

Color

Cascading Style Sheets (CSS3)



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Color

(Cascading Style Sheets)

CSS Color

The following option for setting color values :

- Color keywords
- Hexadecimal notation
- RGB (red, green, blue) format
- HSL (hue, saturation, lightness) format (CSS3)
- RGBA (red, green, blue with alpha Transparency) format (CSS3)
- HSLA(hue, saturation, lightness with alpha transparency) format (CSS3)

RGB Format

- RGB color values can be specified using the formula : rgb (red, green, blue)
- Each parameter defines the intensity of color between (0-255)
- Example rgb(255,0,0) is red

Hexadecimal Colors

- Hexadecimal color values are normally expressed using six digits
- Hexadecimal values are specified between 00 and FF


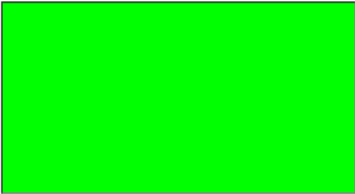



Color keyword, RGB, Hexadecimal

red rgb(255,0,0) #FF0000	green rgb(0,255,0) #00FF00	blue rgb(0,0,255) #0000FF	black rgb(0,0,0) #000000
lime rgb(0,255,0) #00FF00	yellow rgb(255,255,0) #FFFF00	cyan rgb(0,255,255) #00FFFF	grey rgb(128,128,128) #808080
silver rgb(192,192,192) #C0C0C0	white rgb(255,255,255) #FFFFFF	olive rgb(128,128,0) #808000	maroon rgb(128,0,0) #800000
teal rgb(0,128,128) #008080	navy rgb(0,0,128) #000080	purple rgb(128,0,128) #800080	fuchsia rgb(255,0,255) #FF00FF

HSL Color

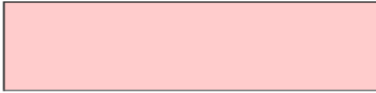
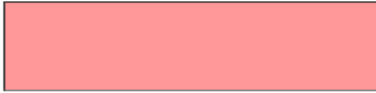


- An HSL color is specified with hsl (hue, saturation, lightness)
- Hue is represented by an angle on a color circle
 - 1) 0 or 360 is red
 - 2) 120 is green
 - 3) 240 is blue
- Saturation is percentage value :0% is a shade of gray, 100% is full saturation
- Lightness is also a percentage : 0% is dark black ,50% is normal and 100% is white..

HSL Color

<code>hsl(0,100%,50%)</code>	<code>hsl(120, 100%, 50%)</code>	<code>hsl(120, 100%, 25%)</code>	<code>hsl(120, 100%, 75%)</code>	<code>hsl(120, 60%, 70%)</code>
				





RGBA color

- An rgba color value is specified with rgba(red, green, blue, alpha)
- The alpha parameter is a number between 0.0(fully transparent) and 1.0 (fully opaque)

<code>rgba(255, 0, 0, 0.2)</code>	<code>rgba(255, 0, 0, 0.4)</code>	<code>rgba(255, 0, 0, 0.6)</code>	<code>rgba(255, 0, 0, 0.8)</code>
			

HSLA Color

- An HSLA color value is specified with : hsla (hue, saturation, lightness, alpha), where the alpha parameter defines the opacity

<code>hsla(0,100%,30%,0.3)</code>	<code>hsla(0, 100%, 50%,0.3)</code>	<code>hsla(0, 100%, 70%,0.4)</code>	<code>hsla(0, 100%, 90%,0.6)</code>
			

Opacity

- The Opacity property specifies how transparent an element is
- The Opacity property value must be a number between 0.0 (fully transparent) and 1.0 (fully opaque)

Opacity

RGB values with different Opacity



Opacity 1.0



Opacity 0.8



Opacity 0.7



Opacity 0.5



Opacity 0.4



Opacity 0.1

Background

(Cascading Style Sheets 3)



CSS Background

- CSS background properties define the background effects for elements
 - background-color
 - background-image
 - background-repeat
 - background-attachment
 - background-position

Background Color

- The background-color property specifies the background color of an element
- **Example**

```
body  
{  
  background-color:pink;  
}
```

```
p  
{  
  background-color:blue;  
}
```


Background Image

- The CSS background-image property sets one or several background images
- By default, background-image property repeats an image both horizontally and vertically

Example :

```
body
{
    background-image: url("./images/flower.jpg");
}
```

Background Repeat

CSS Background Image

background-repeat property repeats image horizontally and vertically



Background Repeat

- The background-repeat property controls repetition of image

Example :

```
body {  
    background-image:url("../images/camomile_PNG662.png");  
    background-repeat: repeat-x; /* no-repeat | repeat | repeat-y */  
}
```

Background Attachment

- The background-attachment property sets whether a background image is fixed or scrolls with the rest of page

Example :

```
body {  
    background-image: url("../images/camomile_PNG662.png");  
    background-repeat: no-repeat;  
    background-attachment: fixed; /* default value – scroll */  
}
```

Background Position

- The background-position determines the background image's horizontal and vertical position (default - top left of the element)
- Keywords and percentage values for background-position properties

Keyword	Percentage Equivalent
left	0%
center	50%
right	100%
top	0%
bottom	100%

Background Position

```
body {  
    background-image: url('./images/cat.jpg');  
    background-repeat: no-repeat;  
    background-attachment: fixed;  
    background-position: 5% top; /* */  
}
```

