

Universal Multiple-Octet Coded Character Set

UCS

ISO/IEC JTC1/SC2/WG2 IRGN 2437

Date: 2020-08-08

Source:	IRG Convenor
Title:	Submission of 5 Macao SARG UNC Characters and One TCA UNC character
Meeting:	WG2 (by circulation)
Status:	Member's submission
Actions required:	To be considered by WG2
Distribution:	WG2 Experts
Medium:	Electronic
Pages:	9
Appendixes:	4

This is a UNC character submission from IRG including 5 characters with five sources from MSAR government with reference to IRGN2430R and one source from TCA with reference to IRGN2435R. The two submissions were reviewed by IRG and approved by circulation due to COVID-19.

The request (IRGN2430) originally came from Macao Special Administrative Region Government (MSARG) in as it is in the process of establishing Macao SAR Information Systems Chinese Character Encoding Scheme (hereinafter referred to as the "Scheme"). The Scheme sets up the exchange framework to define characters used in Macao for information processing and exchange. To address the issue of Macao specific characters, the Scheme includes a Macao Supplementary Character Set, abbreviated as MSCS. MSARG is planning to publish the Scheme as well as MSCS in 2020 and named the first version of MSCS as MSCS-2020. MSCS-2020 will be used as the information exchange encoding standard among all departments of MSARG first and made publically available for Macao use. To be aligned with ISO/IEC 10646 for computer processing, MSCS originally requested IRG/WG2 for vertical extension of 6 characters as UNC submission. The checking of these characters has included all published versions of ISO/IEC 10646 including Extension G (Unicode 13.0 Code Chart) as well as IRG Working Set 2017 v5.0 (IRGN2423). 2 characters are found as UTC submission in IRG Working Set 2017(See details in the table later).

During the first IRG review of MSARG submission by circulation, TCA also found a source for one of the characters and thus submitted the UNC submission (IRGN2435). The IRG reviewed both IRGN2430 and IRGN2435 and concluded that only 5 characters from MSARG should be included as UNC submissions. UTC sources should be included if these characters are accepted and withdrawn from IRG Working Set 2017. Based on IRG review, MSARG and TCA have both revised their proposal to produce IRGN2430R and IRGN2435R respectively and approved by IRG. Below is the information on the five characters.

SN	Source Reference	PUA	Macao's Glyph	Remarks
1	MC-00134	U+EEB8	𪛈	
2	MC-00136 TC-662B	U+EEBA	𪛉	𪛉 This is TCA glyph
3	MC-00137 UTC-02993	U+EEBB	𪛊	Included in IRG WS 2017 v5.0 (IRGN2423): SN 02004 (GDM-00085, UTC-02993) 𪛊 This is UTC glyph
4	MC-00138	U+EEBC	𪛋	
5	MC-00139 UTC-03009	U+EEBD	𪛌	Included in IRG WS 2017 v5.0 (IRGN2423): SN 00746 (GDM-00031, UTC-03009) 𪛌 This is UTC glyph

Appendix One is MSARG submission which included introduction to MSCS-2020 and other information including horizontal extension and IVD registration. Its appendix B is on UNC evidence and attributes.

Appendix Two is TCA submission IRGN2435R with evidence and attributes.

Note that since UTC characters were included in IRG WS 2017, evidences were already reviewed by IRG during its submission. Thus, the attributes and fonts will be submitted by UTC separately if this is approved.

