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Title: Proposed kIICore Changes & Additions Source: Ken Lunde (Adobe) & Jaemin Chung Status: Individual Contribution Action: For consideration by WG2 Date: 2018-06-01 (see L2/18-066 & L2/18-066R)

This is a second 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), and now incorporates responses to ROK's feedback.

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 the IICore repertoire, such as Japan's Jōyō Kanji and Hong Kong SAR's 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	AGTJHKMP	渗 U+6E17	AGK
獎 U+596C	AKP	耉 U+8009	AKP
復 U+5FA9	ATJH k mp	胄 U+80C4	AGTJKP
慄 U+6144	ATJH k mp	詰 U+8A70	ATJHKMP
戀 U+6200	ATHKMP	諾 U+8AFE	ATJHKMP
撚 U+649A	ATJH k mp	輦 U+8F26	ATJHKP
栗 U+6817	AGTJHKMP	默 U+9ED8	AGTH K MP

According to Section 1.2 of ROK's feedback, five (5) of these 14 ideographs—the ones that are highlighted in the table above—do not require the "K" source tag to be added, because they claim that U+734E 獎, U+6EF2 滲, U+8008 耈, U+5191 冑, and U+9ED9 黙 are the preferred (aka normalized) ideographs. While this may justify keeping the "K" source tag for these five ideographs that are outside the scope of KS X 1001, it does not even come close to justifying not adding the "K" source tag for the five that are within the scope of KS X 1001. Furthermore, four of the five non–KS X 1001 ideographs have a K2 (KS X 1027-1) source reference, and U+9ED9 黙 does not have a kIRG_KSource property value at all. This effectively means that the number of Korean fonts that will include glyphs for these ideographs can be measured on one hand.

According to Section 3 of ROK's feedback, the "K" source tag should be removed from U+67BE 枾, and U+67FF 柿 should retain its "K" source tag. The former ideograph is within the scope of KS X 1001, and should therefore retain its "K" source tag, and the latter ideograph has a K2 (KS X 1027-1) source reference, which doesn't justify its priority over the former due to well-established industry practices in ROK.

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
剝 U+525D	ATJHKMP	頰 U+9830	ATJHKMP

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	AGHM	脱 U+8131	AGJHM
媪 U+5AAA	CGHM	蜕 U+8715	AGHM
悦 U+60A6	AGJHM	説 U+8AAC	AJHM
愠 U+6120	CGHM	鋭 U+92ED	AJHM
税 U+7A0E	AGJHM	閲 U+95B2	AJHM

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	AH	藴 U+85F4	AH
彞 U+5F5E	АТ	醖 U+9196	AH
氲 U+6C32	AH	叱U+20B9F	AJ

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	AGTJHKM	AGTJHM	漳 U+6F33	AGTHKM	AGTHM
儐 U+5110	ATHKM	ATHM	漾 U+6F3E	AGTHKM	AGTHM
册 U+518C	AGK	AG	炆 U+7086	BTHKM	BTHM
胄 U+5191	ATJHK	ATJH	獎 U+734E	ATHKM	ATHM
呟 U+545F	BJK	BJ	玕 U+7395	BTK	BT
咏 U+548F	AGTJK	AGTJ	塡 U+7471	BTK	BT
垕 U+5795	BGK	BG	瑳 U+7473	ATJK	ATJ
垸 U+57B8	BGK	BG	璱 U+74B1	BTK	ΒT
堭 U+582D	BTK	ΒT	璸 U+74B8	BTK	ΒT
塽 U+587D	ATK	AT	畫 U+756B	ATHKM	ATHM
夬 U+592C	BGK	BG	祕 U+7955	ATHK	ATH
奘 U+5958	AGTJHK	AGTJH	禛 U+799B	bt k	BT
姞 U+59DE	BGK	BG	离 U+79BB	AGK	AG
婷 U+5A77	AGTHKM	AGTHM	荃 U+8343	AGTHKM	AGTHM
媄 U+5A84	BTK	ΒT	譿 U+8B7F	BTK	ΒT
媜 U+5A9C	BTK	BT	豐 U+8C50	ATHKM	ATHM
媼 U+5ABC	ATJHKM	ATJHM	遒 U+9052	BGK	BG
愃 U+6103	BJK	BJ	鈕 U+9215	ATJHKM	ATJHM

