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User Interfaces

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TITLE: Proposal to incorporate symbols of ISO/IEC 9995-7:2009 and
Amendment 1 into the UCS

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Title: Proposal to incorporate the symbols of ISO/IEC 9995-7:2009 and its Amendment 1 into the UCS

Source: ISO/IEC JTC1/SC35

Authors: ISO/IEC JTC1/SC35/WG1

Status: Liaison Contribution

Action: For consideration by JTC1/SC2/WG2 and UTC

Date: 2010-08-27

1. Introduction

The symbols devised in ISO/IEC 9995-7 and its current amendment are to be used not only as engraving on physical keyboards, but in the light of current technical developments also on on-screen keyboards. Also, they are intended for use in plain text, especially instructions how to use a keyboard or to enter specific texts. Therefore, software must have access to all these symbols; thus, it is advisable to have all these symbols encoded in Unicode.

This was already done for the 1994 version of ISO/IEC 9995-7.

Since then, ISO/IEC 9995-7 was developed further. The last version of the complete standard dates from 2009. Thereafter, an amendment was initiated with several new symbols reflecting the need of multilingual keyboards in support of the cultural diversity. Such keyboards are easily accessible especially when not being confined to physical keyboards with fixed engravings. This amendment is now in the FDAM state. Thus, the symbol repertoire is fixed, and therefore suited as base for a Unicode proposal.

For some already encoded symbols where no generic use besides the use as keyboard symbols is obvious, it is proposed to change their representative glyph according to the ISO/IEC 9995-7 symbol, instead of retaining an artificial appearance which matches the generic arrows.

2. Encoding Considerations

Until now, ISO/IEC 9995-7 symbols, which are not explicitly arrows, are contained in the "Miscellaneous Technical" block of Unicode. As this block is almost full now, this cannot be accomplished for all symbols new to Unicode proposed here.

Therefore, only two of the symbols are proposed for that block.

The "partial backward delete" is similar other symbols in the same block, thus it is convenient to find them together in that block.

The "menu invocation" is more pictorial than the other symbols with their quite abstract appearance, thus it is akin to symbols like U+231A WATCH found in that block.

All symbols, which are keyboard symbols for (and thus visualizations of) invisible characters (or special uses or variants of visible characters) are placed in the "control pictures" block.

Symbols which are enclosed alphanumerics are consequently placed in the "Enclosed Alphanumeric Supplement" block.

The generic symbols which represent selections of specific groups and modes, which have to be augmented by a letter or character denoting that specific group or mode, are given as "enclosing diacritics".

All other symbols are placed in the "Miscellaneous Symbols and Arrows" block. Whenever horizontal and vertical versions of specific arrow forms occur, they are given in the usual groups of four, employing the four main directions to left, up, right, and down.

Two symbols, which can be given as combinations of existing Unicode characters (employing the "combining enclosing screen"), are given that way, employing the Unicode mechanism of "named sequences".

Thus, it is possible to give an 1:1 correspondence between ISO/IEC 9995-7 symbols and Unicode codepoints/sequences (see appendix).

Regarding the representative glyphs, they are derived from the original figures employed in the ISO/IEC 9995-7 documents. According to principles devised when the original symbols of 1994 were encoded into Unicode, small arrowheads, which are hollow in ISO/IEC 9995-7, are shown filled in the representative glyphs for Unicode.

Special note on the "return symbol" (ISO/IEC 9995-7 23 "return (new line)"):

As long as it is not clear whether this symbol originally was intended to be unified with U+21B5 or U+23CE, it is retained in this proposal as a new character to be encoded (at U+2B65), as in fact it is different from both of those symbols.

Its proposed code point utilizes the gap in the "white double arrow" quadruple, which is due to the "upwards white double arrow" already encoded as a singleton.

3. Proposed Characters

Block: Combining Diacritical Marks for Symbols

Enclosing Keyboard symbols from ISO/IEC 9995-7:2009 Amd1

The specific group or mode addressed is denoted by a character enclosed in the symbol.



