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ISO/IEC JTC 1/SC 2/WG 2

Universal Multiple-Octet Coded Character Set (UCS) - ISO/IEC 10646

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| Title: | A Proposal to Revise a Part of Emoticons in PDAM 8 |
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| Status: | Experts' Contribution |
| Action: | For Consideration at WG 2 Tokyo Meeting |

1. Preface

1.1 Reason of This Proposal

We welcome the proposal of including Emoji characters in ISO/IEC 10646:2003 Amendment 8 and strongly support it.

The survey by the Cabinet Office of Japan shows that, the rate of households owning cell-phones was 90.5% in 2008*1. The survey by the Telecommunications Carriers Association indicates that 86.3% of them also contracted the IP connection service in 2008*2.

These survey reveals that most Japanese own their cell-phone(s) and use them not only for voice communications, but also for Internet data communications. However, when it comes to Emoji characters, its usability is very poor.

An exchange of messages with Emoji characters among cell-phones of different carriers often causes the Emojis to be changed into semantically equivalent Japanese words or ASCII arts. In worse case, Emojis are garbled into ■ (Geta 下駄) characters that indicate glyph unavailability. Currently, Japanese Emoji users face such inconvenience.

The vendor-specific character sets of the Emoji repertoires of the cell-phone carriers cause this unfavorable asymmetry. As of it, many Emoji characters among the carriers do not have one-to-one correspondence to each other, but one-way correspondence and sometimes conversion into equivalent Japanese words or ASCII arts.

Adding Emoji characters to the repertoires of ISO/IEC 10646 will pave the way to unite Emoji characters among the carriers. Although it is not evident whether these carriers would adopt such standardization, there is no doubt that the addition of Emoji characters to ISO/IEC 10646 would boost up these carriers to support them for Internet communication. For this reason, we welcome the proposal.

Standardization of Emoji repertoires may be difficult, as currently these carriers have different Emoji repertoires, and moreover, Emojis have been strongly dependent on Japanese culture.

Emoji characters were devised in late 1990's while Japanese cell-phone carriers were developing new services for Internet users. In this context, offering more unique and user-agreeable Emojis has become one way to entice and impound their customers. As a result, they competed against each other by mean of extending their original Emoji characters, and the repertoires have become more and more asymmetric and highly unique based on Japanese culture. Naturally, some of these Emojis may be considered eccentric by non-Japanese.

ISO/IEC 10646 contains unified the coded character sets from a variety of regions since the very beginning. It is not unusual that culturally dependent characters are included in ISO/IEC 10646, but it would be better if Emoji characters in ISO/IEC 10646 should be usable by people all over the world.

However, the top priority on determining ISO/IEC 10646 Emoji repertoires should be focused on the interoperability with the sources. The general versatility appropriate to be an International standard should be the next.

For this reason, we propose a revision to current PDAM 8. We have found that the meanings of some Emoji characters in PDAM 8 have been changed from the original standards. The purpose of this proposal is to match the characters exactly to the original sources while keeping their generality as an International standard.

*1 Consumer survey results (Cabinet Office, Government of Japan. 2008) <http://www.esri.cao.go.jp/jp/stat/shouhi/2008/0803fukyuritsu.xls>

*2 Telecom Data Book 2008 (Telecommunications Carriers Association. 2009) http://www.tca.or.jp/databook/pdf/2008chapter_2j.pdf /p. 10.

1.2 Scope of This Proposal

We highly support the N3582 proposal by the Unicode Consortium as it clearly commits the interoperability with the original Japanese carrier standards. In addition, the proposed Emoji characters are natural for us though we cannot agree with some details mentioned later.

The efforts by Ireland and German in WG2 Dublin meeting (N3607) deserve praise for making Emoji characters more generic, made in such a short period of time. Their efforts suggest that such characters in International Standard should be generalized for global use.

We also believe that the characters in International standards should be as generalized as possible. However, a part of their proposed characters, especially emoticons (1F600-1F632), were too much generalized such that they lose the interoperability with the source standards.

Originally, these emoticons seems strongly influenced by Japanese Manga (漫画) and Anime (アニメ). See the examples below.



fig. 1: Gyu Jiro and Big Joe. *Hochonin Ajihei*, vol. 20 (Tokyo: Shueisha. 1977) p. 105 (left) and the Emoji characters of SoftBank (upper right) and KDDI (lower right) which express being shocked.

The 1970's Manga example of fig. 1, displays the deep shock of the character, drawing his out-of-focus eyes, shadows on his face and open mouth. Nowadays, such drawing style has been widely used to express shock in a variety of Japanese Manga and Anime, as shown in the right of fig. 1. Note that most of these Emoji characters are typically influenced by these original works. See fig. 2.



fig. 2: Azuma Hideo. *Teihon Fujori Nikki* (Tokyo: Ohta shuppan, 1993.) p. 81 and the emoticon of hiya-ase (冷や汗) or cold sweats from NTT docomo (left). Kikuni Masahiko. *Itsumo Kokoro Ni Taiyou Wo!* (Tokyo: Tekeshobo, 1991.) p. 56 and the emoticon of naki-warai (泣き笑い) from KDDI (right).

In other words, the design of the emoticons should accommodate with Japanese Manga/Anime culture. Unfortunately there seems to be a lack of accommodation on them in N3607. This results many emoticons whose meanings are different from those of the original standards.

We have had variety of concerns regarding the interoperability with original sources and PDAM 8. Reading the comments on PDAM 8 by various national bodies, we expect that most of them will be fixed. As of it, we would like to focus on proposing an amendment to the emoticons.

1.3 Scope of the Revision

We would like to propose the revision on following three points.

- Glyph Designs of Emoticons
- Character Names of Emoticons
- Correspondence to the Original Standards

1.3.1 Methodology of the Revision of the Glyph Designs

The national bodies of Germany and Ireland redesigned the emoticons in a pictogram style. We believe that decision was right, as it leaves a room for vendors' arbitrary implementations. What we are concerned here is the method of combination of facial parts.

We think that the emoticons of PDAM 8 consist of five facial parts: the outline of the face, eyebrows, eyes, mouth and others. Based on this classification, we have extracted the essential elements from emoticons of three carrier sources (or four when considering the old version of SoftBank^{*3}) that serve as the basis for 1F600-1F632. Then by comparing them with the facial parts of glyph designs of PDAM 8, the emoticons with significant difference have been isolated. Finally, the problematic facial parts of these characters have been modified to make the semantics of the characters fit with the original sources.

