

**Universal Multiple-Octet Coded Character Set**  
**International Organization for Standardization**

**Doc Type:** ISO/IEC JTC1/SC2/WG2/IRG

**Title:** Proposed kIICore Changes & Additions

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**Status:** Individual Contribution

**Action:** For consideration by IRG

**Date:** 2018-05-04

This is a revision of the original proposal (aka IRG N2298 & L2/18-066) that incorporates feedback from discussions during UTC #155, along with feedback from Jaemin Chung (aka L2/18-071).

As documented in a recent five-part series on the [CJK Type Blog](#), we propose the following changes be made to the [kIICore](#) property, which are based on obvious omissions (untagged KS X 1001 ideographs) or updated versions of regional standards that clearly influence IICore (Japan's Jōyō Kanji and HKSCS-2016):

1. The latest IICore, [Version 2.2](#) (June 2004), has been stable for nearly 15 years. As a result, and for the purpose of backward compatibility, we personally feel that existing IICore ideographs—even if they were included in error—should be preserved.
2. Per the [Exploring IICore—Part 1](#) article, add the “K” source tag to the following 14 IICore ideographs, because they are the only ideographs among the 4,620 in the KS X 1001 standard that do not already have the “K” source tag:

Ideograph	Proposed kIICore	Ideograph	Proposed kIICore
塞 U+585E	AGTJH <b>K</b> MP	滲 U+6E17	AG <b>K</b>
獎 U+596C	A <b>K</b> P	耆 U+8009	A <b>K</b> P
復 U+5FA9	ATJH <b>K</b> MP	胃 U+80C4	AGTJ <b>K</b> P
慄 U+6144	ATJH <b>K</b> MP	詰 U+8A70	ATJH <b>K</b> MP
戀 U+6200	ATH <b>K</b> MP	諾 U+8AFE	ATJH <b>K</b> MP
撚 U+649A	ATJH <b>K</b> MP	輦 U+8F26	ATJH <b>K</b> P
栗 U+6817	AGTJH <b>K</b> MP	默 U+9ED8	AGTH <b>K</b> MP

3. Per the [Exploring IICore—Part 2](#) article, add the “J” source tag to the following two (2) IICore ideographs, because they were added to Japan's Jōyō Kanji (常用漢字) at the end of 2010:

Ideograph	Proposed kIICore	Ideograph	Proposed kIICore
剥 U+525D	AT <b>J</b> H <b>K</b> MP	頰 U+9830	AT <b>J</b> H <b>K</b> MP

4. Per the [Exploring IICore—Part 4](#) article, add the “H” and “M” source tags to the following 10 IICore ideographs, because they are included in HKSCS-2016 and their Big Five counterparts are tagged “H” and “M” (Macao SAR follows Hong Kong SAR in this regard):

Ideograph	Proposed kIICore	Ideograph	Proposed kIICore
兑 U+5151	AG <b>H</b> M	脱 U+8131	AGJ <b>H</b> M
媼 U+5AAA	CG <b>H</b> M	蛻 U+8715	AG <b>H</b> M
悦 U+60A6	AGJ <b>H</b> M	說 U+8AAC	AJ <b>H</b> M
愠 U+6120	CG <b>H</b> M	銳 U+92ED	AJ <b>H</b> M
稅 U+7A0E	AGJ <b>H</b> M	閱 U+95B2	AJ <b>H</b> M

5. Per the [Exploring IICore—Part 2](#) and [Part 4](#) articles, add the following six (6) ideographs to IICore as Category “A,” because they were added to Japan’s Jōyō Kanji (常用漢字) at the end of 2010 (tagged “J”), for compatibility with Big Five (tagged “T”), or they are included in HKSCS-2016 and have Big Five counterparts (tagged “H”):

Ideograph	Proposed kIICore	Ideograph	Proposed kIICore
告 U+543F	<b>AH</b>	蘊 U+85F4	<b>AH</b>
彝 U+5F5E	<b>AT</b>	醞 U+9196	<b>AH</b>
氫 U+6C32	<b>AH</b>	叱 U+20B9F	<b>AJ</b>