U+20F1 ENCLOSING ROUNDED SQUARE
= switch to specific group



U+20F2 ENCLOSING RIGHTWARDS WHITE SHORT ARROW
= latch to specific group
→ 21E8 rightwards white arrow



U+20F3 ENCLOSED DOUBLE ROUNDED SQUARE
= switch to specific mode

Block: Miscellaneous Technical

Keyboard symbols from ISO/IEC 9995-7:2009 Amd1



U+23F4 MENU INVOCATION



U+23F5 PARTIAL BACKWARD DELETE
→ 232B erase to the left

Block: Control Pictures

Keyboard symbols from ISO/IEC 9995-7:2009 Amd1

Also intended for display of the symbolized characters in "controls visible mode", and for use in instruction texts

	U+2427	SYMBOL FOR EN SPACE
	U+2428	SYMBOL FOR EM SPACE
	U+2429	SYMBOL FOR THREE-PER-EM SPACE
	U+242A	SYMBOL FOR FOUR-PER-EM SPACE
	U+242B	SYMBOL FOR SIX-PER-EM SPACE
	U+242C	SYMBOL FOR FIGURE SPACE
	U+242D	SYMBOL FOR PUNCTUATION SPACE
	U+242E	SYMBOL FOR THIN OR NARROW SPACE
	U+242F	SYMBOL FOR HAIR SPACE
	U+2430	SYMBOL FOR ZERO WIDTH SPACE
	U+2431	SYMBOL FOR MEDIUM MATHEMATICAL SPACE
	U+2432	SYMBOL FOR NARROW NO-BREAK SPACE → 237D shouldered open box
	U+2433	SYMBOL FOR SOFT HYPHEN
	U+2434	SYMBOL FOR NON-BREAKING HYPHEN
	U+2435	SYMBOL FOR NON-STOPPING DOT · as a key, this enters a U+002E FULL STOP to be interpreted in a special way
	U+2436	SYMBOL FOR LINE SEPARATOR
	U+2437	SYMBOL FOR PARAGRAPH SEPARATOR
	U+2438	SYMBOL FOR ZERO WIDTH NON-JOINER = nail

	U+2439	SYMBOL FOR ZERO WITDH JOINER
	U+243A	SYMBOL FOR WORD JOINER
	U+243B	SYMBOL FOR COMBINING GRAPHEME JOINER
	U+243C	SYMBOL FOR LEFT-TO-RIGHT MARK
	U+243D	SYMBOL FOR RIGHT-TO-LEFT MARK

Block: Miscellaneous Symbols and Arrows

Keyboard symbols from ISO/IEC 9995-7:2009 and its Amd1

	U+2B4D	PAIR OF BRACKETS WITH OUTWARDS ARROWS = release margin right and left
	U+2B4E	LEFTWARDS ARROW THROUGH LEFT BRACKET = release margin left
	U+2B4F	RIGHTWARDS ARROW THROUGH RIGHT BRACKET = release margin right
	U+2B5A	LEFTWARDS ARROW FROM BAR TO BAR = backspace
	U+2B5B	UPWARDS ARROW FROM BAR TO BAR = line up
	U+2B5C	RIGHTWARDS ARROW FROM BAR TO BAR
	U+2B5D	DOWNWARDS ARROW FROM BAR TO BAR = line down
	U+2B5E	LEFTWARDS ARROW FROM BAR TO BRACKET = set margin left
	U+2B5F	RIGHTWARDS ARROW FROM BAR TO BRACKET = set margin right
	U+2B60	LEFTWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR = partial space left

	U+2B61	UPWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR = partial line up
	U+2B62	RIGHTWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR = partial space right
	U+2B63	DOWNWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR = partial line down
	U+2B64	LEFTWARDS WHITE DOUBLE ARROW → U+21EE upwards white double arrow
	U+2B65	LEFTWARDS ARROW WITH SHORT DOWNWARDS START = return (new line) → 21B5 downwards arrow with corner leftwards → 23CE return symbol
	U+2B66	RIGHTWARDS WHITE DOUBLE ARROW = special group 2 select (ISO/IEC 9995-7:2009 Amd1)
	U+2B67	DOWNWARDS WHITE DOUBLE ARROW

