## ISO/IEC JTC 1/SC 2 N 4233/WG2 N4335

DATE: 2012-06-26

## ISO/IEC JTC 1/SC 2 <br> Coded Character Sets <br> Secretariat: Japan (JISC)

| DOC. TYPE | Summary of Voting/Table of Replies |
| :--- | :--- |
|  | Summary of Voting on SC 2 N 4228, ISO/IEC 10646: 2012/PDAM <br> 2, Information technology -- Universal Coded Character Set (UCS) -- <br> AMENDMENT 2: Caucasian Albanian, Psalter Pahlavi, Old <br> Hungarian, Mahajani, Grantha, Modi, Pahawh Hmong, Mende, and <br> other characters |
| SOURCE | SC 2 Secretariat |
| PROJECT | JTC 1.02.10646.00.02.00.03 |
| STATUS | This document is forwarded to WG 2 for resolution of comments. <br> WG 2 is requested to prepare a disposition of comments report, <br> revised text, a recommendation for further processing. |
| ACTION ID | FYI |
| DUE DATE | FYA |
| DISTRIBUTION | P, O and L Members of ISO/IEC JTC 1/SC 2 ; ISO/IEC JTC 1 <br> Secretariat; ISO/IEC ITTF |
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[^0]| Ballot Information |  |
| :--- | :--- |
| Ballot reference | SC2N4228 |
| Ballot type | CIB |
| Ballot title | ISO/IEC 10646: 2012/PDAM 2, Information |
|  | technology -- Universal Coded Character Set |
|  | (UCS) -- AMENDMENT 2: Caucasian |
|  | Albanian, Psalter Pahlavi, Old Hungarian, <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> Mahajani, Grantha, Modi, Pahawh <br> Hmong, Mende, and other characters <br> Opening date <br> Closing date <br> Note |
|  | $2012-03-23$ |
|  | $2012-06-23$ |


| Member responses: |  |
| :---: | :---: |
| Votes cast (24) | Canada (SCC) <br> China (SAC) <br> Egypt (EOS) <br> Finland (SFS) <br> Germany (DIN) <br> Hungary (MSZT) <br> Iceland (IST) <br> India (BIS) <br> Indonesia (BSN) <br> Ireland (NSAI) <br> Japan (JISC) <br> Korea, Republic of (KATS) <br> Lithuania (LST) <br> Norway (SN) <br> Poland (PKN) <br> Romania (ASRO) <br> Russian Federation (GOST R) <br> Serbia (ISS) <br> Sri Lanka (SLSI) <br> Sweden (SIS) <br> Thailand (TISI) <br> Ukraine (DSSU) <br> United Kingdom (BSI) <br> United States (ANSI) |
| Comments submitted (1) | Italy (UNI) |
| Votes not cast (6) | Austria (ASI) <br> France (AFNOR) <br> Greece (ELOT) <br> Korea, Democratic People's Republic of (CSK) <br> Mongolia (MASM) <br> Tunisia (INNORPI) |

## Questions:

| Q.1 | "Do you agree with approval of the PDAM Text?" |
| :--- | :--- |
| Q.2 | "If you disappove the draft, would you please indicate if you accept to change your <br> vote to Approval if the reasons and appropriate changes will be accepted?" |


| Votes by members | Q. 1 | Q. 2 |
| :---: | :---: | :---: |
| Canada (SCC) | Approval as presented | Ignore |
| China (SAC) | Approval as presented | Ignore |
| Egypt (EOS) | Approval with comments | Ignore |
| Finland (SFS) | Abstention | Ignore |
| Germany (DIN) | Approval as presented | Ignore |
| Hungary (MSZT) | Abstention | Ignore |
| Iceland (IST) | Approval as presented | Ignore |
| India (BIS) | Abstention | Ignore |
| Indonesia (BSN) | Disapproval of the draft | Yes |
| Ireland (NSAI) | Disapproval of the draft | Yes |
| Japan (JISC) | Disapproval of the draft | Yes |
| Korea, Republic of (KATS) | Approval as presented | Ignore |
| Lithuania (LST) | Approval as presented | Ignore |
| Norway (SN) | Approval as presented | Ignore |
| Poland (PKN) | Approval as presented | Ignore |
| Romania (ASRO) | Abstention | Ignore |
| Russian Federation (GOST R) | Approval as presented | Ignore |
| Serbia (ISS) | Abstention | Ignore |
| Sri Lanka (SLSI) | Approval with comments | Yes |
| Sweden (SIS) | Abstention | Ignore |
| Thailand (TISI) | Approval as presented | Ignore |
| Ukraine (DSSU) | Abstention | Ignore |
| United Kingdom (BSI) | Approval as presented | Ignore |


| United States (ANSI) | Disapproval of <br> the draft | Yes |
| :--- | :--- | :--- |


| Answers to Q.1: "Do you agree with approval of the PDAM Text?" |  |  |
| :---: | :---: | :---: |
| 11 x | Approval as presented | ```Canada (SCC) China (SAC) Germany (DIN) Iceland (IST) Korea, Republic of (KATS) Lithuania (LST) Norway (SN) Poland (PKN) Russian Federation (GOST R) Thailand (TISI) United Kingdom (BSI)``` |
| 2 x | Approval with comments | Egypt (EOS) <br> Sri Lanka (SLSI) |
| 4 x | Disapproval of the draft | Indonesia (BSN) <br> Ireland (NSAI) <br> Japan (JISC) <br> United States (ANSI) |
| 7 x | Abstention | Finland (SFS) <br> Hungary (MSZT) <br> India (BIS) <br> Romania (ASRO) <br> Serbia (ISS) <br> Sweden (SIS) <br> Ukraine (DSSU) |

Answers to Q.2: "If you disappove the draft, would you please indicate if you accept to change your vote to Approval if the reasons and appropriate changes will be accepted?"

| 5 x | Yes | Indonesia (BSN) <br> Ireland (NSAI) <br> Japan (JISC) <br> Sri Lanka (SLSI) <br> United States (ANSI) |
| :---: | :---: | :---: |
| 0 x | No |  |
| 19 x | Ignore | Canada (SCC) <br> China (SAC) <br> Egypt (EOS) <br> Finland (SFS) <br> Germany (DIN) <br> Hungary (MSZT) <br> Iceland (IST) <br> India (BIS) <br> Korea, Republic of (KATS) <br> Lithuania (LST) <br> Norway (SN) <br> Poland (PKN) <br> Romania (ASRO) <br> Russian Federation (GOST R) <br> Serbia (ISS) <br> Sweden (SIS) <br> Thailand (TISI) |