The result and their reasons are listed in the section 2.1, and the revised glyphs that we would like to propose are shown in the section 3.1. In that section, we can compare the sources of three carriers (both new and old versions of SoftBank are included), the proposal of the Unicode Consortium (N3582), that of Ireland and Germany (N3607), PDAM 8 and our proposal. We believe that this table would confirm whether our proposal is appropriate.

Finally, in the section 3.2 shows the essential elements of each character that we have isolated and the list of the names of facial parts for our proposal.

We refrained over-modification of glyphs as we should respect PDAM 8, the result of the long discussions among many National Bodies. This proposal is minimum modification to the characters where meanings have been changed from the original proposal.

The facial parts of Emoticons in PDAM 8 can be categorized to five genres, and the components within the same category seems replaceable to each other. Therefore, we made the following web page to examine the best combination.

- Kaomoji Generator (<http://fonts.jp/emoji/emoji.html>)

^{*3} Vodafone Japan (now called SoftBank) launched the Emoji conversion service in September 2005 (<http://www.SoftBankmobile.co.jp/ja/news/press/vodafone/pdf/050928.pdf>). However, in June 2008, they significantly changed the design of Emoji (http://www.SoftBankmobile.co.jp/ja/news/press/2008/20080603_03/index.html). Therefore, in many cases, the relationship of Emoji characters between SoftBank and other carriers become clear if old version rather than the new version is referred.

1.3.2. Methodology of the Revision of the Character Names

The character name is an important guidance for glyph implementors, as it should represent the meaning of the glyph. In the original carrier standards, the emoticons symbolize an emotion or condition by mean of facial expression. We examined character names of PDAM 8 whether they correctly represent the emotion or condition of original carrier standards, and made proposed alternatives to possibly inappropriate names. The section 2.2 shows these amendments. In addition, the problems of character names except 1F600-1F632 are also explained in this section.

1.3.3 Methodology of the Revision of the Character Mappings

We have reviewed the character mapping tables proposed by the Unicode Consortium (N3585), and some revisions have been proposed. The section 2.3 shows these revisions.

2. Details of the Proposal

2.1 Revision of the Glyph Designs

In this section, we discuss each character that needs to be modified as its glyph in the draft seems to represent different semantics from the source. See section 3.1 for the list of modified glyphs. Although the table in section 3.1 also includes the old version glyphs of SoftBank for the sake of easier comparison among the carriers, the term *source(s)* in the following description means NTT Docomo, KDDI and/or new version of SoftBank.

1F602

Since eyes depicted as cross eyes mean *dizzy* rather than *astonished*, they should be revised to *widely open-eyed*

shape based on the sources.

1F603

The eyes should be revised into *droopy eyes* based on the sources, because the neutral eyes are not enough to express disappointment.

1F605

The sweat-drop in the draft seems to represent *tear* rather than *cold sweat*. In spite of changing the position of the drop in Ireland's amendment, the ambiguity still remains. The position and angle of the drop should be changed.

1F606

EXPRESSIONLESS FACE doesn't have to mean a neutral expression. Since the draft glyph could not represent a nuance of getting turned off, the eyes should be revised into *side glance* based on the source.

1F608

We believe that SoftBank #11 *utusisi* (phonetically *usshisbi*) should be mapped to 1F613 and KDDI #442 *kachi-bokori* (look of triumph) be the single source of 1F606. Though the draft glyph is designed based on SoftBank #11, it should be redesigned based on KDDI #442. See the section 2.3 for details.

1F60A

Ii in the source means not only a movement of sticking a tongue out but also a sign of kidding or refusing with showing emotional dependence. To show this nuance, the eyes should be revised into *tightly closed eyes* based on the sources.

1F60C

It is unclear why the mouth of the kissing face is expressed as the heart-shaped mouth in the draft. It should be revised into *a kissing mouth* based on the sources.

1F60D

It is unclear why the mouth of the kissing face is expressed as the heart-shaped mouth in the draft. It should be revised into *a kissing mout* based on the sources.

1F611

The drop in the draft glyph appears to represent *tear* rather than *cold sweat*. In spite of changing the position of the drop in Ireland's amendment, the ambiguity still remains. The position and angle of the drop should be changed. In addition, the eyes should be revised into *upper circular arcs* based on the sources.

1F612

The draft glyph does not look a *happy face* because of the eyes of horizontal lines. They should be revised into *tightly closed eyes* based on the sources.

1F615

The eyes of the draft glyph should be revised into *upper circular arcs* based on the sources, deleting the eyebrows. See also the description of 1F615 in the section 2.2.

This revised glyph may seem to conflict with the glyph of 1F61C, this will be resolved by revising the glyph of 1F61C (See the description of 1F61C in this section).

1F616

The eyes of the draft glyph should be revised into *upper circular arcs* based on the sources, deleting the eyebrows (Deletion of the eyebrows only causes the conflict with 1F610). See also the description of 1F615 in the section 2.2. See the description of 1F616 in the section 2.2.

1F618

The draft glyph looks like a happy and crying face because the eyes are depicted as *upper circular arcs*. They should be revised into either one of the glyphs of the sources.

1F619

Since the draft glyph could not represent a nuance of *turning pale with shock*, the eyes should be revised into *widely open-eyed* shape based on the source and a shade for *turning pale* should be added on the face.

1F61A

The draft glyph looks like an *angry face* because of the eyes of horizontal lines and could not represent a nuance of *persevering* or *failure*. They should be revised into *tightly closed eyes* based on the sources.

1F61B

The draft glyph would be confused with 1F600 ANGRY FACE. *Sulky cheeks* should be added to the glyph based on the sources.

1F61C

The draft glyph looks a *happy face* but could not represent a *relieved* nuance because its eyes are depicted by *upper circular arcs*. Thus they should be revised into *lower circular arcs* based on two of the three sources. See also 1F615 above.

1F61D

The facial expression of the draft glyph is unclear. It should be revised so that the facial expression contains *droopy eyes* and a *wavy-shape mouth* based on the sources.

