

# HTML<sup>5</sup> – CSS<sup>3</sup>

Les futures Standards

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## I HTML<sup>5</sup>

- Introduction
- Nouveautés HTML
- Nouveautés Javascript

## II CSS<sup>3</sup>

- Introduction
- Nouveautés Effets visuels
- Nouveautés Sélecteurs
- Nouveautés Utilitaires

## III Compliance

- HTML 5
- CSS 3

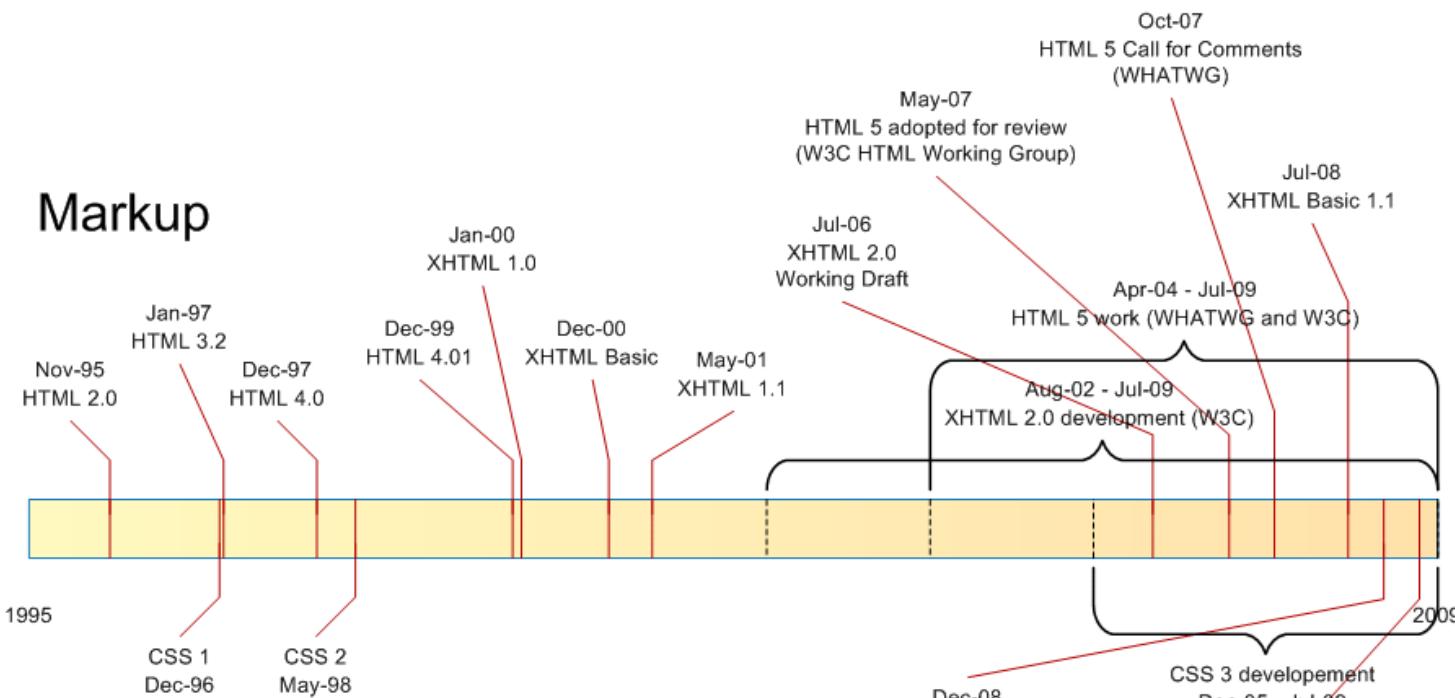
## V Conclusion

# HTML<sup>5</sup>

- 
- Introduction
  - Nouveauté HTML
  - Nouveauté Javascript

- Introduction (1/2)

## Markup



## Style

Source: <http://blog.tangcs.com/2011/04/15/html-css-tutorials-intro/>

- Introduction (2/2)

## W3C vs WHATWG

World Wide Web Consortium vs Web Hypertext Application Technology Working Group



VS



# HTML<sup>5</sup>-CSS<sup>3</sup>

- Introduction (2/2)

# Nouveautés

# **HTML**



## Javascript



# HTML<sup>5</sup>

- 
- Introduction
  - Nouveautés HTML
  - Nouveautés Javascript

## • Nouveautés HTML (1/14)

- Allègement du code
- Balises Sémantiques
- Balises Multimédia
- Formulaires améliorés



## • Nouveautés HTML (2/14)

- Allègement du code
  - Doctype, meta, script...

### HTML 4

```
< DOCTYPE html PUBLIC "-//W3C//DTD XHTML  
1.0 Strict//EN"  
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">  
  <html xmlns="http://www.w3.org/1999/xhtml"  
xml:lang="fr" >  
    <head>  
      <meta http-equiv="Content-Type"  
content="text/html;  
charset=utf-8">  
  
      <link rel="stylesheet"  
type="text/css"  
href="design.css" />  
  
      <script type="text/javascript"  
src="script.js">  
    </script>  
  </head>  
  <body>  
  </body>  
</html>
```

### HTML 5

```
< DOCTYPE html>  
  <html lang="fr">  
    <head>  
      <meta charset="utf-8" />  
  
      <link rel="stylesheet"  
href="design.css" />  
      <script src="script.js"></script>  
    </head>
```

- Nouveautés HTML (3/14)
  - ❑ Balises Sémantiques

## Elements

**header** : élément d'entête

**footer** : élément pied de page

**nav** : élément de navigation (e.g menu)

**aside** : élément de zone secondaire non liée au contenu principal de la page

**section**: défini une section de document

**article** : élément d'un même groupe, d'article

## Sample



## • Nouveautés HTML (4/14)

### ❑ Balises Sémantiques

#### Elements

**bdi:** isole une partie de texte pouvant être formaté autrement

**command:** bouton de commande pouvant être invoqué par l'utilisateur

**details:** zone d'information additionnelle pouvant être affichées ou masquées

**summary:** entête visible pour un élément details

**figure:** conteneur d'objets tels que illustrations, diagrams, photos, code listings, etc.

**figcaption:** titre pour l'élément figure

**hgroup:** groupe de heading h1 h2 etc.

#### Sample

**mark:** texte souligné

**meter:** jauge

**progress:** représente la progression d'un tache

**ruby:** ruby annotation (East Asian typography)

**rt:** caractère d'exclamation/prononciation (East Asian typography)

**rp:** affiche quoi afficher en cas de non support des annotations ruby

**time:** date/time

**wbr:** définit une line-break possible

## • Nouveautés HTML (5/14)

### ❑ Balises Sémantiques

#### Elements

```
<body>
  <details>
    <summary>Additonal Information</summary>
    <p>in certamen alacriter consurgentem
    revocave</p>
    <p>Quibus occurrere bene pertinax miles
    explicatis ordinibus parans sed eum</p>
  </details>

  <figure>
    
    <figcaption> The risk theory </figcaption>
  </figure>

  <meter value="2" min="0" max="10">
    2 out of 10
  </meter>
  <br />
  <meter value="0.6">60%</meter>

  <progress value="80" max="100">
  </progress>

</body>
```

#### Sample

##### ▼ Additonal Information

in certamen alacriter consurgentem revocave

Quibus occurrere bene pertinax miles explicatis ordinibus parans  
sed eum



The risk theory



## • Nouveautés HTML (6/14)

### ❑ Balises Multimédia

#### Elements

**audio:** défini une contexte d'un objet audio

**video:** défini une contexte d'un objet video

**source:** définit des ressources multimédia

multiple pour l'audio et la video

**embed:** container pour des applications

externes ou du contenu interaction (plug-in)

**track:** liste de morceaux textuel pour la video  
et l'audio

**<canvas>** surface sur laquelle il est possible  
de dessiner des formes et de les animer

**<svg>** surface permettant de dessiner des  
objets au format Scalable Vector Graphics

#### Sample



Google Chrome



Mobile Safari

Firefox



Desktop Safari



<http://peterned.home.xs4all.nl/demooo/>

- Nouveautés HTML (7/14)
  - ❑ Balises Multimédia

## Sample

```
<body>
  <audio controls="controls">
    <source src="horse.ogg"
            type="audio/ogg" />
    <source src="horse.mp3"
            type="audio/mpeg" />
  Your browser does not
  support the audio element.
</audio><br />
  <video width="320" height="240"
         controls="controls">
    <source src="big_buck_bunny_720p_surround.avi"
           type="video/mp4" />
    <source src="big_buck_bunny_480p_stereo.ogg"
           type="video/ogg" />
  Your browser does not
  support the video tag.
</video>
<br />

  <embed src="sampleB.swf" />

</body>
```

## Sample Execution



## • Nouveautés HTML (8/14)

### ❑ Balises Multimédia

#### Sample Canvas

```
function drawShape(){
    // get the canvas element using the DOM
    var canvas = document.getElementById('tutorial');
    // Make sure we don't execute when canvas isn't supported
    if (canvas.getContext){
        // use getContext to use the canvas for drawing
        var ctx = canvas.getContext('2d');
        // Draw shapes
        ctx.beginPath();
        ctx.arc(75,75,50,0,Math.PI*2,true); // Outer circle
        ctx.moveTo(110,75);
        ctx.arc(75,75,35,0,Math.PI,false); // Mouth
        ctx.moveTo(65,65);
        ctx.arc(60,65,5,0,Math.PI*2,true); // Left eye
        ctx.moveTo(95,65);
        ctx.arc(90,65,5,0,Math.PI*2,true); // Right eye
        ctx.stroke();

    } else {
        alert('You need Safari or Firefox 1.5+ to see this demo.');
    }
}
```



```
<body onload="drawShape();">
<canvas id="tutorial"
        width="150" height="150">
</canvas>
</body>
```