End of document

Universal Multiple-Octet Coded Character Set UCS

ISO/IEC JTC1/SC2/WG2 IRGN 2430 R

Date: 2020-07-02

Source:	Macao Special Administrative Region, China
Title:	Submission of Macao's Vertical Extension (UNC Characters), Horizontal Extension, and IVSes Registration for MSCS
Meeting:	IRG#53 (by circulation)
Status:	Member's submission
Actions required:	To be considered by IRG
Distribution:	IRG Members and Ideographic Experts
Medium:	Electronic
Pages:	9
Appendixes:	4

This is a revised document of IRGN2430 based on the feedback given by IRG editors through circulation (deadline 19 June 2020). The revision is on the handling of MC-00135 which was originally requested by MSARG for vertical extension as an UNC character. Based on all comments given by IRG editors, MSARG agrees to remove MC-00135 from UNC (based on UCV #337 without exceptions) and to submit the character for IVS registration. Due to the coding structure of MSCS, MC-00135 will be made obsolete, and it will be given a new MSCS source reference as ME-8B67-001, where “8B67” is the hexadecimal code of the base character in ISO/IEC 10646 and “001” indicates that this is the first IVS for this base character in MSCS. All revisions to IRGN2430 given below are highlighted for easy reading. Corresponding data files are also revised to reflect the decision of IRG and MSARG's acceptance of this decision.

1. Summary of Request

Macao Special Administrative Region Government (MSARG) is in the process of establishing Macao SAR Information Systems Chinese Character Encoding Scheme (hereinafter referred to as the “Scheme”). The Scheme sets up the exchange framework to define characters used in Macao for information processing and exchange. To address the issue of Macao specific characters, the Scheme includes a Macao Supplementary Character Set, abbreviated as MSCS. MSARG is planning to publish the Scheme as well as MSCS in

2020 and named the first version of MSCS as MSCS-2020. MSCS-2020 will be used as the information exchange encoding standard among all departments of MSARG first and made publically available for Macao use.

To be aligned with ISO/IEC 10646 for computer processing, MSCS needs to request to IRG/WG2 for (1) vertical extension of 5 characters as UNC submission; (2) horizontal extension of 255 Chinese characters and 16 symbols; and (3) new IVSes registration of 68 variants as well as 65 base characters. Details of these requests will be explained in later sections. The checking of these characters has included all published versions of ISO/IEC 10646 including Extension G (Unicode 13.0 Code Chart) as well as IRG Working Set 2017 v5.0 (IRGN2423). Due to COVID-2019, our proposal cannot be presented in a meeting. However, due to its urgency, we appreciate IRG experts to provide review and support especially the UNC submissions to be processed quickly.

2. Introduction of the Scheme

2.1. Character Sets and Source References of the Scheme

The Scheme includes the use of three character sets as a collection for information exchange in Macao: (1) the Big-5 character set; (2) Hong Kong Supplementary Character Set (HKSCS) - 2008; (3) Macao Supplementary Character Set (MSCS). The Big-5 character set has been used in Macao since Macao uses the traditional Chinese system. Due to the close connection with Hong Kong SAR, HKSCS characters are also commonly used in Macao and thus should be supported. MSCS will directly use the encoding framework of ISO/IEC 10646.

In the current ISO/IEC 10646 international encoding standard, the source references of all ideographs submitted by MSARG are “MAC-*nnnnn*”, in which “*nnnnn*” is an MSARG-assigned source reference code between 00001 and 99999. Now MSARG establishes a new set of source references for the Scheme. Under the ISO/IEC 10646 international encoding standard, the source references of the Scheme are as follows:

- (1) MB-*hhhh* is used to refer to all characters in the Big-5 character set, in which “*hhhh*” is the hexadecimal Big-5 code. MB0-*hhhh*, MB1-*hhhh*, and MB2-*hhhh* denote symbols, frequently-used ideographs, and less-frequently-used ideographs, respectively, in terms of how they are referenced in ISO/IEC 10646.
- (2) MA-*hhhh* is used to refer to all characters already encoded in HKSCS-2008, in which “*hhhh*” is the corresponding hexadecimal Big-5 code in HKSCS-2008. HKSCS-2008 is the last version of the HKSCS that was published with Big-5 code points.
- (3) MC-*nnnnn* is used for characters vertically extended to ISO/IEC 10646, in which “*nnnnn*” is an MSCS-assigned source reference code between 00001 and 99999, and assigned in sequence.
- (4) MD-*hhhh[h]* is used for characters horizontally extended to ISO/IEC 10646, in which “*hhhh[h]*” is the four- or five-digit hexadecimal code of the character in the ISO/IEC 10646 international standard. For characters in the Basic Multilingual Plane (BMP or Plane 0), four hexadecimal digits are used. For characters in other planes, five hexadecimal digits are used. HKSCS-2016, the latest version of HKSCS, includes 23

