-20200710.txt* (PDF attachment) file includes all of the recommended changes based on the changes that were proposed. These recommended changes are also shown inline, following the Recommendations.

Date/Time: **Fri Jun 12 08:20:02 CDT 2020**

Name: Ken Lunde

Report Type: Error Report

Opt Subject: **Unihan Database changes**

The following are suggested changes to the Unihan Database, which includes justifications for doing so:

U+6589 齊, whose current radical is 67 (67.4), is the Japanese simplified form of U+9F4A 齊 whose radical is 210 (210.0). The PRC simplified form of U+9F4A 齊, U+9F50 齐, is also assigned Radical #210 (210'.0), along with Radical 67 (67.2). I propose that 210.0 be added to the existing kRSUnicode property value of U+6589 齊:

U+6589 kRSUnicode 67.4 210.0

U+6B6F 齒, whose current radical is 77 (77.8), is the Japanese simplified form of U+9F52 齒 whose radical is 211 (211.0). The PRC simplified form of U+9F52 齒, U+9F7F 齿, is also assigned Radical #211 (211'.0). I propose that 211.0 be added to the existing kRSUnicode property value of U+6B6F 齒:

U+6B6F kRSUnicode 77.8 211.0

In addition, U+2B81A 齙 (Extension D) uses the Japanese simplified form of U+9F52 齒 as a component, not the PRC simplified form, U+9F7F 齿, so its kRSUnicode value (211'.5) should not include a single quote that indicates a PRC simplified form of the radical. I propose that the single quote be removed from the kRSUnicode property value of U+2B81A 齙:

U+2B81A kRSUnicode 211.5

U+7ADC 竜, whose current radical is 117 (117.5), is the Japanese simplified form of U+9F8D 龍 whose radical is 212 (212.0). The PRC simplified form of U+9F8D 龍, U+9F99 龙, is also assigned Radical #212 (212'.0). I propose that 212.0 be added to the existing kRSUnicode property value of U+7ADC 竜:

U+7ADC kRSUnicode 117.5 212.0

In addition, the following ideographs use U+7ADC 竜 as a component, and I propose that Radical #212, along with the appropriate number of residual strokes, be added to their existing kRSUnicode property values (the characters are shown):

U+21676 龞 kRSUnicode 37.11 212.4

U+23BE1 龕 kRSUnicode 82.10 212.4

U+2412F 龔 kRSUnicode 85.18 212.11

U+25269 𪗇 kRSUnicode 109.10 212.5  
U+25A9D 𪗇 kRSUnicode 117.9 212.4  
U+25A9E 𪗇 kRSUnicode 117.9 212.4  
U+2A95B 𪗇 kRSUnicode 37.10 212.3  
U+2AC6F 𪗇 kRSUnicode 74.17 212.11  
U+2ADF9 𪗇 kRSUnicode 85.15 212.8  
U+2AF5E 𪗇 kRSUnicode 102.10 212.5  
U+2AFC1 𪗇 kRSUnicode 109.14 212.9  
U+2B3FD 𪗇 kRSUnicode 159.10 212.7  
U+2C099 𪗇 kRSUnicode 74.17 212.11  
U+2C514 𪗇 kRSUnicode 116.13 212.8  
U+2E13F 𪗇 kRSUnicode 117.25 212.20

U+203A4 𪗇, whose current radical is 9 (9.12), is a variant form of U+9FA0 𪗇 whose radical is 214 (214.0). I propose that 214.-3 be added to the existing kRSUnicode property value of U+203A4 𪗇:

U+203A4 kRSUnicode 9.12 214.-3

U+2B809 馬 and U+2B813 鳥 (Extension D) are variant forms of U+99AC 馬 and U+9CE5 鳥, respectively, which have three fewer strokes. I propose that the residual number of strokes as specified in their kRSUnicode property values be changed from 0 to -3, and that their kTotalStrokes property values be corrected to reflect the actual number of strokes, which is three fewer than their existing kTotalStrokes property values of 10 and 11, respectively:

U+2B809 kRSUnicode 187.-3

U+2B809 kTotalStrokes 7

U+2B813 kRSUnicode 196.-3

U+2B813 kTotalStrokes 8

U+2CF04 𪗇 (Extension F), whose current radical is 4 (4.3), is related to U+2CF01 𪗇 (also Extension F), whose radical is also 4 (4.1), but both ideographs share the same kTotalStrokes property value (2), which is not possible when considering their stroke composition. In addition, U+2CF04 𪗇 is composed of the following three strokes: U+31D1 |, U+31D6 𠄎, and U+31E1 𠄎. This suggests two (2) residual strokes, not three (3). I propose that the kRSUnicode property value of U+2CF04 𪗇 be changed from 4.3 to 4.2 to match the number of actual residual strokes, and that its kTotalStrokes property value be changed from 2 to 3, to match the number of strokes in the radical (1) plus residual strokes (2):

2CF04 kRSUnicode 4.2

2CF04 kTotalStrokes 3

U+2CF09 𪗇 (Extension F), whose current radical is 4 (4.5), is a variant form of U+7F36 𪗇 whose radical is 121 (121.0), and seems to be missing the first stroke. I propose that 121.-1 be added to the existing kRSUnicode property value of U+2CF09 𪗇:

U+2CF09 kRSUnicode 4.5 121.-1

That is all.