1F61F

Since the draft glyph seems not representing a nuance of shocked scream, the eyes should be revised into either shape of the sources and *cheeks with hands* should be added.

1F620

The *snot bubble* (hana chochin 鼻ちょうちん in Japanese) of the draft glyph looks like a *drop of tear*. Though it was deleted in Ireland's proposal, a *snot bubble* should be added in accordance with the sources in order to correctly represent the original *sleepy* nuance.

1F621

The eyes of the draft glyph should be revised into *horizontal lines* in order to represent a nuance of a *smirking face* based on the sources.

1F622

The drop in the draft glyph appears to represent *tear* rather than *cold sweat*. In spite of changing the position of the drop in Ireland's amendment, the ambiguity still remains. The position and angle of the drop should be changed.

1F623

The drop in the draft glyph appears to represent *tear* rather than *cold sweat*. In addition, the nuance of sigh is not clearly shown because of the eyes depicted by *lower circular arcs*. The position and angle of the drop should be changed in accordance with original sources. Eyes should also be revised into *droopy eyes*, too.

1F624

The eyes of *horizontal lines* should be revised into *tightly closed eyes* in order to represent a nuance of a *tired face* as shown in the sources.

1F62B

As the name WITH GRIN suggests, *utusisi* (or *usshishi*) represents a toothy smile (shaping the mouth to pronounce /shi/). Therefore, the mouth should be revised into *the mouth of lower semicircular with bare teeth*.

1F62D

It is unclear why the mouth of the kissing face is expressed as the heart-shaped mouth. The glyph should be revised so that it contains *closed eyes* and a *kissing mouth* based on the sources.

1F630

The draft glyph does not look like pouting because of its shapes of eyebrows and eyes. Based on the sources, the eyes should be revised into *sloe eyes* and the eyebrows should be deleted.

1F631

Though the Japanese word *kiriri* in the source is somewhat similar to *count on me* the glyph seems to have the feeling of *anxiety* or *sad*. The glyph should be revised with *sloe eyebrows* and *mouth raising at a corner* based on the sources.

Other General Modification of the Designs

In the draft glyphs, only the *circular mouths* are filled with black, while other opened mouths are filled with white. In this proposal, we have stuck to white color (the mouths of 1F602, 1F604 and 1F605 are revised).

In the draft glyphs, the *mouths of upper circular arc (tightly-lipped mouth with both ends turned down)* of the draft glyphs seem to overly accentuate the meanings of tightly-lipped mouth. In this proposal, they have been modified narrower (the mouths of 1F600, 1F603, 1F608, 1F61A, 1F61B, 1F623 and 1F62F are revised).

There are some minor modifications for the revised glyphs that are not described explicitly.

2.2 Revision of the Character Names

Since the emoticons represents an emotion or condition by means of the combination of the shapes of various facial parts, the character names should include both the words of emotion or condition and those of shapes. In this section, we would like to propose to add words of emotion or condition to some character names. Moreover, some words in the character names should be changed into more appropriate words that seem closer to the nuances of the original sources.

1F601

Changing into the word that seems closer to the nuances of the original sources.

ANGUISHED FACE→WEARY FACE

1F605

Changing into the word that seems closer to the nuances of the original sources.

EXASPERATED FACE→IMPATIENT FACE

1F606

Changing into the word that seems closer to the nuances of the original sources.

EXPRESSIONLESS FACE→UNAMUSED FACE

1F607

Adding the word of emotion or condition.

FACE WITH HEART SHAPED EYES→HAPPY FACE WITH HEART SHAPED EYES

1F609

Adding the word of emotion or condition.

WINKING FACE WITH STUCK OUT TONGUE→KIDDING AND WINKING FACE WITH STUCK OUT TONGUE

1F60A

Adding the word of emotion or condition.

FACE WITH STUCK OUT TONGUE→KIDDING FACE WITH STUCK OUT TONGUE

1F60C

Adding the word of emotion or condition.

FACE THROWING A KISS→HAPPY FACE THROWING A KISS

1F60D

Adding the word of emotion or condition.

FACE KISSING→HAPPY FACE KISSING

1F60E

Adding the word of emotion or condition and the term *MEDICAL* for strictness.

FACE WITH MASK→SAD FACE WITH MEDICAL MASK

1F615

Although the draft character name includes *RAISED EYEBROWS* SoftBank #2, one of the sources of this character, does not have eyebrows. The parallels between two sources (KDDI #454 and SoftBank #2) are *WIDE MOUTH* and *SMILING EYES* (*eyes of upper half circles*).

HAPPY FACE WITH WIDE MOUTH AND RAISED EYEBROWS→HAPPY FACE WITH WIDE MOUTH AND SMILING EYES

1F616

Although the draft character name includes *RAISED EYEBROWS*, SoftBank #1, the single source of this character, does not have eyebrows. The element in the source glyph except *OPEN MOUTH* is *SMILING EYES* (*eyes of upper half circles*).

HAPPY FACE WITH OPEN MOUTH AND RAISED EYEBROWS→HAPPY FACE WITH OPEN MOUTH AND SMILING EYES

1F62A

Adding the word of emotion or condition.

CAT FACE WITH OPEN MOUTH→HAPPY CAT FACE WITH OPEN MOUTH

1F62D

Adding the word of emotion or condition.

CAT FACE KISSING→HAPPY CAT FACE KISSING

1F62E

Adding the word of emotion or condition.

CAT FACE WITH HEART SHAPED EYES→HAPPY CAT FACE WITH HEART SHAPED EYES

1F631

Adding the word of emotion or condition.

CAT FACE WITH TIGHTLY CLOSED LIPS→SMART CAT FACE WITH TIGHTLY CLOSED LIPS

1F639

Adding the word of emotion or condition.

PERSON RAISING ONE HAND→HAPPY PERSON RAISING ONE HAND

1F63D

Adding the word of emotion or condition.

PERSON WITH FOLDED HANDS→PLEADING PERSON WITH FOLDED HANDS

2.3 Revision of the Character Mappings

There are old and new designs in the Emoji characters of SoftBank, and there are also old and new mapping tables among the carriers. We would like to propose the correction of the mapping in *Emoji Symbols: Background Data* (N3681), because of the bug based on the different mapping tables.