- Nouveautés HTML (9/14)
  - ❑ Balises Multimédia

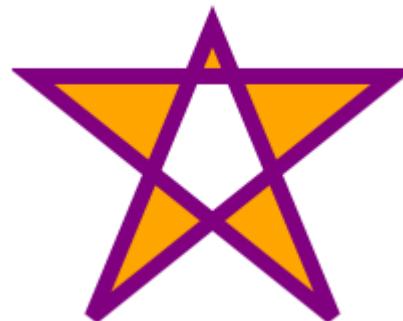
## Sample SVG

```
<!DOCTYPE html>
<html>
  <body onload="drawShape();">
    <svg xmlns="http://www.w3.org/2000/svg"
          version="1.1" height="190">

      <polygon
        points="100,35 40,180
               190,60 10,60 160,180"
        style="fill:orange;stroke:purple;
               stroke-width:8;fill-rule:evenodd;" />

    </svg>
  </body>
</html>
```

## Sample Execution



## • Nouveautés HTML (10/14)

### Balises Multimédia

#### Canvas vs SVG

Canvas	SVG
<ul style="list-style-type: none"><li>• Resolution dependent</li><li>• No support for event handlers</li><li>• Poor text rendering capabilities</li><li>• You can save the resulting image as .png or .jpg</li><li>• Best suited for graphic-intensive games where many objects are redrawn frequently</li></ul>	<ul style="list-style-type: none"><li>• Resolution independent</li><li>• Support for event handlers</li><li>• Best suited for applications with large rendering areas (Google Maps)</li><li>• Slow rendering if complex (anything that uses the DOM a lot will be slow)</li><li>• Not suited for game applications</li></ul>

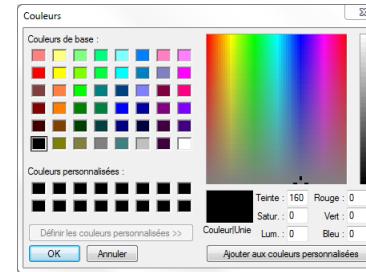
## • Nouveautés HTML (11/14)

- Formulaires améliorés: Input Type

### Elements

**color**  
**date**  
**datetime**  
**datetime-local**  
**email**  
**month**  
**number**  
**range**  
**search**  
**tel**  
**time**  
**url**  
**week**

Quantity (between 1 and 5):



Points:



## • Nouveautés HTML (12/14)

- ❑ Formulaires améliorés: Eléments de forme

### Elements

**datalist:** liste d'options pré-définies pour les éléments "input"

**keygen:** champ générateur de clé public/privé

**output:** résultat d'un calcul

### Sample

```
<body>
    <input list="browsers" />

    <datalist id="browsers">
        <option value="Internet Explorer">
        <option value="Firefox">
        <option value="Chrome">
        <option value="Chrome Mobile">
        <option value="Opera">
        <option value="Safari">
    </datalist>
    <br /><br /><br /><br />

    <form action="demo_keygen.asp" method="get">
        Username: <input type="text" name="usr_name" />
        <br />
        Encryption: <keygen name="security" />
        <input type="submit" />
    </form>
    <br />
    <form oninput="x.value=parseInt(a.value)+parseInt(b.value)">
        <input type="range" name="a" value="50" />100
        +<input type="number" name="b" value="50" />
        =<output name="x" for="a b"></output>
    </form>
</body>
```

## • Nouveautés HTML (13/14)

### □ Formulaires améliorés: Eléments de form

```
<body>
    Sample
    <input list="browsers" />

    <datalist id="browsers">
        <option value="Internet Explorer">
        <option value="Firefox">
        <option value="Chrome">
        <option value="Chrome Mobile">
        <option value="Opera">
        <option value="Safari">
    </datalist>
    <br /><br /><br /><br />

    <form action="demo_keygen.asp" method="get">
        Username: <input type="text" name="usr_name" />
        <br />
        Encryption: <keygen name="security" />
        <input type="submit" />
    </form>
    <br />
    <form oninput="x.value=parseInt(a.value)+parseInt(b.value)">0
        <input type="range" name="a" value="50" />100
        +<input type="number" name="b" value="50" />
        =<output name="x" for="a b"></output>
    </form>
</body>
```

### Sample Execution



Username:

Encryption:  Valider

0  100 +  =119

Input was received as:

usr\_name=jDoe&security=MIICQDCCASgwggEiMA0GCSqGSIb3DQEBAQ

## • Nouveautés HTML (14/14)

- Formulaires améliorés: nouveaux attributs

### Input

autocomplete  
autofocus  
form  
formaction  
formenctype  
formmethod  
formnovalidate  
formtarget  
height and width  
list  
min and max  
multiple  
pattern (regexp)  
placeholder  
required  
step

### form

autocomplete  
novalidate

First name: Jo

Last name: John

E-mail:

Valider

Fill in and submit the form, then reload the page to see how autocomplete works.

Notice that autocomplete is "on" for the form, but "off" for the e-mail field.

# HTML<sup>5</sup>

- 
- Introduction
  - Nouveautés HTML
  - Nouveautés Javascript

## • Nouveautés Javascript (1/22)

- Stockage local
- Localisation
- Drag and Drop
- Toolbox



## • Nouveautés Javascript (2/22)

### ❑ Stockage local

- Stockage de données sur le navigateur
- Persistance
- Info non communiqué au serveur (sécurité)
- Utilisé uniquement à la demande
- 2 modes de stockage local/session
- Grand espace de stockage (Mb)



## •Nouveautés Javascript (3/22)

### ❑ Stockage local (local)

```
function clickCounter()
{
    if(typeof(Storage)!=="undefined")
    {
        if (localStorage.clickcount)
        {
            localStorage.clickcount=Number(localStorage.clickcount)+1;
        }
        else
        {
            localStorage.clickcount=1;
        }
        document.getElementById("result").innerHTML=
        "You have clicked the button " + localStorage.clickcount + " time(s).";
    }
    else
    {
        document.getElementById("result").innerHTML=
        "Sorry, your browser does not support web storage...";
    }
}

<body>
    <p><button onclick="clickCounter()" type="button">Click me!</button></p>
    <div id="result"></div>
    <p>Click the button to see the counter increase.</p>
    <p>Close the browser tab (or window), and try again,
    and the counter will continue to count (is not reset).</p>
</body>
```

## •Nouveautés Javascript (4/22)

### ❑ Stockage local (local)

```
function clickCounter()
{
    if(typeof(Storage)!=="undefined")
    {
        if (localStorage.clickcount)
        {
            localStorage.clickcount=Number(localStorage.clickcount)+1;
        }
        else
        {
            localStorage.clickcount=1;
        }
        document.getElementById("result").innerHTML=
        "You have clicked the button " + localStorage.clickcount + " time(s).";
    }
    else
    {
        document.getElementById("result").innerHTML=
        "Sorry, your browser does not support web storage...";
    }
}
```

Click me!

You have clicked the button 3 time(s).

Click the button to see the counter increase.

Close the browser tab (or window), and try again, and the counter will continue to count (is not reset).

## •Nouveautés Javascript (5/22)

### Stockage local (session)

```
function clickCounter()
{
    if(typeof(Storage)!=="undefined")
    {
        if (sessionStorage.clickcount)
        {
            sessionStorage.clickcount=
            Number(sessionStorage.clickcount)+1;
        }
        else
        {
            sessionStorage.clickcount=1;
        }
        document.getElementById("result").innerHTML=
        "You have clicked the button " + sessionStorage.clickcount +
        " time(s) in this session.";
    }
    else
    {
        document.getElementById("result").innerHTML=
        "Sorry, your browser does not support web storage...";
    }
}
```

## •Nouveautés Javascript (6/22)

### Stockage local (session)

```
function clickCounter()
{
    if(typeof(Storage)!=="undefined")
    {
        if (sessionStorage.clickcount)
        {
            sessionStorage.clickcount=
                Number(sessionStorage.clickcount)+1;
        }
        else
        {
            sessionStorage.clickcount=1;
        }
        document.getElementById("result").innerHTML=
            "You have clicked the button " + sessionStorage.clickcount +
            " time(s) in this session.";
    }
    else
    {
        document.getElementById("result").innerHTML=
            "Sorry, your browser does not support web storage...";
    }
}
```

You have clicked the button 4 time(s) in this session.

Click the button to see the counter increase.

