CSS3

COLORS

Before we talk about CSS3 colors, we need to review **CSS2.1 colors**.

CSS2.1 colors

Color keywords

CSS2.1 allows **17 color keywords**: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, orange, purple, red, silver, teal, white, and yellow.

```css
/* color keyword examples */
p { color: aqua; }
p { color: black; }
p { color: blue; }
p { color: fuchsia; }
p { color: gray; }
p { color: green; }
p { color: lime; }
```

Hexadecimal notation

Color can be specified using **hexadecimal notation**. The syntax is a hash symbol '#' immediately followed by either three or six hexadecimal characters.

```css
/* hexadecimal examples */
p { color: #fff;}
p { color: #fefefe; }
```

RGB notation

Color can be specified using **RGB percentage or numeric notation**. This defines the color using red, green and blue values.

The syntax is "rgb(" followed by **three comma-separated values** followed by ")".

For **percentage notation** the three values must between 0 (black) and 100% (white).

```css
/* color white */
p { color: rgb(100%,100%,100%); }

/* color black */
p { color: rgb(0,0,0); }
```

For **numeric notation** the values between 0 (black) and 255 (white).

```css
/* color white */
p { color: rgb(255,255,255); }

/* color black */
p { color: rgb(0,0,0); }
```

Numeric and percentage values **cannot be mixed** within the same declaration.

```css
/* invalid values */
p { color: rgb(255,100%,255); }

/* valid values */
p { color: rgb(100%,100%,100%);}
p { color: rgb(255,255,255); }
```

System colors

CSS2.1 allowed **System colors** to be used to specify colors that matched the operating system's graphic style.

```css
/* system color example */
p { color: ButtonFace; }
```

System Colors have **since been deprecated** in favor of the CSS3 UI "appearance" property for specifying the complete look of user interface related elements.

CSS3 colors

Extended color keywords

While CSS2.1 allowed us to use 17 basic color keywords, CSS3 allows us to use **an additional 130 extended color keywords**. This is a total of 147 keywords.

```css
/* extended color keyword examples */
p { color: peru; }
p { color: salmon; }
p { color: thisle; }
p { color: firebrick; }
p { color: ghostwhite; }
p { color: goldenrod; }
p { color: honeydew; }
```

These extended color keywords are **supported by all modern browsers**.

Opacity property

Opacity allows us to dictate the opacity/transparency of elements.

Opacity values range from "0", which is fully transparent to "1" (or 1.0) which is 100% opaque.

```css
/* opacity example */
p { opacity: 0.3; }
```

The opacity keyword is not supported by **IE6, IE7, or IE8**.

RGBA notation

Color can be specified using **RGBA percentage or numeric notation**. This defines the color using red, green, blue and alpha (transparency) values.

The syntax is "rgba(" followed by **four comma-separated values** followed by ")".

For **percentage notation** the first three values must between "0" (black) and "100%" (white). The alpha value is a number value between "0" (fully transparent) and "1" (fully opaque).

```css
/* 50% white */
p { color: rgba(100%,100%,100%,.5); }

/* 20% black */
p { color: rgba(0,0,0,.2); }
```

For **numeric notation** the first three values between "0" (black) and "255" (white). The alpha value is a number value between "0" (fully transparent) and "1" (fully opaque).

```css
/* 50% white */
p { color: rgba(255,255,255,.5); }

/* 20% black */
p { color: rgba(0,0,0,.2); }
```

Numeric and percentage values **cannot be mixed** within the same declaration.

```css
/* invalid values */
p { color: rgba(255,100%,255,1); }

/* valid values */
p { color: rgba(100%,100%,100%,.3);}
p { color: rgba(255,255,255,.2); }
```

RGBA notation is not supported by **IE6, IE7, or IE8**.

HSL notation

Color can be specified using **HSL notation**. This defines colors using hue, saturation and lightness values.

The syntax is "hsl(" followed by **three comma-separated values** followed by ")".

The first value is for **Hue** and must be an integer value between "0" and "359".

The second value is for **Saturation** and must be defined as a percentage value between "0" and "100%".

The third value is **Lightness** and must be defined as a percentage value between "0" and "100%".

```
/* hsl example */
p { color: hsl(280,100%,50%); }
```

HLS notation is not supported by **IE6, IE7, or IE8**.

HSLA notation

Color can be specified using **HSLA notation**. This defines colors using hue, saturation, lightness and alpha (transparency) values.

The syntax is "hsl(" followed by **four comma-separated values** followed by ")".

The first value is for **Hue** and must be an integer value between "0" and "359".

The second value is for **Saturation** and must be defined as a percentage value between "0" and "100%".

The third value is **Lightness** and must be defined as a percentage value between "0" and "100%".

The fourth value is an **alpha value**, and must be a number value between "0" (fully transparent) and "1" (fully opaque).

```css
/* hsl example */
p { color: hsla(280,100%,50%,0.5); }
```

HSLA notation is not supported by **IE6, IE7, or IE8**.

currentColor
keyword

CSS1 and CSS2 defined the initial value of the 'border-color' property to be **"the value of the 'color' property"**.

However, there is no corresponding keyword, which means that there is **no way to specify a border-color** to match the color.

```css
/* border-color issue */
p
{
    color: red;
    border-width: 1px;
    border-style: solid;
    border-color: "value of color property";
}
```

CSS3 allows us to the **currentColor keyword** for this purpose.

```css
/* currentColor example */
p
{
    color: red;
    border-width: 1px;
    border-style: solid;
    border-color: currentColor;
}
```

The currentColor keyword is not supported by **IE6, IE7, or IE8**.

transparent
keyword

CSS1 introduced the "transparent" value for the **background-color property**.

```css
/* CSS1 transparency */
p { background-color: transparent; }
```

CSS2 allowed the "transparent" value to be applied to the **"border-color" property**.

```css
/* CSS1 transparency */
p { background-color: transparent; }

/* CSS2 transparency */
p { border-color: transparent; }
```

CSS3 allows the "transparent" keyword to be applied to **any property that accepts a "color" value**.

```css
/* CSS1 transparency */
p { background-color: transparent; }

/* CSS2 transparency */
p { border-color: transparent; }

/* CSS3 transparency */
p { color: transparent; }
```

The currentColor keyword is not supported by **IE6, IE7, or IE8**.

Browser support

CSS3 Colors 📄 - REC

Global   96.47% + 0.01% = 96.48%

Method of describing colors using Hue, Saturation and Lightness (hsl()) rather than just RGB, as well as allowing alpha-transparency with rgba() and hsla().

Current aligned   Usage relative   Show all

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
								4.1	
8			43					4.3	
9		40	44					4.4	
10		41	45	8		8.4		4.4.4	
11	12	42	46	9	32	9.1	8	44	46
	13	43	47		33				
		44	48		34				
		45	49						

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