Picture Fonts

welcome to a (beautiful) mess

Hans Hagen
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A Summary

- **the macro package's view:** just a font like any other but it needs to configure some extra color related properties

- **the engine's view:** depending on the technology a normal font that needs a bit special treatment or needs to be dealt with as collection of graphics

- **the viewer's view:** regular outline glyphs or images tagged as kind of characters so that their unicode representation can be cut and paste

- **the user's view:** more pictures than glyphs although some people one can communicate using them

So, in practice, for most TeX users it's probably not a high priority font but more a fun one.

Technologies

As each vendor came up with something, we have to deal with a all kinds of formats. And or course, as eagerness pushes things on the market before it's perfect we now have to deal with all of them.

- **overlapping glyphs:** this technique uses the `colr` and `cpal` tables and is actually a quite clean technology, you can combine in different ways

- **svg graphics:** this technique uses the `svg` table that contains a svg vector image

- **bitmap graphics:** this technique uses for instance `sbix` tables that can have various graphic images

The first two are already supported in the CONT$_{\text{E}}$XT font loader and processor for a while, the last one was added recently.

Only the overlapping method is useable for the tens of thousands of skin tone combinations of families, (kissing) couples, and professions.

Preparation

For now one has to enable the feature:

```
\definefontfeature[overlay][default][ccmp=yes,colr=yes,dist=yes]
\definefontfeature[svg]    [default][svg=yes]
\definefontfeature[bitmap] [default][sbix=yes]

\definefontfeature [colored] [default]
  [cmcp=yes,dist=yes,
   colr=yes,svg=yes,sbix=yes]
```

Defining a font is not different from others

```
\definefont[MyEmojiFont] [seguiemj*overlay]
\definefontsynonym[emoji][seguiemj*overlay]
```

As is using:

```
{\MyEmojiFont\resolvedemoji{woman}}
\emoji{woman}
```

Accessing shapes

```
\definesymbol[man]  [\emoji{man}]
\definesymbol[woman][\emoji{woman}]
\definesymbol[girl] [\emoji{girl}]
\definesymbol[boy]  [\emoji{boy}]

\definesymbol[family][\emoji{family man woman girl boy}]

\definefontsynonym[emoji][file:seguiemj.ttf*default,overlay]

\symbol[boy] \symbol[girl] \symbol[man] \symbol[woman]

\symbol[family]
```

Different fonts

seguiemj	default	
	overlay	
emojionecolor-svginot	default	
	svg	
emojionemozilla	default	
	overlay	
applecoloremoji	default	
	bitmap	

Ligatures

👷🏽‍🌾👨🏽‍🍳👨🏽‍🎓👨🏽‍🎤👨🏽‍🎨👨🏽‍🏫👨🏽‍🏭👨🏽‍💻👨🏽‍💼👨🏽‍🔧👨🏽‍🔬👨🏽‍🚀

```
character          1F477         👷
skin modifier      1F3FE         🟫
ligature           1F477 1F3FE   👷🏾
zero width joiner  0200D         ͺ
female modifier    02640 0FE0F   ♀
the whole lot                    👷🏾‍♀️
```

```
1F468 1F3FD 200D 1F33E   👨🏽‍🌾   man farmer medium skin tone
1F468 1F3FD 200D 1F373   👨🏽‍🍳   man cook medium skin tone
1F468 1F3FD 200D 1F393   👨🏽‍🎓   man student medium skin tone
1F468 1F3FD 200D 1F3A4   👨🏽‍🎤   man singer medium skin tone
1F468 1F3FD 200D 1F3A8   👨🏽‍🎨   man artist medium skin tone
1F468 1F3FD 200D 1F3EB   👨🏽‍🏫   man teacher medium skin tone
1F468 1F3FD 200D 1F3ED   👨🏽‍🏭   man factory worker medium skin tone
1F468 1F3FD 200D 1F4BB   👨🏽‍💻   man technologist medium skin tone
1F468 1F3FD 200D 1F4BC   👨🏽‍💼   man office worker medium skin tone
```

```
1F468 1F3FD 200D 1F527   👨🏽‍🔧   man mechanic medium skin tone
1F468 1F3FD 200D 1F52C   👨🏽‍🔬   man scientist medium skin tone
1F468 1F3FD 200D 1F680   👨🏽‍🚀   man astronaut medium skin tone
```