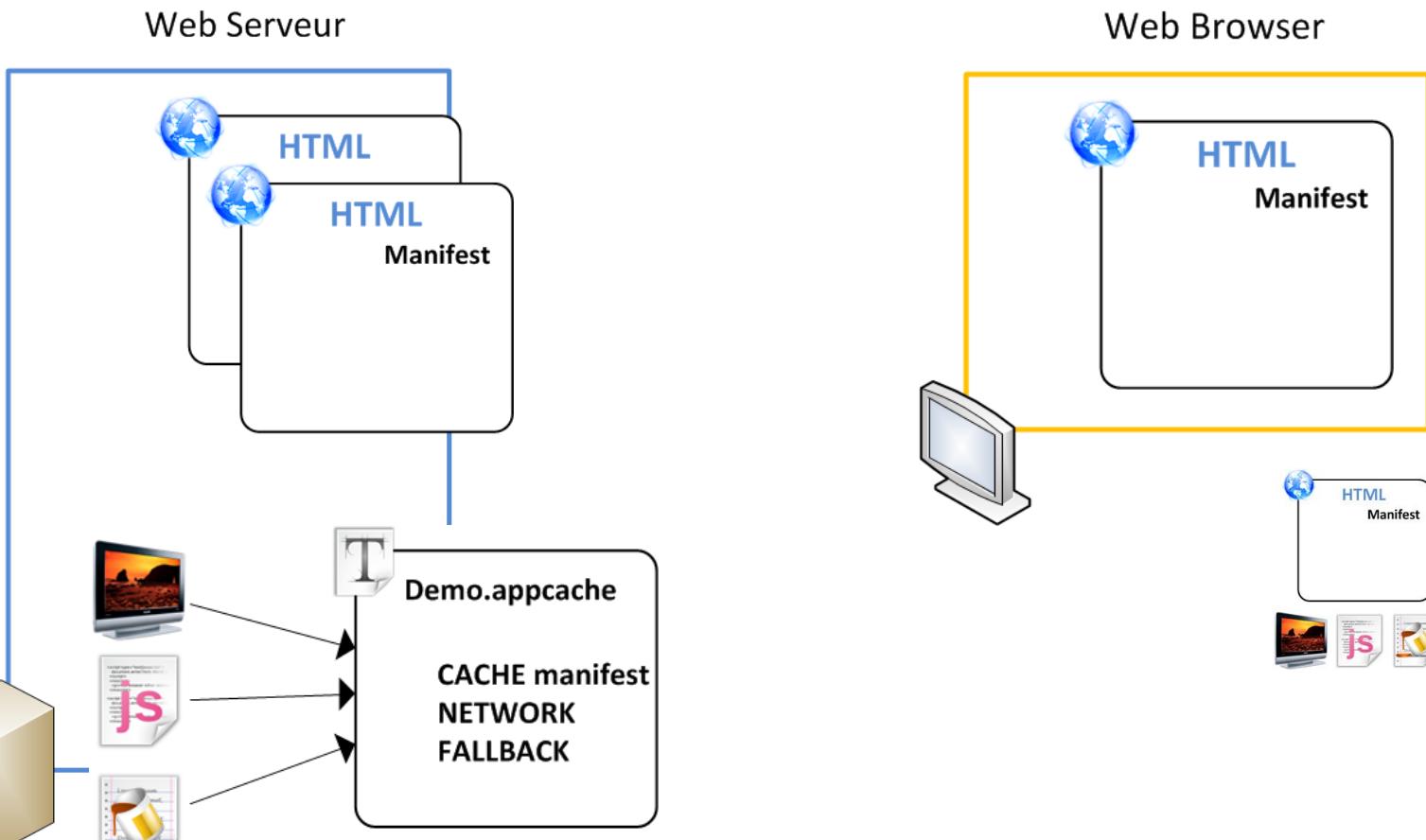
Close the browser tab (or window), and try again, and the counter is reset.

## • Nouveautés Javascript (7/22)

- ❑ Stockage local (App Cache)
  - Navigation hors ligne
  - Rapidité
  - Allègement de la charge server



- Nouveautés Javascript (8/22)
  - Stockage local (App Cache)



- Nouveautés Javascript (9/22)

- Stockage local (App Cache)

```
<!DOCTYPE HTML>
<html manifest="demo.appcache">
...
</html>
```

CACHE MANIFEST  
# 2012-02-21 v1.0.0

/theme.css  
/logo.gif  
/main.js

NETWORK:  
login.asp

FALLBACK:  
/html5/ /offline.html

- **Nouveautés Javascript (10/22)**

- Stockage local (App Cache)

```
CACHE MANIFEST  
# 2012-02-21 v1.0.0  
/theme.css  
/logo.gif  
/main.js
```

```
NETWORK:  
login.asp
```

```
FALLBACK:  
/html5/ /offline.html
```

Elements à mettre en cache

Element nécessitant une connexion

Page à afficher si une connexion n'est pas disponible

## • Nouveautés Javascript (11/22)

### ❑ Localisation

- Localisation géographique du navigateur
- Meilleur précision avec équipement GPS (mobile)
- Gestion des exceptions
- Collecte de la position régulière



## •Nouveautés Javascript (12/22)

### Localisation

**coords.latitude**: latitude en décimal

**coords.longitude**: longitude en décimal

**coords.accuracy**: précision de la position

**coords.altitude**: altitude en mètre au dessus du niveau de la mer

**coords.altitudeAccuracy**: précision de l'altitude

**coords.heading**: orientation en dégré depuis le nord (sens des aiguilles d'une montre)

**coords.speed**: vitesse mètre par second

**timestamp**: date de la réponse

## •Nouveautés Javascript (13/22)

### Localisation

```
var x=document.getElementById("demo");
function getLocation()
{
    if (navigator.geolocation)
    {
        navigator.geolocation.getCurrentPosition(showPosition,showError);
    }
    else{x.innerHTML="Geolocation is not supported by this browser."}
}

function showPosition(position)
{
    var latlon=position.coords.latitude+", "+position.coords.longitude;

    var img_url="http://maps.googleapis.com/maps/api/staticmap?center="
    +latlon+"&zoom=14&size=400x300&sensor=false";
    document.getElementById("mapholder").innerHTML=<img src='"+img_url+"' />";
}
```

## •Nouveautés Javascript (14/22)

### Localisation

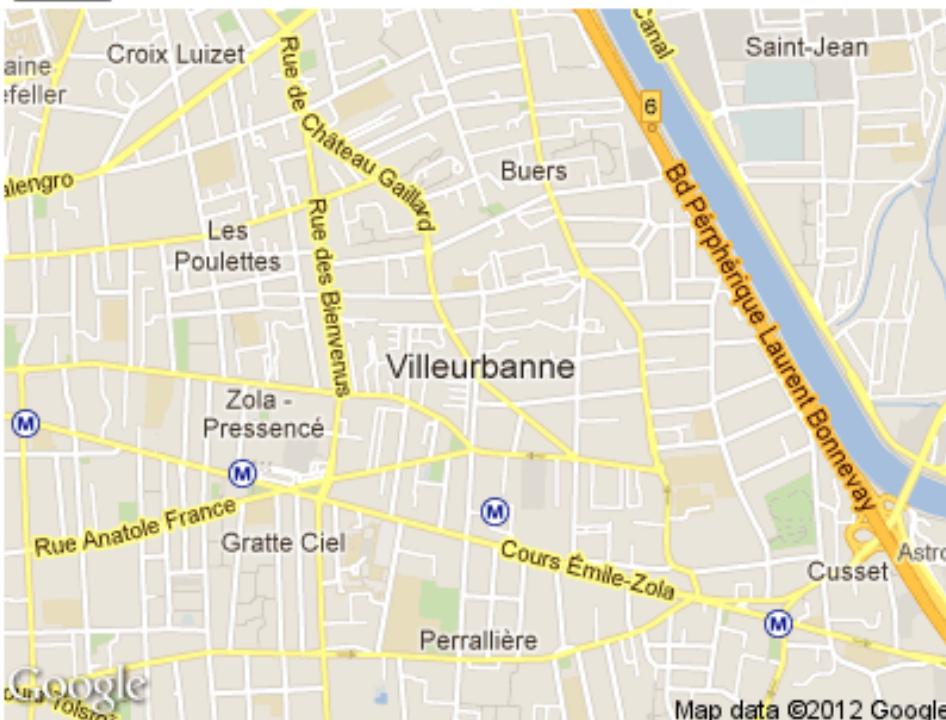
```
function showError(error)
{
    switch(error.code)
    {
        case error.PERMISSION_DENIED:
            x.innerHTML="User denied the request for Geolocation."
            break;
        case error.POSITION_UNAVAILABLE:
            x.innerHTML="Location information is unavailable."
            break;
        case error.TIMEOUT:
            x.innerHTML="The request to get user location timed out."
            break;
        case error.UNKNOWN_ERROR:
            x.innerHTML="An unknown error occurred."
            break;
    }
}
```

## • Nouveautés Javascript (15/22)

### Localisation

Click the button to get your position:

Try It



## • Nouveautés Javascript (16/22)

### ❑ Drag and Drop

- Déplace un élément d'une zone à une autre
- Natif, plus d'émulation par bibliothèques javascripts
- Traitement spécifique via javascript



## •Nouveautés Javascript (17/22)

### ❑ Drag and Drop

```
<body>

    <div id="div1"
        ondrop="drop(event)"
        ondragover="allowDrop(event)">
    </div>

</body>
```

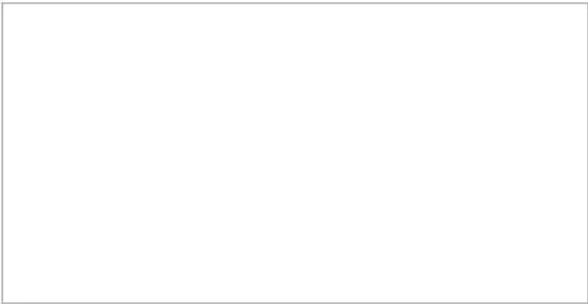
```
<script type="text/javascript">
    function allowDrop(ev)
    {
        ev.preventDefault();
    }

    function drag(ev)
    {
        ev.dataTransfer.setData("Text",ev.target.id);
    }

    function drop(ev)
    {
        ev.preventDefault();
        var data=ev.dataTransfer.getData("Text");
        ev.target.appendChild(document.getElementById(data));
    }
</script>
```

