

这是一个HTML5新功能的演示文档，几乎包括HTML5所有激动人心的新功能简介和DEMO。

IE系列浏览器无法浏览，firefox、opera等浏览器只能使用部分功能，如果想100%演示成功，请使用最新版的“谷歌浏览器（**Google Chrome**）”，建议使用最新版。

中文版演示文档请看此处：<http://directguo.com/html5/>

英文原版：<http://apirocks.com/html5/html5.html>



Google Chrome

HTML5*

Web

*

Web

1991	HTML
1994	HTML 2
1996	CSS 1 + JavaScript
1997	HTML 4
1998	CSS 2
2000	XHTML 1
2002	DIV+CSS
2005	AJAX
2009	HTML 5

HTML5 $\sim$ = HTML + CSS + JS APIs

JS APIs

JS APIs

```
var el = document.getElementById('section1');  
el.focus();  
  
var els = document.getElementsByTagName('div');  
els[0].focus();  
  
var els = document.getElementsByClassName('section');  
els[0].focus();
```

```
var els = document.querySelectorAll("ul li:nth-child(odd)");  
var els = document.querySelectorAll("table.test > tr > td");
```

JS APIs

```
// use localStorage for persistent storage
// use sessionStorage for per tab storage
textarea.addEventListener('keyup', function () {
  window.localStorage['value'] = area.value;
  window.localStorage['timestamp'] = (new Date()).getTime();
}, false);
textarea.value = window.localStorage['value'];
```



JS APIs

```
var db = window.openDatabase("Database Name", "Database Version");  
db.transaction(function(tx) {  
    tx.executeSql("SELECT * FROM test", [], successCallback, errorCallback);  
});
```

Chrome

JS APIs

```
<html manifest="cache-manifest">  
window.applicationCache.addEventListener('checking', updateCacheStatus, false);
```

CACHE MANIFEST

version 1

CACHE:
/html5/src/refresh.png
/html5/src/logic.js
/html5/src/style.css
/html5/src/background.png



JS APIs

```
main.js:
var worker = new Worker('extra_work.js');
worker.onmessage = function (event) { alert(event.data); };

extra_work.js:
// do some work; when done post message.
postMessage(some_data);
```



用Workers查询航线

不用Workers查询航线

JS APIs

```
var socket = new WebSocket(location);
socket.onopen = function(event) {
    socket.postMessage("Hello, WebSocket");
}
socket.onmessage = function(event) { alert(event.data); }
socket.onclose = function(event) { alert("closed"); }
```

JS APIs

```
if (window.webkitNotifications.checkPermission() == 0) {  
    // you can pass any url as a parameter  
    window.webkitNotifications.createNotification(tweet.picture, tweet.title,  
        tweet.text).show();  
} else {  
    window.webkitNotifications.requestPermission();  
}
```

允许本页面进行桌面提醒

SSSS

显示最新的tweet

JS APIs

```
document.addEventListener('dragstart', function(event) {  
  event.dataTransfer.setData('text', 'Customized text');  
  event.dataTransfer.effectAllowed = 'copy';  
}, false);
```



Source Data

JS

```
if (navigator.geolocation) {  
  navigator.geolocation.getCurrentPosition(function(position) {  
    var lat = position.coords.latitude;  
    var lng = position.coords.longitude;  
    map.setCenter(new GLatLng(lat, lng), 13);  
    map.addOverlay(new GMarker(new GLatLng(lat, lng)));  
  });  
}
```

显示你的位置

JS APIs

-
-
-
-

HTML

HTML

```
<body>
  <header>
    <hgroup>
      <h1>Page title</h1>
      <h2>Page subtitle</h2>
    </hgroup>
  </header>

  <nav>
    <ul>
      Navigation...
    </ul>
  </nav>

  <section>
    <article>
      <header>
        <h1>Title</h1>
      </header>
      <section>
        Content...
      </section>
    </article>

    <article>
      <header>
        <h1>Title</h1>
      </header>
      <section>
        Content...
      </section>
    </article>

    <aside>
      Top links...
    </aside>

    <footer>
      Copyright © 2009.
    </footer>
  </body>
```

HTML

```
<link rel='alternate'>  
<link rel='icon'>  
<link rel='nofollow'>  
<link rel='prefetch'>
```

```
<a rel='archives'>  
<a rel='external'>  
<a rel='license'>  
<a rel='noreferrer'>  
<a rel='pingback'>  
<a rel='sidebar'>  
<a rel='tag'>
```

HTML Microdata

```
<div item>
  <p>My name is <span itemprop='name'>Neil</span>.</p>
  <p>My band is called <span itemprop='band'>Four Parts Water</span>.</p>
  <p>I am <span itemprop='nationality'>British</span>.</p>
</div>
```



