

Subj: Alternate ZWJ sequences for women/men holding hands
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Proposal

Add a new sequence type `Emoji_ZWJ_Sequence_Alt` which provides alternate sequences corresponding to certain RGI emoji sequences. In particular: While the existing RGI sequences for same-gender people of different skin tones holding hands have the person of darker skin tone encoded first in the sequence and intended to be displayed as the leftmost person in the image, these alternate sequences flip the skin tone modifiers so the person of lighter skin tone is encoded first in the sequence. Vendors have several choices about how to handle these:

1. Treat them like any other valid but unsupported non-RGI emoji sequence (i.e. do not display using an image of people holding hands).
2. Have fonts map them to the same images as the corresponding RGI sequence (with the person of darker skin tone on the left); do not generate the alternate sequences from any input mechanisms.
3. Have fonts map them to separate images, with the person of lighter skin tone on the left. In this case input mechanisms *may* generate the alternate sequences corresponding to the separate images.

If any vendors implement #3 and generate the alternate sequences, then interoperability will be improved if other vendors implement at least #2 (or #3, of course).

Use of the new sequence type `Emoji_ZWJ_Sequence_Alt` is intended to avoid any impact on existing RGI sets, or on language in UTS #51. This type can be documented with a header comment in `emoji-zwj-sequences.txt`. The following table provides the specific proposed additions to `emoji-zwj-sequences.txt`:

# =====											
# The following alternate sequences are intended as additional encoded representations of the corresponding standard Emoji_ZWJ_Sequence.											
# If displayed as emoji, they may be displayed using the same image as the standard sequence, or as a different image.											
# Emoji_ZWJ_Sequence_Alt											
# alternate sequence											

1F469	1F3FC	200D	1F91D	200D	1F469	1F3FD	; Emoji_ZWJ_Seq_Alt	; 1F469	1F3FD	200D	1F91D	200D	1F469	1F3FC	; women holding hands: medium skin tone, medium-light skin tone
1F469	1F3FC	200D	1F91D	200D	1F469	1F3FE	; Emoji_ZWJ_Seq_Alt	; 1F469	1F3FE	200D	1F91D	200D	1F469	1F3FC	; women holding hands: medium-dark skin tone, medium-light skin tone
1F469	1F3FC	200D	1F91D	200D	1F469	1F3FF	; Emoji_ZWJ_Seq_Alt	; 1F469	1F3FF	200D	1F91D	200D	1F469	1F3FC	; women holding hands: dark skin tone, medium-light skin tone
1F469	1F3FD	200D	1F91D	200D	1F469	1F3FE	; Emoji_ZWJ_Seq_Alt	; 1F469	1F3FE	200D	1F91D	200D	1F469	1F3FD	; women holding hands: medium-dark skin tone, medium skin tone
1F469	1F3FD	200D	1F91D	200D	1F469	1F3FF	; Emoji_ZWJ_Seq_Alt	; 1F469	1F3FF	200D	1F91D	200D	1F469	1F3FD	; women holding hands: dark skin tone, medium skin tone
1F469	1F3FE	200D	1F91D	200D	1F469	1F3FF	; Emoji_ZWJ_Seq_Alt	; 1F469	1F3FF	200D	1F91D	200D	1F469	1F3FE	; women holding hands: dark skin tone, medium-dark skin tone
1F9D1	1F3FB	200D	1F91D	200D	1F9D1	1F3FC	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FC	200D	1F91D	200D	1F9D1	1F3FB	; people holding hands: medium-light skin tone, light skin tone
1F9D1	1F3FB	200D	1F91D	200D	1F9D1	1F3FD	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FD	200D	1F91D	200D	1F9D1	1F3FB	; people holding hands: medium skin tone, light skin tone
1F9D1	1F3FB	200D	1F91D	200D	1F9D1	1F3FE	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FE	200D	1F91D	200D	1F9D1	1F3FB	; people holding hands: medium-dark skin tone, light skin tone
1F9D1	1F3FB	200D	1F91D	200D	1F9D1	1F3FF	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FF	200D	1F91D	200D	1F9D1	1F3FB	; people holding hands: dark skin tone, light skin tone
1F9D1	1F3FC	200D	1F91D	200D	1F9D1	1F3FD	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FD	200D	1F91D	200D	1F9D1	1F3FC	; people holding hands: medium skin tone, medium-light skin tone
1F9D1	1F3FC	200D	1F91D	200D	1F9D1	1F3FE	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FE	200D	1F91D	200D	1F9D1	1F3FC	; people holding hands: medium-dark skin tone, medium-light skin tone
1F9D1	1F3FC	200D	1F91D	200D	1F9D1	1F3FF	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FF	200D	1F91D	200D	1F9D1	1F3FC	; people holding hands: dark skin tone, medium-light skin tone
1F9D1	1F3FD	200D	1F91D	200D	1F9D1	1F3FE	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FE	200D	1F91D	200D	1F9D1	1F3FD	; people holding hands: medium-dark skin tone, medium skin tone
1F9D1	1F3FD	200D	1F91D	200D	1F9D1	1F3FF	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FF	200D	1F91D	200D	1F9D1	1F3FD	; people holding hands: dark skin tone, medium skin tone
1F9D1	1F3FE	200D	1F91D	200D	1F9D1	1F3FF	; Emoji_ZWJ_Seq_Alt	; 1F9D1	1F3FF	200D	1F91D	200D	1F9D1	1F3FE	; people holding hands: dark skin tone, medium-dark skin tone