Keyboard symbols from ISO/IEC 9995-7:2009 Amd1

	U+2B70	SPACE SELECT SYMBOL
	U+2B71	WHITE SQUARE WITH RAYS = square sun = superselect · select a special keyboard state where the next key selects the subsequent state
	U+2B72	VERTICAL HALF WHITE SQUARE WITH RIGHT RAYS = secondary superselect
	U+2B73	HORIZONTAL STROKE APPLICATOR SYMBOL
	U+2B74	DIAGONAL SLASH APPLICATOR SYMBOL
	U+2B75	OVERLAID TILDE APPLICATOR SYMBOL
	U+2B76	HOOK BELOW APPLICATOR SYMBOL
	U+2B77	HOOK ABOVE APPLICATOR SYMBOL
	U+2B78	HOOK APPLICATOR SYMBOL

	U+2B79	SUPERSCRPT APPLICATOR SYMBOL
	U+2B7A	SUBSCRIPT APPLICATOR SYMBOL
	U+2B7B	SUPERSCRPT AND SUBSCRIPT APPLICATOR SYMBOL

Block: Enclosed Alphanumeric Supplement

Keyboard symbols from ISO/IEC 9995-7:2009 Amd1

	U+1F10E	SANS-SERIF CAPITAL U ENCLOSING ZERO-NINE = switch to decimal Unicode mode
	U+1F10F	SANS-SERIF CAPITAL U ENCLOSING ZERO-F = switch to hexadecimal Unicode mode

Keyboard symbol from ISO/IEC 9995-7:2009 Amd1

	U+1F19B	SQUARED FN = function key
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Properties:

20F1;ENCLOSING ROUNDED SQUARE;Me;0;NSM;;;;;N;;;;;
 20F2;ENCLOSING RIGHTWARDS WHITE SHORT ARROW;Me;0;NSM;;;;;N;;;;;
 20F3;ENCLOSED DOUBLE ROUNDED SQUARE;Me;0;NSM;;;;;N;;;;;
 23F4;MENU INVOCATION;So;0;ON;;;;;N;;;;;
 23F5;PARTIAL BACKWARD DELETE;So;0;ON;;;;;N;;;;;
 2427;SYMBOL FOR EN SPACE;So;0;ON;;;;;N;;;;;
 2428;SYMBOL FOR EM SPACE;So;0;ON;;;;;N;;;;;
 2429;SYMBOL FOR THREE-PER-EM SPACE;So;0;ON;;;;;N;;;;;
 242A;SYMBOL FOR FOUR-PER-EM SPACE;So;0;ON;;;;;N;;;;;
 242B;SYMBOL FOR SIX-PER-EM SPACE;So;0;ON;;;;;N;;;;;
 242C;SYMBOL FOR FIGURE SPACE;So;0;ON;;;;;N;;;;;
 242D;SYMBOL FOR PUNCTUATION SPACE;So;0;ON;;;;;N;;;;;
 242E;SYMBOL FOR THIN OR NARROW SPACE;So;0;ON;;;;;N;;;;;
 242F;SYMBOL FOR HAIR SPACE;So;0;ON;;;;;N;;;;;
 2430;SYMBOL FOR ZERO WIDTH SPACE;So;0;ON;;;;;N;;;;;
 2431;SYMBOL FOR MEDIUM MATHEMATICAL SPACE;So;0;ON;;;;;N;;;;;
 2432;SYMBOL FOR NARROW NO-BREAK SPACE;So;0;ON;;;;;N;;;;;
 2433;SYMBOL FOR SOFT HYPHEN;So;0;ON;;;;;N;;;;;
 2434;SYMBOL FOR NON-BREAKING HYPHEN;So;0;ON;;;;;N;;;;;
 2435;SYMBOL FOR NON-STOPPING DOT;So;0;ON;;;;;N;;;;;
 2436;SYMBOL FOR LINE SEPARATOR;So;0;ON;;;;;N;;;;;
 2437;SYMBOL FOR PARAGRAPH SEPARATOR;So;0;ON;;;;;N;;;;;
 2438;SYMBOL FOR ZERO WIDTH NON-JOINER;So;0;ON;;;;;N;;;;;
 2439;SYMBOL FOR ZERO WIDTH JOINER;So;0;ON;;;;;N;;;;;
 243A;SYMBOL FOR WORD JOINER;So;0;ON;;;;;N;;;;;
 243B;SYMBOL FOR COMBINING GRAPHEME JOINER;So;0;ON;;;;;N;;;;;
 243C;SYMBOL FOR LEFT-TO-RIGHT MARK;So;0;ON;;;;;N;;;;;
 243D;SYMBOL FOR RIGHT-TO-LEFT MARK;So;0;ON;;;;;N;;;;;

