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Web colors

Web colors are colors used in displaying web pages on the World Wide Web; they can be described by way of three methods: a color may be specified as an RGB triplet, in hexadecimal format (a *hex triplet*) or according to its common English name in some cases. A color tool or other graphics software is often used to generate color values. In some uses, **hexadecimal color** codes are specified with notation using a leading number sign (#).[1][2] A color is specified according to the intensity of its red, green and blue components, each represented by eight bits. Thus, there are 24 bits used to specify a web color within the sRGB gamut, and 16,777,216 colors that may be so specified.

Colors outside the sRGB gamut can be specified in Cascading Style Sheets by making one or more of the red, green and blue components negative or greater than 100%, so the color space is theoretically an unbounded extrapolation of sRGB similar to scRGB.[3] Specifying a non-sRGB color this way requires the `RGB()` function call. It is impossible with the hexadecimal syntax (and thus impossible in legacy HTML documents that do not use CSS).

The first versions of Mosaic and Netscape Navigator used the X11 color names as the basis for their color lists, as both started as X Window System applications. Web colors have an unambiguous colorimetric definition, sRGB, which relates the chromaticities of a particular phosphor set, a given transfer curve, adaptive whitepoint, and viewing conditions.[4] These have been chosen to be similar to many real-world monitors and viewing conditions, to allow rendering to be fairly close to the specified values even without color management. User agents vary in the fidelity with which they represent the specified colors. More advanced user agents use color management to provide better color fidelity; this is particularly important for Web-to-print applications.

Hex triplet

A **hex triplet** is a six-digit (or eight-digit), three-byte (or four-byte) hexadecimal number used in HTML, CSS, SVG, and other computing applications to represent colors. The bytes represent the red, green, and blue components of the color. The optional fourth byte refers to alpha channel. One byte represents a number in the range 00 to FF (in hexadecimal notation), or 0 to 255 in decimal notation. This represents the least (0) to the most (255) intensity of each of the color components. Thus web colors specify colors in the 24-bit RGB color scheme. The hex triplet is formed by concatenating three bytes in hexadecimal notation, in the following order:

- Byte 1: red value (color type red)
- Byte 2: green value (color type green)
- Byte 3: blue value (color type blue)
- Byte 4 (optional): alpha value

For example, consider the color where the red/green/blue values are decimal numbers: red=123, green=58, blue=30 (a hardwood brown color). The decimal numbers 123, 58, and 30 are equivalent to the hexadecimal numbers 7B, 3A, and 1E, respectively. The hex triplet is obtained by concatenating the six hexadecimal digits together, 7B3A1E in this example.

If any one of the three color values is less than 10 hex (16 decimal), it must be represented with a leading zero so that the triplet always has exactly six digits. For example, the decimal triplet 4, 8, 16 would be represented by the hex digits 04, 08, 10, forming the hex triplet 040810.

The number of colors that can be represented by this system is 256^3, 16^6, or 2^{24} = 16,777,216.

Shorthand hexadecimal form

An abbreviated, three (hexadecimal)-digit or four-digit form can be used,[5] but can cause errors if software or maintenance scripts are only expecting the long form. Expanding this form to the six-digit form is as simple as repeating each digit: 09C becomes 0099CC as presented on the following CSS example:

```
.threedigit { color: #09C;    }
.sixdigit   { color: #0099CC; } /* same color as above */
```

This shorthand form reduces the palette to 4,096 colors, equivalent of 12-bit color as opposed to 24-bit color using the whole six-digit form (16,777,216 colors). This limitation is sufficient for many text-based documents.

Converting RGB to hexadecimal

RGB values are usually given in the 0–255 range; if they are in the 0–1 range, the values are multiplied by 255 before conversion. This number divided by sixteen (integer division; ignoring any remainder) gives the first hexadecimal digit (between 0 and F, where the letters A to F represent the numbers 10 to 15. See hexadecimal for more details). The remainder gives the second hexadecimal digit. For instance, the RGB value 58 (as shown in the previous example of hex triplets) divides into 3 groups of 16, thus the first digit is 3. A remainder of ten gives the hexadecimal number 3A. Likewise, the RGB value 201 divides into 12 groups of 16, thus the first digit is C. A remainder of nine gives the hexadecimal number C9. This process is repeated for each of the three color values.