1F608 FACE WITH LOOK OF TRIUMPH

1F613 HAPPY FACE WITH GRIN

In N3681, FACE WITH LOOK OF TRIUMPH is mapped to KDDI #442 *Kachihokori* and SoftBank #11.

There are significant differences between the old (#old351) and new (#11) designs of 0xFB44 of SoftBank, and there are also two different mapping tables to KDDI characters. See fig. 3.

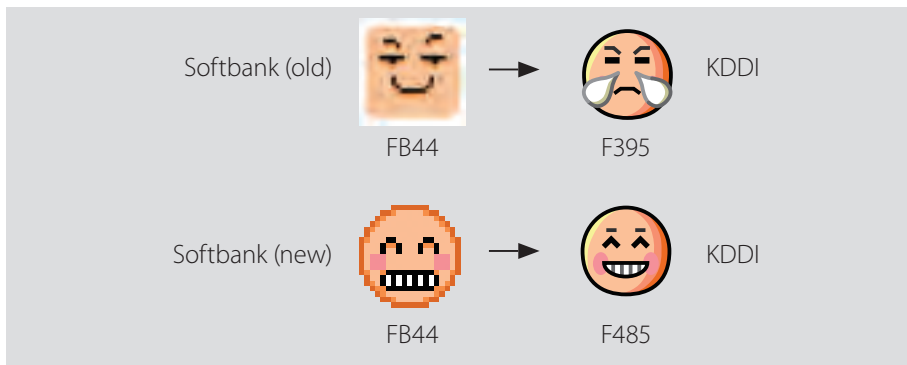


fig. 3: Old and new designs and mappings of SoftBank 0xFB44.

The mapping between FACE WITH LOOK OF TRIUMPH and SoftBank #old351 in N3681 causes contradiction: The *utusitusi* characters of Docomo (#Exp. 72) and KDDI (#814) are mapped to 1F613, while *utusisi* of SoftBank mapped to 1F608 (*utusitusi* and *utusisi* are the same in meaning). See fig. 4.

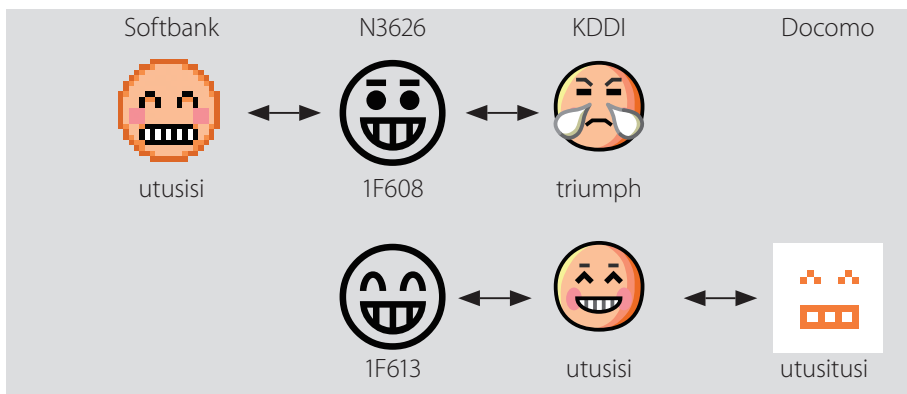


fig. 4: Contradict mappings in N3681

SoftBank #11 should be mapped as follows, based on the new design:

N3681:

1F608 FACE WITH LOOK OF TRIUMPH and SoftBank #11 are mapped each other.

1F613 HAPPY FACE WITH GRIN maps to SoftBank #11 as a fallback.

Our proposal:

1F608 FACE WITH LOOK OF TRIUMPH maps to SoftBank #11 as a fallback.

1F613 HAPPY FACE WITH GRIN and SoftBank #11 are mapped each other.

After this revision, the contradiction mentioned above could be resolved by means of revising the glyph of 1F608 FACE WITH LOOK OF TRIUMPH into that based on KDDI#442. See fig. 5.

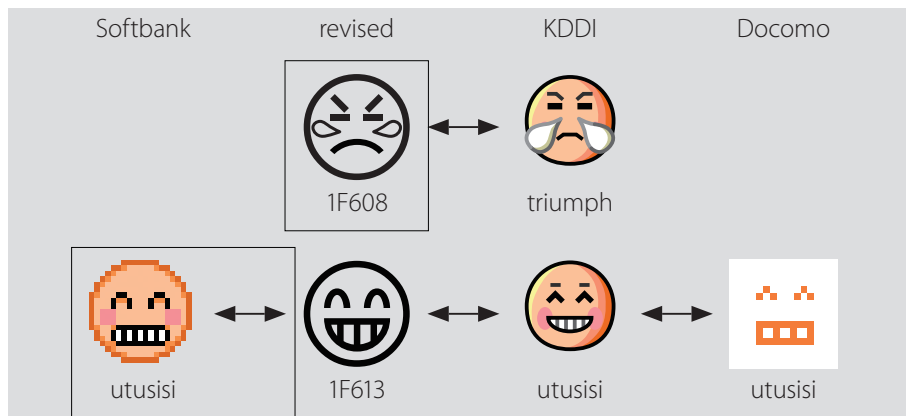






















































































































fig. 5: Revised mappings and glyphs

























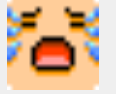
















3. Appendix









































3.1 Mapping Table among the Sources and Proposals












































| Proposed Character Name In PDAM8 | Sources (Japanese Carriers) | | | | N3580 (PDAM7) | N3607 (Ireland/Germany) | N3626 (PDAM8) | N3690 (PDAM8) | Our Proposal |
|-----------------------------------|---|--|--|---|--|--|---------------|---------------|---|
| | NTT DoCoMo | KDDI | SoftBank (New) | SoftBank (Old) | | | | | |
| ANGRY FACE e-320 |  #141 ちっ(怒った顔) |  #258 顔2 (おこったカオ) |  #29 表情(ぶんぶん) |  #old89 |  1F397 |  1F600 | → | → |  |
| ANGUISHED FACE e-321 |  #143 もうやだ～ |  #789 ほえー |  #17 表情(考え中) |  #old350 |  1F398 |  1F601 | → | → | → WEARY FACE |
| ASTONISHED FACE e-322 |  #144 ふらふら |  #451 びっくり |  #27 表情(ふらふら) |  #old363 |  1F399 |  1F602 | → | → |  |
| DISAPPOINTED FACE e-323 |  #142 がく～ (落胆した顔) |  #441 しょぼり |  #18 表情(がっかり) |  #old88 |  1F39A |  1F603 | → | → |  |
| DIZZY FACE e-324 |  #144 ふらふら |  #327 ふらふら |  #23 表情(あちゃー) |  #old353 |  1F39B |  1F604 | → | → |  |






