**Comments:** The ad hoc reviewed this feedback, and agreed that all of them are appropriate Unihan Database changes, most of which improve discoverability, which is important now that there are over 90K CJK Unified Ideographs in the standard.

**Recommendations (Unihan-UTC164-R06):** The ad hoc recommends to the UTC the following disposition ⇒ Accept feedback from Ken Lunde [Fri Jun 12 08:20:02 CDT 2020], based on document L2/20-174, for Unicode Version 14.0. **Assign an Action Item to John Jenkins and Michel Suignard:** Update the Unihan Database to change the following *kRSUnicode* and *kTotalStrokes* property values, based on document L2/20-174 and Unihan-UTC164-R06 in document L2/20-168, for Unicode Version 14.0:

U+6589	kRSUnicode	67.4 210.0
U+6B6F	kRSUnicode	77.8 211.0
U+7ADC	kRSUnicode	117.5 212.0
U+203A4	kRSUnicode	9.12 214.-3
U+21676	kRSUnicode	37.11 212.4
U+23BE1	kRSUnicode	82.10 212.4
U+2412F	kRSUnicode	85.18 212.11
U+25269	kRSUnicode	109.10 212.5
U+25A9D	kRSUnicode	117.9 212.4
U+25A9E	kRSUnicode	117.9 212.4
U+2A95B	kRSUnicode	37.10 212.3
U+2AC6F	kRSUnicode	74.17 212.11
U+2ADF9	kRSUnicode	85.15 212.8
U+2AF5E	kRSUnicode	102.10 212.5
U+2AFC1	kRSUnicode	109.14 212.9
U+2B3FD	kRSUnicode	159.10 212.7
U+2B809	kRSUnicode	187.-3
U+2B809	kTotalStrokes	7
U+2B813	kRSUnicode	196.-3
U+2B813	kTotalStrokes	8
U+2B81A	kRSUnicode	211.5
U+2C099	kRSUnicode	74.17 212.11
U+2C514	kRSUnicode	116.13 212.8
U+2CF04	kRSUnicode	4.2
U+2CF04	kTotalStrokes	3
U+2CF09	kRSUnicode	4.5 121.-1
U+2E13F	kRSUnicode	117.25 212.20

Date/Time: **Mon Jun 15 20:30:55 CDT 2020**

Name: Jim Breen

Report Type: Submission (FAQ, Tech Note, Case Study)

Opt Subject: **Proposed Unihan Database additions**

I would like to propose the following additions to the Unihan Database for U+7A3D (稽) and U+25874 (稽). The purpose of the additions is to establish the relationship between them, and to provide Japanese-oriented information for U+25874 which is currently missing from the Database. I have appended some notes relating to the proposed additions.

U+7A3D kZVariant U+25874<kMorohashi:T

U+7A3D kSemanticVariant U+25874<kMorohashi:T

U+25874 kIRGDaiKanwaZiten 25240

U+25874	kMorohashi	25240
U+25874	kNelson	3304
U+25874	kJapaneseKun	TODOMERU KANGAERU
U+25874	kJapaneseOn	KEI
U+25874	kZVariant	U+7A3D<kMorohashi:TZ
U+25874	kSemanticVariant	U+7A3D<kMorohashi:TZ

When I was first studying Japanese in the 1980s about the only kanji dictionary available to us was the venerable Nelson “Japanese-English Character Dictionary”. One of the kanji in Nelson which has been raised with me recently is 稽 (no. 3304), which is now one of the 常用漢字 (common use kanji) taught in Japanese schools. Nelson did not use that glyph for the kanji in his dictionary; he used the closely-related 稽 glyph. This presented a slight problem when we began to develop electronic versions in the early 1990s, as 稽 was not in the main JIS standard (JIS X 0208-1983/1990) [See Note 1 below]. The solution was to use 稽 instead; after all, it is the “correct” kanji. (Morohashi’s 大漢和辞典 has a full entry for 稽 (no. 25218) and an abbreviated entry for 稽 (no. 25240) pointing out it is a variant of 稽.) When the New Nelson was published in 1997 the editor, John Haig, kept the 稽 as the “correct” glyph (no. 4174) and included 稽 (no. 4163) as “nonstandard for 稽”. Spahn and Hadamitzky in their 1996 “The Kanji Dictionary” similarly base their entry on the 稽 glyph (index 5d11.3) and list 稽 as an alternative. The 稽 form is not currently in any JIS kanji standard, but it is in Unicode (U+25874). The Unihan data indicates it has been based on Taiwanese sources. There is currently no reference to Morohashi or any other Japanese source, and no mention of its association with 稽 (U+7A3D), the usual Japanese readings (ケイ, かんがえる, とどめる) or the meanings usually associated with it in Japan.