Conversion between number bases is a common feature of calculators, including both hand-held models and the software calculators bundled with most modern operating systems. Web-based tools specifically for converting color values are also available.

HTML color names

Recent W3C specifications of color names distinguishes between *basic* and *extended* colors.[6] In HTML and XHTML, colors can be used for text, background color, frame borders, tables, and individual table cells.[7]

Basic colors

The basic colors are 16 colors defined in the HTML 4.01 specification, ratified in 1999,[8] as follows (names are defined in this context to be case-insensitive):

CSS 1–2.0, HTML 3.2–4, and VGA color names

	Name	Hex (RGB)	Red (RGB)	Green (RGB)	Blue (RGB)	Hue (HSL/HSV)	Satur. (HSL)	Light (HSL)	Satur. (HSV)	Value (HSV)	CGA number (name); alias
	White	#FFFFFF	100%	100%	100%	0°	0%	100%	0%	100%	15 (white)
	Silver	#C0C0C0	75%	75%	75%	0°	0%	75%	0%	75%	07 (light gray)
	Gray	#808080	50%	50%	50%	0°	0%	50%	0%	50%	08 (dark gray)
	Black	#000000	0%	0%	0%	0°	0%	0%	0%	0%	00 (black)
	Red	#FF0000	100%	0%	0%	0°	100%	50%	100%	100%	12 (high red)
	Maroon	#800000	50%	0%	0%	0°	100%	25%	100%	50%	04 (low red)
	Yellow	#FFFF00	100%	100%	0%	60°	100%	50%	100%	100%	14 (yellow)
	Olive	#808000	50%	50%	0%	60°	100%	25%	100%	50%	06 (brown)
	Lime	#00FF00	0%	100%	0%	120°	100%	50%	100%	100%	10 (high green); green
	Green	#008000	0%	50%	0%	120°	100%	25%	100%	50%	02 (low green)
	Aqua	#00FFFF	0%	100%	100%	180°	100%	50%	100%	100%	11 (high cyan); cyan
	Teal	#008080	0%	50%	50%	180°	100%	25%	100%	50%	03 (low cyan)
	Blue	#0000FF	0%	0%	100%	240°	100%	50%	100%	100%	09 (high blue)
	Navy	#000080	0%	0%	50%	240°	100%	25%	100%	50%	01 (low blue)
	Fuchsia	#FF00FF	100%	0%	100%	300°	100%	50%	100%	100%	13 (high magenta); magenta
	Purple	#800080	50%	0%	50%	300°	100%	25%	100%	50%	05 (low magenta)

These 16 were labelled as sRGB and included in the HTML 3.0 specification, which noted they were "the standard 16 colors supported with the Windows VGA palette."[9]

Extended colors

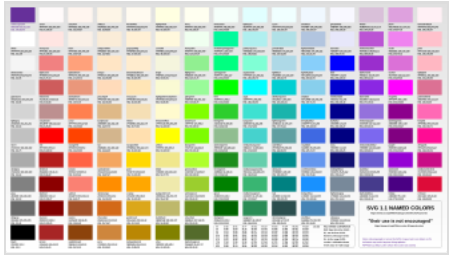
Extended colors are the result of merging specifications from HTML 4.01, CSS 2.0, SVG 1.0 and CSS3 User Interfaces (CSS3 UI).[6]

Several colors are defined by web browsers. A particular browser may not recognize all of these colors, but as of 2005, all modern, general-use, graphical browsers support the full list of colors. Many of these colors are from the list of X11 color names distributed with the X Window System. These colors were standardized by SVG 1.0, and are accepted by SVG Full user agents. They are not part of SVG Tiny.