HTML ARIA attributes

```
<ul id="tree1"
    role="tree"
    tabindex="0"
    aria-labelledby="label_1"
>
<li role="treeitem" tabindex="-1" aria-expanded="true">Fruits</li>
<li role="group">
  <ul>
    <li role="treeitem" tabindex="-1">Oranges</li>
    <li role="treeitem" tabindex="-1">Pineapples</li>
    ...
  </ul>
</li>
</ul>
```

HTML

```
<input type='range' min='0' max='50' value='0'>
```



```
<input autofocus type='search'>
```



```
<input type='text' placeholder='Search inside'>
```



```
<menu>  
<progress>
```

```
<input type='color'>  
<input type='number'>  
<input type='email'>  
<input type='tel'>
```

```
<input type='time'>  
<input type='date'>  
<input type='month'>  
<input type='week'>  
<input type='datetime'>
```

HTML

```
<audio src="sound.mp3" controls></audio>  
document.getElementById("audio").muted=false;  
  
<video src='movie.mp4' autoplay controls ></video>  
document.getElementById("video").play();
```



播放

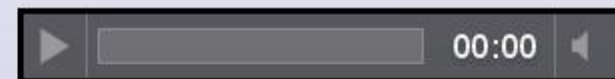
暂停

静音

解除静音

选择一段视频...

给视频添加CSS倒影效果



播放

暂停

静音

解除静音

选择一首国歌...

HTML

```
<canvas id="canvas" width="838" height="220"></canvas>

<script>
  var canvasContext = document.getElementById("canvas").getContext("2d");
  canvasContext.fillRect(250, 25, 150, 100);

  canvasContext.beginPath();
  canvasContext.arc(450, 110, 100, Math.PI * 1/2, Math.PI * 3/2);
  canvasContext.lineWidth = 15;
  canvasContext.lineCap = 'round';
  canvasContext.strokeStyle = 'rgba(255, 127, 0, 0.5)';
  canvasContext.stroke();
</script>
```



HTML Canvas



HTML Canvas 3D (WebGL)

```
<canvas id="canvas" width="838" height="220"></canvas>

<script>
  var gl = document.getElementById("canvas").getContext("experimental-webgl");
  gl.viewport(0, 0, canvas.width, canvas.height);
  ...
</script>
```

这个DEMO需要浏览器支持WebGL.

[Original demo](#) by Jetro Lauha
WebGL port by Kenneth Waters

HTML

-
- Accessibility (ARIA roles)
- Web
-
- 2D and 3D

CSS

CSS CSS

```
.row:nth-child(even) {  
  background: #dde;  
}  
.row:nth-child(odd) {  
  background: white;  
}
```

Row 1

Row 2

Row 3

Row 4

Image-like display

```
div {  
  display: inline-block;  
}
```

```
input[type="text"] {  
  background: #eee;  
}
```

```
:not(.box) {  
  color: #00c;  
}  
:not(span) {  
  display: block;  
}
```

```
h2:first-child { ... }  
  
div.text > div { ... }  
h2 + header { ... }
```

CSS

```
@font-face {  
  font-family: 'Junction';  
  src: url(Junction02.otf);  
}  
@font-face {  
  font-family: 'LeagueGothic';  
  src: url(LeagueGothic.otf);  
}  
@font-face {  
  font-family: 'GG250';  
  src: url(General250.otf);  
}  
  
header {  
  font-family: 'LeagueGothic';  
}
```

CSS

```
div {  
  text-overflow: ellipsis;  
}
```

A long cold winter delayed the blossoming of the millions of
cherry, apricot, peach, and plum trees covering

A long cold winter delayed the blossoming of the millions of cher

A long cold winter delayed the blossoming of the millions of ...



CSS

```
-webkit-column-count: 4;   
-webkit-column-rule: 1px solid #bbb;  
-webkit-column-gap: 2em;
```

In March 1936, an unusual confluence of forces occurred in Santa Clara County.

A long cold winter delayed the blossoming of the millions of cherry, apricot, peach, and prune plum trees covering hundreds of square miles of the Valley floor. Then, unlike many years, the rains that followed were light and too early to knock

the blossoms from their branches.

Instead, by the billions, they all burst open at once. Seemingly overnight, the ocean of green that was the Valley turned into a low, soft, dizzyingly perfumed cloud of pink and white. Uncounted bees and yellow jackets, newly born, raced out of their hives and holes, overwhelmed by this impossible banquet.

Then came the wind.

It roared off the Pacific Ocean, through the nearly uninhabited passes of the Santa Cruz Mountains and then, flattening out, poured down into the great alluvial plains of the Valley. A tidal bore of warm air, it tore along the columns of trees, ripped the blossoms apart and carried them off in a fluttering flood of

petals like foam rolling up a beach.

This perfumed blizzard hit Stevens Creek Boulevard, a two-lane road with a streetcar line down its center, that was the main road in the West Valley. It froze traffic, as drivers found themselves lost in a soft, muted whiteout. Only the streetcar, its path predetermined, passed on...