## •Nouveautés Javascript (18/22)

- Drag and Drop



## • Nouveautés Javascript (19/22)

### ❑ ToolBox

- Web Worker
- Communication Server SSE



## • Nouveautés Javascript (20/22)

### ❑ ToolBox

- Web Worker: JavaScript run in background

```
<script>
    var w;
    function startWorker()
    {
        if(typeof(Worker) !=="undefined")
        {
            if(typeof(w)==="undefined")
            {
                w=new Worker("demo_workers.js");
            }
            w.onmessage = function (event) {
                document.getElementById("result")
                    .innerHTML=event.data;
            };
        }
        else
        {
            document.getElementById("result")
                .innerHTML= "Sorry, your browser"+
                "does not support Web Workers...";
        }
    }

    function stopWorker()
    {
        w.terminate();
    }
</script>
```

### demo\_workers.js

```
var i=0;

function timedCount()
{
    i=i+1;
    postMessage(i);
    setTimeout("timedCount()",500);
}

timedCount();

<body>
    <p>Count numbers: <output id="result"></output></p>
    <button onclick="startWorker()">Start Worker</button>
    <button onclick="stopWorker()">Stop Worker</button>
    <br /><br />
</body>
```

Count numbers: 955

[Start Worker](#) [Stop Worker](#)

## • Nouveautés Javascript (21/22)

### ❑ ToolBox

- Server-Sent Events (SSE): get automatically updates from server

```
if(typeof(EventSource) !=="undefined")
{
    var source=new EventSource("demo_sse.php");
    source.onmessage=function(event)
    {
        document.getElementById("result")
            .innerHTML+=event.data + "<br />";
    };
}
else
{
    document.getElementById("result")
        .innerHTML="Sorry, your browser does"+
        "not support server-sent events...";
}

<body>
    <h1>Getting server updates</h1>
    <div id="result"></div>
</body>
```

### demo\_sse.php

```
<?php
    header('Content-Type: text/event-stream');
    header('Cache-Control: no-cache');

    $time = date('r');
    echo "data: The server time is: {$time}\n\n";
    flush();
?>
```

## • Nouveautés Javascript (22/22)

### ❑ ToolBox

- Server-Sent Events (SSE): get automatically updates from server

```
if(typeof(EventSource)!=="undefined")
{
    var source=new EventSource("demo_sse.php");
    source.onmessage=function(event)
    {
        document.getElementById("result")
            .innerHTML+=event.data + "<br />";
    };
}
else
{
    document.getElementById("result")
        .innerHTML="Sorry, your browser does"+
        "not support server-sent events...";
}

<body>
    <h1>Getting server updates</h1>
    <div id="result"></div>
</body>
```

## Getting server updates

The server time is: Thu, 30 Aug 2012 09:52:17 -0400  
The server time is: Thu, 30 Aug 2012 09:52:21 -0400

## Getting server updates

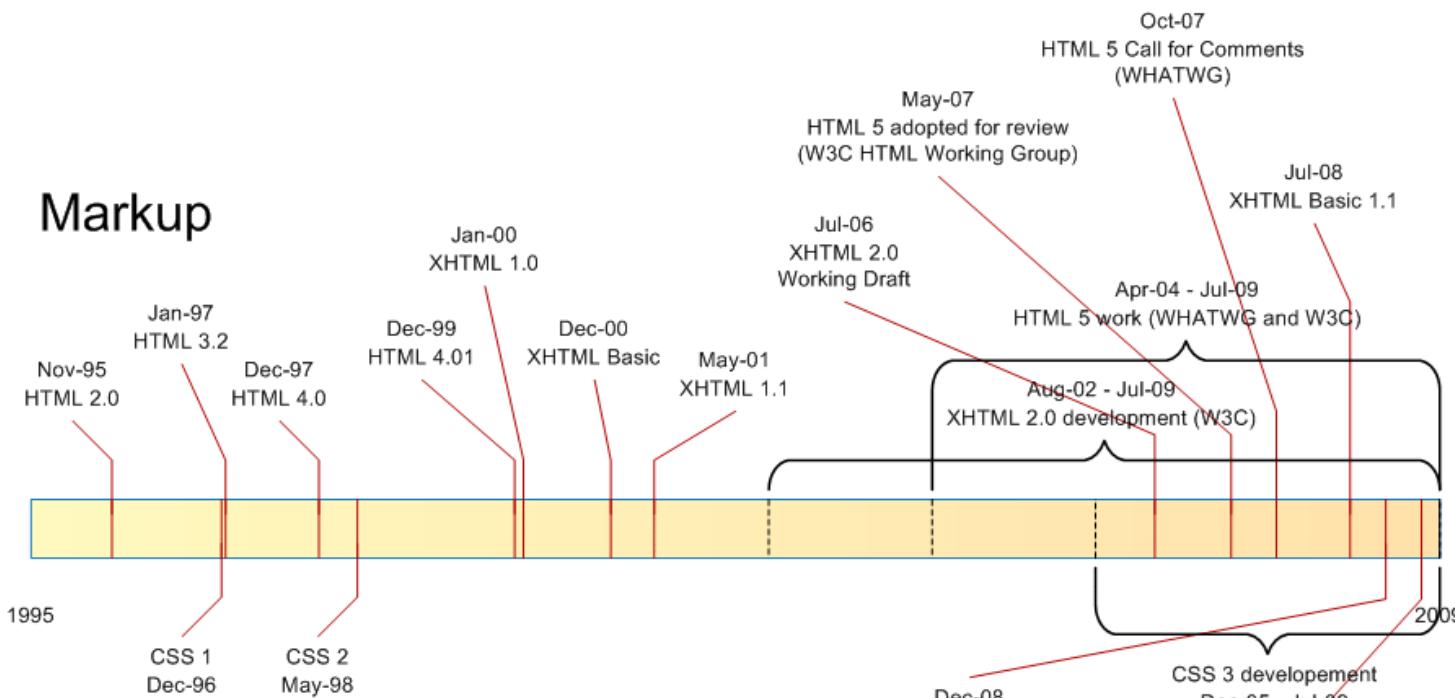
The server time is: Thu, 30 Aug 2012 09:52:17 -0400  
The server time is: Thu, 30 Aug 2012 09:52:21 -0400  
The server time is: Thu, 30 Aug 2012 09:52:25 -0400  
The server time is: Thu, 30 Aug 2012 09:52:28 -0400  
The server time is: Thu, 30 Aug 2012 09:52:32 -0400  
The server time is: Thu, 30 Aug 2012 09:52:36 -0400  
The server time is: Thu, 30 Aug 2012 09:52:39 -0400  
The server time is: Thu, 30 Aug 2012 09:52:43 -0400  
The server time is: Thu, 30 Aug 2012 09:52:47 -0400

# CSS<sup>3</sup>

- 
- Introduction
  - Nouveautés Effets visuels
  - Nouveautés Sélecteurs
  - Nouveautés Utilitaires

- Introduction

## Markup



## Style

Source: <http://blog.tangcs.com/2011/04/15/html-css-tutorials-intro/>

## • Préfixes propriétaires

- Un monde pas encore standardisé
  - Les nouvelles propriétés CSS3 doivent être différencierées
  - Chaque navigateur peut posséder sa propre implémentation
  - Utilisation de préfixes propriétaires pour les implémentations différentes



-  -ms-
-  -moz-
-  -webkit-
-  -webkit-
-  -O-

# CSS<sup>3</sup>

- 
- Introduction
  - Nouveautés Effets visuels
  - Nouveautés Sélecteurs
  - Nouveautés Utilitaires

- Nouveautés: Effets Visuels (1/19)

- Border
- Background
- Texte
- Transformation
- Transition
- Animation



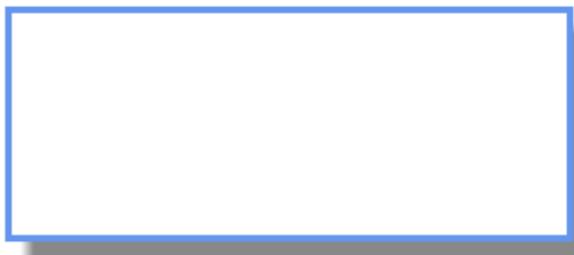
## • Nouveautés: Effets Visuels (2/19)

### Border

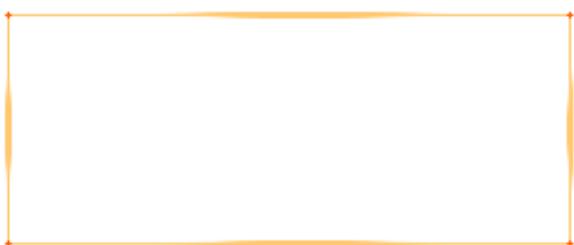
```
div.border
{
    border:3px solid;
    border-radius:25px;
    /* Firefox 3.6 and earlier */
    -moz-border-radius:25px;
}
```



```
div.shadow
{
    border:3px solid;
    box-shadow: 10px 10px 5px #888888;
}
```



```
#borderimage
{
    border-image:url(border.png) 30 30 stretch;
    /* Firefox */
    -moz-border-image:url(border.png) 30 30 stretch;
    /* Safari and Chrome */
    -webkit-border-image:url(border.png) 30 30 stretch;
    /* Opera */
    -o-border-image:url(border.png) 30 30 stretch;
}
```



## • Nouveautés: Effets Visuels (3/19)

### ❑ Background

```
div.back
{
    background:url(tortue.gif);
    -moz-background-size:100% 100%; /* Firefox 3.6 */
    background-size:100% 100%;
    background-repeat:no-repeat;
}
div.big{
    width: 30px;
    height: 20px;
}
div.small{
    width: 10px;
    height: 5px;
}
```