6. Per [L2/18-071](#), the “K” source tag should be removed from the following 60 IICore ideographs, because they are outside the scope of the KS X 1001 standard, and no one in Korea (ROK) can provide justification as to why they were included in the first place (no documents or reports can be found):

Ideograph	Current	Proposed	Ideograph	Current	Proposed
俐 U+4FD0	AGTJH <b>KM</b>	AGTJHM	漳 U+6F33	AGTH <b>KM</b>	AGTHM
儋 U+5110	ATH <b>KM</b>	ATHM	漾 U+6F3E	AGTH <b>KM</b>	AGTHM
册 U+518C	AG <b>K</b>	AG	炆 U+7086	BTH <b>KM</b>	BTHM
胄 U+5191	ATJH <b>K</b>	ATJH	獎 U+734E	ATH <b>KM</b>	ATHM
𪔐 U+545F	BJ <b>K</b>	BJ	玕 U+7395	BT <b>K</b>	BT
咏 U+548F	AGTJ <b>K</b>	AGTJ	璵 U+7471	BT <b>K</b>	BT
𪔐 U+5795	BG <b>K</b>	BG	璆 U+7473	ATJ <b>K</b>	ATJ
垸 U+57B8	BG <b>K</b>	BG	璆 U+74B1	BT <b>K</b>	BT
埕 U+582D	BT <b>K</b>	BT	璆 U+74B8	BT <b>K</b>	BT
塿 U+587D	AT <b>K</b>	AT	畫 U+756B	ATH <b>KM</b>	ATHM
𪔐 U+592C	BG <b>K</b>	BG	祕 U+7955	ATH <b>K</b>	ATH
𪔐 U+5958	AGTJH <b>K</b>	AGTJH	禎 U+799B	BT <b>K</b>	BT
𪔐 U+59DE	BG <b>K</b>	BG	离 U+79BB	AG <b>K</b>	AG
婷 U+5A77	AGTH <b>KM</b>	AGTHM	荃 U+8343	AGTH <b>KM</b>	AGTHM
嫫 U+5A84	BT <b>K</b>	BT	譏 U+8B7F	BT <b>K</b>	BT
嬪 U+5A9C	BT <b>K</b>	BT	豐 U+8C50	ATH <b>KM</b>	ATHM
媼 U+5ABC	ATJH <b>KM</b>	ATJHM	適 U+9052	BG <b>K</b>	BG
愜 U+6103	BJ <b>K</b>	BJ	鈕 U+9215	ATJH <b>KM</b>	ATJHM
𪔐 U+6624	AT <b>K</b>	AT	鉈 U+924D	AT <b>K</b>	AT
𪔐 U+6662	BTJ <b>K</b>	BTJ	鉇 U+9251	ATH <b>KM</b>	ATHM
𪔐 U+674B	BT <b>K</b>	BT	鉈 U+927C	AT <b>K</b>	AT
𪔐 U+6760	AGT <b>K</b>	AGT	鉈 U+92D5	BT <b>K</b>	BT
𪔐 U+67FF	AGTJH <b>KM</b>	AGTJHM	鉈 U+9315	ATH <b>K</b>	ATH
𪔐 U+681E	BJ <b>K</b>	BJ	鉈 U+93F5	BTH <b>KM</b>	BTHM
𪔐 U+6844	BT <b>K</b>	BT	𪔐 U+9436	BT <b>K</b>	BT
𪔐 U+6A7F	AJ <b>K</b>	AJ	𪔐 U+943A	ATH <b>KM</b>	ATHM
𪔐 U+6AA0	AGT <b>K</b>	AGT	𪔐 U+96BC	AGTJ <b>K</b>	AGTJ
𪔐 U+6C84	BGT <b>K</b>	BGT	𪔐 U+975A	BTH <b>KM</b>	BTHM
𪔐 U+6DBC	ATJH <b>KM</b>	ATJHM	𪔐 U+9824	ATJH <b>KM</b>	ATJHM
𪔐 U+6EF2	ATJH <b>KMP</b>	ATJHMP	𪔐 U+9ED9	AJ <b>K</b>	AJ