CSS

```
div {  
  -webkit-text-fill-color: black;  
  -webkit-text-stroke-color: red;  
  -webkit-text-stroke-width: 6.00px;  
}
```

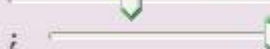


CSS

```
color: rgba(255, 0, 0, 0.75);  
background: rgba(0, 0, 255, 0.35);
```



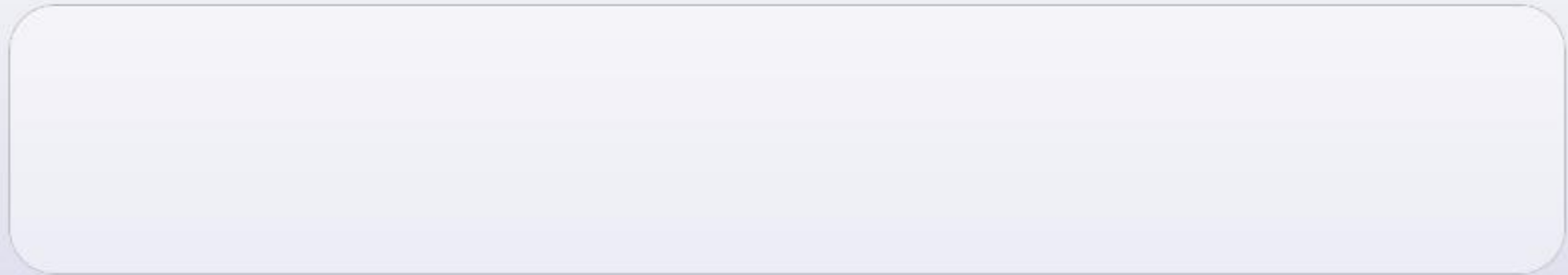
CSS HSL(

```
color: hsla(  
  216,   
  84%,   
  45%,   
  0.89);
```

HSL example

CSS

`border-radius: 25px;`



CSS

```
background: -webkit-gradient(linear, left top, left bottom,  
                             from(#00abee), to(white),  
                             color-stop(0.5, white), color-stop(0.5, #66cc00))
```



```
background: -webkit-gradient(radial, 430 50, 0, 430 50, 62, from(red), to(#000))
```



CSS

text-shadow:

rgba(64, 64, 64, 0.5)

5px

-3px

9px;

box-shadow:

rgba(0, 0, 128, 0.25)

0px

0px

2px;

CSS

```
text-shadow: rgba(0, 0, 0, 0.5) 0 7px 7px;   
  
background:  
  -webkit-gradient(linear, left top, left bottom,  
    from(rgba(200, 200, 240, 0.43)), to(rgba(255, 255, 255, 0.43)))   
  
border-radius: -0px;   
  
-webkit-box-reflect: below 10px  
  -webkit-gradient(linear, left top, left bottom,  
    from(transparent), to(rgba(255, 255, 255, 0.36))); 
```

Web 2.0 Logo

Logo 2.0 Web

CSS

```
#logo {  
  background: url(logo.gif) center center no-repeat;  
  background-size:  
    contain ;  
}
```



```
div {  
  background: url(src/zippy-plus.png) 10px center no-repeat,  
             url(src/gray_lines_bg.png) 10px center repeat-x;  
}
```



CSS

```
#box.left {  
  margin-left: 0;  
}  
#box.right {  
  margin-left: 1000px;  
}
```

```
document.getElementById('box').className = 'left';
```

向左

```
document.getElementById('box').className = 'right';
```

向右

```
#box {  
  -webkit-transition: margin-left 1s ease-in-out;  
}
```

```
document.getElementById('box').className = 'left';
```

向左

```
document.getElementById('box').className = 'right';
```

向右

CSS

```
-webkit-transform: rotateY(45deg);  
-webkit-transform: scaleX(25deg);  
-webkit-transform: translate3d(0, 0, 90deg);  
-webkit-transform: perspective(500px)
```

```
#threed-example {  
  -webkit-transform: rotateZ(5deg);  
  
  -webkit-transition: -webkit-transform 2s ease-in-out;  
}  
#threed-example:hover {  
  -webkit-transform: rotateZ(-5deg);  
}
```

CSS

```
@-webkit-keyframes pulse {  
  from {  
    opacity: 0.0;  
    font-size: 100%;  
  }  
  to {  
    opacity: 1.0;  
    font-size: 200%;  
  }  
}  
  
div {  
  -webkit-animation-name: pulse;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-iteration-count: infinite;  
  -webkit-animation-timing-function: ease-in-out;  
  -webkit-animation-direction: alternate;  
}
```

跳动!

CSS

-
-
-

HTML5 $\sim$ = HTML + CSS + JS APIs

HTML5 =

END