**background-size**



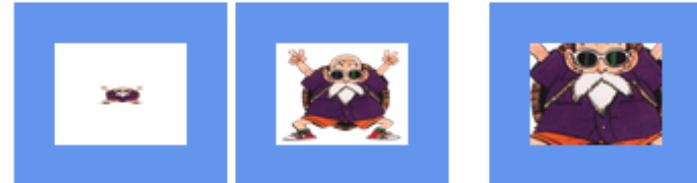
## • Nouveautés: Effets Visuels (4/19)

### ❑ Background

```
div.contentbox{  
    /* Safari */  
    -webkit-background-origin:content-box;  
    background-origin:content-box;  
}
```

**background-origin**

```
div.paddingbox{  
    /* Safari */  
    -webkit-background-origin:padding-box;  
    background-origin:padding-box;  
}
```



```
div.borderbox{  
    /* Safari */  
    -webkit-background-origin:border-box;  
    background-origin:border-box;  
}
```

## • Nouveautés: Effets Visuels (5/19)

### □ Texte

```
h1 {  
    text-shadow: 5px 5px 5px #6495ED;  
}  
  
p {  
    width: 200px;  
}  
  
p.wordwrapping{  
    word-wrap:break-word;  
}
```

## The Big Bang Theory

The Big Bang Theory is an American sitcom created by Chuck Lorre and Bill Prady, both of whom serve as executive producers on the show, along with Steven Molaro. All three also serve as head writers. It premiered on CBS on September 24, 2007.<sup>[3]</sup> The show is centered on five characters: roommates Leonard Hofstadter and Sheldon Cooper, two physicists who work at the California Institute of Technology (Caltech) Pennywise waitress and aspiring actress who lives across the hall; and Leonard and Sheldon's equally geeky and socially awkward friends and co-workers, aerospace engineer Howard Wolowitz and astrophysicist Rajesh Koothrappali.

The Big Bang Theory is an American sitcom created by Chuck Lorre and Bill Prady, both of whom serve as executive producers on the show, along with Steven Molaro. All three also serve as head writers. It premiered on CBS on September 24, 2007.<sup>[3]</sup> The show is centered on five characters: roommates Leonard Hofstadter and Sheldon Cooper, two physicists who work at the California Institute of Technology (Caltech) Pennywise waitress and aspiring actress who lives across the hall; and Leonard and Sheldon's equally geeky and socially awkward friends and co-workers, aerospace engineer Howard Wolowitz and astrophysicist Rajesh Koothrappali.

## • Nouveautés: Effets Visuels (6/19)

### Texte

Property	Description
<a href="#"><u>hanging-punctuation</u></a>	Specifies whether a punctuation character may be placed outside the line box
<a href="#"><u>punctuation-trim</u></a>	Specifies whether a punctuation character should be trimmed
<a href="#"><u>text-align-last</u></a>	Describes how the last line of a block or a line right before a forced line break is aligned when text-align is "justify"
<a href="#"><u>text-emphasis</u></a>	Applies emphasis marks, and the foreground color of the emphasis marks, to the element's text
<a href="#"><u>text-justify</u></a>	Specifies the justification method used when text-align is "justify"
<a href="#"><u>text-outline</u></a>	Specifies a text outline
<a href="#"><u>text-overflow</u></a>	Specifies what should happen when text overflows the containing element
<a href="#"><u>text-shadow</u></a>	Adds shadow to text
<a href="#"><u>text-wrap</u></a>	Specifies line breaking rules for text
<a href="#"><u>word-break</u></a>	Specifies line breaking rules for non-CJK scripts
<a href="#"><u>word-wrap</u></a>	Allows long, unbreakable words to be broken and wrap to the next line

## • Nouveautés: Effets Visuels (7/19)

### □ Texte (font)

```
@font-face
{
    font-family: myFont;
    src: url('the_beautiful_ones.ttf')
        /* IE9+ */
       ,url('the_beautiful_ones.eot');
}

@font-face
{
    font-family: myFontb;
    src: url('appleberry_with_cyrillic.ttf')
        /* IE9+ */
       ,url('appleberry_with_cyrillic.eot');
}

p.fonta{
    font-family:myFont;
}

p.fontb{
    font-family:myFontb;
}
```

### The Big Bang Theory

The Big Bang Theory is an American sitcom created by Chuck Lorre and Bill Prady, both of whom serve as executive producers on the show, along with Steven Molaro. All three also serve as head writers. It premiered on CBS on September 24, 2007.<sup>[3]</sup> The show is centered on five characters: roommates Leonard Hofstadter and Sheldon Cooper, two physicists who work at the California Institute of Technology (Caltech); Penny, waitress and aspiring actress who lives across the hall; and Leonard and Sheldon's equally geeky and socially awkward friends and co-workers, aerospace engineer Howard Wolowitz and astrophysicist Rajesh Koothrappali.

The Big Bang Theory is an American sitcom created by Chuck Lorre and Bill Prady, both of whom serve as executive producers on the show, along with Steven Molaro. All three also serve as head writers. It premiered on CBS on September 24, 2007.<sup>[3]</sup> The show is centered on five characters: roommates Leonard Hofstadter and Sheldon Cooper, two physicists who work at the California Institute of Technology (Caltech); Penny, waitress and aspiring actress who lives across the hall; and Leonard and Sheldon's equally geeky and socially awkward friends and co-workers, aerospace engineer Howard Wolowitz and astrophysicist Rajesh Koothrappali.

- Nouveautés: Effets Visuels (8/19)

- Transformation (2D)



## • Nouveautés: Effets Visuels (9/19)

### ❑ Transformation (2D)

```
div {  
    border:5px solid;  
    width:200px;  
    height:200px;  
    color:bleu;  
    background:url(transformer.jpg);  
    background-size:100% 100%;  
    border-radius:25px;  
}
```

```
div.rotate{  
    transform: rotate(30deg);  
    /* IE 9 */  
    -ms-transform: rotate(30deg);  
    /* Safari and Chrome */  
    -webkit-transform: rotate(30deg);  
    /* Opera */  
    -o-transform: rotate(30deg);  
    /* Firefox */  
    -moz-transform: rotate(30deg);  
}
```

```
div.translate{  
    transform: translate(50px,100px);  
    /* IE 9 */  
    -ms-transform: translate(50px,100px);  
    /* Safari and Chrome */  
    -webkit-transform: translate(50px,100px);  
    /* Opera */  
    -o-transform: translate(50px,100px);  
    /* Firefox */  
    -moz-transform: translate(50px,100px);  
}
```

- Nouveautés: Effets Visuels (10/19)

- Transformation (2D)



## • Nouveautés: Effets Visuels (11/19)

### ❑ Transformation (2D)

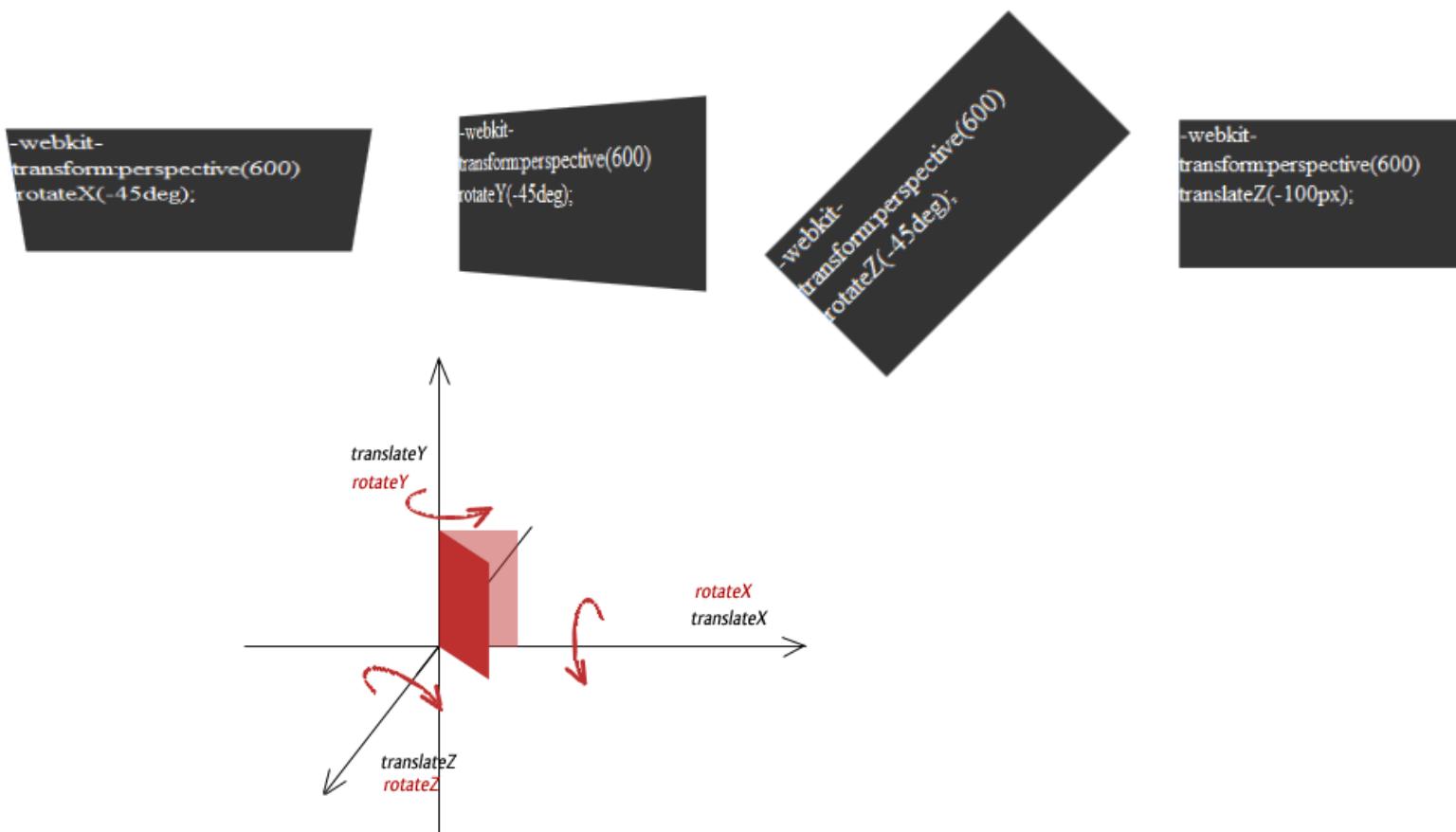
```
div.matrix
{
    transform:matrix(0.866,0.5,-0.5,0.866,0,0);
    /* IE 9 */
    -ms-transform:matrix(0.866,0.5,-0.5,0.866,0,0);
    /* Firefox */
    -moz-transform:matrix(0.866,0.5,-0.5,0.866,0,0);
    /* Safari and Chrome */
    -webkit-transform:matrix(0.866,0.5,-0.5,0.866,0,0);
    /* Opera */
    -o-transform:matrix(0.866,0.5,-0.5,0.866,0,0);
}
```

```
div.skew
{
    transform: skew(30deg,20deg);
    /* IE 9 */
    -ms-transform: skew(30deg,20deg);
    /* Safari and Chrome */
    -webkit-transform: skew(30deg,20deg);
    /* Opera */
    -o-transform: skew(30deg,20deg);
    /* Firefox */
    -moz-transform: skew(30deg,20deg);
}
```

```
div.scale{
    transform: scale(1,2);
    /* IE 9 */
    -ms-transform: scale(1,2);
    /* Safari and Chrome */
    -webkit-transform: scale(1,2);
    /* Opera */
    -o-transform: scale(1,2);
    /* Firefox */
    -moz-transform: scale(1,2);
}
```