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|--|--|---|--|--|--|--|--|--|---|
| EXASPERATED FACE e-325 |  #Exp.24 冷や汗2 |  #452 あせり |  #21 表情(おろおろ) |  #old362 |  1F39C |  1F605 | → |  |  IMPATIENT FACE |
| EXPRESSIONLESS FACE e-326 |  #Exp.26 ボケーっと した顔 |  #450 横目 |  #14 表情(しらー) |  #old361 |  1F39D |  1F606 |  1F606 | → |  UNAMUSED FACE |
| FACE WITH HEART SHAPED EYES e-327 |  #Exp.27 目がハート |  #349 目がハート |  #6 表情(ラブラブ) |  #old96 |  1F39E |  1F607 | → | → |  HAPPY FACE WITH HEART SHAPED EYES |
| FACE WITH LOOK OF TRIUMPH e-328 |  #Exp.72 ウッシッシ |  #442 勝ち誇り |  #11 表情(うっしし) |  #old351 |  1F39F |  1F608 | → | → |  |
| WINKING FACE WITH STUCK OUT TONGUE e-329 |  #Exp.29 あっかんべー |  #264 からかう (あっかんべえ) |  #12 表情 (あっかんべー) |  #old95 |  1F3A0 |  1F609 | → | → |  KIDDING AND WINKING FACE WITH STUCK OUT TONGUE |
| FACE WITH STUCK OUT TONGUE e-32A |  #Exp.29 あっかんべー |  #264 からかう (あっかんべえ) |  #13 表情(いー) |  #old356 |  1F3A1 |  1F60A | → | → |  KIDDING FACE WITH STUCK OUT TONGUE |

| | | | | | | | | | |
|--|--|---|--|--|--|--|---|---|--|
| FACE SAVORING DELICIOUS FOOD e-32B |  #Exp.71 うまい！ |  #454 にこにこ |  #2 表情(にこにこ) |  #old86 |  1F3A2 |  1F60B | → | → | → |
| FACE THROWING A KISS e-32C |  #Exp.27 目がハート |  #456 チュッ |  #7 表情(投げキッス) |  #old371 |  1F3A3 |  1F60C | → | → |  HAPPY FACE THROWING A KISS |
| FACE KISSING e-32D |  #Exp.27 目がハート |  #455 チュー2 |  #8 表情(チュ) |  #old370 |  1F3A4 |  1F60D | → | → |  HAPPY FACE KISSING |
| FACE WITH MASK e-32E | |  #448 風邪ひき |  #31 表情(マスク) |  #old359 |  1F3A5 |  1F60E | → | → |  SAD FACE WITH MEDICAL MASK |
| FLUSHED FACE e-32F |  #Exp.31 うれしい顔 |  #449 熱 |  #9 表情(ぽっ) |  #old360 |  1F3A6 |  1F60F | → | → | → |
| HAPPY FACE WITH OPEN MOUTH e-330 |  #140 わーい (嬉しい顔) |  #257顔1 (うれしいカオ) |  #3 表情(笑顔) |  #old87 |  1F3A7 |  1F610 | → | → | → |


































| | | | | | | | | | |
|--|--|--|--|--|--|--|---|---|---|
| HAPPY FACE WITH OPEN MOUTH AND COLD SWEAT e-331 |  #Exp.23 冷や汗 |  #257 顔1 (うれしいカオ) + #330 あせあせ (飛び散る汗) |  #1 表情(嬉しい) + #77 汗 |  #old368 + #77 汗 |  1F3A8 |  1F611 | → |  1F611 |  |
| HAPPY FACE WITH OPEN MOUTH AND CLOSED EYES e-332 |  #Exp.31 うれしい顔 |  #446 てれてれ |  #10 表情(ほっ) |  #old357 |  1F3A9 |  1F612 | → | → |  |
| HAPPY FACE WITH GRIN e-333 |  #Exp.72 ウッシッシ |  #814 うっしっし |  #11 表情(うっしし) |  #old351 |  1F3AA |  1F613 | → | → | → |
| HAPPY AND CRYING FACE e-334 |  #Exp.31 うれしい顔 |  #786 泣き笑い |  #26 表情(泣き笑い) |  #old365 |  1F3AB |  1F614 | → | → | → |
| HAPPY FACE WITH WIDE MOUTH AND RAISED EYEBROWS e-335 |  #140 わーい(嬉しい顔) |  #454 にこにこ |  #2 表情(にこにこ) |  #old86 |  1F3AC |  1F615 | → | → |  HAPPY FACE WITH WIDE MOUTH AND SMILING EYES |
| HAPPY FACE WITH OPEN MOUTH AND RAISED EYEBROWS e-338 |  #140 わーい(嬉しい顔) |  #257 顔1 (うれしいカオ) |  #1 表情(嬉しい) |  #old368 |  1F3AD |  1F616 | → | → |  HAPPY FACE WITH OPEN MOUTH AND SMILING EYES |

