



HTML5 & CSS3

CSS 3



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What's CSS 3?

- ❑ **CSS3 is completely backwards compatible, so you will not have to change existing designs. Browsers will always support CSS2.**
- ❑ **The CSS3 specification is still under development by W3C, However, many of the new CSS3 properties have been implemented in modern browsers.**
- ❑ **CSS3 Modules:**
 - CSS3 is split up into "modules". The old specification has been split into smaller pieces, and new ones are also added.
 - Some of the most important CSS3 modules are:
 - **Selectors**
 - **Box Model**
 - **Backgrounds and Borders**
 - **Text Effects**
 - **2D/3D Transformations**
 - **Animations**
 - **Multiple Column Layout**
 - **User Interface**



CSS Vendor Prefix

Vendor Extension Prefixes

Prefix	Organization
-moz-	Mozilla Foundation
-ms-	Microsoft
-o-	Opera Software
-webkit-	Safari and Chrome



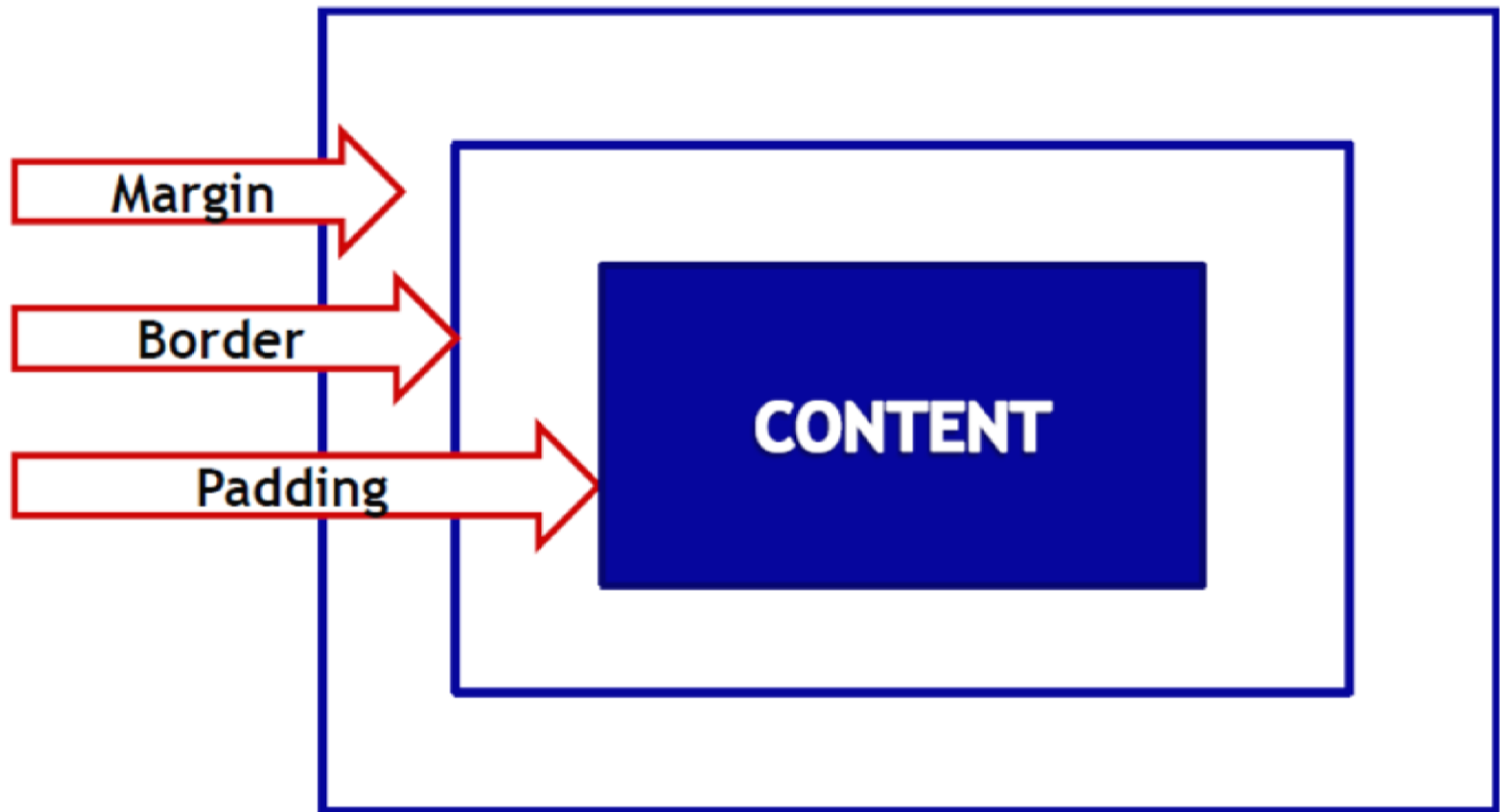
Box Model...