| Ukraine (DSSU) United Kingdom (BSI) |  |  |
| :---: | :---: | :---: |
| Comments from Voters |  |  |
| Member: | Comment: | Date: |
| Egypt (EOS) | Comment | $\begin{gathered} \text { 2012-06-05 } \\ 14: 20: 52 \end{gathered}$ |
| EOS has reviewed characters that are related to Arabic Language Only. |  |  |
| Hungary (MSZT) | Comment File | $\begin{gathered} \text { 2012-06-19 } \\ 13: 53: 26 \end{gathered}$ |
| CommentFiles/SC2N4228_MSZT.doc |  |  |
| Indonesia (BSN) | Comment | $\begin{gathered} \hline \text { 2012-06-22 } \\ 09: 02: 52 \end{gathered}$ |
| if reasons and changes are accepted, we accept to change to Approval. |  |  |
| Indonesia (BSN) | Comment File | $\begin{gathered} \hline \text { 2012-06-22 } \\ 09: 02: 52 \end{gathered}$ |
| CommentFiles/SC2N4228_BSN.doc |  |  |
| Ireland (NSAI) | Comment | $\begin{gathered} \text { 2012-06-22 } \\ 15: 28: 13 \end{gathered}$ |
| Comments sent directly to the secretary |  |  |
| Japan (JISC) | Comment File | $\begin{gathered} \hline \text { 2012-06-22 } \\ 18: 37: 34 \end{gathered}$ |
| CommentFiles/SC2N4228_JISC.doc |  |  |
| Sri Lanka (SLSI) | Comment | $\begin{gathered} \text { 2012-06-22 } \\ \text { 19:07:29 } \end{gathered}$ |
| Sri Lanka has come to know that Hungary has a serious concern on the Draft. Hence, Sri Lanka suggests to give a hearing on their concerns. |  |  |
| United States (ANSI) | Comment File | $\begin{gathered} \text { 2012-06-18 } \\ 21: 36: 32 \end{gathered}$ |
| CommentFiles/SC2N4228_ANSI.doc |  |  |
| Comments from Commenters |  |  |
| Member: | Comment: | Date: |
| Italy (UNI) | Comment | $\begin{gathered} \text { 2012-06-18 } \\ 09: 22: 30 \end{gathered}$ |
| Abstention |  |  |

Template for comments and secretariat observations

| 1 | 2 | (3) | 4 | 5 | (6) | (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MB ${ }^{1}$ | Clause No./ Subclause No./ Annex (e.g. 3.1) | Paragraph/ Figure/Table/ Note (e.g. Table 1) | Type of comment $^{2}$ | Comment (justification for change) by the MB | Proposed change by the MB | Secretariat observations on each comment submitted |
| HU |  |  | ge | By now interested parties have not been able to reach a consensus on negotiating the Proposed Draft Amendment (PDAM) 2 - ISO/IEC 10646:2012/Amd.2:2012 in competent Hungarian national standardization technical committee. Among the interested parties are two substantially different position on the draft. One of them supports „Yes", and the other one supports "No". The intention of the Hungarian National Body (Hungarian Standards Institution - MSZT) does not prevent a standardisation of the Universal Coded Character Set, so the possible official vote of Hungarian National Body can only be Abstention. Any document that contains a different opinion on the ISO/IEC 10646:2012/Amd.2:2012 does not represent the official Hungarian national position. |  |  |
|  |  |  |  |  |  |  |

$1 \mathbf{M B}=$ Member body (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)
2 Type of comment: ge = general te = technical ed = editorial
NOTE Columns 1, 2, 4, 5 are compulsory.
ISO electronic balloting commenting template/version 2001-10

| 1 | 2 | (3) | 4 | 5 | (6) | (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MB ${ }^{1}$ | Clause No./ Subclause No./ Annex (e.g. 3.1) | Paragraph/ Figure/Table/ Note (e.g. Table 1) | Type of comment $^{2}$ | Comment (justification for change) by the MB | Proposed change by the MB | Secretariat observations on each comment submitted |
|  |  |  |  |  |  |  |
| ID |  |  | Ge | Based on two previous documents, N4183 and N4274, in comparison to the current draft, there are several points to be resolved : <br> 1. The name of the script, whether "Old Hungarian" or "Rovas" as suggested by the Rovas Work Group of the Hungarian Standards Institution <br> 2. The design of the glyphs <br> 3. The order of the characters <br> 4. The completeness of the character set | We suggest the Hungarian experts to negotiate to reach consensus. It may take more time before the publication, however it is better for having stable character codes than revising later. |  |
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2 Type of comment: ge = general te = technical ed = editorial
NOTE Columns 1, 2, 4, 5 are compulsory.
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Template for comments and secretariat observations
Date:
Document:

| 1 | 2 | (3) | 4 | 5 | (6) | (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MB ${ }^{1}$ | Clause No./ Subclause No./ Annex (e.g. 3.1) | Paragraph/ <br> Figure/Table/ <br> Note <br> (e.g. Table 1) | Type of comment $^{2}$ | Comment (justification for change) by the MB | Proposed change by the MB | Secretariat observations on each comment submitted |
| JP | 16.5 |  | te | The current amendment text calls sequences such as <0023, FE0E, 20E3> a variation sequence, though it doesn't follow the current definition of a variation sequence (defined in the first paragraph of 16.5.) <0023, FE0E, 20E3 $>$ is a composite sequence beginning with a variation sequence, or we can call it a variation sequence followed by a particular combining character. The standard text should not call it as a whole a variation sequence. <br> To accommodate the above concern, separating two tabular lists, one for ordinary variation sequences and another for variation sequences followed by a particular combining character, seems a good idea. | Remove the first tabular list (beginning with <0023, FE0E, 20E3>) to be inserted from here and move it after the following proposed text, leaving the tabular list beginning with <203C, FE0E> only. <br> After the tabular list, add the following text: <br> The following list provides a list of variation sequences followed by 20E3 COMBINING ENCLOSING KEYCAP: <br> Put the removed tabular list beginning with <0023, FE0E, 20E3> here. |  |
| JP | 16.5 |  | ed | The current tabular lists for new variation sequences have a different format from the existing lists of variation sequences. The current list appearance is misleading, especially for those who has well understanding on the existing ones. <br> Although the intended differences for text and emoji style variants are very systematic, it is not a bad idea to repeat them systematically, to make the intended appearance of each sequence very clear. | Change the second headings for the tabular lists to "Description of Variant Appearance". <br> Give the description for each of the sequences. For example, <br> <0023, FEOE, 20E3> NUMBER SIGN inside a COMBINING ENCLOSING KEYCAP in text style <br> <0023, FE0F, 20E3> NUMBER SIGN inside a COMBINING ENCLOSING KEYCAP in emoji style or <br> <203C,FE0E> DOUBLE EXCLAMATION MARK in text style <br> <203C,FE0F> DOUBLE EXCLAMATION MARK in emoji style |  |
|  | Annex I |  | te | Use of a private use character requires agreement between the interchanging parties regarding what character it represents. Also, to keep IDS an ideographic description sequence, we should restrict IDS components to ideographs, since otherwise it becomes anything | Add "(as long as the interchanging parties have agreed that the particular private use character represents a particular CJK Ideograph)" after the phrase "a private use character". |  |

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ISO electronic balloting commenting template/version 2001-10

Template for comments and secretariat observations

| 1 | 2 | (3) | 4 | 5 | (6) | (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MB ${ }^{1}$ | Clause No./ Subclause No./ Annex (e.g. 3.1) | Paragraph/ <br> Figure/Table/ Note (e.g. Table 1) | Type of comment $^{2}$ | Comment (justification for change) by the MB | Proposed change by the MB | Secretariat observations on each comment submitted |
|  |  |  |  | description sequence. |  |  |
|  | Annex I |  | te | Japan supports the concern expressed in WG2N4249. We should not allow unlimited long IDS'es. | Remove the amendment instruction to remove the second note. |  |
|  | 31 | including chart and names list for Kana Supplement block | te | Japan opposes to encode HIRAGANA LETTER SMALL KO and KATAKANA LETTER SMALL KO, because it believes these two characters are not used for any practical purposes. Japan wants to see evidences for these two characters in use in real world, or any other rationale for these two characters are suitable for UCS. | Remove all additions/modifications to the standard texts regarding these two characters, including Am2names.txt file. |  |

