Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Organisation internationale de normalisation
Международная организация по стандартизации

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Title: **Towards dealing with hair styles and colouring in the UCS**
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Status: **Individual Contribution**
Action: **For consideration by JTC1/SC2/WG2 and UTC**
Date: **2017-10-23**

1. The problem. Four characters have been added to the ballot in order to allow sequencing to permit colour alterations of a variety of base characters encoded as graphic characters and used as emojis.
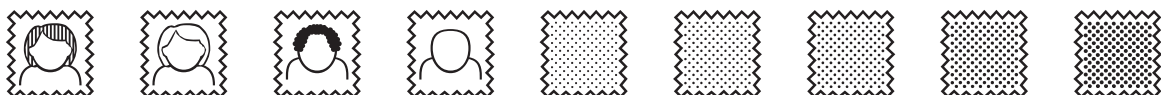
1F9B0 TOP OF HEAD WITH RED HAIR
1F9B1 TOP OF HEAD WITH CURLY HAIR
1F9B2 TOP OF HEAD WITH NO HAIR
1F9B3 TOP OF HEAD WITH WHITE HAIR

These are, no matter what anyone wants to pretend, disembodied human scalps, and scalping is the barbarous act of cutting or tearing a part of the human scalp, with hair attached, from the head of an enemy as a trophy. If we encode these four characters as-is, they *will* be found and misused (even if not put on keyboards), and that sort of hateful thing is something which we can avoid if we simply examine the issue further. There appear to be two reasonable solutions to this problem. One is an immediate fix; the other could solve a more comprehensive problem.

1. Emoji hair-specific modifiers. Rename the four characters and change their glyphs similar to the way recommended by Charlotte Buff in L2/17-376 (I have modified the character names to conform to the pattern set by the Fitzpatrick modifiers):

1F9B0 EMOJI MODIFIER RED-COLOURED HAIR
1F9B1 EMOJI MODIFIER WHITE-COLOURED HAIR
1F9B2 EMOJI MODIFIER CURLY HAIR
1F9B3 EMOJI MODIFIER BALD OR THINNING HAIR

The following glyphs would be reasonable, also following the pattern of the Fitzpatrick modifiers (shown for comparison):

What this does not respond to is the question of the representation of grey hair, or blond hair, or brown or black hair, or hair that has been dyed various colours. *At a minimum the names and glyphs currently on the ballot should be changed to these.* There is however another option.

2. Emoji colour-specific modifiers. There have from time to time been requests to add colour-specific modifiers to the UCS. A set of hatchings deriving from medieval heraldry have already been used to distinguish in black-and-white a number of colours, in glyphs such as U+1F34E 🍎 RED APPLE and U+1F34F 🍏 GREEN APPLE, U+1F3D7 📗 GREEN BOOK, U+1F3D8 📘 BLUE BOOK, U+1F3D9 📙 ORANGE BOOK, U+1F499 💙 BLUE HEART, U+1F49A 💚 GREEN HEART, U+1F49B 💛 YELLOW HEART, U+1F49C 💜 PURPLE HEART, U+1F9E1 🧡 ORANGE HEART:


Recently in L2/17-355 David P. Kendal proposed a set of 12 emoji colour modifiers, which could, subject to specific agreements, be used to specify the colour of characters. In 2011, document N4011 (L2/11-094) proposed a number of additions to augment an existing set of square boxes with a variety of hatchings in them, since seven of these were encoded long ago in the UCS in the Geometric Shapes block at U+25A2 and U+25A4..25A9. The UCS character names list does not give any information as to their original intended purpose, but they do correspond to traditional hatching patterns. Taking Kendal's proposal at face value, it might be sensible not to add a whole set of new characters, but to take existing hatching characters that map to them and then to add some additional hatched geometric shapes to fill the gaps.

HERALDIC COLOURS AND THEIR HATCHING PATTERNS

▲ Argent (silver): plain

▲ Or (gold): small dots

▲ Gules (red): vertical lines

▲ Azure (blue): horizontal lines

▲ Vert (green): diagonal lines running from top left to bottom right

▲ Purpure (purple): diagonal lines running from top right to bottom left

▲ Sable (black): solid black, or grid of vertical and horizontal lines

▲ Tenny (tawny orange): horizontal + diagonals from top right to bottom left

▲ Brown (Gules + Vert): horizontal + diagonals from top left to bottom right

Kendal requests emoji modifiers for 12 colours: *red*, orange, yellow, *green*, *dark blue*, light blue, pink, *purple*, brown, *black*, grey, *white*. Of these, 6 are encoded (the 7th, used for murrey, is given for completeness) and 6 would need to be encoded:

25A1   WHITE SQUARE
- used in heraldic hatching for argent or silver or white

25A4   SQUARE WITH HORIZONTAL FILL
- used in heraldic hatching for azure or blue

25A5   SQUARE WITH VERTICAL FILL
- used in heraldic hatching for gules or red

25A6   SQUARE WITH ORTHOGONAL CROSSHATCH FILL
- used in heraldic hatching for sable or black

25A7   SQUARE WITH UPPER LEFT TO LOWER RIGHT FILL
- used in heraldic hatching for vert or green

25A8   SQUARE WITH UPPER RIGHT TO LOWER LEFT FILL
- used in heraldic hatching for purpure or purple

25A9   SQUARE WITH DIAGONAL CROSSHATCH FILL
- used in English heraldic hatching for murrey or reddish purple

These are already in the standard. The idea then would be to add these:

1F7D9   SQUARE WITH ALTERNATING VERTICAL AND HORIZONTAL FILL
- used in English heraldic hatching for orange

1F7DA   SQUARE WITH DOTTED FILL
- used in English heraldic hatching for Or or gold or yellow
- the dots in this glyph will need to be made larger

1F7DB   SQUARE WITH HORIZONTAL LINE AND DOT FILL
- used in English heraldic hatching for bleu celeste or light blue

1F7DC   SQUARE WITH OFFSET VERTICAL LINE FILL
- used in German heraldic hatching for carnation

1F7DD   SQUARE WITH VERTICAL AND UPPER RIGHT TO LOWER LEFT FILL
- used in English heraldic hatching for tenné or tawny light brown

1F7DE   SQUARE WITH ALTERNATING HORIZONTAL AND VERTICAL LINE FILL
- used in German heraldic hatching for ashen grey

This taxonomy would cater adequately to the demand for colour modifiers in general. For hair curliness a pictogram of a curling iron, or of a coiled spring, could be added; for baldness, a safety razor could be added.

Perhaps conflating hair colour and other colours would not be a good idea, in which case both of the schemes presented here would be adequate to represent the two sets of requirements.