Note 1. The predecessor to JIS X 0208, JIS C 6226, which was published in 1978, had the 16-stroke 稽 glyph in the code-point now occupied by 稽. This was changed when it was replaced by JIS X 0208-1983.

**Comments:** The ad hoc reviewed this feedback, and agreed that it is useful to add the proposed property values to U+7A3D 稽 and U+25874 稽 so that they can be more closely associated. The ad hoc also concluded that the *kSemanticVariant* property values are not necessary for these ideographs and should not be considered, and that the final **Z** tag of the *kZVariant* property value of U+25874 稽 should be moved to the end of the *kZVariant* property value of U+7A3D 稽. The ad hoc also noted that it is unfortunate that an appropriate *kIRG-JSource* property value cannot be assigned to U+25874 稽, such as [JMJ-019136](#).

**Recommendations (Unihan-UTC164-R07):** The ad hoc recommends to the UTC the following disposition ⇒ Accept feedback from Jim Breen [Mon Jun 15 20:30:55 CDT 2020], in document L2/20-174 and as amended by the ad hoc, for Unicode Version 14.0. **Assign an Action Item to John Jenkins:** Update the Unihan Database to add the following new property values, based on document L2/20-174 and Unihan-UTC164-R07 in document L2/20-168 and as amended by the ad hoc, for Unicode Version 14.0:

U+7A3D	kZVariant	U+25874<kMorohashi:TZ
U+25874	kIRGDaiKanwaZiten	25240
U+25874	kMorohashi	25240

U+25874	kNelson	3304
U+25874	kJapaneseKun	TODOMERU KANGAERU
U+25874	kJapaneseOn	KEI
U+25874	kZVariant	U+7A3D<kMorohashi:T

### 3) UAX #38 / Unihan Database Documents

#### L2/20-144: Proposal to Disunify U+80DC(胜)

**Comments:** The ad hoc discussed this proposal to disunify U+80DC 胜, and noted that multiple meanings is not a valid argument for disunification. Andrew West, in Unicode’s #unihan Slack channel, further noted the following on 2020-05-20:

Do not disunify, and do not add a second radical. 勝 is simplified to 胜 regardless of what their respective radicals are. There is no case for disunification, and it would be wrong to add a 舟 radical for 胜 (incidentally the Unicode radical for 勝 is 力). The author’s assertion that “Obviously, a character with the radical 舟 would not be simplified to another one with the radical 肉, or it will be against nature” is simply wrong -- for example 貓 ‘cat’ (feline radical) simplifies to 猫 ‘cat’ (dog radical).

The ad hoc also noted that any change to U+80DC 胜 has the potential to destabilize a GB/T 2312-1980 mapping that dates back to the very beginning of Unicode.

**Recommendations (Unihan-UTC164-R08):** The ad hoc recommends to the UTC the following disposition ⇒ **Assign an Action Item to Ken Lunde:** Respond to the proposal author, Cheon-Hyeong Sim, indicating that the UTC declined to disunify U+80DC 胜, citing the arguments provided by Andrew West, along with the fact that doing so would destabilize a mapping that corresponds to the 40-year-old GB/T 2312-1980 standard.

#### L2/20-146: Proposal for new provisional Unihan Database property: kMojiJoho

**Comments:** The ad hoc was completely in favor of this new provisional Unihan property, *kMojiJoho*, particularly because it provides more meaningful data than ISO/IEC 10646:2020 [Collection 391](#), MOJI-JOHO-KIBAN IDEOGRAPHS-2018, which is in Annex A.5.11 of that standard, and also provides a substitute for expanding the coverage of the *kIRG\_JSource* “JMJ” source prefix that corresponds to the same database. Everything that is necessary to add this new property to UAX #38 is included in a data file that is attached to L2/20-146, which includes the following note about the Moji Jōhō Kiban Database licence (note that the terms of the [CC BY-SA 2.1 JP](#) license may prevent this property from being added to the Unihan Database, and explicit permission to use the Moji Jōhō Kiban Database for this purpose has been requested):

The Moji Jōhō Kiban Database and its mappings are copyrighted by IPA (Information-technology Promotion Agency, Japan; 独立行政法人情報処理推進機構), and are used under the terms of the Creative Commons Attribution-ShareAlike 2.1 Japan license.