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| 1 | 2 | (3) | 4 | 5 | (6) | (7) |
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| US |  | Latin <br> Extended-D | te. 1 | Justification for the request to remove this character is contained in WG2 N3678. A viable alternative to encoding a separate letter middle dot, for the purposes cited by the original proposal, would be to use the already encoded modifier letter, U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON. | The U.S. requests the removal of $\mathrm{U}+\mathrm{A} 78 \mathrm{~F}$ LATIN LETTER MIDDLE DOT. We reiterate that this character is unnecessary and is a damaging duplication for the standard and should be removed from the amendment. <br> If this change, along with te. 3 and te. 4 , are accommodated, the USNB will change its vote to Yes. |  |
| US |  | Old Italic | te. 2 | The proposal has demonstrated that Rhetic can amply be covered by the Old Italic script. | The U.S. requests the addition of U+1032F OLD ITALIC LETTER TTE, as proposed in WG2 N4046. |  |
| US |  | Pahawh Hmong | te. 3 | It is not clear that these logographs are needed for plain-text representation, and it appears the set of clan names is open-ended. Additional evidence should be provided to answer to these concerns. | The U.S. requests the removal of the 18 logographs for clan names ( $\mathrm{U}+16 \mathrm{~B} 7 \mathrm{E}$ to $\mathrm{U}+16 \mathrm{~B} 8 \mathrm{~F}$ ). If this change, along with te. 1 and te. 4 , are accommodated, the USNB will change its vote to Yes. |  |
| US |  | Miscellaneous Symbols and Arrows | te. 4 | These characters do not clearly complete a set and also have no independent demonstration of use or need for use. | The U.S. requests the removal of 2 characters: U+2B74 LEFT RIGHT TRIANGLE-HEADED ARROW TO BAR U+2B75 UP DOWN TRIANGLE-HEADED ARROW TO BAR If this change, along with te. 1 and te.3, are accommodated, the USNB will change its vote to Yes. |  |
| US |  | Miscellaneous <br> Symbols and Pictographs | ed. $1$ | The current glyph U+1F3DD CAMPING could cause confusion with the range of acceptable glyphs for U+26FA TENT and hence should be modified. <br> The glyphs for $U+1$ F3CB WEIGHT LIFTER and U+1F3CD MOTORCYCLE RIDER are not very realistic and should be modified. | The U.S. requests the following glyph changes: U+1F3DD CAMPING needs to be modified so it differs from the range of acceptable glyphs for U+26FA TENT, some of which include trees in the background. <br> U+1F3CB WEIGHT LIFTER should have arms straight and not bent. <br> U+1F3CD MOTORCYCLE RIDER needs to be adjusted to better reflect a motorcycle. |  |

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2 Type of comment: ge=general te=technical ed = editorial
NOTE Columns 1, 2, 4, 5 are compulsory.
ISO electronic balloting commenting template/version 2001-10

| 1 | 2 | (3) | 4 | 5 | (6) | (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MB ${ }^{1}$ | Clause No./ Subclause No./ Annex (e.g. 3.1) | Paragraph/ <br> Figure/Table/ Note <br> (e.g. Table 1) | Type of comment $^{2}$ | Comment (justification for change) by the MB | Proposed change by the MB | Secretariat observations on each comment submitted |
| US |  | pp. 5-6 | ed. <br> 2. | These spelling errors should be corrected. | The following typographical errors need to be corrected with the spelling as shown on the right: (on top of page, p. 5) <br> Pahawh Mong > Pahawh Hmong (under "Page 2181, annex A.1", p. 5 ) <br> 1082 PAHAWH MONG 16B00-16B8F <br> > 1082 PAHAWH HMONG 16B00-16B8F <br> (under "Page 2185, annex A.1" p. 5) <br> Caucasian Albabian > Caucasian Albanian <br> Pahawh Mong > Pahawh Hmong <br> (top of page 6) <br> Pahawh Mong > Pahawh Hmong |  |
| US |  | Ancient Greek Numbers | ed. $3 .$ | This correction will fix the verb ending and, by removing the parenthetical note and providing a cross-reference, will be clearer to the reader. | Modify the following annotation for 1018C GREEK <br> SINUSOID SIGN <br> - designate year (different era than 10179 greek year sign) <br> to the following (or something similar): <br> - designates year <br> x 10179 greek year sign |  |
| US |  | Grantha | ed. $4 .$ | The annotation was a note to the editor and was not meant to be an annotation. | Remove the annotation for 11363 GRANTHA VOWEL SIGN VOCALIC LL: "Glyph must be replaced with something better" |  |
|  |  |  |  |  |  |  |

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## Irish comments on ISO/IEC PDAM 2 10646:2012

## Reference: SC2 N4228

Closes: 2012-06-23
Date: 2012-06-22
Ireland disapproves the draft with the technical and editorial comments given below. Acceptance of these comments and appropriate changes to the text will change our vote to approval. In the attached charts, characters proposed to be added to the PDAM are coloured in blue, and characters whose names or glyphs are proposed to be changed are coloured in yellow. Characters which have been proposed to be moved have "• was xxxxx" in the names list indicating their code position in PDAM 2.

T1. Page 5: Clause 2: New blocks. Ireland requests the correction of the spelling from "Pahawh Mong" to "Pahawh Hmong".

T2. Page 5: Page 2181, annex A.1: Ireland requests the correction of the spelling from "PAHAWH MONG" to "PAHAWH HMONG".

T3. Page 5: Page 2185, annex A.1: Ireland requests the correction of the spelling from "Albabian" to "Albanian", and from "Pahawh Mong" to "Pahawh Hmong".

T4. Page 6: Page 2188, annex A.2.2: Ireland requests the correction of the spelling from "PAHAWH MONG" to "PAHAWH HMONG".

T5. Page 28, Row A720: Ireland reiterates its support for A78F LATIN LETTER MIDDLE DOT and opposes further attempts to delay or prevent the encoding of this character. We note the following facts:

- Andrew West proposed this character in N3567 (2009-01-24, revised 2009-04-04) on the basis that his scientific work in Tangut and 'Phags-Pa requires a letter for transliteration of the letter 巳 [?] whose transliteration is represented by a kind of dot, a use which goes back to Sinologists Dragonov in the 1930s and Karlgren in the 1940s and was taken over by Chinese scholars as well. Typography in these sources was not uniform, but a good practice can be established from them for modern use. We recommend the addition of an additional informative note to assist font developers and to reduce what the US National Body has suggested might be a measure of confusion about the character:

A78F LATIN LETTER MIDDLE DOT

- used for transliteration for Phags-Pa and for phonetic transcription for Tangut
- glyph is about 50\% larger than the dots of a colon and is centred on the x-height line

An example can be seen here of what appears to be the clearest practice:

## Tangut: ‘üge‘ü: 'Phags-pa

- Andrew West clarified in N3694 (2009-10-05) the use of this character and its relation to other characters in the standard, since the Script Encoding Initiative had suggested that he might use either 00B7 MIDDLE DOT or 02D1 MODIFIER LETTER HALF TRIANGULAR COLON instead to represent this character. West demonstrated that 00B7

MIDDLE DOT is commonly used as a separator or joiner of the characters on either side of it. This is not consistent with West's stated requirement, which was to have a character with the properties of a letter to represent in transliteration the letter of another script.