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|---|---|---|---|--|--|--|---|---|---|
| <p>CRYING FACE</p> <p>e-339</p> |  <p>#Exp.35 涙</p> |  <p>#791 涙ぼろり</p> |  <p>#24 表情(悲しい)</p> |  <p>#old366</p> |  <p>1F3AE</p> |  <p>1F617</p> | → | → | → |
| <p>LOUDLY CRYING FACE</p> <p>e-33A</p> |  <p>#Exp.34 泣き顔</p> |  <p>#259 顔3 (かなしいカオ)</p> |  <p>#25 表情(大泣き)</p> |  <p>#old364</p> |  <p>1F3AF</p> |  <p>1F618</p> | → | → |  |
| <p>FEARFUL FACE</p> <p>e-33B</p> |  <p>#Exp.76 げっそり</p> |  <p>#447 青ざめ</p> |  <p>#22 表情(がーん)</p> |  <p>#old358</p> |  <p>1F3B0</p> |  <p>1F619</p> | → | → |  |
| <p>PERSEVERING FACE</p> <p>e-33C</p> |  <p>#Exp.32 がまん顔</p> |  <p>#443 失敗</p> |  <p>#23 表情(あちゃー)</p> |  <p>#old353</p> |  <p>1F3B1</p> |  <p>1F61A</p> | → | → |  |
| <p>POUTING FACE</p> <p>e-33D</p> |  <p>#Exp.25 ぶっくっくな顔</p> |  <p>#779 ぶー(かわいく怒)</p> |  <p>#30 表情(怒り)</p> |  <p>#old369</p> |  <p>1F3B2</p> |  <p>1F61B</p> | → | → |  |
| <p>RELIEVED FACE</p> <p>e-33E</p> |  <p>#Exp.22 ほっとした顔</p> |  <p>#446 てれてれ</p> |  <p>#10 表情(ほっ)</p> |  <p>#old357</p> |  <p>1F3B3</p> |  <p>1F61C</p> | → | → |  |

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|--|--|---|---|--|--|--|---|--|---|
| CONFOUNDED FACE e-33F |  #143 もうやだ～ |  #444 わからん |  #19 表情(困惑) |  #old354 |  1F3B4 |  1F61D | → | → |  |
| PENSIVE FACE e-340 |  Exp.21 考えてる顔 |  #441 しょぼり |  #17 表情(考え中) |  #old350 |  1F3B5 |  1F61E | → | → | → |
| FACE SCREAMING IN FEAR e-341 |  #Exp.76 げっそり |  #350 ショッキング |  #28 表情(ひえ～) |  #old97 |  1F3B6 |  1F61F | → | → |  |
| SLEEPY FACE e-342 |  #157 眠い(睡眠) |  #445 眠い |  #32 表情(あくび) |  #old355 |  1F3B7 |  1F620 | → |  1F620 |  |
| SMIRKING FACE e-343 |  #Exp.33 猫2 |  #440 ふっ |  #15 表示(冷笑) |  #old349 |  1F3B8 |  1F621 | → | → |  |
| FACE WITH COLD SWEAT e-344 |  #Exp.24 冷や汗2 |  #351 困り |  #16 表情(冷や汗) |  #old98 |  1F3B9 |  1F622 | → |  1F622 |  |

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|--|--|--|--|---|--|--|---|---|---|
| DISAPPOINTED BUT RELIEVED FACE e-345 |  #Exp.24 冷や汗2 |  #351 困り |  #20 表情(やれやれ) |  #old348 |  1F3BA |  1F623 | → |  1F623 |  |
| TIRED FACE e-346 |  #Exp.32 がまん顔 |  #260 顔4 (つかれたカオ) |  #23 表情(あちゃー) |  #old353 |  1F3BB |  1F624 | → | → |  |
| WINKING FACE e-347 |  #Exp.30 ウィンク |  #348 ウィンク |  #5 表情(ウィンク) |  #old352 |  1F3BC |  1F625 | → | → | → |
| FACE WITH HALO | n/a | n/a | n/a | n/a | n/a |  1F626 | → | → | n/a |
| | |  #277 悪魔 |  #297 悪魔 |  #old116 |  1F366 IMP |  1F627 FACE WITH HORNS | → |  1F47E IMP | n/a |
| FACE WITH SUNGLASSES | n/a | n/a | n/a | n/a | n/a |  1F628 | → | → | n/a |

| | | | | | | | | | |
|---|---|--|--|--|--|--|---|--|--|
| DEADPAN FACE | n/a | n/a | n/a | n/a | n/a |  1F629 |  (adopt a design of glyph as "EXPRESSION-LESS FACE") | | n/a |
| FACE WITHOUT MOUTH | n/a | n/a | n/a | n/a | n/a | n/a | n/a |  1F629 * used for the West House in Mahjong | n/a |
| CAT FACE WITH OPEN MOUTH e-348 |  #140 わーい(嬉しい顔) |  #783 にこ(ネコ) |  #3 表情(笑顔) |  #old87 |  1F3BD |  1F62A | → | → | → HAPPY CAT FACE WITH OPEN MOUTH |
| HAPPY CAT FACE WITH GRIN e-349 |  #Exp.72 ウッシッシ |  #813 うっしっし(ネコ) |  #11 表情(うっしし) |  #old351 |  1F3BE |  1F62B | → | → |  |
| HAPPY AND CRYING CAT FACE e-34A |  #Exp.31 うれしい顔 |  #785 泣き笑い(ネコ) |  #26 表情(泣き笑い) |  #old365 |  1F3BF |  1F62C | → | → | → |
| CAT FACE KISSING e-34B |  #Exp.27 目がハート |  #782 チュー(ネコ) |  #7 表情(投げキッス) |  #old371 |  1F3C0 |  1F62D | → | → |  HAPPY CAT FACE KISSING |

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|---|---|---|--|---|---|---|---|---|---|
| CAT FACE WITH HEART SHAPED EYES e-34C |  #Exp.27 目がハート |  #787 目がハート(ネコ) |  #6 表情(ラブラブ) |  #old96 |  1F3C1 |  1F62E | → | → | → HAPPY CAT FACE WITH HEART SHAPED EYES |
| CRYING CAT FACE e-34D |  #Exp.35 涙 |  #790 涙ぼろり(ネコ) |  #24 表情(悲しい) |  #old366 |  1F3C2 |  1F62F | → | → |  |
| POUTING CAT FACE e-34E |  #Exp.25 ぶっくっくな顔 |  #780 ぶー (かわいく怒)(ネコ) |  #30 表情(怒り) |  #old369 |  1F3C3 |  1F630 | → | → |  |
| CAT FACE WITH TIGHTLY CLOSED LIPS e-34F |  #Exp.72 ウッシッシ |  #792 きりり(ネコ) |  #11 表情(うっしし) |  #old351 |  1F3C4 |  1F631 | → | → |  SMART CAT FACE WITH TIGHTLY CLOSED LIPS |
| ANGUISHED CAT FACE e-350 |  #143 もうやだ～ |  #788 ほえー(ネコ) |  #17 表情(考え中) |  #old350 |  1F3C5 |  1F632 | → | → | → |
| PERSON RAISING ONE HAND e-357 | | | | | | 1F639 | | | HAPPY PERSON RAISING ONE HAND |
| PERSON WITH FOLDED HANDS e-35B | | | | | | 1F63D | | | PLEADING PERSON WITH FOLDED HANDS |

Sum Total

- Number of Revision of a glyph designs in this chart: 30
- Number of Revision of a character names in this chart: 17
- Number of Revision of a character mappings in this chart: 2

Chart Legend

- The characters with blue-letter captions in the "Sources (Japanese Carriers)" columns mean fallback mapping.
- The characters on green background mean the code positions where we proposed the revision of the mappings.