SVG Version of X11 color names

The list of colors shipped with the X11 product varies between implementations and clashes with certain of the HTML names such as green. X11 colors are defined as simple RGB (hence, no particular color space), rather than sRGB. This means that the list of colors found in X11 (e.g., in /usr/lib/X11/rgb.txt) should not directly be used to choose colors for the web.[10]

The list of web "X11 colors" from the CSS3 specification, along with their hexadecimal and decimal equivalents, is shown below. Compare the alphabetical lists in the W3C standards. This includes the common synonyms: aqua (HTML4/CSS 1.0 standard name) and cyan (common sRGB name), fuchsia (HTML4/CSS 1.0 standard name) and magenta (common sRGB name), gray (HTML4/CSS 1.0 standard name) and grey.[11][12]



SVG1.1 named colors with sRGB hex/dec and HSL codes, at UHD (4K) resolution

HTML name	R G B Hex	R G B Decimal
Pink colors		
MediumVioletRed	C71585	199, 21, 133
DeepPink	FF1493	255, 20, 147
PaleVioletRed	DB7093	219, 112, 147
HotPink	FF69B4	255, 105, 180
LightPink	FFB6C1	255, 182, 193
Pink	FFC0CB	255, 192, 203
Red colors		
DarkRed	8B0000	139, 0, 0
Red	FF0000	255, 0, 0
Firebrick	B22222	178, 34, 34
Crimson	DC143C	220, 20, 60
IndianRed	CD5C5C	205, 92, 92
LightCoral	F08080	240, 128, 128
Salmon	FA8072	250, 128, 114
DarkSalmon	E9967A	233, 150, 122
LightSalmon	FFA07A	255, 160, 122
Orange colors		
OrangeRed	FF4500	255, 69, 0
Tomato	FF6347	255, 99, 71
DarkOrange	FF8C00	255, 140, 0
Coral	FF7F50	255, 127, 80
Orange	FFA500	255, 165, 0

HTML name	R G B Hex	R G B Decimal
Purple, violet, and magenta colors		
Indigo	4B0082	75, 0, 130
Purple	800080	128, 0, 128
DarkMagenta	8B008B	139, 0, 139
DarkViolet	9400D3	148, 0, 211
DarkSlateBlue	483D8B	72, 61, 139
BlueViolet	8A2BE2	138, 43, 226
DarkOrchid	9932CC	153, 50, 204
Fuchsia	FF00FF	255, 0, 255
Magenta	FF00FF	255, 0, 255
SlateBlue	6A5ACD	106, 90, 205
MediumSlateBlue	7B68EE	123, 104, 238
MediumOrchid	BA55D3	186, 85, 211
MediumPurple	9370DB	147, 112, 219
Orchid	DA70D6	218, 112, 214
Violet	EE82EE	238, 130, 238
Plum	DDA0DD	221, 160, 221
Thistle	D8BFD8	216, 191, 216
Lavender	E6E6FA	230, 230, 250
Blue colors		
MidnightBlue	191970	25, 25, 112
Navy	000080	0, 0, 128
DarkBlue	00008B	0, 0, 139

Orange	FFA500	255, 165, 0

Yellow colors

DarkKhaki	BDB76B	189, 183, 107
Gold	FFD700	255, 215, 0
Khaki	F0E68C	240, 230, 140
PeachPuff	FFDAB9	255, 218, 185
Yellow	FFFF00	255, 255, 0
PaleGoldenrod	EEE8AA	238, 232, 170
Moccasin	FFE4B5	255, 228, 181
PapayaWhip	FFEFD5	255, 239, 213
LightGoldenrodYellow	FAFAD2	250, 250, 210
LemonChiffon	FFFACD	255, 250, 205
LightYellow	FFFFE0	255, 255, 224

Brown colors

Maroon	800000	128, 0, 0
Brown	A52A2A	165, 42, 42
SaddleBrown	8B4513	139, 69, 19
Sienna	A0522D	160, 82, 45
Chocolate	D2691E	210, 105, 30
DarkGoldenrod	B8860B	184, 134, 11
Peru	CD853F	205, 133, 63
RosyBrown	BC8F8F	188, 143, 143
Goldenrod	DAA520	218, 165, 32
SandyBrown	F4A460	244, 164, 96
Tan	D2B48C	210, 180, 140
Burlywood	DEB887	222, 184, 135
DarkBlue	[illegible]	[illegible]
MediumBlue	0000CD	0, 0, 205
Blue	0000FF	0, 0, 255
RoyalBlue	4169E1	65, 105, 225
SteelBlue	4682B4	70, 130, 180
DodgerBlue	1E90FF	30, 144, 255
DeepSkyBlue	00BFFF	0, 191, 255
CornflowerBlue	6495ED	100, 149, 237
SkyBlue	87CEEB	135, 206, 235
LightSkyBlue	87CEFA	135, 206, 250
LightSteelBlue	B0C4DE	176, 196, 222
LightBlue	ADD8E6	173, 216, 230
PowderBlue	B0E0E6	176, 224, 230