- In N3678, the statement is made: "The encoding of another middle dot for Phags-Pa is unnecessary, particularly as the middle dot is already use widely in linguistic transcription/ transliteration and Americanist orthographies, and seems to be encoded on modern webpages by U+00B7 or U+02D1." This is irrelevant, because the things that the existing MIDDLE DOT is used for have nothing to do with the transliteration of the 'Phags-pa letter凹.
- The SEI (and the US National Body in subsequent ballot comments) appear to have recognized that the character properties of 00B7 MIDDLE DOT were not appropriate, and have instead suggested that " $A$ viable alternative to encoding a separate letter middle dot, for the purposes cited by the original proposal, would be to use the already encoded modifier letter, U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON."
- The fact that the US National Body has suggested the use of 02D1 indicates that they have accepted West's requirement for a letter (a character with a letter property) rather than a punctuation character for the purposes of transliterating 'Phags-pa. The character that they have suggested, however, 02D1 MODIFIER LETTER HALF TRIANGULAR COLON, cannot be used for such a purpose. That character and its related character 02D0 MODIFIER LETTER TRIANGULAR COLON are both explicitly defined as being triangular and have been since their introduction in the International Phonetic Alphabet.
- In N3678, the statement is made: "The result of encoding another middle dot will be to create yet another look-alike character." This is hardly a concern. Since 2009, 2E33 RAISED DOT and 2E31 WORD SEPARATOR DOT have both been encoded. Indeed, on the present PDAM 2, we can see the already-encoded 11066 BRAHMI DIGIT ZERO, which looks like a dot, and the under-ballot 11184 MAHAJANI ABBREVIATION SIGN, alongside the already-encoded 111C7 SHARADA ABBREVIATION SIGN, both of which are dotlike. The objections to the LATIN LETTER MIDDLE DOT are not consistent.
- In N3678, the statement is made: "In my view, the best option for users is to use U+02D1 with a rounded glyph." It is not in the purview of the author of N3678, or of the US National Body, to alter by fiat the shape of the character 02D0 or 02D1 which exist distinct from MIDDLE DOT and from COLON to support the explicitly-triangular character used by the International Phonetic Association. In a recent discussion with a member of the Irish National Body, phonetician John C. Wells-a long-time member of the International Phonetic Association-made it clear that the idea that the 02D1 MODIFIER LETTER HALF TRIANGULAR COLON could have any other shape than triangular was quite out of the question.
- In N3678, the statement is made: "This character is being used by linguists and others currently, is able to be found via search engines, and is found in both circular and triangular shapes." Again, this is irrelevant, because the things that either MIDDLE DOT (which has a circular shape) or MODIFIER LETTER HALF TRIANGULAR COLON (which has a triangular shape) are used for have nothing to do with the transliteration of 'Phagspa $\longleftarrow$. Users of those characters will continue to use them and to enjoy their properties. West and other Sinologists require a different character, with different properties.

At the end of the day, the Irish National Body believes that a disservice has been done to Andrew West, who helped to encode 'Phags-pa, who is helping to encode Tangut, and who is a linguist and expert who clearly understands the UCS and the meaning of character properties. The US National Body has opposed the encoding of LATIN LETTER MIDDLE DOT, but they have acknowledged that a character with the "letter" property is a valid
requirement of West. The character they have proposed, however, cannot be used for transliteration of 'Phags-pa 凹, because that would be disruptive of the character identity and recommended glyph shape for the IPA half-length mark.

The correct solution here is not for SC2 to continue to delay waiting for more argument, since no new argument has been offered since N3678. One NB has made its argument but has failed to offer a solution superior to the requested new character which is on the ballot. Their suggestion suggests that they agree that a character with a letter property should be used for this purpose but since 02D1 MODIFIER LETTER HALF TRIANGULAR COLON is not suitable and there is no other alternative, the Irish National Body requests that A78F LATIN LETTER MIDDLE DOT be encoded without further delay. It is already three years since West's publication of his work on Tangut and 'Phags-pa linguistics has been put off due to this unnecessary impasse based on a superficial evaluation a glyph shape.

T6. Page 39, Row 10CB: Old Hungarian. With reference to $\S 8.1$ of ISO/IEC JTC1/SC2/WG2 N4268 "Consolidated proposal for encoding the Old Hungarian script in the UCS", Ireland requests that the word RUDIMENTA be added to the names of the following characters:

10C9E K OLD HUNGARIAN CAPITAL LETTER RUDIMENTA OE
10CAD 4 OLD HUNGARIAN CAPITAL LETTER RUDIMENTA UE
10CDE к OLD HUNGARIAN SMALL LETTER RUDIMENTA OE
10CED $ヶ$ OLD HUNGARIAN SMALL LETTER RUDIMENTA UE

T7. Page 39, Row 10CB: Old Hungarian. With reference to §11 of ISO/IEC JTC1/SC2/WG2 N4268 "Consolidated proposal for encoding the Old Hungarian script in the UCS", and to ISO/IEC JTC1/SC2/WG2 N4225 "Preliminary Proposal for encoding pre-combined and extended Rovas numerals into the Rovas block in the SMP of the UCS", Ireland requests that the character currently at 10CFE, OLD HUNGARIAN NUMBER FIVE HUNDRED, be removed from the PDAM pending further study about that character in the context of other innovated higher numbers. Ireland also requests that the numbers from 10CF9..10CFD be shifted down to 10CFA..10CFE, filling the gap.

T8. Page 64, Row 1F30: Miscellaneous Symbols and Pictographs. Ireland recommends the deletion of a number of characters and the modification of the names and glyphs of some other characters having to do with building and map symbols. For these, the descriptor "WITH TERRAIN" is inappropriate; the original postscript names of these do not have it, and it seems to be motivated by a desire on the part of the proposer to distinguish "FACTORY" and "FACTORY WITH TERRAIN". Since the original postscript name is simply "factory" there is no reason not to consider this to be a glyph variant of 1F3ED FACTORY.

[^1]1F3D0 BUILDING CONSTRUCTION SIGN
Change name to BUILDING CONSTRUCTION; the postscript name was "underconstruction".
Change glyph to remove large black terrain and to harmonize with other glyphs in the range 1F3E0..1F3EF.
Move to 1F3D7.
1F3D1 WHITE HOUSES WITH TERRAIN
Change name to HOUSE BUILDINGS; the postscript name was "town".
Change glyph to remove black terrain and road and to harmonize with 1F3E0 HOUSE BUILDING
Move to 1F3D8.
1F3D2 CITYSCAPE
Change glyph to harmonize with other glyphs 1F303, 1F306, and 1F407, and change to a daytime scene (otherwise it is identical to 1F303).
Move character to 1F3D9.
1F3D3 CONDEMNED HOUSE WITH TERRAIN
Change name to DERELICT HOUSE BUILDING
Change glyph to remove black terrain and road and to harmonize with 1F3E0 HOUSE BUILDING
Move character to 1F3DA.
1F3D4 DESERT TERRAIN
Change name to DESERT
Change glyph. The saguaro is native to Arizona/Sonora, where dunes are not usually known.
Move character to 1F3DC.
1F3D5 FACTORY WITH TERRAIN
Delete and unify with 1F3ED FACTORY
1F3D6 CLASSICAL FACADE WITH TERRAIN
Change name to CLASSICAL TEMPLE
Change glyph to remove black terrain and modify accordingly
Move character to 1F3DB.
1F3D7 SINGLE HOUSE WITH TERRAIN
Delete and unify with 1F3D7 HOUSE BUILDING; the postscript name was "home"
1F3D8 BEACH WITH UMBRELLA
Delete and unify 26F1 UMBRELLA ON GROUND, which is annotated "bathing beach"; the postscript name of the webding was "beach", .
1F3D9 DESERT ISLAND
Change name to ISLAND
Modify glyph.
Move character to 1F3DD.
1F3DA HIGHWAY WITH BILLBOARD
Change name to MOTORWAY (the original
Change glyph to a more standard representation of a motorway. (A highway passing a billboard of a highway is rather too strange.)
Move character to 1F6E3.
1F3DB MOUNTAIN OR VOLCANO
Delete and unify with 26F0 MOUNTAIN or with 1F5FB MOUNT FUJI. The postscript name is "mountain", with no mention of volcano. Whether this is Mt Fuji or Mt Shasta or Mt Rainier seems irrelevant. If a mountain, unify with MOUNTAIN. If going by its glyph, unify with MOUNT FUJI.