Background shorthand

- All background properties can be specified in one single property called shorthand property

```
body {  
    background: yellow url('./images/cat.jpg') fixed no-repeat center;  
}
```

CSS3 backgrounds

- CSS3 new background properties are:
 - background-size
 - background-origin
 - background-clip

Background Size

- The background-size property specifies the size of background image
- The background-size property accepts the following rule
 - **contain** : Scale the image to the largest possible size so that both its width and height fit into the background positioning area
 - **cover** : Scale the image to its smallest size so that both its width and height can completely cover the background positioning area

Background Size

cover

```
background:url(flower.jpg);  
background-repeat: no-repeat;  
background-size: cover;
```

contain

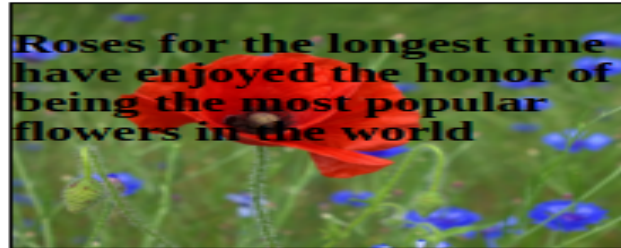
```
background:url(flower.jpg);  
background-repeat: no-repeat;  
background-size: contain;
```

Background Size

The "contain" keyword:



The "cover" keyword:

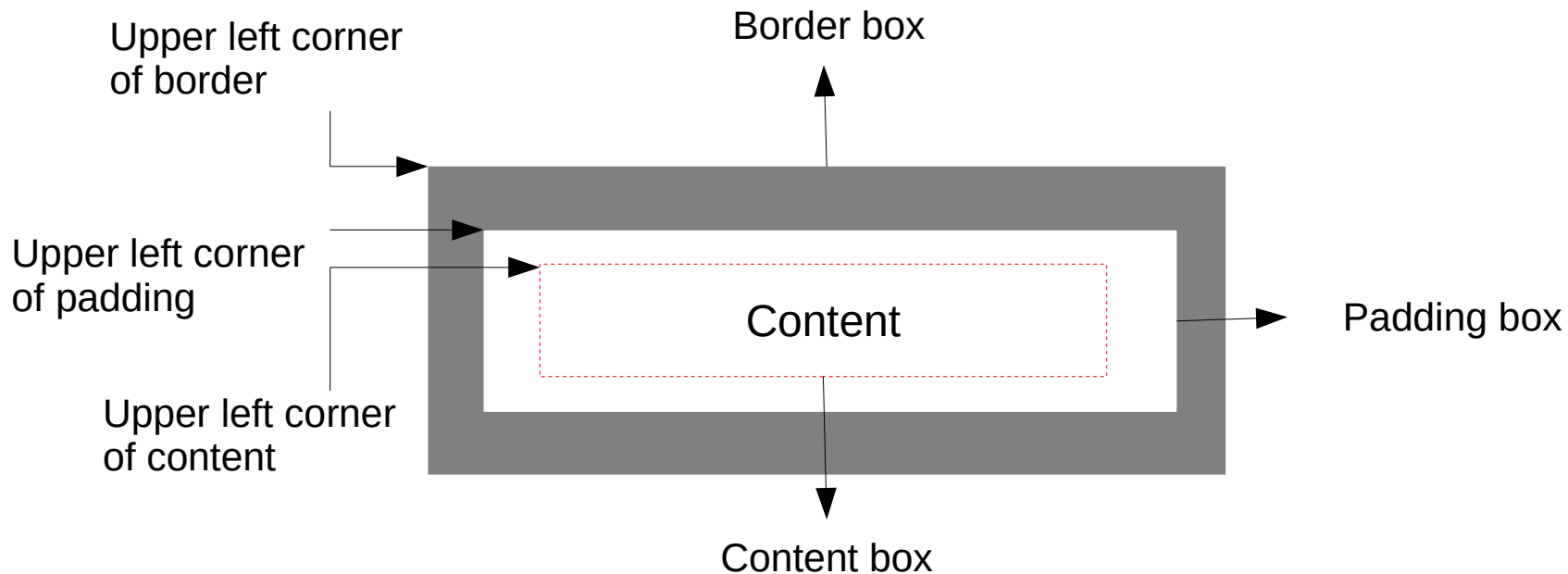


Background Origin

- CSS3 background-origin property specifies where the background image is positioned

border-box	Background image starts from upper left corner of the border
padding-box	Background image starts from upper left corner of the padding edge (default)
content-box	Background image starts from upper left corner of the content

Background origin property



Background Origin

content-box

```
background: url("rose.jpg");  
background-repeat: no-repeat;  
background-origin: content-box;
```

border-box

```
background: url("rose.jpg");  
background-repeat: no-repeat;  
background-origin: border-box;
```

Background Clip

- The CSS3 background-clip property specifies the painting area of the background

border-box	Background is painted to outside edge of the border (default)
padding-box	Background is painted to outside edge of the padding
content-box	Background is painted within the content box

Background Clip

The CSS3 background-clip property specifies the painting area of the background.

The property takes three different values:

- border-box - The background is painted to the outside edge of the border (default)
- padding-box - The background is painted to the outside edge of the padding
- content-box - The background is painted within the content box

Background Clip

Padding Box

```
border: 10px dotted red;  
padding:40px;  
background: pink;  
background-clip: padding-box;
```

Content Box

```
border: 10px dotted blue;  
padding:35px;  
background: pink;  
background-clip: content-box;
```

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*Thank
you*