Ideograph	Current	Proposed	Ideograph	Current	Proposed
昤 U+6624	ATK	AT	鉍 U+924D	ATK	AT
晢 U+6662	btj k	BTJ	鉑 U+9251	ATHKM	ATHM
杋 U+674B	BTK	BT	鉼 U+927C	ATK	AT
杠 U+6760	AGTK	AGT	鋕 U+92D5	BTK	ΒT
柿 U+67FF	AGTJHKM	AGTJHM	錕 U+9315	ATHK	ATH
栞 U+681E	BJK	BJ	鏵 U+93F5	BTHKM	BTHM
桄 U+6844	BTK	ΒT	鐶 U+9436	BTK	ΒT
橿 U+6A7F	AJK	АJ	鐺 U+943A	ATHKM	ATHM
檠 U+6AA0	AGTK	AGT	隼 U+96BC	AGTJK	AGTJ
沄 U+6C84	BGTK	BGT	靚 U+975A	BTHKM	BTHM
涼 U+6DBC	ATJHKM	АТЈНМ	頤 U+9824	ATJHKM	ATJHM
滲 U+6EF2	ATJHKMP	ATJHMP	黙 U+9ED9	AJK	AJ

Per the second and third paragraphs of Section 2 of this document, ROK's response may justify retaining the "K" source tag for the five highlighted ideographs, though the authors of this proposal are still dubious of their claim.

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
惰 U+3960	СК	CX	橲 U+6A72	СК	CX
秳 U+4137	СК	CX	泙 U+6CD9	СК	CX
霸 U+4A12	СК	CX	涏 U+6D8F	СК	CX
頣 U+4AB8	СК	CX	溵 U+6EB5	СК	CX
佖 U+4F56	СК	CX	漌 U+6F0C	СК	CX
俙 U+4FD9	СК	CX	潣 U+6F63	СК	CX
冏 U+518F	СК	CX	烓 U+70D3	СК	CX
垌 U+578C	СК	CX	熀 U+7180	СК	CX
垞 U+579E	СК	CX	熲 U+71B2	СК	CX
埻 U+57FB	СК	CX	爔 U+7214	СК	CX
堣 U+5823	СК	CX	玿 U+73BF	СК	CX
墐 U+5890	СК	CX	珗 U+73D7	СК	CX
墡 U+58A1	СК	CX	珢 U+73E2	СК	CX
夽 U+593D	СК	CX	珫 U+73EB	СК	CX
妸 U+59B8	СК	CX	珵 U+73F5	СК	CX
娀 U+5A0D	СК	CX	珸 U+73F8	СК	CX
娫 U+5A2B	СК	CX	琟 U+741F	СК	CX
婠 U+5A60	СК	CX	瑅 U+7445	СК	CX
婤 U+5A64	СК	CX	瑆 U+7446	СК	CX
媓 U+5A93	СК	CX	瑌 U+744C	СК	CX
媴 U+5AB4	СК	CX	瑽 U+747D	СК	CX
嫙 U+5AD9	СК	CX	璤 U+74A4	СК	CX
嫤 U+5AE4	СК	CX	瓓 U+74D3	СК	CX

Ideograph	Current	Proposed	Ideograph	Current	Proposed
嵄 U+5D44	СК	CX	砇 U+7807	СК	CX
彔 U+5F54	СК	CX	秞 U+79DE	СК	CX
忞 U+5FDE	СК	CX	穦 U+7A66	СК	CX
慜 U+615C	СК	CX	耈 U+8008	СК	CX
憓 U+6193	СК	CX	蝀 U+8740	СК	CX
抮 U+62AE	СК	CX	諝 U+8ADD	СК	CX
敃 U+6543	СК	CX	賰 U+8CF0	СК	CX
旲 U+65F2	СК	CX	賱 U+8CF1	СК	CX
昡 U+6621	СК	CX	鉐 U+9250	СК	CX
晹 U+6679	СК	CX	鉷 U+9277	СК	CX
暋 U+668B	СК	CX	鋥 U+92E5	СК	CX
暣 U+66A3	СК	CX	錧 U+9327	СК	CX
柖 U+67D6	СК	CX	鍑 U+9351	СК	CX
栻 U+683B	СК	CX	鏋 U+93CB	СК	CX
桯 U+686F	СК	CX	鑂 U+9442	СК	CX
橚 U+6A5A	СК	CX	阭 U+962D	СК	СХ

Per the second paragraph of Section 2 of this document, ROK's response may justify retaining the "K" source tag for the highlighted ideograph, though the authors of this proposal are still dubious of their claim.

- 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 kIICore 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:
 [APC] ([CH3KMPT] [1, 7] | X)

[ABC]([GHJKMPT]{1,7}|X)

10. Also per Section 7, the Description field of the kIICore 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.