Snippets
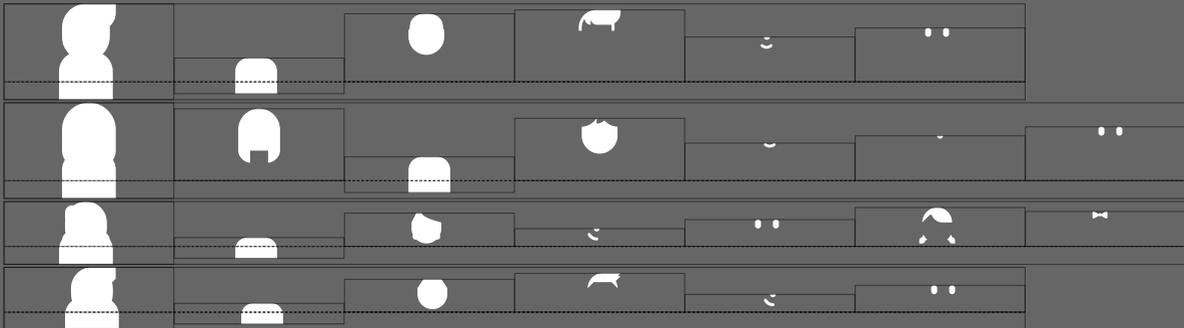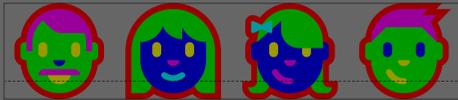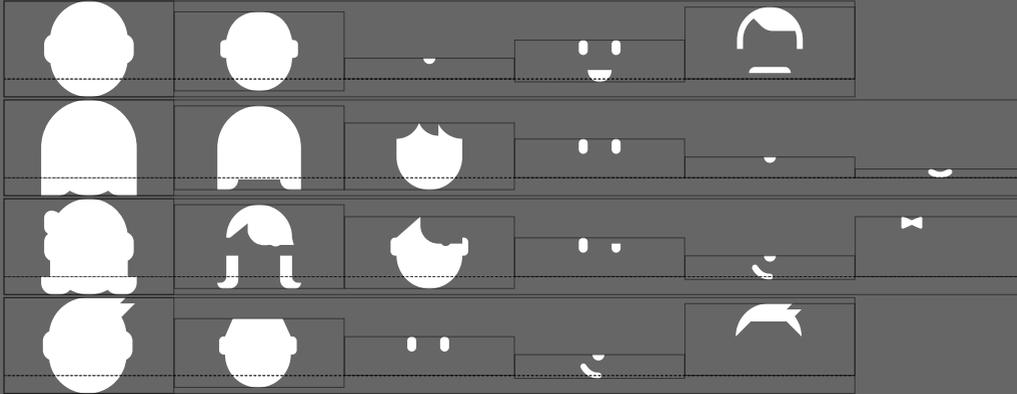
Using \ShowEmoji[^man]

👨	👨	man
👫	👫	man and woman holding hands
👨‍🎨	👨‍🎨	man artist
👨‍🚀	👨‍🚀	man astronaut
🚴‍♂️	🚴	man biking
⛹️‍♂️	⛹️	man bouncing ball
🙇‍♂️	🙇	man bowing
🤸‍♂️	🤸	man cartwheeling
🧗‍♂️	🧗	man climbing
👷‍♂️	👷	man construction worker
👨‍🍳	👨‍🍳	man cook
🕺	🕺	man dancing
🕵️‍♂️	🕵️	man detective
🧝‍♂️	🧝	man elf
🤦‍♂️	🤦	man facepalming
👨‍🏭	👨‍🏭	man factory worker
🧚‍♂️	🧚	man fairy