ideographs and one symbol horizontally extended to ISO/IEC 10646. Since MSCS also needs to horizontally extend these characters, MDH-*hhhh[h]* is used as the source reference for these characters to differentiate them from other horizontally-extended characters proposed by MSARG.

- (5) ME-*hhhh[h]-nnn* is used for character variants with registered IVSes, in which “*hhhh[h]*” is the four- or five-digit hexadecimal code of the base character in ISO/IEC 10646, and “*nnn*” is an MSCS-assigned number between 001 and 999. For variants that share the same base character, “*nnn*” is assigned in sequence.

MSCS includes the following three parts: 1) MSARG’s Vertical Extension to ISO/IEC 10646 (source reference: MC-*nnnnnn*); 2) MSARG’s Horizontal Extension to ISO/IEC 10646 (source reference: MA-*hhhh*, MB-*hhhh*, MD-*hhhh[h]*); and 3) Macao’s variants with registered IVSes (source reference: ME-*hhhh[h]-nnn*).

In principle, MSARG only maintains the glyphs and provides fonts for characters in MSCS and does not maintain the glyphs of the characters in Big-5 and HKSCS as a whole. For characters in Big-5 and HKSCS, MSARG will use the fonts in current computer systems. However, for IVSes registration of variants, both variants and the corresponding base characters should be registered. In fact, MSARG also needs to maintain and provide the glyphs of the base characters in Big-5 and HKSCS for IVSes registration. Therefore, MSARG submits the respective base characters in Big-5 and HKSCS in MSCS for IVS registration as horizontal extension to ISO/IEC 10646.

2.2. MSCS-2020

MSARG is finalizing MSCS-2020, which is planned to be published in 2020 as a part of the Scheme.

MSCS-2020 contains 442 characters, including 426 Chinese characters and 16 symbols. The summary of MSCS-2020 is given as follows:

SN	Current Status	Source Reference	Number		Remarks
			Chinese Character	Symbol	
1	New vertical extension (UNC characters)	MC- <i>nnnnnn</i>	5		This submission
2	Already vertically extended to ISO/IEC 10646, but the glyphs and source references need to be updated	Change MAC- <i>nnnnnn</i> to MC- <i>nnnnnn</i>	86		

SN	Current Status	Source Reference	Number		Remarks
			Chinese Character	Symbol	
3	Horizontal extension of MD (including MDH) Chinese characters	MD- <i>hhhh</i> [<i>h</i>] MDH- <i>hhhh</i> [<i>h</i>]	196		This submission
4	Horizontal extension of MA and MB base characters	MA- <i>hhhh</i> MB- <i>hhhh</i>	59		This submission
5	Already horizontally extended to ISO/IEC 10646, but the glyph and source reference need to be updated	Change MAC- <i>nnnnn</i> to MD- <i>hhhh</i> [<i>h</i>]	1		
6	Symbols in MSCS	MD- <i>hhhh</i> MDH- <i>hhhh</i>		16	
7	New IVSes to be registered, excluding base characters	ME- <i>hhhh</i> [<i>h</i>]- <i>nnn</i>	68		This submission
8	IVSes which have been registered in the 2016-08-15 version of the MSARG IVD collection, excluding base characters	ME- <i>hhhh</i> [<i>h</i>]- <i>nnn</i>	11		
	Total		426	16	

The complete set of MSCS-2020 is provided in Appendix A.