Cyan colors

Teal	008080	0, 128, 128
DarkCyan	008B8B	0, 139, 139
LightSeaGreen	20B2AA	32, 178, 170
CadetBlue	5F9EA0	95, 158, 160
DarkTurquoise	00CED1	0, 206, 209
MediumTurquoise	48D1CC	72, 209, 204
Turquoise	40E0D0	64, 224, 208
Aqua	00FFFF	0, 255, 255
Cyan	00FFFF	0, 255, 255
Aquamarine	7FFFD4	127, 255, 212
PaleTurquoise	AFEEEE	175, 238, 238
LightCyan	E0FFFF	224, 255, 255

Wheat	F5DEB3	245, 222, 179
NavajoWhite	FFDEAD	255, 222, 173
Bisque	FFE4C4	255, 228, 196
BlanchedAlmond	FFEBCD	255, 235, 205
Cornsilk	FFF8DC	255, 248, 220

HTML name	R G B	
	Hex	Decimal
Green colors		
DarkGreen	006400	0, 100, 0
Green	008000	0, 128, 0
DarkOliveGreen	556B2F	85, 107, 47
ForestGreen	228B22	34, 139, 34
SeaGreen	2E8B57	46, 139, 87
Olive	808000	128, 128, 0
OliveDrab	6B8E23	107, 142, 35
MediumSeaGreen	3CB371	60, 179, 113
LimeGreen	32CD32	50, 205, 50
Lime	00FF00	0, 255, 0
SpringGreen	00FF7F	0, 255, 127
MediumSpringGreen	00FA9A	0, 250, 154
DarkSeaGreen	8FBC8F	143, 188, 143
MediumAquamarine	66CDAA	102, 205, 170
YellowGreen	9ACD32	154, 205, 50
LawnGreen	7CFC00	124, 252, 0
Chartreuse	7FFF00	127, 255, 0

LightGreen	`90EE90`	144, 238, 144
GreenYellow	`ADFF2F`	173, 255, 47
PaleGreen	`98FB98`	152, 251, 152

White colors

MistyRose	`FFE4E1`	255, 228, 225
AntiqueWhite	`FAEBD7`	250, 235, 215
Linen	`FAF0E6`	250, 240, 230
Beige	`F5F5DC`	245, 245, 220
WhiteSmoke	`F5F5F5`	245, 245, 245
LavenderBlush	`FFF0F5`	255, 240, 245
OldLace	`FDF5E6`	253, 245, 230
AliceBlue	`F0F8FF`	240, 248, 255
Seashell	`FFF5EE`	255, 245, 238
GhostWhite	`F8F8FF`	248, 248, 255
Honeydew	`F0FFF0`	240, 255, 240
FloralWhite	`FFFAF0`	255, 250, 240
Azure	`F0FFFF`	240, 255, 255
MintCream	`F5FFFA`	245, 255, 250
Snow	`FFFAFA`	255, 250, 250
Ivory	`FFFFF0`	255, 255, 240
White	`FFFFFF`	255, 255, 255

Gray and black colors

Black	`000000`	0, 0, 0
DarkSlateGray	`2F4F4F`	47, 79, 79
DimGray	`696969`	105, 105, 105

SlateGray	708090	112, 128, 144
Gray	808080	128, 128, 128
LightSlateGray	778899	119, 136, 153
DarkGray	A9A9A9	169, 169, 169
Silver	C0C0C0	192, 192, 192
LightGray	D3D3D3	211, 211, 211
Gainsboro	DCDCDC	220, 220, 220