7. Also per [L2/18-071](#), and as a result of the discussions that transpired during UTC #155, the “K” source tag should be changed to “X” for the following 78 IICore ideographs that would have been left tag-less as a

result of removing the “K” source tag, because they are also outside the scope of the KS X 1001 standard, and no one in Korea (ROK) can provide justification as to why they were included in the first place (no documents or reports can be found):

Ideograph	Current	Proposed	Ideograph	Current	Proposed
悒 U+3960	CK	CX	禧 U+6A72	CK	CX
秭 U+4137	CK	CX	汈 U+6CD9	CK	CX
霸 U+4A12	CK	CX	涎 U+6D8F	CK	CX
顛 U+4AB8	CK	CX	澱 U+6EB5	CK	CX
倂 U+4F56	CK	CX	滢 U+6F0C	CK	CX
倂 U+4FD9	CK	CX	潤 U+6F63	CK	CX
冏 U+518F	CK	CX	烺 U+70D3	CK	CX
垲 U+578C	CK	CX	焜 U+7180	CK	CX
垲 U+579E	CK	CX	頰 U+71B2	CK	CX
埤 U+57FB	CK	CX	熾 U+7214	CK	CX
堦 U+5823	CK	CX	珧 U+73BF	CK	CX
堦 U+5890	CK	CX	琬 U+73D7	CK	CX
堦 U+58A1	CK	CX	琅 U+73E2	CK	CX
衺 U+593D	CK	CX	琬 U+73EB	CK	CX
姍 U+59B8	CK	CX	琨 U+73F5	CK	CX
姍 U+5A0D	CK	CX	瑀 U+73F8	CK	CX
姍 U+5A2B	CK	CX	瑱 U+741F	CK	CX
姍 U+5A60	CK	CX	瑱 U+7445	CK	CX
嫺 U+5A64	CK	CX	瑱 U+7446	CK	CX
嫺 U+5A93	CK	CX	瑱 U+744C	CK	CX
嫺 U+5AB4	CK	CX	璫 U+747D	CK	CX
嫺 U+5AD9	CK	CX	璫 U+74A4	CK	CX
嫺 U+5AE4	CK	CX	璫 U+74D3	CK	CX
嶠 U+5D44	CK	CX	攸 U+7807	CK	CX
𣎵 U+5F54	CK	CX	柚 U+79DE	CK	CX
忞 U+5FDE	CK	CX	穊 U+7A66	CK	CX
慇 U+615C	CK	CX	耇 U+8008	CK	CX
慇 U+6193	CK	CX	蝻 U+8740	CK	CX
扌 U+62AE	CK	CX	譚 U+8ADD	CK	CX
𢇛 U+6543	CK	CX	賄 U+8CF0	CK	CX
昊 U+65F2	CK	CX	暉 U+8CF1	CK	CX
眩 U+6621	CK	CX	鉈 U+9250	CK	CX
暘 U+6679	CK	CX	鉈 U+9277	CK	CX
瞽 U+668B	CK	CX	鋁 U+92E5	CK	CX
瞞 U+66A3	CK	CX	鎔 U+9327	CK	CX
招 U+67D6	CK	CX	鍍 U+9351	CK	CX
栳 U+683B	CK	CX	鏞 U+93CB	CK	CX
桎 U+686F	CK	CX	鏢 U+9442	CK	CX
櫛 U+6A5A	CK	CX	阨 U+962D	CK	CX

8. The data file named “unihan-changes.txt” that is an attachment to this document provides the changes and additions to the Unihan Database as described in Sections 2 through 7 of this proposal. Of the 170 records, 26 are for adding one or two source tags, six are new records, 60 have the “K” source tag removed, and 78 have the “K” source tag replaced by the new “X” source tag.
9. Per Section 7, the Syntax field of the kllCore property as described in [UAX #38](#) should be changed to the following in order to accommodate the new “X” source tag that is used to provide a source when an existing sole source has been removed:  
[ABC] ( [GHJKMPT] {1, 7} | X )
10. Also per Section 7, the Description field of the kllCore property as described in [UAX #38](#) should be changed to reflect the new “X” source tag, such as by adding the following sentence: *The letter “X” is used as the source when the sole source has been removed.*

That is all.