2B4D;PAIR OF BRACKETS WITH OUTWARDS ARROWS;So;0;ON;;;;;N;;;;;
 2B4E;LEFTWARDS ARROW THROUGH LEFT BRACKET;So;0;ON;;;;;N;;;;;
 2B4F;RIGHTWARDS ARROW THROUGH RIGHT BRACKET;So;0;ON;;;;;N;;;;;
 2B5A;LEFTWARDS ARROW FROM BAR TO BAR;So;0;ON;;;;;N;;;;;
 2B5B;UPWARDS ARROW FROM BAR TO BAR;So;0;ON;;;;;N;;;;;
 2B5C;RIGHTWARDS ARROW FROM BAR TO BAR;So;0;ON;;;;;N;;;;;
 2B5D;DOWNWARDS ARROW FROM BAR TO BAR;So;0;ON;;;;;N;;;;;
 2B5E;LEFTWARDS ARROW FROM BAR TO BRACKET;So;0;ON;;;;;N;;;;;
 2B5F;RIGHTWARDS ARROW FROM BAR TO BRACKET;So;0;ON;;;;;N;;;;;
 2B60;LEFTWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR;So;0;ON;;;;;N;;;;;
 2B61;UPWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR;So;0;ON;;;;;N;;;;;
 2B62;RIGHTWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR;So;0;ON;;;;;N;;;;;
 2B63;DOWNWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR;So;0;ON;;;;;N;;;;;
 2B64;LEFTWARDS WHITE DOUBLE ARROW;So;0;ON;;;;;N;;;;;
 2B65;LEFTWARDS ARROW WITH SHORT DOWNWARDS START;So;0;ON;;;;;N;;;;;
 2B66;RIGHTWARDS WHITE DOUBLE ARROW;So;0;ON;;;;;N;;;;;
 2B67;DOWNWARDS WHITE DOUBLE ARROW;So;0;ON;;;;;N;;;;;
 2B70;SPACE SELECT SYMBOL;So;0;ON;;;;;N;;;;;
 2B71;WHITE SQUARE WITH RAYS;So;0;ON;;;;;N;;;;;
 2B72;VERTICAL HALF WHITE SQUARE WITH RIGHT RAYS;So;0;ON;;;;;N;;;;;
 2B73;HORIZONTAL STROKE APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B74;DIAGONAL SLASH APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B75;OVERLAID TILDE APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B76;HOOK BELOW APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B77;HOOK ABOVE APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B78;HOOK APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B79;SUPERScript APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B7A;SUBSCRIPT APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 2B7B;SUPERScript AND SUBSCRIPT APPLICATOR SYMBOL;So;0;ON;;;;;N;;;;;
 1F10E;SANS-SERIF CAPITAL U ENCLOSING ZERO-NINE;So;0;ON;;;;;N;;;;;
 1F10F;SANS-SERIF CAPITAL U ENCLOSING ZERO-F;So;0;ON;;;;;N;;;;;
 1F19B;SQUARED FN;So;0;ON;;;;;N;;;;;

4. Named Sequences (composed of already encoded characters)

Keyboard symbols from ISO/IEC 9995-7:2009



U+21F3 U+20E2 KEYBOARD SYMBOL SCROLLING



U+2139 U+20E2 KEYBOARD SYMBOL HELP

5. Requested glyph changes for already encoded characters

Proposed changes of annotations also are given if applicable.