Sources

- Japanese Carriers: "Proposed Emoji symbols data as shown in PDAM8 (N3658)" (N3681)
- Old SoftBank Emoji: <http://broadband.mb.softbank.jp/service/3G/mail/pictogram/convert.pdf>

3.2 Table of Emoticon Parts

| Character Name | ID | Code | Face | Eyebrows | Eyes | Mouth | Misc | Isolated Characteristics from the Glyph |
|--|-------|-------|----------|-------------------------|--|---|---|---|
| ANGRY FACE | e-320 | 1F600 | Circular | Sloe-Eyebrows | Black Circle | ○Upper Circular Arc | | [Sloe-Eyebrows], [Tightly-Lipped Mouth with Both Ends Turned Down] |
| ANGUISHED FACE | e-321 | 1F601 | Circular | Droopy Eyebrows | Black Circle | Upper-SemiCircular | | [Droopy Eyebrows], [Upper Semicircular Mouth] |
| ASTONISHED FACE | e-322 | 1F602 | Circular | Upper SemiCircular Arch | ●Widely-Opened Eyes | ○Circular | | [Widely-Opened Eyes], [Circular Mouth] |
| DISAPPOINTED FACE | e-323 | 1F603 | Circular | | ●Droopy Eyes | ○Upper Circular Arc | | [Droopy Eyes], [Tightly-Lipped Mouth with Both Ends Turned Down] |
| DIZZY FACE | e-324 | 1F604 | Circular | | Cross | ○Circular | | [Eyes depicted as cross] [Widely-Opened Mouth] |
| EXASPERATED FACE | e-325 | 1F605 | Circular | Droopy Eyebrows | Black Circle | ○Circular | ○Perpendicularly-Depicted Sweat/Left Center | [Sweat], [Droopy Eyebrows] |
| EXPRESSIONLESS FACE | e-326 | 1F606 | Circular | | ●Side Glance | Horizontal Line | | [Side Glance] [Mouth with Horizontal Line] |
| FACE WITH HEART SHAPED EYES | e-327 | 1F607 | Circular | | Heart-Shaped | Lower Circular Arc | | [Heart-Shaped Eyes], [Lower-SemiCircular or Lower Circular Arc Mouth] |
| FACE WITH LOOK OF TRIUMPH | e-328 | 1F608 | Circular | Sloe-Eyebrows | ●Horizontal Line | ●Upper Circular Arc | ●Breathing Nostrils | [Sloe-Eyebrows], [Horizontal Line Eyes] |
| KIDDING FACE WITH STUCK OUT TONGUE | e-329 | 1F609 | Circular | | Left Black Circle+Right Horizontal Line | Horizontal Line+Tongue/Center Lower | | [Wink], [Tongue] |
| KIDDING FACE WITH STUCK OUT TONGUE | e-32A | 1F60A | Circular | | ●Tightly-Closed Eyes | Horizontal Line+Tongue/Center Lower | | [Tightly-Closed Eyes], [Tongue] |
| FACE SAVORING DELICIOUS FOOD | e-32B | 1F60B | Circular | | Upper Circular Arc | Lower Circular Arc+Tongue/Right Slanted | | [Smiling Eyes], [Eating Mouth] |
| FACE THROWING A KISS | e-32C | 1F60C | Circular | | Left Black Circle+Right Upper Circular Arc | ●Pouty Mouth | | [Closed Eyes], [Kissing Mouth] |
| FACE KISSING | e-32D | 1F60D | Circular | | ●Lower Circular Arc | ●Pouty Mouth | | [Wink], [Kissing Mouth] |
| FACE WITH MASK | e-32E | 1F60E | Circular | Droopy Eyebrows | Horizontal Line | Mask | | [Mask] |
| FLUSHED FACE | e-32F | 1F60F | Circular | Droopy Eyebrows | Horizontal Line | Small Black Circle | Shadowed/Center Part/Horizontal Line | [Heat] |
| HAPPY FACE WITH OPEN MOUTH | e-330 | 1F610 | Circular | | Black Circle | Lower-SemiCircular | | [Lower Semicircular Mouth] |
| HAPPY FACE WITH OPEN MOUTH AND COLD SWEAT | e-331 | 1F611 | Circular | | ●Upper Circular Arc | Lower-SemiCircular | ●Perpendicularly-Depicted Sweat/Left Center | [Widely-Opened Mouth], [Sweat] |
| HAPPY FACE WITH OPEN MOUTH AND CLOSED EYES | e-332 | 1F612 | Circular | | ●Tightly-Closed Eyes | Lower-SemiCircular | | [Tightly-Closed Eyes], [Lower Semicircular Mouth] |
| HAPPY FACE WITH GRIN | e-333 | 1F613 | Circular | | Upper Circular Arc | Lower-SemiCircular/Teeth | | [Smiling Eyes], [Teeth] |
| HAPPY AND CRYING FACE | e-334 | 1F614 | Circular | | Upper Circular Arc | Lower-SemiCircular/Teeth | Slantly-Depicted Tear/Both Eyes | [Tear], [Widely-Opened Mouth] |