- Nouveautés: Effets Visuels (12/19)

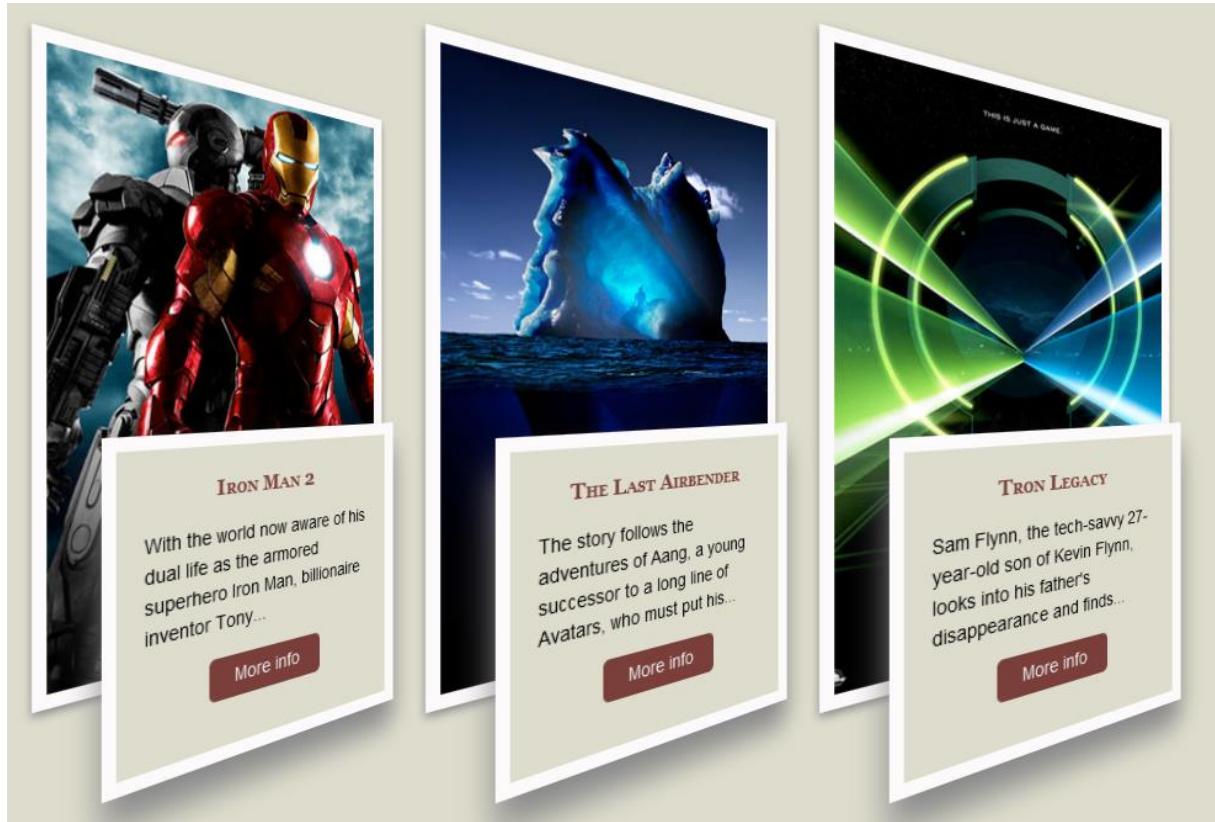
- Transformation (3D)



Source: <http://debray-jerome.developpez.com/articles/les-transformations-3d-en-css3/>

- Nouveautés: Effets Visuels (13/19)

- Transformation (3D)



Source: [http://demo.marcofolio.net/3d\\_animation\\_css3/](http://demo.marcofolio.net/3d_animation_css3/)

- **Nouveautés: Effets Visuels (14/19)**

- Transition

**transition-property:** détermine à quelle propriété CSS la transition sera appliquée

**transition-duration:** définit la durée que prendra la transition

**transition-timing-function:** définit comment la durée de la transition sera calculée  
(linear, ease, etc...)

**transition-delay:** définit quand la transition commencera

## • Nouveautés: Effets Visuels (15/19)

### ❑ Transition

```
div
{
    width:100px;
    height:100px;
    background:orange;
    transition-property:width rotate;
    transition-duration:1s;
    transition-timing-function:linear;
    transition-delay:2s;
    /* Firefox 4 */
    -moz-transition-property:width rotate;
    -moz-transition-duration:1s;
    -moz-transition-timing-function:linear;
    -moz-transition-delay:2s;
    /* Safari and Chrome */
    -webkit-transition-property:width rotate;
    -webkit-transition-duration:1s;
    -webkit-transition-timing-function:linear;
    -webkit-transition-delay:2s;
    /* Opera */
    -o-transition-property:width rotate;
    -o-transition-duration:1s;
    -o-transition-timing-function:linear;
    -o-transition-delay:2s;
}
```

```
div:hover
{
    width:200px;
    transform: rotate(180deg);
    -ms-transform: rotate(180deg); /* IE 9 */
    -webkit-transform: rotate(180deg); /* Safari and Chrome */
    -o-transform: rotate(180deg); /* Opera */
    -moz-transform: rotate(180deg); /* Firefox */
}
```

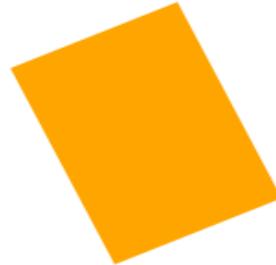
- Nouveautés: Effets Visuels (16/19)

- Transition

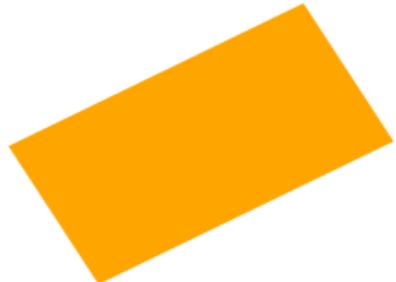
T=0s



T=2s



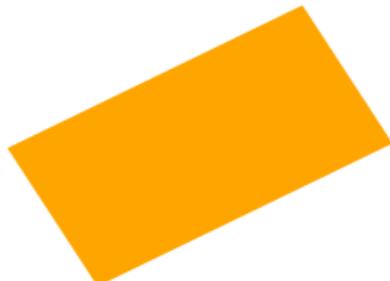
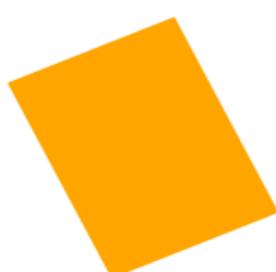
T=3s



T=4s



T=3s



- Nouveautés: Effets Visuels (17/19)

- Animation

**@keyframes:** défini une animation

**animation-name:** nom de l'animation @keyframes

**animation-duration:** durée de l'animation permettant d'accomplir un cycle  
(sec or millisec)

**animation-timing-function:** définit comment la durée de la transition sera calculée (linear, ease, etc...)

**animation-delay:** définit quand la transition commencera

**animation-iteration-count:** définit le nombre de fois que sera exécuté l'animation

**animation-direction:** définit la direction de l'animation

**animation-play-state:** définit si l'animation est "running" ou "paused"

## • Nouveautés: Effets Visuels (18/19)

### Animation

```
div
{
    width:100px;
    height:100px;
    background:red;
    position:relative;
    animation:myfirst 5s;
    /* Firefox */
    -moz-animation:myfirst 5s;
    /* Safari and Chrome */
    -webkit-animation:myfirst 5s;
    /* Opera */
    -o-animation:myfirst 5s;
}
```

```
@keyframes myfirst
{
    0%   {background:red; left:0px; top:0px;}
    25%  {background:yellow; left:200px; top:0px;}
    50%  {background:blue; left:200px; top:200px;}
    75%  {background:green; left:0px; top:200px;}
    100% {background:red; left:0px; top:0px;}
}

@-moz-keyframes myfirst /* Firefox */
{
    0%   {background:red; left:0px; top:0px;}
    25%  {background:yellow; left:200px; top:0px;}
    50%  {background:blue; left:200px; top:200px;}
    75%  {background:green; left:0px; top:200px;}
    100% {background:red; left:0px; top:0px;}
}

@-o-keyframes myfirst /* Opera */
{
    0%   {background:red; left:0px; top:0px;}
    25%  {background:yellow; left:200px; top:0px;}
    50%  {background:blue; left:200px; top:200px;}
    75%  {background:green; left:0px; top:200px;}
    100% {background:red; left:0px; top:0px;}
}
```

- Nouveautés: Effets Visuels (19/19)

- Animation

Note: This example does not work in Internet Explorer.



