Revised proposal for dealing
with the moon symbols problem

Kent Karlsson
2018-02-16

As per separate discussion, the moon symbols are here interpreted in a glyphic fashion, which means that several of them have two semantics, one for the Northern hemisphere, another for the Southern hemisphere. The opposite, semantic interpretation (as suggested in L2/17-304, having two mirror glyphs for several of these characters), has been rejected by the ESC and the UTC.

U+1F311-U+1F318 should be allowed to "take" a VS in order to distinguish between Northern and Southern hemisphere view in (semi)-realistic renderings of the Moon landscape, esp. in emoji style. For the new moon, the landscape is not visible from Earth, but may still be rendered for the character. Note that some implementations already do show a (semi)-realistic emoji rendering of the Moon landscape.

The majority of the moon symbols have two meanings, according to this proposal: one for the Northern hemisphere, another for the Southern hemisphere. CLDR has UI strings ("translations") for emoji, including the moon symbols. So in CLDR it will be necessary to deal with this double meaning somehow, even though CLDR does not have any direct notion of hemisphere. What I can think of is to have countries in (or mostly in) the Northern hemisphere to go for the Northern hemisphere meaning, and likewise for countries in the Southern hemisphere. I.e., unless there is a VS to disambiguate. So, en_GB should have UI strings for the moon symbols for the Northern hemisphere, and en_AU have UI strings for the moon symbols for the Southern hemisphere. Etc. for every other language+country. That will be a fix-up and maintenance issue for CLDR.

Using "in quarters" naming

There are two naming schemes for the moon phases (barring more scientific approaches like "percent of visible Moon area that is sunlit"): "at (end of) quarters" and "in quarters". Both are in use with varying popularity in different regions. I think the "at quarters" approach is sufficiently covered by the formal names (except the astrological symbols, which apparently use the "in quarters" approach). So I'm suggesting the "in quarters" approach for the annotations suggested below.

http://www.dinstartsida.se/kalender/manfaser/
https://sv.wikipedia.org/wiki/M%C3%A5nfas#M%C3%A5nens_kvarter
https://is.wikipedia.org/wiki/Kvartilaskipti
https://de.wikipedia.org/wiki/Mondphase
https://www.schulferien.org/mondkalender/mondkalender_2018.html
https://kalender-365.de/mondkalender.php
https://kalender-365.de/lunar-calendar.php

The two last references use a special symbol for eclipsed (full, of course) moon. Someone might find it interesting to suggest a new character for that (with both non-emoji and emoji rendering).

Unicode 10.0 NamesList

```
263D    FIRST QUARTER MOON
   = alchemical symbol for silver
263E    LAST QUARTER MOON
   = alchemical symbol for silver
   x (power sleep symbol - 23FE)
   x (crescent moon - 1F319)


1F311   NEW MOON SYMBOL
   x (black circle - 25CF)
1F312   WAXING CRESCENT MOON SYMBOL
1F313   FIRST QUARTER MOON SYMBOL
   = half moon
   x (circle with left half black - 25D0)
1F314   WAXING GIBBOUS MOON SYMBOL
   = waxing moon
1F315   FULL MOON SYMBOL
   x (white circle - 25CB)
1F316   WANING GIBBOUS MOON SYMBOL
1F317   LAST QUARTER MOON SYMBOL
   x (circle with right half black - 25D1)
1F318   WANING CRESCENT MOON SYMBOL


1F319   CRESCENT MOON
   * may indicate either the first or last quarter moon
   x (first quarter moon - 263D)
   x (last quarter moon - 263E)
```

Proposed changes (in bold)

```
263D    FIRST QUARTER MOON
   = alchemical symbol for silver
   x (crescent moon - 1F319)
   x (waxing crescent moon symbol - 1F312)
   x (first quarter moon symbol - 1F313)

263E    LAST QUARTER MOON
   = alchemical symbol for silver
   x (power sleep symbol - 23FE)
   x (crescent moon - 1F319)
   x (waning crescent moon symbol - 1F318)
   x (last quarter moon symbol - 1F317)
```

```
1F311   NEW MOON SYMBOL
    x (black circle – 25CF)
1F312   WAXING CRESCENT MOON SYMBOL
    = moon in first quarter in the Northern hemisphere
    = moon in fourth quarter in the Southern hemisphere
    x (first quarter moon – 263D)
1F313   FIRST QUARTER MOON SYMBOL
    = waxing half moon in the Northern hemisphere
    = waning half moon in the Southern hemisphere
    x (circle with left half black – 25D0)
1F314   WAXING GIBBOUS MOON SYMBOL
    = moon in second quarter in the Northern hemisphere
    = moon in third quarter in the Southern hemisphere
1F315   FULL MOON SYMBOL
    ... also for eclipsed full moon, as there is (yet) no separate symbol for that...
1F316   WANING GIBBOUS MOON SYMBOL
    = moon in third quarter in the Northern hemisphere
    = moon in second quarter in the Southern hemisphere
    x (white circle – 25CB)
1F317   LAST QUARTER MOON SYMBOL
    = waning half moon in the Northern hemisphere
    = waxing half moon in the Southern hemisphere
    x (circle with right half black – 25D1)
1F318   WANING CRESCENT MOON SYMBOL
    = moon in fourth quarter in the Northern hemisphere
    = moon in first quarter in the Southern hemisphere
    x (last quarter moon – 263E)


1F319   CRESCENT MOON
    * may indicate either the first or last quarter moon
  (that comment is not very helpful...; maybe a more glyph oriented comment,
like "the crescent may be on the left or the right")
    x (first quarter moon – 263D)
    x (last quarter moon – 263E)
    x (waxing crescent moon symbol – 1F312)
    x (waning crescent moon symbol – 1F318)
```