U+21EB UPWARDS WHITE ARROW ON PEDESTAL
= level 2 lock



U+21EC UPWARDS WHITE ARROW ON PEDESTAL WITH HORIZONTAL BAR
Delete: = caps lock
ADD: = capitals lock



U+21ED UPWARDS WHITE ARROW ON PEDESTAL WITH VERTICAL BAR
Delete: = numerics lock
ADD: = numeric lock



U+21EE UPWARDS WHITE DOUBLE ARROW
= level 3 select
ADD: → U+2B64 leftwards white double arrow



U+21EF UPWARDS WHITE DOUBLE ARROW ON PEDESTAL
= level 3 lock



U+21F0 RIGHTWARDS WHITE ARROW FROM WALL
= group lock

6. Annotations to be changed for existing characters

(in addition of the characters for which a glyph change is requested)

↑	U+21E7	UPWARDS WHITE ARROW = shift <i>ADD:</i> = level 2 select
⇒	U+21E8	RIGHTWARDS WHITE ARROW <i>ADD:</i> = group select
↓	U+21E9	DOWNWARDS WHITE ARROW <i>ADD:</i> • capitals lock (on some keyboards) <i>ADD:</i> • ISO/IEC 9995-7:2009 uses U+21EC for capitals lock
⇧	U+21EA	UPWARDS WHITE ARROW FROM BAR <i>Delete:</i> = caps lock <i>ADD:</i> • capitals lock (on some keyboards) <i>ADD:</i> • ISO/IEC 9995-7:2009 uses U+21EC for capitals lock
↵	U+21B5	DOWNWARDS ARROW WITH CORNER LEFTWARDS <i>ADD:</i> → 2B65 leftwards arrow with short downwards start
⌘	U+2318	PLACE OF INTEREST SIGN = command key (1.0) <i>ADD:</i> = operating system key (ISO/IEC 9995-7:2009 Amd1)
↩	U+23CE	RETURN SYMBOL <i>ADD:</i> → 2B65 leftwards arrow with short downwards start

7. Appendix: Mapping of ISO/IEC 9995-7 symbols into Unicode

Numbers from 1 to 62 refer to ISO/IEC 9995-7:2009.

Numbers from 63 to 107 refer to ISO/IEC 9995-7:2009 Amendment 1.

1 ;	21E7	# UPWARDS WHITE ARROW
2 ;	21EB	# UPWARDS WHITE ARROW ON PEDESTAL
3 ;	21EC	# UPWARDS WHITE ARROW ON PEDESTAL WITH HORIZONTAL BAR
4 ;	21ED	# UPWARDS WHITE ARROW ON PEDESTAL WITH VERTICAL BAR
5 ;	21EE	# UPWARDS WHITE DOUBLE ARROW
6 ;	21EF	# UPWARDS WHITE DOUBLE ARROW ON PEDESTAL
7 ;	21E8	# RIGHTWARDS WHITE ARROW
8 ;	21F0	# RIGHTWARDS WHITE ARROW FROM WALL
9 ;	2423	# OPEN BOX
10 ;	237D	# SHOULDERED OPEN BOX
11 ;	2380	# INSERTION SYMBOL
12 ;	2381	# CONTINUOUS UNDERLINE SYMBOL
13 ;	2382	# DISCONTINUOUS UNDERLINE SYMBOL
14 ;	2383	# EMPHASIS SYMBOL
15 ;	2384	# COMPOSITION SYMBOL
16 ;	2385	# WHITE SQUARE WITH CENTRE VERTICAL LINE
17 ;	232B	# ERASE TO THE LEFT
18 ;	2425	# SYMBOL FOR DELETE FORM TWO
19 ;	239A	# CLEAR SCREEN SYMBOL
20 ;	21F3 20E2	# KEYBOARD SYMBOL SCROLLING
21 ;	2139 20E2	# KEYBOARD SYMBOL HELP
22 ;	2399	# PRINT SCREEN SYMBOL
23 ;	2B65	# LEFTWARDS ARROW WITH SHORT DOWNWARDS START
24 ;	2386	# ENTER SYMBOL
25 ;	2387	# ALTERNATIVE KEY SYMBOL
26 ;	2388	# HELM SYMBOL
27 ;	2389	# CIRCLED HORIZONTAL BAR WITH NOTCH
28 ;	238A	# CIRCLED TRIANGLE DOWN
29 ;	238B	# BROKEN CIRCLE WITH NORTHWEST ARROW
30 ;	238C	# UNDO SYMBOL
31 ;	2191	# UPWARDS ARROW
32 ;	2193	# DOWNWARDS ARROW
33 ;	2190	# LEFTWARDS ARROW
34 ;	2192	# RIGHTWARDS ARROW
35 ;	219F	# UPWARDS TWO HEADED ARROW
36 ;	21A1	# DOWNWARDS TWO HEADED ARROW
37 ;	219E	# LEFTWARDS TWO HEADED ARROW
38 ;	21A0	# RIGHTWARDS TWO HEADED ARROW
39 ;	21F1	# NORTH WEST ARROW TO CORNER
40 ;	21F2	# SOUTH EAST ARROW TO CORNER
41 ;	2397	# PREVIOUS PAGE
42 ;	2398	# NEXT PAGE
43 ;	21E4	# LEFTWARDS ARROW TO BAR
44 ;	21E5	# RIGHTWARDS ARROW TO BAR
45 ;	2B5B	# UPWARDS ARROW FROM BAR TO BAR
46 ;	2B5D	# DOWNWARDS ARROW FROM BAR TO BAR
47 ;	2B5A	# LEFTWARDS ARROW FROM BAR TO BAR
48 ;	2B61	# UPWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR
49 ;	2B63	# DOWNWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR
50 ;	2B60	# LEFTWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR
51 ;	2B62	# RIGHTWARDS SHORT ARROW FROM LONG BAR TO SHORT AND LONG BAR