Note: This example does not work in Internet Explorer.



Note: This example does not work in Internet Explorer.



Note: This example does not work in Internet Explorer.



# CSS<sup>3</sup>

- 
- Introduction
  - Nouveautés Effets visuels
  - Nouveautés Sélecteurs
  - Nouveautés Utilitaires

## • Nouveautés: Les sélecteurs (1/7)

- Sélection par position des fils
- Sélection d'éléments par valeur d'un attributs
- Exclusion d'éléments



## • Nouveautés: Les sélecteurs (2/7)

### Sélection par position des fils

**:only-child** p:only-child Selectionne des tous les éléments <p> qui sont l'unique fils de ses parents

**:nth-child(n)** p:nth-child(2) Selectionne tous les éléments <p> qui sont le second fils de ses parents

**:nth-last-child(n)** p:nth-last-child(2) Selectionne tous les éléments <p> qui sont l'avant dernier fils de ses parents

**:nth-of-type(n)** p:nth-of-type(2) Selectionne tous les éléments <p> qui sont les sont les second élément p de ses parents

**:nth-last-of-type(n)** p:nth-last-of-type(2) Selectionne tous les éléments <p> qui sont les avant dernier fils de type p de ses parents

**:last-child** p:last-child Selectionne tous les éléments <p> qui sont l'avant dernier fils de ses parents

## • Nouveautés: Les sélecteurs (3/7)

### Sélection par position des fils

```
tr:nth-child(2) {  
    background-color:grey;  
}  
  
tr:nth-last-child(3) {  
    background-color:orange;  
}  
  
tr:last-child{  
    background-color:red;  
}
```

row 1, cell 1	row 1, cell 2
---------------	---------------

row 1, cell 1	row 1, cell 2
---------------	---------------

row 2, cell 1	row 2, cell 2
---------------	---------------

row 3, cell 1	row 3, cell 2
---------------	---------------

row 4, cell 1	row 4, cell 2
---------------	---------------

row 5, cell 1	row 5, cell 2
---------------	---------------

row 6, cell 1	row 6, cell 2
---------------	---------------

row 1, cell 1	row 1, cell 2
---------------	---------------

row 2, cell 1	row 2, cell 2
---------------	---------------

row 3, cell 1	row 3, cell 2
---------------	---------------

- Nouveautés: Les sélecteurs (4/7)

- Sélection par position des fils

**:only-child**

p:only-child

**:first-of-type**

p:first-of-type

**:nth-child(n)**

p:nth-child(2)

**:last-of-type**

p:last-of-type

**:nth-last-child(n)**

p:nth-last-child(2)

**:only-of-type**

p:only-of-type

**:nth-of-type(n)**

p:nth-of-type(2)

**:root**

**:nth-last-of-type(n)**

p:nth-last-of-type(2)

**:last-child**

p:last-child

## • Nouveautés: Les sélecteurs (5/7)

- Sélection d'éléments par valeur d'un attribut

**element1~element2** p~ul tous les éléments <ul> qui sont précédés par l'élément p

**[attribute^=value]** a[src^="https"] tous les éléments a dont la valeur de l'attribut src commence par la valeur "https"

**[attribute\$=value]** a[src\$=".pdf"] tous les éléments a dont la valeur de l'attribut src finit par la valeur ".pdf"

**[attribute\*=value]** a[src\*="w3schools"] tous les éléments a dont la valeur de l'attribut src contient la valeur "W3schools"

## • Nouveautés: Les sélecteurs (6/7)

### □ Sélection d'éléments par valeur d'un attribut

```
div{  
    margin:20px;  
    border:5px solid;  
    width:100px;  
    height:100px;  
}  
  
div~div{  
    color:orange;  
}  
  
span[class^="first"]{  
    color:orange;  
}  
  
span[class$="an"]{  
    color:blue;  
}  
  
span[class*="is"]{  
    color:red;  
}
```

```
<table border="0">  
    <tr>  
        <td>  
            <div></div>  
            <div></div>  
        </td>  
        <td>  
            <div></div>  
        </td>  
    </tr>  
    <tr>  
        <td>  
            <p>Lorem ipsum dolor sit amet, consectetur  
            adipiscing elit. Phasellus vitae sapien  
            orci. Duis turpis ante, sodales sit amet  
            facilisis sed,sapien.  
            <span class="firstSpanEver">  
                Pellentesque ornare accumsan  
            </span> lacus, non aliquam  
            neque tincidunt sagittis.  
            <span class="secondspan">  
                Mauris eu mi mi. Maecenas posuere  
            </span>, nisi eget, quis ornare risus dui  
            sed turpis. Mauris  
            neque  
            <span class="thirdspanishere">  
                nulla, euismod sit amet semper id,  
            </span> tincidunt eget  
            tortor. Duis lacinia, urna in tempus suscipit,  
        </p></td>  
    </tr>  
</table>
```

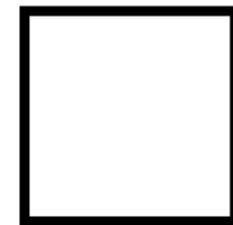
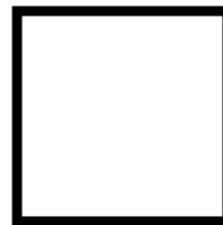


Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus vitae sapien orci. Duis turpis ante, sodales sit amet facilisis sed, convallis quis sapien. Pellentesque ornare accumsan lacus, non aliquam neque tincidunt sagittis. Mauris eu mi mi. Maecenas posuere, nisi eget ullamcorper rhoncus, enim mauris semper magna, quis ornare risus dui sed turpis. Mauris ante magna, hendrerit in tristique posuere, semper ut libero. Nunc neque nulla, euismod sit amet semper id, tincidunt eget tortor. Duis lacinia, urna in tempus suscipit, ante lacus fermentum quam, non tincidunt ips

## • Nouveautés: Les sélecteurs (7/7)

### Exclusion d'élément

```
div{  
    margin:20px;  
    border:5px solid;  
    width:100px;  
    height:100px;  
}  
div:not(.g1){  
    color:orange;  
}  
  
<table border="0">  
    <tr>  
        <td>  
            <div class="g1"></div>  
        </td>  
        <td>  
            <div class="g1"></div>  
        </td>  
    </tr>  
    <tr>  
        <td>  
            <div class="g2"></div>  
        </td>  
        <td>  
            <div class="g1"></div>  
        </td>  
    </tr>  
</table>
```



# CSS<sup>3</sup>

- 
- Introduction
  - Nouveautés Effets visuels
  - Nouveautés Sélecteurs
  - Nouveautés Utilitaires

- Nouveautés: Les utilitaires (1/7)

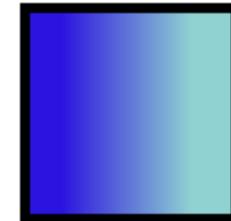
- Gradients
- Media query
- Columns
- Box



- Nouveautés : Les utilitaires (2/7)

- Gradient

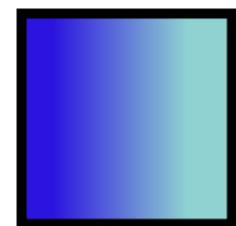
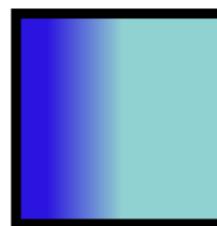
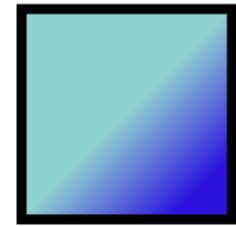
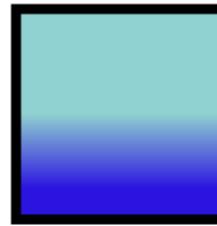
```
div.grad4{  
background-image: -webkit-gradient(  
    linear,  
    left bottom,  
    right bottom,  
    color-stop(0.16, rgb(44,20,224)),  
    color-stop(0.8, rgb(144,209,209))  
);  
}
```



## • Nouveautés : Les utilitaires (3/7)

### ❑ Gadient

```
div{  
    margin:20px;  
    border:5px solid;  
    width:100px;  
    height:100px;  
}  
  
div.grad1{  
    background-image: linear-gradient(bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -o-linear-gradient(bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -moz-linear-gradient(bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -webkit-linear-gradient(bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -ms-linear-gradient(bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
}  
  
div.grad2{  
    background-image: linear-gradient(right bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -o-linear-gradient(right bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -moz-linear-gradient(right bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -webkit-linear-gradient(right bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -ms-linear-gradient(right bottom, rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
}  
  
div.grad3{  
    background-image: linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -o-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -moz-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -webkit-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
    background-image: -ms-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 50%);  
}  
  
div.grad4{  
    background-image: linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 80%);  
    background-image: -o-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 80%);  
    background-image: -moz-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 80%);  
    background-image: -webkit-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 80%);  
    background-image: -ms-linear-gradient(left , rgb(44,20,224) 13%, rgb(144,209,209) 80%);  
}
```