CSS colors

The Cascading Style Sheets specification defines the same number of named colors as the HTML 4 spec, namely the 16 HTML colors, and 124 colors from the Netscape X11 color list for a total of 140 names that were recognized by Internet Explorer (IE) 3.0 and Netscape Navigator 3.0.[13] Blueberry.com notes that Opera 2.1 and Safari 1 also included Netscape's expanded list of 140 color names, but later discovered 14 names not included with Opera 3.5 on Windows 98.[14]

In CSS 2.1, the color 'orange' (one of the 140) was added to the section with the 16 HTML4 colors as a 17th color.[15] The CSS3.0 specification did not include *orange* in the "HTML4 color keywords" section, which was renamed as "Basic color keywords".[16] In the same reference, the "SVG color keywords" section, was renamed "Extended color keywords", after starting out as "X11 color keywords" in an earlier working draft.[17] The working draft for the level 4 color module combines the Basic and Extended sections together in a simple "Named Colors" section.[18]

Color added in CSS 2.1

	Name	Hex (RGB)	Red (RGB)	Green (RGB)	Blue (RGB)	Hue (HSL/HSV)	Satur. (HSL)	Light (HSL)	Satur. (HSV)	Value (HSV)	Alias
	Orange	#FFA500	100%	65%	0%	39°	100%	50%	100%	100%	

CSS 2, SVG and CSS 2.1 allow web authors to use *system colors*, which are color names whose values are taken from the operating system, picking the operating system's highlighted text color, or the background color for tooltip controls. This enables web authors to style their content in line with the operating system of the user agent.[19] The CSS3 color module has deprecated the use of system colors in favor of CSS3 UI System Appearance property,[20][21] which itself was subsequently dropped from CSS3.[22]

Example system color keywords

Appearance	Keyword
	`linkText`
	`visitedText`
	`activeText`
	`highlight`
	`mark`

The CSS3 specification also introduces HSL color space values to style sheets:[23]

```
/* RGB model */
p { color: #F00 } /* #rgb */
p { color: #FF0000 } /* #rrggbb */
p { color: rgb(255, 0, 0) } /* integer range 0 - 255 */
p { color: rgb(100%, 0%, 0%) } /* float range 0.0% - 100.0% */

/* RGB with alpha channel, added to CSS3 */
p { color: rgba(255, 0, 0, 0.5) } /* 50% opacity, semi-transparent */

/* HSL model, added to CSS3 */
p { color: hsl(0, 100%, 50%) } /* red */
p { color: hsl(120, 100%, 50%) } /* green */
p { color: hsl(120, 100%, 25%) } /* dark green */
p { color: hsl(120, 100%, 75%) } /* light green */
p { color: hsl(120, 50%, 50%) } /* pastel green */

/* HSL model with alpha channel */
p { color: hsla(120, 100%, 50%, 1) } /* green */
p { color: hsla(120, 100%, 50%, 0.5) } /* semi-transparent green */
p { color: hsla(120, 100%, 50%, 0.1) } /* very transparent green */
```

CSS also supports the special color `transparent`, which represents an alpha value of zero; by default, `transparent` is rendered as an invisible nominal black: `rgba(0, 0, 0, 0)`. It was introduced in CSS1 but its scope of use has expanded over the versions.[23]

CSS Color 4

Level 4 of the CSS Color specification introduced several new CSS color formats.[24]

Besides new ways to write colors, it also introduces the concept of mixing colors in a non-sRGB color space, a first step towards fixing a well-known issue in color gradients. Some sections explaining color theory and common operations like gamut mapping are also added to aid implementation.[24]

```
p { color: #F80A } /* #rgba */
p { color: #FF8800AA } /* #rrggbbaa */
p { color: rgb(255.0 136.0 0.0 / 0.667) } /* float range 0.0 - 255.0 for higher than 8-bit precision */
p { color: rgb(100% 53.3% 0% / 66.7%) } /* float range 0.0% - 100.0% */
p { color: color(sRGB 1 0.533 0 / 0.667) } /* color() function with color space */
```

Device independent color

CSS Color 4 introduces several different formats for device independent color that can display the entirety of visible color (in a capable screen), including:[25]