52 ; 2B5E # LEFTWARDS ARROW FROM BAR TO BRACKET
 53 ; 2B5F # RIGHTWARDS ARROW FROM BAR TO BRACKET
 54 ; 2B4E # LEFTWARDS ARROW THROUGH LEFT BRACKET
 55 ; 2B4F # RIGHTWARDS ARROW THROUGH RIGHT BRACKET
 56 ; 2B4D # PAIR OF BRACKETS WITH OUTWARDS ARROWS
 57 ; 002B # PLUS SIGN
 58 ; 002D # HYPHEN-MINUS
 59 ; 00D7 # MULTIPLICATION SIGN
 60 ; 00F7 # DIVISION SIGN
 61 ; 003D # EQUALS SIGN
 62 ; 238C # DECIMAL SEPARATOR KEY SYMBOL
 63 ; 2427 # SYMBOL FOR EN SPACE
 64 ; 2428 # SYMBOL FOR EM SPACE
 65 ; 2429 # SYMBOL FOR THREE-PER-EM SPACE
 66 ; 242A # SYMBOL FOR FOUR-PER-EM SPACE
 67 ; 242B # SYMBOL FOR SIX-PER-EM SPACE
 68 ; 242C # SYMBOL FOR FIGURE SPACE
 69 ; 242D # SYMBOL FOR PUNCTUATION SPACE
 70 ; 242E # SYMBOL FOR THIN OR NARROW SPACE
 71 ; 242F # SYMBOL FOR HAIR SPACE
 72 ; 2430 # SYMBOL FOR ZERO WIDTH SPACE
 73 ; 2431 # SYMBOL FOR MEDIUM MATHEMATICAL SPACE
 74 ; 2432 # SYMBOL FOR NARROW NO-BREAK SPACE
 75 ; 2B70 # SPACE SELECT SYMBOL
 76 ; 2433 # SYMBOL FOR SOFT HYPHEN
 77 ; 2434 # SYMBOL FOR NON-BREAKING HYPHEN
 78 ; 2435 # SYMBOL FOR NON-STOPPING DOT
 79 ; 2436 # SYMBOL FOR LINE SEPARATOR
 80 ; 2437 # SYMBOL FOR PARAGRAPH SEPARATOR
 81 ; 2438 # SYMBOL FOR ZERO WIDTH NON-JOINER
 82 ; 2439 # SYMBOL FOR ZERO WIDTH JOINER
 83 ; 243A # SYMBOL FOR WORD JOINER
 84 ; 243B # SYMBOL FOR COMBINING GRAPHEME JOINER
 85 ; 243C # SYMBOL FOR LEFT-TO-RIGHT MARK
 86 ; 243D # SYMBOL FOR RIGHT-TO-LEFT MARK
 87 ; 2B73 # HORIZONTAL STROKE APPLICATOR SYMBOL
 88 ; 2B74 # DIAGONAL SLASH APPLICATOR SYMBOL
 89 ; 2B75 # OVERLAID TILDE APPLICATOR SYMBOL
 90 ; 2B76 # HOOK BELOW APPLICATOR SYMBOL
 91 ; 2B77 # HOOK ABOVE APPLICATOR SYMBOL
 92 ; 2B78 # HOOK APPLICATOR SYMBOL
 93 ; 2B79 # SUPERSCRIPIT APPLICATOR SYMBOL
 94 ; 2B7A # SUBSCRIPT APPLICATOR SYMBOL
 95 ; 2B7B # SUPERSCRIPIT AND SUBSCRIPT APPLICATOR SYMBOL
 96 ; 23F5 # PARTIAL BACKWARD DELETE
 97 ; 1F19B # SQUARED FN
 98 ; 23F4 # MENU INVOCATION
 99 ; 2318 # PLACE OF INTEREST SIGN
 100 ; 2B71 # WHITE SQUARE WITH RAYS
 101 ; 2B72 # VERTICAL HALF WHITE SQUARE WITH RIGHT RAYS
 102 ; 2B66 # RIGHTWARDS WHITE DOUBLE ARROW
 103 ; 1F10E # SANS-SERIF CAPITAL U ENCLOSING ZERO-NINE
 104 ; 1F10F # SANS-SERIF CAPITAL U ENCLOSING ZERO-F
 105 ; 20F1 # ENCLOSING ROUNDED SQUARE
 106 ; 20F2 # ENCLOSING RIGHTWARDS WHITE SHORT ARROW
 107 ; 20F3 # ENCLOSED DOUBLE ROUNDED SQUARE

**ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹**

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

A. Administrative

1. Title: *Proposal to incorporate the symbols of ISO/IEC 995-7:2009 and its Amendment 1 into the UCS*
2. Requester's name: *ISO/IEC JTC1/SC35*
3. Requester type (Member body/Liaison/Individual contribution): *Liaison Contribution*
4. Submission date: *2010-08-27*
5. Requester's reference (if applicable):
6. Choose one of the following:
This is a complete proposal: *Yes*
(or) More information will be provided later:

B. Technical – General

1. Choose one of the following:
 - a. This proposal is for a new script (set of characters): *No*
Proposed name of script:
 - b. The proposal is for addition of character(s) to an existing block: *Yes*
Name of the existing block: *several (mainly Miscellaneous Symbols and Arrows)*
2. Number of characters in proposal: *60 + 2 Named Sequences + 6 Glyph Changes*
3. Proposed category (select one from below - see section 2.2 of P&P document):
A-Contemporary ☒ B.1-Specialized (small collection) ☐ B.2-Specialized (large collection) ☐
C-Major extinct ☐ D-Attested extinct ☐ E-Minor extinct ☐
F-Archaic Hieroglyphic or Ideographic ☐ G-Obscure or questionable usage symbols ☐
4. Is a repertoire including character names provided? *Yes*
 - a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document? *Yes*
 - b. Are the character shapes attached in a legible form suitable for review? *Yes*
5. Fonts related:
 - a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard? *To be announced*
 - b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.): *To be announced*
6. References:
 - a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? *Yes*
 - b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? *No (as another standard is referenced)*
7. Special encoding issues:
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? *No*

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see <http://www.unicode.org/Public/UNIDATA/UCD.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

¹ Form number: N3702-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	No
If YES explain	
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?	Yes
If YES, with whom? Members of SC35	
If YES, available relevant documents: ISO/IEC 9995-7:2009; ISO/IEC 9995-7:2009 FDAM1	
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	Yes
Reference: All users of keyboards adhering to ISO/IEC 9995	
4. The context of use for the proposed characters (type of use; common or rare)	common
Reference: see above	
5. Are the proposed characters in current use by the user community?	partially
If YES, where? Reference: by ISO/IEC 9995-7:2009. Some symbols devised in FDAM1 just released.	
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	Partially
If YES, is a rationale provided? Yes	
If YES, reference: To keep them in line with similar characters	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
11. Does the proposal include use of combining characters and/or use of composite sequences?	Yes
If YES, is a rationale for such use provided? Yes	
If YES, reference: see text	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided? Yes	
If YES, reference: see text	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility character(s)?	No
If YES, is the equivalent corresponding unified ideographic character(s) identified?	
If YES, reference:	