Korea JTC1/SC2, Committee on Coded Character Sets
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Authors: SHIN Sanghyun; KIM Kyongsok

Date: 2018.05.21.

Subject: ROK Response1 to IRGN2298 Proposed kIICore Changes & Additions, and  
Comments by Jaemin

**1. RE: 14 chars in KS X 1001 which do not have K tag in IICORE**

- 14 chars are classified into three groups and each group will be discussed in 1.1, 1.2, and 1.3, respectively.

1.1 The following 8 chars have corresponding **compatibility chars** in U+F9xx. The glyphs of the compatibility chars are exactly the same as those in Unified CJK block with different reading. It seems that K tag were not added to those 8 chars by mistake.

U+585E 塞 AGTJHMP <-> (U+F96C)

U+5FA9 復 ATJHMP <-> (U+F966)

U+6144 慄 ATJHMP <-> (U+F9D9)

U+6200 戀 ATHMP <-> (U+F990)

U+649A 撚 ATJHMP <-> (U+F991)

U+6817 栗 AGTJHMP <-> (U+F9DA)

U+8AFE 諾 ATJHMP <-> (U+F95D)

U+8F26 輦 ATJHP <-> (U+F998)

**- Therefore, KR requests that K tag be added to these 8 chars.**

U+585E 塞 AGTJHMP -> AGTJHKMP

U+5FA9 復 ATJHMP -> ATJHKMP

U+6144 慄 ATJHMP -> ATJHKMP

U+6200 戀 ATHMP -> ATHKMP  
U+649A 撚 ATJHMP -> ATJHKMP  
U+6817 栗 AGTJHMP -> AGTJHKMP  
U+8AFE 諾 ATJHMP -> ATJHKMP  
U+8F26 輦 ATJHP -> ATJHKP

1.2 The following 5 chars in KS X 1001 are **NOT** considered “Normalized” glyphs in Korea and, therefore, do not have K tag. Instead, 5 corresponding chars in K2 are considered “Normalized” glyphs and they do have K tag in IICore.

- **Therefore, KR suggests that no K tag be added to these 5 chars.**

U+596C 獎 AP -> U+734E 獎 ATHKM  
U+6E17 滲 AG -> U+6EF2 滲 ATJHKMP  
U+8009 耆 AP -> U+8008 耆 CK  
U+80C4 胄 AGTJP -> U+5191 胄 ATJHK  
U+9ED8 默 AGTHMP -> U+9ED9 默 AJK

1.3 The following one char in KS X 1001 does not K tag. It is the last Hanja char in KS X 1001. It seems a mistake that the char does not have K tag.

- **Therefore, KR suggests that K tag be added to the following char.**

U+8A70 詰 ATJHMP -> ATJHKMP

## **2. RE: 138 chars with K tag in IICORE are not in KS X 1001**

- Chars in IICORE with K tag need not to be in KS X 1001. Furthermore, it was not required that chars in KS X 1001 must be included in IICORE with K tag. Some chars in Ext. B were included in IICore.

(See IRG N1053 IICore-submission Final(2004.05.27) and IRGN1094R IICore Source Use Identifier(2004.11.29) )

- **KR suggests that the K tag of 138 chars in IICORE that are not in KS X 1001 remain unchanged (i.e., not be removed).**

3. There was not **K tag for U+67BE 柿** in the 3<sup>rd</sup> and 4<sup>th</sup> editions of ISO/IEC 106464; however, K tag was added to U+67BE 柿 in the 5<sup>th</sup> edition of ISO/IEC 106464. KR did not ask for this change.

U+67BE        kIICore A        : 3<sup>rd</sup> and 4<sup>th</sup> editions

U+67BE        kIICore AK    : 5<sup>th</sup> edition

**- KR requests that the K tag for U+67BE 柿 be removed.**

U+67BE        kIICore AK    (currently in the 5<sup>th</sup> edition)

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U+67BE        kIICore A        (after removal of K tag)

Note. In Korea, 柿 67FF (ㄸ=si, persimmon tree) is used instead of 柿 67BE. There is K tag in IICore for 柿 67FF.

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