**Recommendations (Unihan-UTC164-R09):** The ad hoc recommends to the UTC the following disposition ⇒ Authorize a proposed update of UAX #38 for Unicode Version 14.0 to add *kMojiJoho* as a new provisional property for Unicode Version 14.0. **Assign an Action Item to John Jenkins and the Editorial Committee:** Create a proposed update of UAX #38 to add *kMojiJoho* as a new provisional property, based on document L2/20-146 and Unihan-UTC164-R09 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to Rick McGowan:** Post the PRI for the proposed update of UAX #38, to close on September 18, 2020. **Assign an Action Item to John Jenkins:** Update the Unihan Database to add *kMojiJoho* as a new provisional property, based on document L2/20-146 and Unihan-UTC164-R09 in document L2/20-168, for Unicode Version 14.0.

## L2/20-153: Proposal to Repurpose the *kCantonese* Field in the Unihan Database

**Comments:** The ad hoc agreed that the *kCantonese* property should be repurposed as described in document L2/20-153, in particular to provide a single reading that is particularly targeted for use by CLDR collation and transliteration purposes. The ad hoc also agreed that the status of the property should be changed from Provisional to Informative, to match the status of the *kMandarin* property that serves a similar function.

**Recommendations (Unihan-UTC164-R10):** The ad hoc recommends to the UTC the following disposition ⇒ Change the status of the *kCantonese* property from Provisional to Informative, based on document L2/20-153 and Unihan-UTC164-R10 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to John Jenkins and the Editorial Committee:** Include in the proposed update of UAX #38 the status change of the *kCantonese* property, from Provisional to Informative, and modify its Description accordingly, based on document L2/20-153 and Unihan-UTC164-R10 in document L2/20-168, for Unicode Version 14.0. **Assign an Action Item to John Jenkins:** Update the Unihan Database to resolve the 4,882 ideographs that have multiple *kCantonese* property values, based on document L2/20-153 and Unihan-UTC164-R10 in document L2/20-168, for Unicode Version 14.0.

## 4) IRG-related Documents

### L2/20-142: Proposal to postpone the deadline for IRG Working Set 2020 submissions

**Comments:** This document is the UTC's recommendation to postpone the deadline for IRG Working Set 2020 submissions by at least six months, and among other IRG member bodies, [China](#), [SAT](#), [TCA](#), and the [UK](#) submitted formal documents in support of this recommendation. The IRG Convenor has not yet announced the new submission deadline.

**Recommendations (Unihan-UTC164-R11):** The ad hoc recommends to the UTC the following disposition ⇒ This document is informative, particularly because it is a document submitted by the UTC to the IRG Convenor, so the UTC does not need to take any action.

That is all.

## RESPONDING ABOUT CHARACTERS

Alexander Zapryagaev

**L2/20-126** Proposal to Add Two More UTC-Source Ideographs to UAX #45

I withdraw the proposal to the first character (𠄎\_𠄎𠄎𠄎𠄎𠄎𠄎𠄎), according to the argument that this character is a result of an incorrect reading of a character dictionary, see: <https://twitter.com/sarasvati635/status/1124855946985951233>. The second proposal holds.

**L2/20-139** Proposal to Add Three UTC-Source Polysyllabic Ideographs to UAX #45  
Still in support.

**L2/20-142** Proposal to postpone the deadline for IRG Working Set 2020 submissions  
In complete agreement.

**L2/20-144** Proposal to Disunify U+80DC(胜)

I withdraw from giving an opinion on this matter. However, practical usage as a simplification of other character is probably insufficient evidence.

**L2/20-145** Proposal to Add to UAX #45 Three UTC-Source Ideographs for Units of Measurement  
In complete agreement.

**L2/20-146** Proposal for new provisional Unihan Database property: kMojiJoho

In complete agreement (though having a horizontal extension of J-Source based on this property is still desirable).

**L2/20-148** Collection of Un-encoded Chinese Characters from Tsinghua Bamboo Slips

These characters are needed. In fact, they are close to a textbook example of the kind of characters that now need to be encoded. However, these characters were proposed without font or even IDS, which should be discouraged from later on. I believe the only correct source of action is inaction until a more fleshed out proposal will be prepared and submitted.

**L2/20-153** Proposal to Repurpose the kCantonese Field in the Unihan Database  
In complete agreement.