1F3DC TRAIL
Change name to PARK; the postscript name is "park".
Change glyph to be representative of a park.
Move character to 1F3DE.
1F3DD CAMPING
Delete and unify with 26FA TENT which is annotated "camping site"; there is no significant semantic difference between "a tent with a tree" and "a tent" in terms of indication of Camping.
1F3DE TRAIN TRACKS WITH TERRAIN
Change glyph to remove terrain.
Move character to 1F6E4.
1F3DF SPORTS ARENA WITH TERRAIN
Change name to STADIUM
Change glyph to remove terrain.
1F4FF TELEVISION FLAT CRT
Delete and unify with 1F4FA TELEVISION. The postscript name is simply "television".
Change glyph. Having examined some implementations of 1F4FA, we would agree that the glyph of that character should be changed to remove the old-fashioned "console legs", but since Webdings does not distinguish between two kinds of television, adding a second character is not warranted.
1F57A BLACK GAME CONTROLLER
Delete and unify with 1F3AE VIDEO GAME. Whatever the merits of black and white telephones and black and white pointing hands may be, there is no need to duplicate a video game controller on the basis of colour.
1F580 TELEPHONE ON TOP OF MODEM
Change glyph to harmonize with 1F57F BLACK TOUCHTONE TELEPHONE
1F5A4 COMPUTER MONITOR
Delete and unify with 1F4BB PERSONAL COMPUTER. The postscript name for this glyph is "computers1". The webdings glyph is an old-fashioned CRT monitor displaying Internet Explorer in a browser, but represents computing in general; it is not emblematic of computer monitors.
1F5BB DOCUMENT WITH PICTURE
Change glyph slightly to conform to other document glyphs (less black)
1F5BC FRAMED PICTURE
Change name to FRAME WITH PICTURE
Change glyph to make the frame less heavy and black.
1F5BC FRAMED PICTURE WITH TILES
Change name to FRAME WITH TILES
Change glyph to make the frame less heavy and black.
1F5BC FRAME WITH AN X
Change glyph to make the frame less heavy and black.
1F5C2 BLACK CARD INDEX
Change name to CARD INDEX DIVIDERS
Change glyph so it isn't black.
1F5C3 CARD FILE BOX
Change glyph so it isn't black.
1F5E3 SPEAKING HEAD SILHOUETTE
Change name to SPEAKING HEAD IN SILHOUETTE
1F5F3 BALLOT BOX WITH BALLOT
Change glyph so it isn't black.

T9. Page 64, Row 1F30: Miscellaneous Symbols and Pictographs. Ireland requests the following additions, which help to complete sets implied by the random set of characters added via the Webdings font:

```
1F3CD ALL-TERRAIN VEHICLE = quad bike
```

1F3D0 TREKKING
1F3D1 WIND-SURFING
1F3D2 WATER-SKIING
1F3D3 SPEED-SKATING
1F3D4 SKI-JUMPING
1F3D5 TOBOGGANING
1F3D6 CROSS-COUNTRY SKIING
1F3F8 DANCING
1F3F9 RAFTING
1F3FA CANOOING
1F3FB SOCCER FOOTBALL

T10. Page 66, Row 1F30: Miscellaneous Symbols and Pictographs. Ireland would like to give a bit of information about three characters on the ballot:

```
1F594 REVERSE VICTORY HAND
    Change name to REVERSED VICTORY HAND
    Annotate "V sign"
1F595 REVERSED HAND WITH MIDDLE FINGER EXTENDED
1F596 RAISED HAND WITH PART BETWEEN MIDDLE AND RING FINGERS
```

The UCS contains already a number of hands which in some cultures are used as "friendly" or "offensive" gestures.

1F44D THUMBS UP SIGN has a pejorative meaning ("up yours!", more or less) in parts of the Middle East, West Africa, South America, Iran, and Sardinia. Although this symbol has a positive meaning in European and American culture, the symbol is polyvalent, and can be used by those who wish to exchange either semantic.

Another such symbol is the threatening and offensive moútza (Greek $\mu \mathrm{ou} \tau \zeta$ ), which is under ballot at 1F590 RAISED HAND WITH FINGERS SPLAYED NM . For more information see the Wikipedia article: http://en.wikipedia.org/wiki/Moutza

Even the 1F44C OK HAND SIGN 娒 can be considered both friendly ("OK!") or offensive ("asshole!"), as described at http://en.wikipedia.org/wiki/A-ok
"Angry defiance" is one of the semantic meanings of the REVERSED VICTORY HAND M, , chiefly in Britain and Ireland, Australia, New Zealand, and South Africa. In our view it makes no sense for some common hand gestures to be encoded while others are not, regardless of their positive or negative connotations. Indeed, most of the this-wayspointing or that-ways-pointing white or black index fingers on the current ballot have no rationale or evident utility at all. This article http://en.wikipedia.org/wiki/V_sign explains the usage of both this and the VICTORY HAND, which itself may mean "victory" or "peace".

The REVERSED HAND WITH MIDDLE FINGER EXTENDED (which should be annotated "the finger, the bird) is a ubiquitous gesture, well known to everyone. It would be inappropriate for the UCS to encode some of these pejorative gestures (usable by some cultures) and not to encode at least $\sqrt{3}$ and (which are common in other
cultures). "Compatibility" with Wingdings and Webdings is not sufficient to close off the set. Inclusion of these has in our view opened the set for some judicious and useful additions.

The RAISED HAND WITH PART BETWEEN MIDDLE AND RING FINGERS was popularized by Leonard Nimoy and other actors in the Star Trek franchise, but derives from the representation of the Hebrew letter shin in Jewish blessing. Evidence for ${ }^{\mathbb{M} / 夕}$ as a standard symbol can easily been found. There is even an article about the hand on the Wikipedia: http://en.wikipedia.org/wiki/Vulcan_hand_salute

There are indeed other hand gestures which we have seen as icons in fonts, such as the two-finger salute, the three-finger salute, the shaka sign, crossed fingers, and the "hook 'em horns" sign, all of which are quite common amongst scouts and soldiers, surfers, hopers and liars, and rockers. We would favour the encoding of such characters, and would readily offer glyphs for them. With regard to the three characters on the present ballot, we do not believe that there should be grounds to remove them. Everyone knows that these gestures exist and are universally recognized. Nevertheless we present here a few examples of these characters found as characters on the internet.


We show here some bitmap clip-art; most of these handshapes are encoded as characters, and most have an "emoticon" semantic, which is why people use them..


We show here an example of "the finger" used with a rubric alongside two other handshapes which also have rubrics. Note that the font used for and is the original Wingdings (unified with 26E1 and 1F44D respectively), but that the writer was forced to use a bitmap for the third handshape.

