

HTML for D3

Visweek d3 workshop

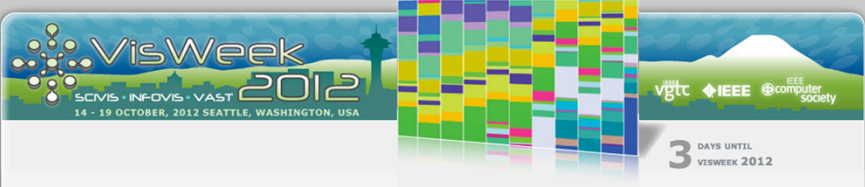
What is HTML

HTML is the language in which the web pages are encoded.

What is HTML?

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Welcome

VisWeek 2012 CALL FOR PARTICIPATION

October 14-19, 2012
The Sheraton Seattle Hotel
1400 Sixth Avenue
Seattle, WA, USA

The **VisWeek 2012 PROGRAM** is available [HERE](#). You can also download the smaller badge insert [HERE](#).

Check out the **LATEST NEWS** for **VisWeek 2012**. This section will also feature some SNEAK PEEKS at upcoming conference sessions. See you all in Seattle!

Tuesday night **Party with Sea Vis** at **VisWeek**, brought to you **VA Community & Tableau Software**. RSVP [here!](#)

VisWeek 2012 is the premier forum for advances in scientific and information visualization. The event-packed week brings together researchers and practitioners from academia, government, and industry to explore their shared interests in tools, techniques, and technology. We invite you to participate in IEEE Scientific Visualization, IEEE Information Visualization, and IEEE Visual Analytics Science and Technology Conferences, as well as the Symposia IEEE Large-Scale Data Analysis and Visualization and IEEE Biological Data Visualization.






VisWeek features novel research, insights and experiences via papers, posters, workshops, tutorials, panels, and contests.

This year's highlighted speakers include a keynote presentation by Mary Czerwinski from Microsoft Research and a capstone by Felice Frankel of Massachusetts Institute of Technology.


In 2012, VisWeek comes to the beautiful city of Seattle, Washington. Downtown Seattle is easily walkable and waiting to be explored. Shopping, dining, arts, and visitor attractions are within steps of hotels and inns. The city is surrounded by pristine waterways, two mountain ranges, and three national parks. To the west lies the only temperate rain forest in the continental U.S.; to the east, a world-class wine region. <http://www.visitseattle.org/Home.aspx>

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```

1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
2 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
3 <html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en" dir="ltr">
4 <head>
5 <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
6 <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
7 <link rel="shortcut icon" href="/files/default/files/favicon.png" type="image/x-icon" />
8 <title>VisWeek 2012</title>
9 <!--<title>Welcome | VisWeek 012</title>-->
10 <link type="text/css" rel="stylesheet" media="all" href="/modules/node/node.css?t" />
11 <link type="text/css" rel="stylesheet" media="all" href="/modules/system/defaults.css?t" />
12 <link type="text/css" rel="stylesheet" media="all" href="/modules/system/system.css?t" />
13 <link type="text/css" rel="stylesheet" media="all" href="/modules/system/system-menus.css?t" />
14 <link type="text/css" rel="stylesheet" media="all" href="/modules/user/user.css?t" />
15 <link type="text/css" rel="stylesheet" media="all" href="/sites/www.visweek.org/modules/ckk/theme/content-module.css?t" />
16 <link type="text/css" rel="stylesheet" media="all" href="/sites/www.visweek.org/modules/ctools/css/ctools.css?t" />
17 <link type="text/css" rel="stylesheet" media="all" href="/sites/www.visweek.org/modules/date/date.css?t" />
18 <link type="text/css" rel="stylesheet" media="all" href="/sites/www.visweek.org/modules/date/date_popup/themes/datepicker.css?t" />
19 <link type="text/css" rel="stylesheet" media="all" href="/sites/www.visweek.org/modules/date/date_popup/themes/timeentry.css?t" />
20 <link type="text/css" rel="stylesheet" media="all" href="/sites/www.visweek.org/modules/filefield/filefield.css?t" />
21 <link type="text/css" rel="stylesheet" media="all" href="/misc/farbtastic/farbtastic.css?t" />
22 <link type="text/css" rel="stylesheet" media="all" href="/sites/www.visweek.org/modules/ckk/modules/fieldgroup/fieldgroup.css?t" />
23 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/style.css?t" />
24 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/menutree.css?t" />
25 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.year.css?t" />
26 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.week.css?t" />
27 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.day.css?t" />
28 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.popup.css?t" />
29 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.login.css?t" />
30 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.twig.css?t" />
31 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.gowri.css?t" />
32 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/visweek.session.css?t" />
33 <link type="text/css" rel="stylesheet" media="print" href="/sites/visweek.org/themes/visweek/print.css?t" />
34 <script type="text/javascript" src="/misc/jquery.js?t"></script>
35 <script type="text/javascript" src="/misc/drupal.js?t"></script>
36 <script type="text/javascript" src="/sites/visweek.org/themes/visweek/js/slide.js?t"></script>
37 <script type="text/javascript">
38 <!--//--><![CDATA[//><!--
39 jQuery.extend(Drupal.settings, { "basePath": "/" });
40 //--><![]]>
41 </script>
42 <script type="text/javascript">
43 <!--//--><![CDATA[//><!--
44 if (Drupal.jsEnabled) { $(document).ready(function() { $('body').addClass('yui-skin-sam'); } ); };
45 //--><![]]>
46 </script>
47 <script type="text/javascript" src="http://visweek.org/sites/all/themes/visweek/js/jquery_cookie_plugin.js"></script>
48 <script type="text/javascript" src="http://visweek.org/sites/all/themes/visweek/js/leftsidebar.js"></script>
49 <script> jQuery(function(){
50   jQuery('#left-nav').collapsibleNav();
51 });
52 </script>
53 <!--[if lt IE 7]>
54 <link type="text/css" rel="stylesheet" media="all" href="/sites/visweek.org/themes/visweek/fix-ie.css" />
55 <![endif]-->
56 </head>
57 <body onload="init()" class="sidebars" >
58 <!--[if IE]><div id="IEroot"><![endif]-->
59 <!-- Layout -->
60 <!-- Panel credit goes to Web-Kreation -->
61 <div id="toppanel"><div id="panel">
62 <div class="header_topmost">
63 <div id="block-block-18" class="clear-block block block-block">
64 <!--
65 -->
66 <div class="content"><div id="login-form" class=""><form action="/" accept-charset="UTF-8" method="post" id="user-login">
67 <div><div class="form-item" id="edit-name-wrapper">
68 <label for="edit-name">Username: <span class="form-required" title="This field is required.">*</span></label>
69 <input type="text" maxlength="60" name="name" id="edit-name" size="60" value="" class="name form-text required" />

```

HTML can be complicated

But it doesn't have to be.