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|--|-------|-------|----------|-----------------|---|-----------------------------------|---|--|
| HAPPY FACE WITH WIDE MOUTH AND RAISED EYEBROWS | e-335 | 1F615 | Circular | | ●Upper Circular Arc | Lower Circular Arc | | [Smiling Eyes], [Lower Circular Arc Mouth] |
| HAPPY FACE WITH OPEN MOUTH AND RAISED EYEBROWS | e-338 | 1F616 | Circular | | ●Upper Circular Arc | Lower-SemiCircular | | [Smiling Eyes], [Lower Semicircular Mouth] |
| CRYING FACE | e-339 | 1F617 | Circular | | Lower Circular Arc | Horizontal Line | Slantly-Depicted Tear/Right Eye | [Tear] |
| LOUDLY CRYING FACE | e-33A | 1F618 | Circular | | ●Tightly-Closed Eyes | Upper-SemiCircular/Teeth | Slantly-Depicted Tear/Both Eyes | [Tear], [Closed Eyes], [Widely-Opened Mouth] |
| FEARFUL FACE | e-33B | 1F619 | Circular | | ●Widely-Opened Eyes | Upper-SemiCircular | ●Shaded/Upper Part/Vertical Line | [Pale], [Widely-Opened Eyes], [Widely-Opened Mouth] |
| PERSEVERING FACE | e-33C | 1F61A | Circular | | ●Tightly-Closed Eyes | ○Upper Circular Arc | | [Tightly-Closed Eyes], [Tightly-Lipped Mouth with Both Ends Turned Down] |
| POUTING FACE | e-33D | 1F61B | Circular | Sloe-Eyebrows | Black Circle | ○Upper Circular Arc | ●Sulky Cheeks | [Sulky Cheeks], [Tightly-Lipped Mouth with Both Ends Turned Down] |
| RELIEVED FACE | e-33E | 1F61C | Circular | | ●Lower Circular Arc | Lower Circular Arc | ●Shaded/Beneath Eyes/Horizontal Lines | [Lower Circular Arc Eyes] |
| CONFOUNDED FACE | e-33F | 1F61D | Circular | | ●Droopy Eyes | ●Wavy Line | | [Droopy Eyes], [Wavy-Shape Mouth] |
| PENSIVE FACE | e-340 | 1F61E | Circular | | Lower Circular Arc | Horizontal Line | | [Eye of Lower Circular Arc], [Tightly-Lipped Mouth] |
| FACE SCREAMING IN FEAR | e-341 | 1F61F | Circular | | ●Tightly-Closed Eyes | ○Circular | ●Cheeks with Hands | [Widely-Opened Mouth], [Cheeks with Hands] |
| SLEEPY FACE | e-342 | 1F620 | Circular | | Lower Circular Arc | Upper-SemiCircular | ●Snot Bubble | [Closed Eyes], [Snot Bubble] |
| SMIRKING FACE | e-343 | 1F621 | Circular | | ●Horizontal Line | ○Lower Circular Arc/Right Slanted | | [Horizontal Eyes], [Mouth with Smiling at One Side] |
| FACE WITH COLD SWEAT | e-344 | 1F622 | Circular | Droopy Eyebrows | Black Circle | Horizontal Line | ●Perpendicularly-Depicted Sweat/Left Center | [Closed Mouth], [Sweat] |
| DISAPPOINTED BUT RELIEVED FACE | e-345 | 1F623 | Circular | | ●Droopy Eyes | ○Upper Circular Arc | ●Perpendicularly-Depicted Sweat/Left Center | [Droopy Eyes], [Mouths of Upper Circular Arc], [Sweat] |
| TIRED FACE | e-346 | 1F624 | Circular | | ●Tightly-Closed Eyes | Upper-SemiCircular | | [Tightly-Closed Eyes], [Upper-SemiCircular Mouth] |
| WINKING FACE | e-347 | 1F625 | Circular | | Left Black Circle+Right Horizontal Line | Lower Circular Arc | | [Wink], [Lower Circular Arc Mouth] |
| FACE WITH HALO | | 1F626 | Circular | | Black Circle | Lower Circular Arc | Halo over the head | |
| FACE WITH HORNS | | 1F627 | Circular | Sloe-Eyebrows | Black Circle | Lower Circular Arc | Horns | |
| FACE WITH SUNGLASSES | | 1F628 | Circular | | With Sunglasses | Lower Circular Arc | | |
| FACE WITHOUT MOUTH | | 1F629 | Circular | | Black Circle | | | |
| CAT FACE WITH OPEN MOUTH | e-348 | 1F62A | Feline | | Black Circle | Lower-SemiCircular | | [Feline], [Lower Semicircular Mouth] |
| HAPPY CAT FACE WITH GRIN | e-349 | 1F62B | Feline | | Upper Circular Arc | ●Lower-SemiCircular/Teeth | | [Feline], [Mouth with Bare Teeth] |
| HAPPY AND CRYING CAT FACE | e-34A | 1F62C | Feline | | Upper Circular Arc | Lower-SemiCircular/Teeth | Slantly-Depicted Tear/Both Eyes | [Feline], [Tear], [Widely-Opened Mouth] |
| CAT FACE KISSING | e-34B | 1F62D | Feline | | ●Droopy Eyes | ●Pouty Mouth | | [Feline], [Closed Eyes], [Kissing Mouth] |
| CAT FACE WITH HEART SHAPED EYES | e-34C | 1F62E | Feline | | Heart-Shaped | Lower Circular Arc | | [Feline], [Heart-Shaped Eyes] |
| CRYING CAT FACE | e-34D | 1F62F | Feline | | Lower Circular Arc | ●Upper Circular Arc | ●Perpendicularly-Depicted Tear/Right Eye | [Feline], [Tightly-Lipped Mouth with Both Ends Turned Down], [Tear] |

| | | | | | | | | |
|---|-------|-------|--------|-----------------|--------------|---------------------------------------|--|--|
| POUTING CAT FACE | e-34E | 1F630 | Feline | | ●Sloe-Eyes | ●Lower Circular Arc | | [Feline], [Looking aside], [Sloe-Eyes], [Mouth drawn downward at One Side] |
| SMART CAT FACE WITH TIGHTLY CLOSED LIPS | e-34F | 1F631 | Feline | ●Sloe-Eyebrows | Black Circle | ●Lower Circular Arc/ Right Slanted | | [Feline], [Sloe-Eyebrows], [Mouth with Smiling at One Side] |
| ANGUISHED CAT FACE | e-350 | 1F632 | Feline | Droopy Eyebrows | Black Circle | Upper-SemiCircular | | [Feline], [Droopy Eyebrows], [Upper-SemiCircular Mouth] |

Table Legend

●...Replaced facial parts

○...Revised facial parts