Since $\mathbb{B}$ and negative semantics, Ireland believes it appropriate to include both $M$ and $\}$. The semantic case for is hardly much different than that for or

Incidentally we would favour replacing some of the glyphs at 1F446-1F450 with Webdings glyphs, for consistency.

T11. Page 79, Row 1F68: Transport and Map Symbols. Ireland requests the following changes:

1F6CB COUCH AND LAMP
Change glyph to white for clarity.
1F6CC BED IN PERSPECTIVE
Change name to BED. Perspective is irrelevant in symbols like this.
Change glyph to something more in keeping with other isotype glyphs in this block.
1F6CD FORK AND KNIFE WITH BLACK PLATE
Move character to 1F37D
Change name to FORK AND KNIFE WITH PLATE
Change glyph to a white plate and harmonize fork and knife with 1F374
1F6CE BELLHOP BELL
Move character to 1F6D0
1F6CF TWO SHOPPING BAGS
Change name to SHOPPING BAG; the postscript name is "shopping"
Change glyph so it is simpler; there is no need to have two bags.
Move character to 1F6CD.
1F6D0 MOTOR BOAT SIDEWAYS
Change name to MOTOR BOAT
Change glyph to reverse direction as with other transport characters.
Move character to 1F6E5
1F6D1 SHIP AND OCEAN
Delete and unify with 1F6A2 SHIP. The postscript name for this character is "ship".
1F6D2 DIESEL LOCOMOTIVE WITH TERRAIN
Delete and unify with 1F686 TRAIN. The postscript name for this character is "train".
1F6D3 UNDERGROUND TRAIN
Delete and unify with 1F687 METRO. The postscript name for this character is "metro".
However, change the glyph of 1F687 to include the tunnel. This is a common variant of the Metro glyph and helps to differentiate the character from the other trains encoded in this block.
1F6D4 ONCOMING FIRE ENGINE Move character to 1F6F2
1F6D5 BLACK AMBULANCE
Delete and unify with 1F691 AMBULANCE. There is no difference between a white ambulance and a black one (unless the latter be a hearse).
1F6D6 SMALL AIRPLANE
Change glyph to be up-pointing small-propeller aircraft seen from above.
Move character to 1F6E7
1F6D7 AIRPLANE RISING
Change name to NORTHEAST-POINTING AIRPLANE
Change glyph to $45^{\circ} \mathrm{NE}$, and harmonize with 2708 AIRPLANE
Move character to 1F6E9
1F6E1 SHIELD
Change glyph to a white outline for clarity.
1F6E2 OIL DRUM
Change glyph to a white outline for clarity.
T12. Page 79, Row 1F68: Transport and Map Symbols. Ireland requests the following additions, which help to complete sets implied by the random set of characters added via the Webdings font:

1F6CE SHOPPING TROLLEY
1F6D1 INFORMATION DESK
1F6D2 PORTER
1F6D3 BAGGAGE TROLLEY
1F6D4 WAITING AREA
1F6D5 LIFT
1F6D6 STAIRS FACING LEFT
1F6D7 STAIRS FACING RIGHT
1F6D8 ESCALATOR FACING LEFT
1F6D9 ESCALATOR FACING RIGHT
1F6DA ENTRANCE
1F6DB EXIT
1F6E6 PORT AUTHORITY

- harbour office

1F6E8 UP-POINTING AIRPLANE

- airport

1F6EA AIRPLANE DEPARTING

- departures

1F6EB AIRPLANE ARRIVING

- arrivals

1F6EC LEFT AND RIGHT AIRPLANES WITH CLOCKWISE ARROWS

- flight connections

1F6ED HOT-AIR BALLOON
1F6EF FLYING SAUCER

- ufo, unidentified flying object

1F6F0 CAR FERRY
1F6F1 CAR TRAIN
1F6F3 CARAVAN

- motor home, camper

E1. Page 28, Row A72: Latin Extended-D. Ireland requests glyph changes to six characters in this block, although they are not under ballot at present. In Amendment 1 to ISO/IEC 10646:2012 six letters used in early Volapük texts were encoded. The reference glyphs for these were taken from Julius Lott's Die Kunst die internationale Verkehrssprache Volapük" schnell zu erlernen. Subsequently we have found a number of examples in publications by Johann Martin Schleyer, the inventor of Volapük. The reference glyphs for these characters should be preferred.

## a a O ๖ Uu

These are the glyphs we recommend.

$$
\begin{aligned}
& \Omega=\ddot{\mathrm{A}} \mathfrak{u}=\ddot{\mathrm{a}} \\
& \vartheta=0 ̈ \quad ט=\ddot{0} \\
& \mathfrak{u}=\ddot{\mathrm{U}} \quad \mathrm{u}=\ddot{\mathrm{u}} \\
& \text { The Volapük letters in Lott's publication. }
\end{aligned}
$$

## taglih $\quad a=\ddot{a}$ vorter durfte <br> $\theta=0 \ddot{0}$ <br> $\mathfrak{u}=\ddot{\mathfrak{u}}$

To the left, the lower case letters in Schleyer's publication; to the right, the same letters in italic.

'Um volapukasoga.
Yúmobsók staní blodála!
Dikodí valík 'etóbs;
Tónel júli báladála,
Vólapáke kósyubóbs, Vókobsód ko dátuvál, "Ménadé bal, páki bá!!"

Kís alsó, kanós koblódən
Lóliká volá menís?
Kís alsó kanós menódon,
As puk bál, omsá stadís?
Líkod tónosós ubál:
"Ménadé bal, páki bál!"
Datuvel puka lifoməd,
Lífomsód pakéls puká,
Vólapák aíflolóməd,
É valápukéd otá!
"Oibínoméd su tál
Ménadé bal, páki bál!"

Schleyer's printed texts seem not to give capital forms of the letters, but $\mathfrak{a}$ (Ä) and U(Ü) are shown handwritten in this text in lines 1 and 11. (We do not know whose handwriting this is.)

| s e valni s telmil $f$ | feitoms |  |
| :---: | :---: | :---: |
| ? aiklon | ik. Ot ag | Unu |
| linof gui | ili bal fle nom pul |  |

Upper-case italic letters from Josef Bernhaupt's Plägabuk sa glamat e vödasbuk in püks lul, al lenadön Volapüki söla Jleyer Yoan Martin (Überlingen: August Feyel, 1886).

E2. Page 39, Row 10CB: Old Hungarian. With reference to ISO/IEC JTC1/SC2/WG2 N4268
"Consolidated proposal for encoding the Old Hungarian script in the UCS", Ireland requests that annotations be added to the following characters:

10CDD ? OLD HUNGARIAN SMALL LETTER NIKOLSBURG OE - also used for ü

10CEC © OLD HUNGARIAN SMALL LETTER NIKOLSBURG UE - also used for ö


c

## Accommodation symbols

1F37D 10 FORK AND KNIFE WITH PLATE
$=$ dining
＝ $\mathrm{w}-0228$
$\rightarrow$ 1F374 ${ }^{\boldsymbol{W}}$ fork and knife
－was 1f6cd
Celebration symbols
1F396 $\mathbf{~} \quad$ MILITARY MEDAL
$=\mathrm{w}-0038$