👨‍🌾	👨‍🌾	man farmer
👨‍🚒	👨‍🚒	man firefighter
🙍‍♂️	🙍‍♂️	man frowning
🧞‍♂️	🧞‍♂️	man genie
🙅‍♂️	🙅‍♂️	man gesturing no
🙆‍♂️	🙆‍♂️	man gesturing ok
💇‍♂️	💇‍♂️	man getting haircut
💆‍♂️	💆‍♂️	man getting massage
🏌️‍♂️	🏌️	man golfing
💂‍♂️	💂	man guard
👨‍⚕️	👨‍⚕️	man health worker
🕴️	🕴️	man in business suit levitating
🧘‍♂️	🧘	man in lotus position
🧖‍♂️	🧖	man in steamy room
🤵	🤵	man in tuxedo
👨‍⚖️	👨‍⚖️	man judge
🤹‍♂️	🤹‍♂️	man juggling
🏋️‍♂️	🏋️	man lifting weights
🧙‍♂️	🧙‍♂️	man mage

👨‍🔧	👨‍🔧	man mechanic
🚵‍♂️	🚵‍♂️	man mountain biking
👨‍💼	👨‍💼	man office worker
👨‍✈️	👨‍✈️	man pilot
🤾‍♂️	🤾‍♂️	man playing handball
🤽‍♂️	🤽‍♂️	man playing water polo
👮‍♂️	👮‍♂️	man police officer
🙎‍♂️	🙎‍♂️	man pouting
🙋‍♂️	🙋‍♂️	man raising hand
🚣‍♂️	🚣‍♂️	man rowing boat
🏃‍♂️	🏃‍♂️	man running
👨‍🔬	👨‍🔬	man scientist
👞	👞	man shoe
🤷‍♂️	🤷‍♂️	man shrugging
👨‍🎤	👨‍🎤	man singer
👨‍🎓	👨‍🎓	man student
🏄‍♂️	🏄‍♂️	man surfing
🏊‍♂️	🏊‍♂️	man swimming
👨‍🏫	👨‍🏫	man teacher

👨‍💻	👨🏻‍💻	man technologist
💁‍♂️	💁🏻‍♂️	man tipping hand
🧛‍♂️	🧛🏻‍♂️	man vampire
🚶‍♂️	🚶🏻‍♂️	man walking
👳‍♂️	👳🏻‍♂️	man wearing turban
👲	👲🏻	man with chinese cap
🧟‍♂️	🧟🏻‍♂️	man zombie
🕰️	🕰️	mantelpiece clock

Recoloring Seguiem
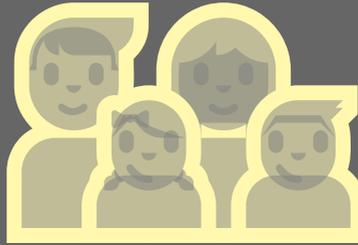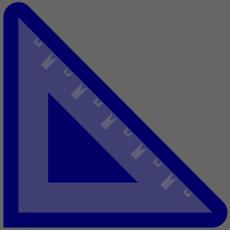
```
\definecolor [emoji-red]  [r=.4]
\definecolor [emoji-gray] [s=.5,t=.5,a=1]

\definefontcolorpalette
  [emoji-red]
  [emoji-red,emoji-gray]

\definefontfeature
  [seguiemj-r]
  [default]
  [ccmp=yes,dist=yes,colr=emoji-red]

\definefont
  [MyColoredEmojiR]
  [seguiemj*seguiemj-r @ 80pt]

\MyColoredEmojiR
    \emoji{man}
    \emoji{woman}
    \emoji{baby}
```

Pallet \ShowEmojiPalettes[1]

1

1		3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81	82	83	84
85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132
133	134	135	136	137	138	139	140	141	142	143	144
145	146	147	148	149	150	151	152	153	154	155	156
157	158	159	160	161	162	163	164	165	166	167	168
169	170	171	172	173	174	175					