This submission includes proposed UNC (SN 1), horizontal extension (SN 3 and 4), and IVSes registration (SN 7). Their data is provided in Appendix B, C and D , respectively.

Since standardization will take time, and MSARG will use the ISO/IEC 10646 coding framework, unencoded MSCS characters in ISO/IEC 10646 will temporarily be assigned with PUA (Private Use Area) code points for font production and exchange before they are encoded in ISO/IEC 10646. Based on the use of PUA code points by HKSCS-2008 and major suppliers of system and software, MSCS will use the PUA code points ranging from EEB8 to F12B for font production for the characters not encoded in ISO/IEC 10646 but accepted by MSCS.

3. Submission of Macao's Characters

3.1. Proposed UNC Characters

In MSCS-2020, 5 characters have not been encoded in ISO/IEC 10646 yet. We checked the latest ISO/IEC 10646 standard (including Ext. G in Unicode 13.0 Code Chart) as well as IRG WS 2017 v5.0 (IRGN2423) and found 2 characters (MC-00137 and MC-00139) are included in IRG WS 2017 v5.0 (IRGN2423). These characters and their source references are listed below. Details of their attributes are listed in Appendix B. MSARG would like for the 5 characters to be encoded as UNC characters. If this is acceptable by IRG experts, the two characters in IRG Working Set 2017 v5.0 (both are proposed by UTC) can be removed from IRG Working Set 2017. But, MSARG is willing to accept other solutions if available.

SN	Source Reference	PUA	Macao's Glyph	Remarks
1	MC-00134	U+EEB8	窄	
2	MC-00135	U+EEB9	謙	<p>It has a similar character: U+8B67</p> <p>8B67 言 149.13 謙 謙 謙 謙 G3-7429 HB2-F4D4 T2-6A22 K2-6157</p> <p>“廉” (U+4EB7) and “廉” (U+5EC9) are disunified.</p> <p>In UCS Ideograph Unifiable Component Variations List (IRGN2425), most cases of the two components 337 廉 廉 (SN 337) are disunified.</p> <p>Therefore, this character is proposed as UNC. But other suggestions are welcome.</p>
2	MC-00136	U+EEBA	琛	
3	MC-00137	U+EEBB	褰	Included in IRG WS 2017 v5.0 (IRGN2423): SN 02004 (GDM-00085, UTC-02993)

SN	Source Reference	PUA	Macao's Glyph	Remarks
4	MC-00138	U+EEBC	旺	<p>The right component is different from “旺” (U+2512E):</p> <p>2512E 旺 旺 目 109.4 UCS2003 V2-7D71</p> <p>In UCS Ideograph Unifiable Component Variations List (IRGN2425), many cases of the components “王” and “壬” (SN 1) are disunified.</p>
5	MC-00139	U+EEBD	邙	<p>Included in IRG WS 2017 v5.0 (IRGN2423): SN 00746 (GDM-00031, UTC-03009)</p>

3.2. Proposed Horizontal Extension

In MSCS-2020, 255 Chinese characters and 16 symbols are to be horizontally extended to ISO/IEC 10646. As they are already coded, we have checked all attributes and supplied our glyph fonts. Details of these characters are provided in Appendix C.

The character “𪛗 (U+21290)” in MSCS-2020 was already horizontally extended to ISO/IEC 10646, but the source reference needs to be changed from MAC-00077 to MD-21290. Its glyph also needs to be updated. Since it is not a new horizontal extension request, it is not listed in Appendix C, but listed in Appendix A.

Since symbols are beyond the scope of horizontal extension, 16 symbols included in MSCS-2020 are not listed in Appendix C, but listed in Appendix A.

For IVSes registration of variants, both variants and the corresponding base characters should be registered. Therefore, MSARG submits the respective base characters in Big-5 and HKSCS for IVS registration as horizontal extension to ISO/IEC 10646.