## Musical symbols

1 F398 MUSICAL KEYBOARD WITH JACKS
$=$ midi，midi keyboard
$=\mathrm{w}-0176$
$\rightarrow$ 1F3B9 III musical keyboard
1F399 STUDIO MICROPHONE
$=$ microphone
$=\mathrm{w}-0177$
$\rightarrow$ 1F3A4 琾 microphone
1F39A 团 LEVEL SLIDER
＝level control
$=\mathrm{w}-0188$
1F39B © CONTROL KNOBS
＝audio control
$=\mathrm{w}-0189$
Entertainment symbols
1F39E $\diamond$ FILM FRAMES
$=$ film clip
$=\mathrm{w}-0180$
$\rightarrow$ 1F3A5 然 movie camera
1F39F ADMISSION TICKETS
＝ticket
$=\mathrm{w}-0182$
$\rightarrow$ 1F3AB ticket
Sport symbols


Building and map symbols

> 1F3D7 形 BUILDING CONSTRUCTION
> = under construction
> = w-0065
> $\rightarrow$ 1F6A7 construction sign
> - was 1 f 3 d 0
> 1F3D8 踰 HOUSE BUILDINGS
> = town
> $=\mathrm{w}-0066$
> $\rightarrow$ 1F3E1 苗, house with garden
> - was 1 f 3 d 1
> 1F3D9 昜 CITYSCAPE
> = skyline, city
> = w-0067
> $\rightarrow$ 1F306 島 cityscape at dusk
> - was 1 f 3 d 2
> 1F3DA 圈 DERELICT HOUSE BUILDING
> = derelict site
> = $\mathrm{w}-0068$
> $\rightarrow$ 1F3E0 10 house building
> - was 1 f 3 d 3
> 1F3DB 侖 CLASSICAL TEMPLE = public building
> = $\mathrm{w}-0071$
> - was 1 f 3 d 6
> 1F3DC ํ 出 DESERT
> = w-0069
> $\rightarrow$ 1F335 䧗 cactus
> - was 1 f 3 d 4
> 1F3DD 㐘 ISLAND
> $=\mathrm{w}-0074$
> $\rightarrow$ 1F334 * palm tree
> - was 1 f 3 d 9
> 1F3DE 凡 PARK
> = w-0080
> $\rightarrow 1$ F333 $Q_{\text {3 }}$ deciduous tree
> - was 1 f 3 dC
> 1F3DF STADIUM
> $=\mathrm{w}-0083$

Miscellaneous symbol
1F3F7 $\Leftarrow$ LABEL
＝price，price tag
$=\mathrm{w}-0146$
$\rightarrow$ 1F516 T bookmark

## Sport symbols

| 1F3F8 | \＃̈ | DANCING |
| :---: | :---: | :---: |
| 1F3F9 | 奚 | Rafting |
| 1 1F3FA | $\star$ | CANOOING |
| 1 1F3FB | t | SOCCER FOO |

Animal symbols
1F43F \＆CHIPMUNK
＝animal，critter
$=\mathrm{w}-0242$
Audio and video symbols
1F4F8 にば CAMERA WITH FLASH
1F4F9
1F4FA
1F4FB
1F4FC
＜reserved＞
TELEVISION
＜reserved＞
＜reserved＞

| 1F4FD | FILM PROJECTOR |
| ---: | :--- |
|  | $=$ movies |
|  | $=\mathrm{w}-0184$ |
|  | $\rightarrow 1$ 1F3A6 |
| 1F4FE cinema |  |
| $=$ | PORTABLE STEREO |
|  | $=$ stereo |
|  | $=\mathrm{w}-0186$ |

## Communication symbols

1F56B of BULLHORN
$=$ sound off
＝ $\mathrm{w}-0086$
$\rightarrow$ 1F508 4 speaker
1F56C BIF BULLHORN WITH SOUND WAVES ＝sound on
$=\mathrm{w}-0085$
$\rightarrow$ 1F4E3 $\Delta$ cheering megaphone
$\rightarrow 1$ 1F50A（1））speaker with three sound waves
Miscellaneous symbols
1F570 MANTELPIECE CLOCK
＝clock
$=\mathrm{w}-0161$
$\rightarrow 23$ FO alarm clock
1 F571 $\mathbb{Q}$＜reserved＞
1 F572（2）NO PIRACY $=\mathrm{w}-0035$
1F573 $\mathbb{Q}$＜reserved＞
1F574 MAN IN BUSINESS SUIT LEVITATING ＝jump $=\mathrm{w}-0109$
1F575 - SLEUTH OR SPY
$=$ investigate
$=\mathrm{w}-0160$
1F576＊DARK SUNGLASSES
＝cool
$=\mathrm{w}-0036$

## Game symbols

1F579 JOYSTICK ＝w－0195

Communication symbols
1F57C U TELEPHONE RECEIVER WITH PAGE
$=$ fax
$=\mathrm{w}-0198$
$\rightarrow$ 1F4EO fax machine
1 F57D $\mathbb{Q}$＜eserved＞
1 F57E＜reserved＞
1F57F＜reserved＞
1F580 管
TELEPHONE ON TOP OF MODEM
$=$ modem
$=\mathrm{w}-0201$
1 F581 CLAMSHELL MOBILE PHONE
＝cellular phone
$=\mathrm{w}-0200$
$\rightarrow$ 1F4F1 i mobile phone

＜reserved＞
1 F583＜reserved＞
1 F584＜reserved＞
1F585
＜ 586 reserved＞
＜reserved＞
1 F587＜reserved＞

1 F588
BLACK PUSHPIN
＝marker
$=\mathrm{w}-0235$
$\rightarrow$ 1F4CC $>8$ pushpin
Hand symbols
1 F594 is REVERSED VICTORY HAND
1 F595 REVERSED HAND WITH MIDDLE FINGER EXTENDED
1 F596 RAISED HAND WITH PART BETWEEN MIDDLE AND RING FINGERS
Office symbols
1F5BB DOCUMENT WITH PICTURE
＝graphic document
$=\mathrm{w}-0159$

## User interface symbols

1F5BC FRAME WITH PICTURE
$=$ art
$=\mathrm{w}-0173$

＝frames
$=\mathrm{w}-0162$
1F5BE $\boxtimes$ FRAME WITH AN X $=$ no frames，no picture $=\mathrm{w}-0163$
1F5BF＜reserved＞
1F5C0＜reserved＞
1F5C1＜reserved＞
1F5C2 CARD INDEX DIVIDERS
$=$ index
$=\mathrm{w}-0172$
$\rightarrow$ 1F4C7 so card index
1F5C3 $\Rightarrow$ CARD FILE BOX
＝archive
$=\mathrm{w}-0171$
1F5C4＜reserved＞
1F5C5＜reserved＞
1F5C6＜reserved＞
1F5C7＜reserved＞
1F5C9＜reserved＞
1F5CA＜reserved $>$
1F5CB $<$ reserved＞
1F5CC
1F5CD＜reserved＞
1F5CE＜reserved＞
1F5CF＜reserved＞
1F5D0＜reserved＞
1F5D1＜reserved＞
1F5D2 $\square$ SPIRAL NOTE PAD
＝note
$=\mathrm{w}-0165$
$\rightarrow$ 1F4C5 嶵 calendar
1F5D3 1］SPIRAL CALENDAR PAD
＝calendar
$=\mathrm{w}-0166$
$\rightarrow$ 1F4C6 图］tear－off calendar
$\begin{array}{ll}\text { 1F5D4 } & \text {＜reserved }> \\ \text { 1F5D5 } & \text {＜reserved }> \\ \text { 1F5D6 } & \text { reserved }> \\ \text { 1F5D7 } & \text {＜reserved }> \\ \text { 1F5D8 } & \text {＜reserved }> \\ \text { 1F5D9 } & \text { reserved }> \\ \text { 1F5DA } & \text { reserved }>\end{array}$

```
1F5DB \ <reserved>
1F5DC 曾 COMPRESSION
    - hand press with box inside
    = w-0206
1F5DD & OLD KEY
    = encryption
    = w-0209
    ->1F511 *- key
```

