Color extensions with the xcolor package — various examples

Dr. Uwe Kern

v2.12 (2016/05/11) *

The purpose of this file is to demonstrate a variety of capabilities including the logging facilities of the xcolor package. By playing around with different values of `\tracingcolors`, one can observe the different behavior in the `log` file.

1 Predefined colors

color	rgb	cmyk	hsb	HTML	gray
red	1 0 0	0 1 1 0	0 1 1	FF0000	0.3
green	0 1 0	1 0 1 0	0.33333 1 1	00FF00	0.59
blue	0 0 1	1 1 0 0	0.66667 1 1	0000FF	0.11
cyan	0 1 1	1 0 0 0	0.5 1 1	00FFFF	0.7
magenta	1 0 1	0 1 0 0	0.83333 1 1	FF00FF	0.41
yellow	1 1 0	0 0 1 0	0.16667 1 1	FFFF00	0.89
orange	1 0.5 0	0 0.5 1 0	0.08333 1 1	FF8000	0.595
violet	0.5 0 0.5	0 0.5 0 0.5	0.83333 1 0.5	800080	0.205
purple	0.75 0 0.25	0 0.75 0.5 0.25	0.94444 1 0.75	BF0040	0.2525
brown	0.75 0.5 0.25	0 0.25 0.5 0.25	0.08333 0.66667 0.75	BF8040	0.5475
pink	1 0.75 0.75	0 0.25 0.25 0	0 0.25 1	FFBFBF	0.825
olive	0.5 0.5 0	0 0 1 0.5	0.16667 1 0.5	808000	0.39
black	0 0 0	0 0 0 1	0 0 0	000000	0
darkgray	0.25 0.25 0.25	0 0 0 0.75	0 0 0.25	404040	0.25
gray	0.5 0.5 0.5	0 0 0 0.5	0 0 0.5	808080	0.5
lightgray	0.75 0.75 0.75	0 0 0 0.25	0 0 0.75	BFBFBF	0.75
white	1 1 1	0 0 0 0	0 0 1	FFFFFF	1
-red	0 1 1	1 0 0 0	0.5 1 1	00FFFF	0.7
-green	1 0 1	0 1 0 0	0.83333 1 1	FF00FF	0.41
-blue	1 1 0	0 0 1 0	0.16667 1 1	FFFF00	0.89
-cyan	1 0 0	0 1 1 0	0 1 1	FF0000	0.3
-magenta	0 1 0	1 0 1 0	0.33333 1 1	00FF00	0.59
-yellow	0 0 1	1 1 0 0	0.66667 1 1	0000FF	0.11
-orange	0 0.5 1	1 0.5 0 0	0.58333 1 1	0080FF	0.405
-violet	0.5 1 0.5	0.5 0 0.5 0	0.33333 0.5 1	80FF80	0.795
-purple	0.25 1 0.75	0.75 0 0.25 0	0.44444 0.75 1	40FFBF	0.7475
-brown	0.25 0.5 0.75	0.5 0.25 0 0.25	0.58333 0.66667 0.75	4080BF	0.4525
-pink	0 0.25 0.25	0.25 0 0 0.75	0.5 1 0.25	004040	0.175
-olive	0.5 0.5 1	0.5 0.5 0 0	0.66667 0.5 1	8080FF	0.555
-black	1 1 1	0 0 0 0	0 0 1	FFFFFF	1
-darkgray	0.75 0.75 0.75	0 0 0 0.25	0 0 0.75	BFBFBF	0.75
-gray	0.5 0.5 0.5	0 0 0 0.5	0 0 0.5	808080	0.5
-lightgray	0.25 0.25 0.25	0 0 0 0.75	0 0 0.25	404040	0.25
-white	0 0 0	0 0 0 1	0 0 0	000000	0
JungleGreen	0.01 1 0.48	0.99 0 0.52 0	0.41246 0.99 1	03FF7A	0.6458
DarkOrchid	0.6 0.2 0.8	0.4 0.8 0.2 0	0.77779 0.75 0.8	9933CC	0.386
-JungleGreen	0.99 0 0.52	0 0.99 0.47 0.01	0.91246 1 0.99	FC0085	0.3542
-DarkOrchid	0.4 0.8 0.2	0.4 0 0.6 0.2	0.27779 0.75 0.8	66CC33	0.614

*This file (`xcolor3.tex`) is part of the xcolor distribution which can be downloaded from the CTAN mirrors `CTAN/macros/latex/contrib/xcolor/` or the homepage `www.ukern.de/tex/xcolor.html`. Please send error reports and suggestions for improvements to `xcolor@ukern.de`.

Switch off `\pagecolor` by `\nopagecolor`. The driver may or may not obey this command ...

2 Color definition and application

Test with `\definecolor`

Comma-separated and space-separated definitions:
identical = identical = identical = identical = identical = identical = identical identical

color	rgb	cmyk	hsb	HTML
c1	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980
c2	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980
c1a	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980
c2a	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980
[rgb].7,.6,.5	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980
[rgb].7 .6 .5	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980
rgb,10:red,7;green,6;blue,5	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980
rgb,15:red,10.5;green,9;blue,7.5	0.7 0.6 0.5	0 0.1 0.2 0.3	0.08333 0.2857 0.7	B29980

Another extended color expression (rgb:red!50,4;green!25,2).

Test with named colors:
Test: JungleGreen; Test: JungleGreen; Test: JungleGreen!50!DarkOrchid; Test: green!50!red.

Test with `\color`

Current color application:
current, 50%, complement, mix and current, 50%, complement, mix,
TestTestTestTestTest and TestTestTestTestTest.

Current color test with `\definecolorseries`:
Test Test
Test Test
Test Test

3 Color in tables

test	row 1
test	row 2
test	row 3
test	row 4
test	row 5
test	row 6
test	row 7
test	row 8
test	row 9

4 Color information

Type test: 1234