The basic information of the characters for proposed horizontal extension is as follows:

Current Character Set	Source Reference	Number of Chinese Characters
MSCS	MD- <i>hhhh</i> [<i>h</i>] MDH- <i>hhhh</i> [<i>h</i>]	196
Big-5	MB- <i>hhhh</i>	17
HKSCS	MA- <i>hhhh</i>	42
Total		255

3.3. Proposed IVSes Registration

In the [2016-08-15](#) version of the IVD, 11 variants and 10 base characters were registered, along with the MSARG IVD collection itself. The pattern for the sequence identifiers is $M([AB]_{[0-9A-F]\{4\}}|C_{[0-9]\{5\}}|D_{[0-9A-F]\{4,5\}}|E_{[0-9A-F]\{4,5\}}_{[0-9]\{3\}})$. The format of the sequence identifiers differs slightly from their source reference: 1) The sequence identifiers use underscores in lieu of hyphens per Section 3 of [UTS #37](#); and 2) for the base characters in Big-5, MB is used, and not further distinguished as MB1 or MB2.

MSCS-2020 includes 79 variants, 11 of which were registered the [2016-08-15](#) version of the MSARG IVD collection. The 68 remaining variants still need to be registered. Because both the variants and their corresponding base characters need to be registered, there are 65 base characters and 68 variants included in this submission. This submission therefore includes 133 proposed new sequences to be added to the registered MSARG IVD collection. All of the variants are included in MSCS-2020. Some base characters are in MSCS-2020 proper, but some are also in Big-5 and HKSCS.

Since the corresponding base characters should also be registered, the number of IVSes in the MSARG collection is as follows:

Status	Number		Description
	Base Character	Variant	
Registered in 2016	10	11	

Status	Number		Description
	Base Character	Variant	
To be registered	65	68	<ul style="list-style-type: none"> They are to be added to the registered MSARG IVD collection. Pattern for the sequence identifiers is unchanged: $M([AB]_{[0-9A-F]\{4\}} C_{[0-9]\{5\}} D_{[0-9A-F]\{4,5\}} E_{[0-9A-F]\{4,5\}}_{[0-9]\{3\}})$
Total	75	79	

The information of the base characters in Big-5 (MB) and HKSCS (MA) is summarized as follows:

	Base Characters in Big-5 (MB)	Base Characters in HKSCS (MA)
Registered in 2016	1	5
To be registered	16	37
Total	17	42

Details of the variants to be registered as well as the corresponding base characters are listed in Appendix D.

The temporary web site for IVSes registration is changed from <http://www.iso10646hk.net/ivd/MSARG/> to <https://www.safp.gov.mo/mscs/ivs/>.

4. Contact Information

Any queries about the information of the characters, please contact: Mr. Clement Chau (cchau@safp.gov.mo) and Ms. Cheang Pui Pui (ppcheang@safp.gov.mo). We greatly appreciate the effort of all IRG members and ideographic experts.

Appendix A –MSCS-2020 Character Repertoire

Appendix B – List of Proposed UNC Characters

Appendix C – List of Proposed Characters for Horizontal Extension

Appendix D – List of Proposed Characters for IVSes Registration

End of document

**PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITION OF CJK UNIFIED IDEOGRAPHS TO THE REPERTOIRE OF ISO/IEC 10646**

Submitters are reminded to:

1. Fill in all the sections below.
2. Read the Principles and Procedures Document (P & P) available at <http://appsrv.cse.cuhk.edu.hk/~irg/irg/irg45/IRGN2092PnPv8.pdf>
for guidelines and details before filling in this form.
3. Use the latest Form from
http://appsrv.cse.cuhk.edu.hk/~irg/irg/irg45/IRGN2092PnP_BlankDataFile.xls
See also <http://appsrv.cse.cuhk.edu.hk/~irg/irgwds.html> for the latest *Unifiable Component Variations*.