- Nouveautés: : Les utilitaires (4/7)

- Media query

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

@media screen and (max-device-width: 600px) {
    /* Style appliqué
    uniquement sur les écrans de moins de 600px de largeur */
    body{
        background-color:red;
    }
}
```

## • Nouveautés : Les utilitaires (5/7)

### ❑ Columns

```
<!DOCTYPE html>
<html>
  <head>
    <style type="text/css">
      .newspaper
      {
        -moz-column-count:3; /* Firefox */
        -webkit-column-count:3; /* Safari and Chrome */
        column-count:3;
      }
    </style>
  </head>
  <body>
    <div class="newspaper">
      Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum. Typi non habent claritatem insitam; est usus legentis in iis qui facit eorum claritatem. Investigationes demonstraverunt lectores legere me lius quod ii legunt saepius. </div>
    </body>
  </html>
```

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum.

Typi non habent claritatem insitam; est usus legentis in iis qui facit eorum claritatem. Investigationes demonstraverunt lectores legere me lius quod ii legunt saepius.

- Nouveautés : Les utilitaires (6/7)

- Box



```
<body>
  <header>&lt;header&gt;</header>
  <div class="main">
    <nav>&lt;nav&gt;</nav>
    <section>&lt;section&gt;
      <header class="inside">
        &lt;header&gt;</header>
        <article class="inside">
          &lt;article&gt;</article>
        <footer class="inside">
          &lt;footer&gt;</footer>
        </section>
        <aside>&lt;aside&gt;</aside>
      </div>
      <footer >&lt;footer&gt;</footer>
      </p>
    </body>
```

## • Nouveautés: : Les utilitaires (7/7)

### ❑ Box

```
header{  
    background-color:#666666;  
    border-radius:15px;  
    padding:12px;  
    margin:6px;  
}  
  
footer{  
    background-color:#666666;  
    border-radius:15px;  
    padding:12px;  
    margin:6px;  
}  
  
div.main {  
    display:-webkit-box;  
    display:box;  
}  
  
section{  
    box-flex:4; -webkit-box-flex:8.0;  
    background-color:#666666;  
    border-radius:15px;  
    padding:12px;  
    margin:6px;  
}  
  
nav{  
    background-color:#666666;  
    border-radius:15px;  
    padding:12px;  
    margin:6px;  
    box-flex: 1; -webkit-box-flex:1.0;  
}  
  
aside{  
    background-color:#666666;  
    border-radius:15px;  
    padding:12px;  
    margin:6px;  
    box-flex: 1; -webkit-box-flex:1.0;  
}  
  
header.inside{  
    background-color:#999999;  
    border-radius:15px;  
}  
  
article{  
    background-color:#999999;  
    border-radius:15px;  
    padding:12px;  
    margin:6px;  
}  
  
footer.inside{  
    background-color:#999999;  
    border-radius:15px;  
}
```

# Compliance

---

HTML 5  
CSS 3

- **HTML 5**

- **1 Référence : W3C** [http://www.w3schools.com/html5/html5\\_ref\\_dtd.asp](http://www.w3schools.com/html5/html5_ref_dtd.asp)

- **Other** <http://findmebyip.com/litmus/>

# HTML5 Web Applications

	MAC				WIN							
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE				FIREFOX	OPERA	CHROME
	5.1	11	11.62	18	5.1	6	7	8	9	11	11.61	18
Local Storage	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
Session Storage	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
Post Message	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
Offline Applications	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓
Workers	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓
Query Selector	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
WebSQL Database	✓	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓
IndexDB Database	✗	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✓
Drag and Drop	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓
Hash Change (Event)	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
History Management	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓
WebSockets	✓	✓	✗	✓	✓	✗	✗	✗	✗	✓	✗	✓
GeoLocation	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
Touch	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
File API	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓
meter element	✗	✗	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓
progress element	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓

## HTML5 Graphics & Embedded Content

	MAC					WIN					
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE			FIREFOX	OPERA	
	5.1	11	11.62	18	5.1	6	7	8	9	11	
Canvas	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
Canvas Text	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
SVG	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
SVG Clipping Paths	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
SVG Inline	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
SMIL	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
WebGL	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
Audio	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓
Video	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓

## HTML5 Video Codecs

	MAC					WIN						
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE			FIREFOX	OPERA	CHROME	
	5.1	11	11.62	18	5.1	6	7	8	9	11	11.61	18
Video: ogg/theora	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓
Video: H.264	✓	✗	✗	✓	✓	✗	✗	✗	✓	✗	✗	✓
Video: WebM	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓

## HTML5 Audio Codecs

	MAC					WIN						
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE			FIREFOX	OPERA	CHROME	
	5.1	11	11.62	18	5.1	6	7	8	9	11	11.61	18
Audio: ogg/vorbis	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓
Audio: mp3	✓	✗	✗	✓	✓	✗	✗	✗	✓	✗	✗	✓
Audio: wav	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓
Audio: AAC	✓	✗	✗	✓	✓	✗	✗	✗	✓	✗	✗	✓

## HTML5 Forms Inputs

	MAC					WIN							
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE				FIREFOX			
	5.1	11	11.62	18	5.1	6	7	8	9	11			
Form: Search	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓	63%
Form: Phone	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓	63%
Form: URL	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓	61%
Form: Email	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓	61%
Form: DateTime	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	4%
Form: Date	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	4%
Form: Month	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	4%
Form: Week	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	4%
Form: Time	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	4%
Form: LocalTime	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	4%
Form: Number	✓	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	30%
Form: Range	✓	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	✓	42%
Form: Colour	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	2%

## HTML5 Forms Attributes

	MAC					WIN							
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE				FIREFOX	OPERA	CHROME	
	5.1	11	11.62	18	5.1	6	7	8	9	11	11.61	18	
Form: Autocomplete	✗	✓	✓	✓	✗	IE		✗	✗	✓	✓	✓	31%
Form: Autofocus	✓	✓	✓	✓	✓	IE		✗	✗	✓	✓	✓	64%
Form: List	✓	✓	✓	✗	✓	IE		✗	✗	✓	✓	✗	29%
Form: Placeholder	✓	✓	✓	✓	✓	IE		✗	✗	✓	✓	✓	63%
Form: Min	✓	✗	✓	✓	✓	IE		✗	✗	✗	✓	✓	45%
Form: Max	✓	✗	✓	✓	✓	IE		✗	✗	✗	✓	✓	45%
Form: Multiple	✓	✓	✓	✓	✓	IE		✗	✗	✓	✓	✓	82%
Form: Pattern	✓	✓	✓	✓	✓	IE		✗	✗	✓	✓	✓	63%
Form: Required	✓	✓	✓	✓	✓	IE		✗	✗	✓	✓	✓	63%
Form: Step	✓	✗	✓	✓	✓	IE		✗	✗	✗	✓	✓	45%

- **CSS 3**

- **1 Référence : W3C** [http://www.w3schools.com/cssref/css3\\_browsersupport.asp](http://www.w3schools.com/cssref/css3_browsersupport.asp)
- **Other** <http://findmebyip.com/litmus/>

## CSS3 Selectors

	MAC					WIN						
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE				FIREFOX		
	5.1	11	11.62	18	5.1	6	7	8	9	11	11.61	
Begins with	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	98%
Ends with	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	98%
Matches	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	98%
Root	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
nth-child	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
nth-last-child	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
nth-of-type	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
nth-last-of-type	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
last-child	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
first-of-type	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
last-of-type	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
only-child	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
only-of-type	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
empty	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
target	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	88%
enabled	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
disabled	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
checked	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
not	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	89%
General Sibling	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	98%

# CSS3 Properties

	MAC				WIN							
	SAFARI	FIREFOX	OPERA	CHROME	SAFARI	IE			FIREFOX	OPERA	CHROME	
	5.1	11	11.62	18	5.1	6	7	8	9	11	11.61	18
RGBA	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
HSLA	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
Box Sizing	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓
Background Size	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
Multiple Backgrounds	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
Border Image	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓
Border Radius	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
Box Shadow	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
Text Shadow	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓	✓
Opacity	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
CSS Animations	✓	✓	✗	✓	✓	✗	✗	✗	✓	✗	✓	56%
CSS Columns	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
CSS Gradients	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
CSS Reflections	✓	✗	✗	✓	✓	✗	✗	✗	✗	✗	✓	43%
CSS Transforms	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
CSS Transforms 3D	✓	✓	✗	✓	✓	✗	✗	✗	✓	✓	✗	✓
CSS Transitions	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
CSS FontFace	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	97%
FlexBox	✓	✓	✗	✓	✓	✗	✗	✗	✓	✗	✓	66%
Generated Content	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	
DataURI	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	
Pointer Events	✓	✓	✗	✓	✓	✗	✗	✗	✓	✗	✓	
Display: table	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	
Overflow Scrolling	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	
Media Queries	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	

# Conclusion

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## • Conclusion

- ❑ Toujours pas un standard W3C
- ❑ Programmation spécifique
- ❑ Attention à la prise en charge des vieux navigateurs
- ❑ Internet Explorer: un cas à part
- ❑ Multimédia et animation à l'honneur
- ❑ Vers une programmation applicative
- ❑ Utilisation des ressources locales ! (CPU, stockage, carte video, device)



# Questions ?

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