Background

Unicode 12.0 added skin tone combinations for four versions of couples holding hands: woman and man holding hands, (two) women holding hands, (two) men holding hands, and (two neutral-gender) people holding hands. Several different encoding approaches are used:

1. For woman and man holding hands, there is a single character U+1F46B without skin tones.
- a. For the 5 combinations in which the man and woman have the same skin tone, this character is used with a single modifier, e.g.:

Emoji_Modifier_Sequences	
1F46B	1F3FB ;woman and man holding hands: light skin tone
1F46B	1F3FC ;woman and man holding hands: medium-light skin tone
...	
1F46B	1F3FF ;woman and man holding hands: dark skin tone

- b. For the other 20 combinations in which the man and woman have different skin tones, ZWJ sequences are used that combine woman+modifier, handshake, and man+modifier:

Emoji_ZWJ_Sequences	
1F469	1F3FB 200D 1F91D 200D 1F468 1F3FC ; woman and man holding hands: light skin tone, medium-light skin tone
1F469	1F3FB 200D 1F91D 200D 1F468 1F3FD ; woman and man holding hands: light skin tone, medium skin tone
1F469	1F3FB 200D 1F91D 200D 1F468 1F3FE ; woman and man holding hands: light skin tone, medium-dark skin tone
1F469	1F3FB 200D 1F91D 200D 1F468 1F3FF ; woman and man holding hands: light skin tone, dark skin tone
...	
1F469	1F3FF 200D 1F91D 200D 1F468 1F3FB ; woman and man holding hands: dark skin tone, light skin tone
1F469	1F3FF 200D 1F91D 200D 1F468 1F3FC ; woman and man holding hands: dark skin tone, medium-light skin tone
1F469	1F3FF 200D 1F91D 200D 1F468 1F3FD ; woman and man holding hands: dark skin tone, medium skin tone
1F469	1F3FF 200D 1F91D 200D 1F468 1F3FE ; woman and man holding hands: dark skin tone, medium-dark skin tone

2. For the women holding hands and men holding hands, there are also single characters U+1F46D and U+1F46C respectively.
- a. For the 5 combinations in which the two women or two men have the same skin tone, that character is used with a single modifier as in 1.a above.
 - b. For the combinations in which the two people have different skin tones, it was not felt necessary to have both possible combinations of a given darker/lighter combination, e.g. to have two women with Fitzgerald-3 on the left and Fitzgerald-5 on the right, and also two women with Fitzgerald-5 on the left and Fitzgerald-3 on the right. Instead, only the 10 combinations with the darker skin tone on the left are supported as RGI:

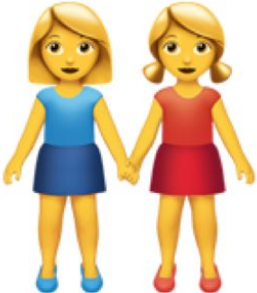

```
1F469 1F3FC 200D 1F91D 200D 1F469 1F3FB ; women holding hands: medium-light skin tone, light skin tone
1F469 1F3FD 200D 1F91D 200D 1F469 1F3FB ; women holding hands: medium skin tone, light skin tone
1F469 1F3FD 200D 1F91D 200D 1F469 1F3FC ; women holding hands: medium skin tone, medium-light skin tone
...
1F469 1F3FF 200D 1F91D 200D 1F469 1F3FB ; women holding hands: dark skin tone, light skin tone
1F469 1F3FF 200D 1F91D 200D 1F469 1F3FC ; women holding hands: dark skin tone, medium-light skin tone
1F469 1F3FF 200D 1F91D 200D 1F469 1F3FD ; women holding hands: dark skin tone, medium skin tone
1F469 1F3FF 200D 1F91D 200D 1F469 1F3FE ; women holding hands: dark skin tone, medium-dark skin tone
```