A. Administrative

1. IRG Project Code:	IRGN2430R	
2. Title:	MSARG Proposed 5 UNC characters to WG2	
3. Submitter's Region/Country Name:	MSARG	
4. Submitter Type (National Body/Individual Contribution) :	Member body	
5. Submission Date:	2020-07-03	
6. Requested Ideograph Type (Unified or Compatibility Ideographs)	Unified Ideographs	
If Compatibility, does the submitter have the intention to register them as IVS (See UTS #37) with the IRG's approval? (Registration fee will not be charged if authorized by the IRG.)		No
7. Proposal Type (Normal Proposal or Urgently Needed)	Urgently Needed	
8. Choose one of the following:		
This is a complete proposal	Yes	
(or) More information will be provided later.		

B. Technical – General

1. Number of ideographs in the proposal:	3
2. Glyph format of the proposed ideographs: (128x128 Bitmap files or TrueType font file)	Both
If Bitmap files, are their file names the same as their source references?	Yes
If TrueType font file, are all the proposed glyphs put into BMP PUA area?	Yes
If TrueType font file, are data for source references vs. character codes provided?	Yes
3. Source references:	

Do all the proposed ideographs have a unique, proper source reference (member body/international consortium abbreviation followed by no more than 9 alphanumeric characters) ?	Yes
4. Evidence:	
a. Do all the proposed ideographs have a separate evidence document which contains at least one scanned image of printed materials (preferably dictionaries) ?	Yes
b. Do all the printed materials used for evidence provide enough information to track them by a third party (ISBN numbers, etc.) ?	Yes
5. Attribute Data Format: (Excel file or CSV text)	Excel

C. Technical - Checklist

Understanding of the Unification Principles	
1. Has the submitter read ISO/IEC 10646 Annex S and does the submitter understand the unification principles?	Yes
2. Has the submitter read the "Unifiable Component Variations" (contact the IRG technical editor through the IRG Rapporteur for the latest version) and does the submitter understand the unifiable variation examples?	Yes
3. Has the submitter read the IRG PnP document and does the submitter understand the 5% Rule?	Yes
Character-Glyph Duplication (http://www.itscj.ipsj.or.jp/sc2/open/pow.htm contains all the published ones and those under ballot)	
4. Has the submitter checked that the proposed ideographs are not unifiable with any of the unified or compatibility ideographs of the latest version of ISO/IEC 10646?	Yes
If the checking has been done against an earlier version of ISO/IEC 10646, please specify the version? (e.g. 10646:2012)	ISO/IEC 10646:2014 (E)
5. Has the submitter checked that the proposed ideographs are not unifiable with any of the ideographs in the amendments, if any, of the latest version of ISO/IEC 10646?	Yes
If yes, which amendment (s) has the submitter checked?	
6. Has the submitter checked that the proposed ideographs are not unifiable with any of the ideographs in the proposed amendments, if any, of ISO/IEC 10646?	Yes
If yes, which draft amendment (s) has the submitter checked?	
7. Has the submitter checked that the proposed ideographs are not unifiable with any of the ideographs in the current working M-set and D-set of the IRG? (Contact IRG chief editor and technical editor through the IRG Rapporteur for the newest list)	Yes
If yes, which document (s) has the submitter checked?	WS2015, WS2017
8. Has the submitter checked that the proposed ideographs are not unifiable with any of the over-unified or mis-unified ideographs in ISO/IEC 10646? (See Annex E of the IRG PnP document) .	Yes
9. Has the submitter checked whether the proposed ideographs have any similar ideographs in the current standardized or working sets mentioned above?	Yes
10. Has the submitter checked whether the proposed ideographs have any variant ideographs in the current standardized or working sets mentioned above?	Yes
Attribute Data	
11. Do all the proposed ideographs have attribute data such as the Kangxi radical code and stroke count?	Yes
12. Are there any simplified ideographs (ideographs that are based on the policy described in 簡化字總表) among the proposed ideographs?	Yes
If yes, does the proposal include proper simplified/traditional indication flag for each proposed ideograph in the attribute data?	Yes

13. Do all the proposed ideographs have the document page number of evidence documents in the attribute data?

Yes

14. Do all the proposed ideographs have the proper Ideographic Description Sequence (IDS) in the attribute data?

Yes

If no, how many proposed ideographs do not have the IDS?