Miscellaneous symbols
1F5DE ROLLED-UP NEWSPAPER
= news
= $\mathrm{w}-0169$
$\rightarrow$ 1F4FO 圈 newspaper
1F5DF 圈 PAGE WITH CIRCLED TEXT
$=$ classified
$=\mathrm{w}-0170$
1F5EO 困 STOCK CHART
$=$ finance
$=\mathrm{w}-0143$
$\rightarrow$ 1F4C8 M chart with upwards trend

## Rating symbols

The following symbols give rating symbols；part of this set is 1F46A for＂Family rating＂
1F5E1 ø DAGGER KNIFE
$=$ rated for violence
$=$ hate
$=\mathrm{w}-0149$
$\rightarrow 1$ F52A $\sim$ hocho
1F5E2 $\boldsymbol{\bullet}$ LIPS
$=$ rated for sex
$=$ kiss
$=\mathrm{w}-0150$
$\rightarrow$ 1F48B kiss mark
1F5E3 § SPEAKING HEAD IN SILHOUETTE
$=$ rated for strong language
$=\mathrm{w}-0151$

## Sound symbols

1F5E4 ，THREE RAYS ABOVE
$=\mathrm{w}-0237$
1F5E5＂THREE RAYS BELOW
$=\mathrm{w}-0238$
1F5E6 THREE RAYS LEFT
＝w－0239
$\rightarrow 269 \mathrm{E} \geqslant$ three lines converging right
1F5E7 ミ THREE RAYS RIGHT
＝w－0240
$\rightarrow$ 269F $\leqslant$ three lines converging left
Bubble symbols
1F5E8 Q LEFT SPEECH BUBBLE
$=\mathrm{w}-0040$
1F5E9 $\bigcirc$ RIGHT SPEECH BUBBLE
$=\mathrm{w}-0041$
1F5EA TWO SPEECH BUBBLES
＝chat
$=\mathrm{w}-0094$
1F5EB THREE SPEECH BUBBLES
＝conference
＝ w －0095
1F5EC LEFT THOUGHT BUBBLE
＝ w －0091

1F5EDRIGHT THOUGHT BUBBLE
＝ w －0093
$\rightarrow$ 1F4AD thought balloon
1F5EE
LEFT ANGER BUBBLE
$=$ shout left
$=\mathrm{w}$－0123
1F5EFRIGHT ANGER BUBBLE $=$ shout right $=\mathrm{w}-0125$
1F5FO 紬 MOOD BUBBLE
＝new
＝w－0042
$\rightarrow$ 1F4A5 ${ }^{2}$ 㘳 collision symbol
1F5F1 LIGHTNING MOOD BUBBLE
＝updated
$=\mathrm{w}$－0043
$\rightarrow 26 \mathrm{~A} 1$＞high voltage sign
1F5F2 $N$ LIGHTNING MOOD
$=$ lightning bolt
$=\mathrm{w}-0126$
$\rightarrow 26 \mathrm{~A} 1$ S high voltage sign

## Ballot symbols

1F5F3 BALLOT BOX WITH BALLOT
＝vote
＝w－0063
$\rightarrow 2612$ ® ballot box with x

(http://www.unicode.org/unibook/)
rdVehicles
Accommodation symbols

```
1F6CB COUCH AND LAMP
    = furniture, lifestyles
    = w-0226
1F6CC & BED
    = hotel, guestrooms, accommodation
    = w-0227
    ->1F3E8 圈 hotel
```

1F6CD 自 SHOPPING BAG
= shopping
$=\mathrm{w}-0231$
- was 1 ffcf
1F6CE 崮 SHOPPING BASKET
1F6CF 黑 SHOPPING TROLLEY
1F6DO - BELLHOP BELL
$=$ reception, services
$=\mathrm{w}-0230$
1F6D1 ivi INFORMATION DESK
1F6D2 in PORTER
1F6D3 - BAGGAGE TROLLEY
1F6D4 WAITING AREA
1F6D5 |猞 LIFT
= elevator
1F6D6 לh STAIRS FACING LEFT
1F6D7 stairs FACING RIGHT
1F6D8 $\stackrel{\text { ESCALATOR FACING LEFT }}{ }$
1F6D9 $\sim$ ESCALATOR FACING RIGHT
1F6DA E ENTRANCE
1F6DB $\underset{-}{\square}$ EXIT

## Miscellaneous symbols

1F6EO $x$ HAMMER AND WRENCH
$=$ tools，repair facility
$=\mathrm{w}-0064$
$\rightarrow 2692$ x hammer and pick
1F6E1 SHIELD
＝US road interstate highway
＝w－0100
1F6E2 OIL DRUM
＝commodities
$=\mathrm{w}-0144$
1F6E3 it MOTORWAY
$=\mathrm{w}-0075$
－was 1 f 3 da
1F6E4 点 RAILWAY
＝railroad
$=\mathrm{w}-0082$
－was 1 f 3 de

## Vehicles

1F6E5－MOTOR BOAT SIDEWAYS
＝boat
$=\mathrm{w}-0111$
$\rightarrow$ 1F6A4 5 speedboat
－was 1f6d0
1F6E6 PORT AUTHORITY
＝harbour office
1F6E7 I SMALL AIRPLANE
$=\mathrm{w}-0106$
$\rightarrow 2708 \rightarrow$ airplane
－was 1f6d6

| 1F6E8 4 | UP－POINTING AIRPLANE <br> $\rightarrow 2708 \rightarrow$ airplane |
| :---: | :---: |
| 1F6E9 X | NORTHEAST－POINTING AIRPLANE <br> ＝airplane <br> $=\mathrm{w}-0241$ <br> －was 1 f 6 d 7 |
| 1F6EA | AIRPLANE DEPARTING ＝departures |
| 1F6EB ${ }^{4}$ | AIRPLANE ARRIVING ＝arrivals |
| 1F6EC 杂 | LEFT AND RIGHT AIRPLANES WITH <br> CLOCKWISE ARROWS <br> ＝flight connections |
| 1F6ED Q | HOT－AIR BALLOON |
| 1F6EE | SATELLITE <br> $=\mathrm{w}-0107$ <br> －was 1 f 6 d 8 |
| 1F6EF－ | FLYING SAUCER $=$ ufo，unidentified flying object |
| 1F6F0 窝 | CAR FERRY |
| 1F6F1 $\rightarrow$ | CAR TRAIN |
| 1F6F2 | ONCOMING FIRE ENGINE <br> $=$ fire <br> $=\mathrm{w}-0102$ |
|  | $\rightarrow 1$ F692 $\overline{\text { 雨 }}$ fire engine <br> －was 1f6d4 |
| 1F6F3 | CARAVAN <br> $=$ motor home，camper |


[^0]:    Secretariat ISO/IEC JTC 1/SC 2 - IPSJ/ITSCJ (Information Processing Society of Japan/Information Technology Standards Commission of Japan)* Room 308-3, Kikai-Shinko-Kaikan Bldg., 3-5-8, Shiba-Koen, Minato-ku, Tokyo 105-0011 Japan *Standard Organization Accredited by JISC
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[^1]:    1F3CD MOTORCYCLE RIDER
    Change name to MOTORCYCLE Change glyph to improve it.
    1F3CE RACE CAR WITH DRIVER
    Change name to RACE CAR
    Move character to 1F3CF.