- CIE Lab and LCH
- OKLab and OKLCH (preferred over Lab/LCH)[24]:§§9.2–3
- XYZ (D50 or D65 [default])

Predefined color spaces

A number of RGB spaces with gamuts that are wider than sRGB are also introduced through the new `color()` function:[25]

- Display P3
- Prophoto
- REC.2020
- Adobe 1998 RGB

A linearized variant of sRGB is also defined for color mixing.[24]

Other formats

On 21 June 2014, the CSS WG added the color RebeccaPurple to the Editor's Draft of the Colors module level 4, to commemorate Eric Meyer's daughter Rebecca, who died on 7 June 2014, her sixth birthday.[26]

Color added in CSS4 Colors module

	Name	Hex (RGB)	Red (RGB)	Green (RGB)	Blue (RGB)	Hue (HSL/HSV)	Satur. (HSL)	Light (HSL)	Satur. (HSV)	Value (HSV)	Alias
	RebeccaPurple	#663399	40%	20%	60%	270°	50%	40%	67%	60%	

CSS4 also introduces the HWB color model as an alternative to HSL/HSV.[18]

CSS Color 5

The draft CSS Color 5[27] specification introduces syntax for mixing and manipulating existing colors, including:

- A `color-mix()` function for mixing colors
- Relative color syntax for manipulating components of an existing color

Custom color spaces are also supported via ICC profiles. This allows the use of CMYK on web pages.[27]

Web-safe colors

In the mid-1990s, many displays were only capable of displaying 256 colors,[28] dictated by the hardware or changeable by a "color table". When a color was found (e.g., in an image) that was not available, a different one had to be used. This was done by either using the closest color or by using dithering.

There were various attempts to make a "standard" color palette. A set of colors was needed that could be shown without dithering on 256-color displays; the number 216 was chosen partly because computer operating systems customarily reserved sixteen to twenty colors for their own use; it was also selected because it allowed exactly six equally spaced shades of red, green, and blue ($6 \times 6 \times 6 = 216$), each from 00 to FF (including both limits).

The list of colors was presented as if it had special properties that render it immune to dithering, but on 256-color displays applications could actually set a palette of any selection of colors that they chose, dithering the rest. These colors were chosen specifically because they matched the palettes selected by various browser applications. There were not very different palettes in use in different browsers.

"Web-safe" colors had a flaw in that, on systems such as X11 where the palette is shared between applications, smaller color cubes (5×5×5 or 4×4×4) were allocated by browsers—the "web-safe" colors would dither on such systems. Different results were obtained by providing an image

with a larger range of colors and allowing the browser to quantize the color space if needed, rather than suffer the quality loss of a double quantization.

Through the 2000s, use of 256-color displays in personal computers dropped sharply in favour of 24-bit (TrueColor) displays,[29] and the use of "web-safe" colors has fallen into practical disuse.

The "web-safe" colors do not all have standard names, but each can be specified by an RGB triplet: each component (red, green, and blue) takes one of the six values from the following table (out of the 256 possible values available for each component in full 24-bit color).

6 shades of each color

Key	Hex	Decimal	Fraction
0	00	0	0
3	33	51	0.2
6	66	102	0.4
9	99	153	0.6
C (12)	CC	204	0.8
F (15)	FF	255	1

The following table shows all of the "web-safe" colors. One shortcoming of the web-safe palette is its small range of light colors for webpage backgrounds, whereas the intensities at the low end of the range, such as the two darkest, are similar to each other, making them hard to distinguish. Values flanked by "*" (asterisk) are part of the "really safe palette;" see Safest web colors, below.

Color table

216 "web-safe" colors

000	300	600	900	C00	*F00*
003	303	603	903	C03	*F03*
006	306	606	906	C06	F06
009	309	609	909	C09	F09
00C	30C	60C	90C	C0C	F0C
00F	30F	60F	90F	C0F	*F0F*
030	330	630	930	C30	F30
033	333	633	933	C33	F33
036	336	636	936	C36	F36
039	339	639	939	C39	F39
03C	33C	63C	93C	C3C	F3C
03F	33F	63F	93F	C3F	F3F
060	360	660	960	C60	F60
063	363	663	963	C63	F63
066	366	666	966	C66	F66
069	369	669	969	C69	F69
06C	36C	66C	96C	C6C	F6C
06F	36F	66F	96F	C6F	F6F
090	390	690	990	C90	F90
093	393	693	993	C93	F93
096	396	696	996	C96	F96
099	399	699	999	C99	F99
09C	39C	69C	99C	C9C	F9C
09F	39F	69F	99F	C9F	F9F