15. If the answer to question 9 or 10 is yes, do the attribute data include any information on similar/variant ideographs for the proposed ideographs?

Yes

16. Do all the proposed ideographs contains the total stroke count (kTotalStrokes) ?

Yes

Universal Multiple - Octet Coded Character Set UCS

ISO/IEC JTC1/SC2/WG2/IRG N2433R

Date: 2020-07-28

Source:	TCA
Title:	Proposal on 1 TCA's UNC Character
Meeting:	IRG#53 (by circulation)
Status:	Member's submission
Actions required:	To be considered by IRG
Distribution:	IRG
Medium:	Electronic
Page:	3
Appendix:	4

1. Introduction

This is a revised document of IRGN2433 based on the feedback given by Ken Lunde (21 July 2020). We have confirmed with the Dept. of Household Registration, M.O.I.(內政部戶政司) that these two characters are used in Taiwanese names: "璚" (the upper-right component 𠂔 is three strokes, [CNS 13-7A2D](#)) and "璚" (the upper-right component 𠂔 is four strokes, CNS 12-662B). After discussing with M.O.I., we decided to process 12-662B character as UNC.

In [IRGN2430](#), Macao request IRG/WG2 for vertical extension of 6 characters as UNC submission. Among them, the 12-662B glyph of CNS 11643 is similar to MC-00136. IRG experts all accepted to encode MC-00136 and consequently, TCA would like to process 12-662B character as UNC and horizontally extending with MC-00136 as the same code.

2. Proposed UNC Character

In the CNS 11643, the font of 12-662B shown as “璚”, similar with MC-00136. The source of the character belong to a name.

This TCA UNC character submission consists of the following documents:

IRGN2344Ra:	This document
IRGN2344Rb:	Proposal summary form to accompany submissions
IRGN2344Rappendix 1:	An Excel spreadsheet with character attribute
IRGN2344Rappendix2:	A zip archive of glyph' bitmap
IRGN2344Rappendix 3:	Evidences of the character
IRGN2344Rappendix 4:	A font file containing TC-662B glyph

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**PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITION OF CJK UNIFIED IDEOGRAPHS TO THE REPERTOIRE OF ISO/IEC 10646**

Submitters are reminded to:

1. Fill in all the sections below.
 2. Read the Principles and Procedures Document (P & P) available at <http://appsrv.cse.cuhk.edu.hk/~irg/irg/irg45/IRGN2092PnPv8.pdf> for guidelines and details before filling in this form.
 3. Use the latest Form from http://appsrv.cse.cuhk.edu.hk/~irg/irg/irg45/IRGN2092PnP_BlankDataFile.xls
- See also <http://appsrv.cse.cuhk.edu.hk/~irg/irgwds.html> for the latest *Unifiable Component Variations*.

A. Administrative

1. IRG Project Code:

IRGN2433

2. Title:

TCA's Proposal on 1 TCA's UNC to IRG

3. Submitter's Region/Country Name:

TCA

4. Submitter Type (National Body/Individual Contribution) :

Member body

5. Submission Date:

2020-7-28

6. Requested Ideograph Type (Unified or Compatibility Ideographs)

Unified Ideographs

If Compatibility, does the submitter have the intention to register them as IVS (See UTS #37) with the IRG's approval? (Registration fee will not be charged if authorized by the IRG.)

No

7. Proposal Type (Normal Proposal or Urgently Needed)

Urgently Needed

8. Choose one of the following:

This is a complete proposal

Yes

(or) More information will be provided later.