- ❑ All HTML elements can be considered as boxes.
- ❑ The Box Model allows us to place a border around elements and space elements in relation to other elements.
- ❑ The Box Model consists of:
 - margins,
 - borders,
 - padding, and
 - the actual content.



Box Model (Cont.)...

Box Model





CSS3 Borders...

- ❑ With CSS3, you can create rounded borders, add shadow to boxes, and use an image as a border - without using a design program, like Photoshop.

Browser Support

Property	Browser Support				
<code>border-radius</code>					
<code>box-shadow</code>					
<code>border-image</code>					



CSS3 Fonts...

- ☐ Before CSS3, web designers had to use fonts that were already installed on the user's computer.
- ☐ With CSS3, web designers can use whatever font he/she likes.
- ☐ Include the font file on your web server, and it will be automatically downloaded to the user when needed.
- ☐ Your "own" fonts are defined in the CSS3 @font-face rule.

```
<style>
@font-face
{
    font-family: myFirstFont;
    src: url('Sansation_Light.ttf'),
        url('Sansation_Light.eot'); /* IE9+ */
}

div
{
    font-family:myFirstFont;
}
</style>
```



CSS3 Measurement Units...

☐ Physical Measurements

- inches (in)
- points (pt)

☐ Screen Measurements

- pixels (px)

☐ Relative Measurements

- %
- em

☐ ☐ **1em = 12pt = 16px = 100%.**



CSS3 Transforms...

- ❑ With CSS3 transform, we can move, scale, turn, spin, and stretch elements.



- ❑ **Browser Support:**

- Internet Explorer 9 requires the prefix -ms-.
- Firefox requires the prefix -moz-.
- Chrome and Safari requires the prefix -webkit-.
- Opera requires the prefix -o-.



CSS3 Transforms (Cont.)...

❑ Transform Properties:

Property	Description	CSS
<u>transform</u>	Applies a 2D or 3D transformation to an element	3
<u>transform-origin</u>	Allows you to change the position on transformed elements	3



CSS3 Transforms (Cont.)...

❑ 2D Transform Methods:

Function	Description
translate(x,y)	Defines a 2D translation, moving the element along the X- and the Y-axis
translateX(n)	Defines a 2D translation, moving the element along the X-axis
translateY(n)	Defines a 2D translation, moving the element along the Y-axis
scale(x,y)	Defines a 2D scale transformation, changing the elements width and height
scaleX(n)	Defines a 2D scale transformation, changing the element's width
scaleY(n)	Defines a 2D scale transformation, changing the element's height
rotate(angle)	Defines a 2D rotation, the angle is specified in the parameter
skew(x-angle,y-angle)	Defines a 2D skew transformation along the X- and the Y-axis
skewX(angle)	Defines a 2D skew transformation along the X-axis
skewY(angle)	Defines a 2D skew transformation along the Y-axis
matrix(n,n,n,n,n,n)	The matrix() method combines all of the 2D transform methods. take six parameters, allows you to: rotate, scale, move (translate), and skew elements.



CSS3 Transition...