3. For the (neutral-gender) people holding hands, there is no single character.
- a. For the 5 combinations in which the two people have the same skin tones, ZWJ sequences are used:

```
1F9D1 1F3FB 200D 1F91D 200D 1F9D1 1F3FB ; people holding hands: light skin tone
1F9D1 1F3FC 200D 1F91D 200D 1F9D1 1F3FC ; people holding hands: medium-light skin tone
1F9D1 1F3FD 200D 1F91D 200D 1F9D1 1F3FD ; people holding hands: medium skin tone
1F9D1 1F3FE 200D 1F91D 200D 1F9D1 1F3FE ; people holding hands: medium-dark skin tone
1F9D1 1F3FF 200D 1F91D 200D 1F9D1 1F3FF ; people holding hands: dark skin tone
```

- b. For the combinations in which the two people have different skin tones, only the 10 combinations with the darker skin tone on the left are supported as RGI, as in 2.b above.

However, the Apple designs for the same-gender couples holding hands depict the two people in each couple differently, for example:

	women have different hair styles		man on the left has a mustache
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For user-interface consistency, Apple designers would like to allow the same skin-tone combinations for the differently-drawn people in the same-gender couples that are available for the different-gender couple (that is, to support both Fitzgerald-3 on the left and Fitzgerald-5 on the right, as well as the reverse, for the same-gender couples). In order to do this, Apple would like to support 10 additional ZWJ sequences for each of the same-gender couples: women holding hands, men holding hands, and people holding hands.

Other platforms will not necessarily want to add 10 more images for each of the three same-gender couples. However, it might be relatively easy for other platforms to add entries in their fonts that map the additional Apple ZWJ sequences to the images that they already have, by using (for example) an image with Fitzgerald-5 on the left and Fitzgerald-3 on the right for a sequence that specifies the opposite order. The intent here is to provide data to facilitate this mapping.

Alternate Proposal

Add standard RGI sequences using new names, with an annotation that these can be represented using an image with the skin tones flipped. This is probably the better approach if multiple vendors (i.e. not just Apple) are likely to support these sequences with separate images. It also does not require a new sequence type. For example:

```
# Note, the following can be depicted using images with the skin tones in the opposite order (matching images for other sequences)
1F469 1F3FB 200D 1F91D 200D 1F469 1F3FC ; Emoji_ZWJ_Sequence ; women holding hands: light skin tone, medium-light skin tone
1F469 1F3FB 200D 1F91D 200D 1F469 1F3FD ; Emoji_ZWJ_Sequence ; women holding hands: light skin tone, medium skin tone
1F469 1F3FB 200D 1F91D 200D 1F469 1F3FE ; Emoji_ZWJ_Sequence ; women holding hands: light skin tone, medium-dark skin tone
1F469 1F3FB 200D 1F91D 200D 1F469 1F3FF ; Emoji_ZWJ_Sequence ; women holding hands: light skin tone, dark skin tone
1F469 1F3FC 200D 1F91D 200D 1F469 1F3FD ; Emoji_ZWJ_Sequence ; women holding hands: medium-light skin tone, medium skin tone
1F469 1F3FC 200D 1F91D 200D 1F469 1F3FE ; Emoji_ZWJ_Sequence ; women holding hands: medium-light skin tone, medium-dark skin tone
1F469 1F3FC 200D 1F91D 200D 1F469 1F3FF ; Emoji_ZWJ_Sequence ; women holding hands: medium-light skin tone, dark skin tone
1F469 1F3FD 200D 1F91D 200D 1F469 1F3FE ; Emoji_ZWJ_Sequence ; women holding hands: medium skin tone, medium-dark skin tone
1F469 1F3FD 200D 1F91D 200D 1F469 1F3FF ; Emoji_ZWJ_Sequence ; women holding hands: medium skin tone, dark skin tone
1F469 1F3FE 200D 1F91D 200D 1F469 1F3FF ; Emoji_ZWJ_Sequence ; women holding hands: medium-dark skin tone, dark skin tone
```

This approach would also require updates to UTS #51 section 2.6.2 [Multi-Person Skin Tones](#).