B. Technical – General

1. Number of ideographs in the proposal:

1

2. Glyph format of the proposed ideographs: (128x128 Bitmap files or TrueType font file)

Both

If Bitmap files, are their file names the same as their source references?

Yes

If TrueType font file, are all the proposed glyphs put into BMP PUA area?

Yes

If TrueType font file, are data for source references vs. character codes provided?

Yes

3. Source references:

Do all the proposed ideographs have a unique, proper source reference (member body/international consortium abbreviation followed by no more than 9 alphanumeric characters) ?	Yes
4. Evidence:	
a. Do all the proposed ideographs have a separate evidence document which contains at least one scanned image of printed materials (preferably dictionaries) ?	Yes
b. Do all the printed materials used for evidence provide enough information to track them by a third party (ISBN numbers, etc.) ?	Yes
5. Attribute Data Format: (Excel file or CSV text)	Excel

C. Technical - Checklist

Understanding of the Unification Principles	
1. Has the submitter read ISO/IEC 10646 Annex S and does the submitter understand the unification principles?	Yes
2. Has the submitter read the "Unifiable Component Variations" (contact the IRG technical editor through the IRG Rapporteur for the latest version) and does the submitter understand the unifiable variation examples?	Yes
3. Has the submitter read the IRG PnP document and does the submitter understand the 5% Rule?	Yes
Character-Glyph Duplication (http://www.itscj.ipsj.or.jp/sc2/open/pow.htm contains all the published ones and those under ballot)	
4. Has the submitter checked that the proposed ideographs are not unifiable with any of the unified or compatibility ideographs of the latest version of ISO/IEC 10646?	Yes
If the checking has been done against an earlier version of ISO/IEC 10646, please specify the version? (e.g. 10646:2012)	ISO/IEC 10646:2014 (E)
5. Has the submitter checked that the proposed ideographs are not unifiable with any of the ideographs in the amendments, if any, of the latest version of ISO/IEC 10646?	Yes
If yes, which amendment (s) has the submitter checked?	
6. Has the submitter checked that the proposed ideographs are not unifiable with any of the ideographs in the proposed amendments, if any, of ISO/IEC 10646?	Yes
If yes, which draft amendment (s) has the submitter checked?	
7. Has the submitter checked that the proposed ideographs are not unifiable with any of the ideographs in the current working M-set and D-set of the IRG? (Contact IRG chief editor and technical editor through the IRG Rapporteur for the newest list)	Yes
If yes, which document (s) has the submitter checked?	WS2015, WS2017
8. Has the submitter checked that the proposed ideographs are not unifiable with any of the over-unified or mis-unified ideographs in ISO/IEC 10646? (See Annex E of the IRG PnP document) .	Yes
9. Has the submitter checked whether the proposed ideographs have any similar ideographs in the current standardized or working sets mentioned above?	Yes
10. Has the submitter checked whether the proposed ideographs have any variant ideographs in the current standardized or working sets mentioned above?	Yes
Attribute Data	
11. Do all the proposed ideographs have attribute data such as the Kangxi radical code and stroke count?	Yes
12. Are there any simplified ideographs (ideographs that are based on the policy described in 簡化字總表) among the proposed ideographs?	Yes
If yes, does the proposal include proper simplified/traditional indication flag for each proposed ideograph in the attribute data?	Yes

13. Do all the proposed ideographs have the document page number of evidence documents in the attribute data?

Yes

14. Do all the proposed ideographs have the proper Ideographic Description Sequence (IDS) in the attribute data?

Yes

If no, how many proposed ideographs do not have the IDS?

15. If the answer to question 9 or 10 is yes, do the attribute data include any information on similar/variant ideographs for the proposed ideographs?

Yes

16. Do all the proposed ideographs contains the total stroke count (kTotalStrokes) ?

Yes