- ❑ **With CSS3, we can add an effect when changing from one style to another, without using Flash animations or JavaScripts.**

- ❑ **Browser Support:**
 - Internet Explorer does not yet support the transition property.
 - Firefox 4 requires the prefix -moz-.
 - Chrome and Safari requires the prefix -webkit-.
 - Opera requires the prefix -o-.



CSS3 Transition(Cont.)...

❑ Transition Properties:

Property	Description	CSS
<u>transition-property</u>	Specifies the name of the CSS property to which the transition is applied	3
<u>transition-duration</u>	Defines the length of time that a transition takes. Default 0	3
<u>transition-timing-function</u>	Describes how the speed during a transition will be calculated. Default "ease". Linear : the same speed from start to end Ease : slow start, then fast, then end slowly ease-in : slow start ease-out : slow end ease-in-out : slow start and end	3
<u>transition-delay</u>	Defines when the transition will start. Default 0	3
<u>transition</u>	A shorthand property for setting the four transition properties into a single property	3

An icon representing an HTML file, showing a globe with red angle brackets and the text 'HTML' below it.

CSS3 Animation...

- ❑ **With CSS3, we can create animations, which can replace animated images, Flash animations, and JavaScripts in many web pages.**
- ❑ **Browser Support:**
 - Internet Explorer does not yet support the @keyframes rule or the animation property.
 - Firefox requires the prefix -moz-, Chrome and Safari require the prefix -webkit-, and Opera require the prefix -o-.



CSS3 Animation (Cont.)...

❑ Animation Properties:

Property	Description	CSS
<u>@keyframes</u>	Specify when the change will happen in percent, or the keywords "from" and "to", which is the same as 0% and 100%. <code>@keyframes animationname {keyframes-selector {css-styles;}}</code>	3
<u>animation-name</u>	Specifies the name of the @keyframes animation	3
<u>animation-duration</u>	Specifies how many seconds or milliseconds an animation takes to complete one cycle. Default 0	3
<u>animation-timing-function</u>	Describes how the animation will progress over one cycle of its duration. Default "ease" Linear : the same speed from start to end Ease : slow start, then fast, then end slowly ease-in : slow start ease-out : slow end ease-in-out : slow start and end	3



CSS3 Animation (Cont.)...

❑ Animation Properties (Cont.):

Property	Description	CSS
<u>animation-iteration-count</u>	Specifies the number of times an animation is played. Default 1	3
<u>animation-direction</u>	Specifies whether or not the animation should play in reverse on alternate cycles. Normal: Default value. The animation should be played as normal Alternate: The animation should play in reverse on alternate cycles	3
<u>animation-play-state</u>	Specifies whether the animation is running or paused. Default "running" Paused: Specifies that the animation is paused Running: Specifies that the animation is running	3
<u>animation</u>	A shorthand property for all the animation properties, except the animation-play-state.	3



CSS3 Multiple Columns...

- ❑ **With CSS3, you can create multiple columns for laying out text - like in newspapers!**
- ❑ **Browser Support:**
 - Internet Explorer does not yet support the multiple columns properties.
 - Firefox requires the prefix -moz-.
 - Chrome and Safari require the prefix -webkit-.



CSS3 Multiple Columns(Cont.)...

❑ Multiple Columns Properties:

Property	Description	CSS
<u>column-count</u>	Specifies the number of columns an element should be divided into	3
<u>column-fill</u>	Specifies how to fill columns	3
<u>column-gap</u>	Specifies the gap between the columns	3
<u>column-rule</u>	A shorthand property for setting all the column-rule-* properties	3
<u>column-rule-color</u>	Specifies the color of the rule between columns	3



CSS3 Multiple Columns(Cont.)...

❑ Multiple Columns Properties (Cont.):

Property	Description	CSS
<u>column-rule-style</u>	Specifies the style of the rule between columns	3
<u>column-rule-width</u>	Specifies the width of the rule between columns	3
<u>column-span</u>	Specifies how many columns an element should span across	3
<u>column-width</u>	Specifies the width of the columns	3
<u>columns</u>	A shorthand property for setting column-width and column-count	3



Summery..



<Questions> ? </Questions>



Thank You...