0C0	3C0	6C0	9C0	CC0	FC0
0C3	3C3	6C3	9C3	CC3	FC3
0C6	3C6	6C6	9C6	CC6	FC6
0C9	3C9	6C9	9C9	CC9	FC9
0CC	3CC	6CC	9CC	CCC	FCC
0CF	3CF	6CF	9CF	CCF	FCF
0F0	3F0	*6F0*	9F0	CF0	*FF0*
0F3	*3F3*	*6F3*	9F3	CF3	*FF3*
0F6	*3F6*	6F6	9F6	*CF6*	*FF6*
0F9	3F9	6F9	9F9	CF9	FF9
0FC	*3FC*	6FC	9FC	CFC	FFC
0FF	*3FF*	*6FF*	9FF	CFF	*FFF*

Each color code listed is a shorthand for the RGB value. For example, code 609 is equivalent to RGB code 102-0-153 or HEX code #660099.

Safest web colors

Designers were encouraged to stick to these 216 "web-safe" colors in their websites because there were a lot of 8-bit color displays when the 216-color palette was developed. David Lehn and Hadley Stern discovered that only 22 of the 216 colors in the web-safe palette are reliably displayed without inconsistent remapping on 16-bit computer displays. They called these 22 colors "the really safe palette"; it consists largely of shades of green, yellow, and cyan.[30][31]

Safest web colors

R-- -GB	0	3	6	9	C	F
00	*000*					*F00*
03	*003*					*F03*
06						
09						
0C						
0F	*00F*					*F0F*
⋮	⋮					
F0	*0F0*		*6F0*			*FF0*
F3		*3F3*	*6F3*			*FF3*
F6	*0F6*	*3F6*			*CF6*	*FF6*
F9						
FC	*0FC*	*3FC*				
FF	*0FF*	*3FF*	*6FF*			*FFF*

Accessibility

Color selection

Some browsers and devices do not support colors. For these displays or blind and colorblind users, Web content depending on colors can be unusable or difficult to use.

Either no colors should be specified (to invoke the browser's default colors), or both the background and all foreground colors (such as the colors of plain text, unvisited links, hovered links, active links, and visited links) should be specified to avoid **black on black** or **white on white** effects. [32]

Color contrast

The Web Content Accessibility Guidelines recommend a contrast ratio of at least 4.5:1 between the relative luminance of text and its background color[33] or at least 3:1 for large text. Enhanced accessibility requires contrast ratios greater than 7:1.

However, addressing accessibility concerns is not simply a matter of increasing the contrast ratio. As a report to the Web Accessibility Initiative indicates,[34] dyslexic readers are better served by contrast ratios below the maximum. The recommendations they refer to of off-black (#0A0A0A) on off-white (#FFFFE5) and black (#000000) on creme (#FAFAC8) have contrast ratios of 11.7:1 and 20.3:1 respectively. Among their other color pairs, brown (#282800) on dark green (#A0A000) has a contrast ratio of 3.24:1, which is less than the WCAG recommendation, dark brown (#1E1E00) on light green (#B9B900) has a contrast ratio of 4.54:1 and blue (#00007D) on yellow (#FFFF00) has a contrast ratio of 11.4:1. The colors named in the report use different color values than the web colors of the same name.

See also

- Adobe RGB color space
- CIE 1931 XYZ color space
- CIE L*a*b* color space
- Color picker
- List of color palettes
- Lists of colors
- List of colors by shade
- ProPhoto RGB
- RGB color spaces
- scRGB
- Wide-gamut RGB color space

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External links

- CSS color value (https://developer.mozilla.org/en-US/docs/Web/CSS/color_value) on MDN Web Docs
- CSS2.1 Color Specification (https://www.w3.org/TR/CSS21/syndata.html#color-units)