```
<!DOCTYPE html>
```

```
<meta charset UTF-8>
```

```
<body>
```

```
Hello, world!
```

(first 3 lines
optional)

This is a perfectly valid HTML file

Do you need to know a lot of HTML to do d3?

- **NO.** (although it does no harm)
- What you do need to know is these 3 things:
 - General principle and hierarchy.
 - A few HTML elements
 - And that elements have attributes.

HTML: general principle and hierarchy

- When you write HTML, you are really adding *elements to containers*.

So let's suppose I want to build a webpage like this one.



Welcome

"Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in

[Link 1](#)

[Link 2](#)



Welcome

"Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

[Link 1](#)

[Link 2](#)

```
<!DOCTYPE html>
<meta charset utf-8>
<body>
  <div id="header">
    
    <h1>Welcome</h1>
  </div>
  <div id="main">
    <p>Lorem ipsum...</p>
  </div>
  <div id="side">
    <a href="link1.html">Link 1</a>
    <a href="link2.html">Link 2</a>
  </div>
```

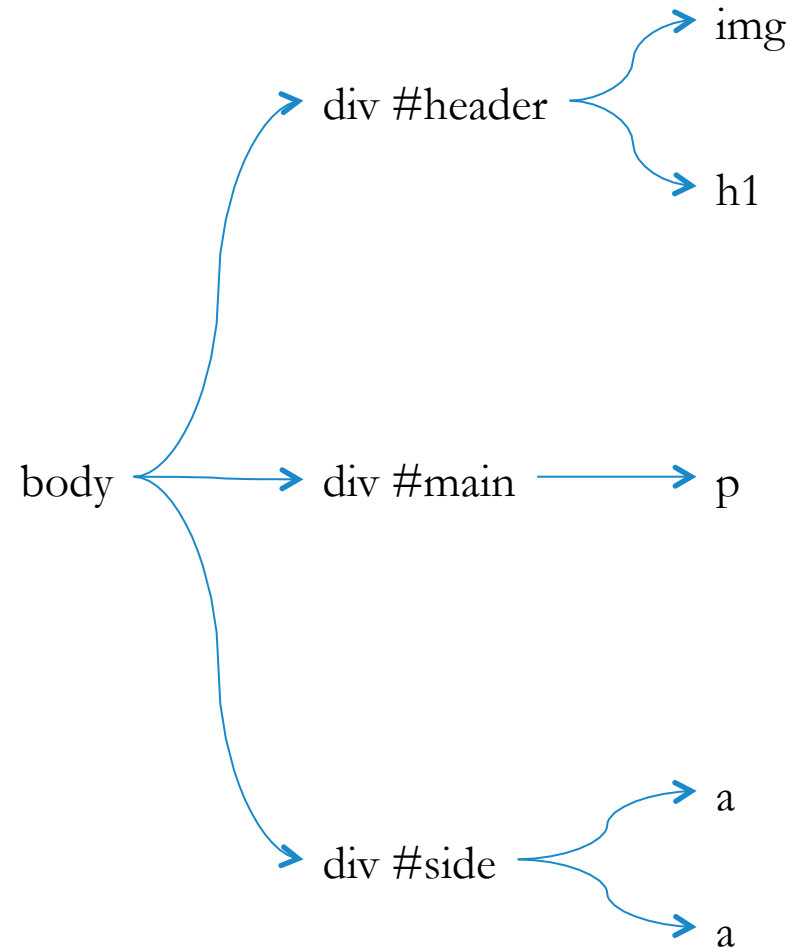


Welcome

"Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

[Link 1](#)

[Link 2](#)



HTML: general principle and hierarchy

wrap-up

- Some elements are *containers*, and can hold other elements.
- In HTML, it is done by writing a new element in between the tags of an existing element:

```
<div>  
  <p>p inside a div</p>  
</div>
```
- But in practice, with d3, you are never really *writing* HTML. So it may help to think of it as a hierarchy.



HTML Elements

A few HTML elements



The following list is a reference to all HTML elements, including the new ones introduced in HTML5.

HTML elements are components that specify how HTML documents should be built, and what kind of content should be placed in what part of an HTML document. Element names are enclosed within angle brackets: `<elementname>`, which is called a *tag*. If the element contains other content, it ends with a *closing tag*, where the element name is preceded by a slash: `</elementname>`. Some elements also need some *attributes* as `name="value"`. There are 110 tags used to create HTML documents, organized in a tree of these elements. Each tag name has a parent that it belongs to. For example, the `h1` tag is a `h1` element, and the `h1` tag is the parent of the `h1` element. Below is an alphabetical list of the HTML Elements.

A

- `<a>` (Anchor or Hyperlink)
- `<abbr>` (Abbreviation)
- `<acronym>` (Acronym) — use `<code>` instead
- `<address>` (Address or Contact Information)
- `<applet>` (Deprecated since HTML4) (Obsolete since HTML5) — use `<object>` instead
- `<area>` (Image-map Hyperlink)
- `<article>` (Independent Article) HTML5
- `<aside>` (Tangential Content) HTML5
- `<audio>` (Embedded Audio Stream) HTML5

B

- `` (B, formerly known as Bold)
- `<base>` (Base URL)
- `<basefont>` (Deprecated since HTML4) (Obsolete since HTML5)
- `<bdp>` (Bi-directional Isolate) HTML5
- `<bdo>` (Bi-directional Override)
- `<bg-sound>` (Background Sound) Non-standard
- `<big>` (Obsolete since HTML5)
- `<blink>` (Non-standard)
- `<blockquote>` (Block Quotation)
- `<body>` (Document Body)
- `
` (Line Break)
- `<button>` (Interactive Button)

C

- `<canvas>` (Dynamic Graphics Drawing Area) HTML5
- `<caption>` (Table Caption)
- `<center>` (Deprecated since HTML4)
- `<cite>` (Work Title)
- `<code>` (Code Fragment)
- `<col>` (Table Column)

TABLE OF CONTENTS

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

TAGS FILES

Page Notifications: Off

A few HTML elements

<body>

This is the top-level container of a web page.
Other elements are added to it.

A few HTML elements

`<div>`

Div are the main container-type elements.

If you need to separate a page into components, (which is almost always the case), you will need `<div>`s to do the job.

(and those 2 cover 90% of what we need for d3)

Some other HTML elements

`<a>`

This is a hyper-text link.

`a link`

What's between quotes after href is the destination of the link, what's between the tags is the text that appears.

Some other HTML elements

`<p> some text </p>`

This is a paragraph of text. There is a line break after that.

`<h1> a title </h1>`

This is a heading, which behaves the same.

` some text `

This is just some text, without a line break.

Some other HTML elements

```
<ul>
```

```
  <li>bullet 1</li>
```

```
  <li>bullet 2</li>
```

```
  <li>bullet 3</li>
```

```
</ul>
```

This is a bullet-point list (actually often used for menus and navigation).

Some other HTML elements

`<form>`

Forms, useful to interact with pages

``

Images

Attributes, values and properties

HTML elements have many characteristics that can be controlled to change their appearance or their behavior.

They fall in 4 categories:

- Content,
- Attributes,
- Style,
- Properties.

Content

This is my paragraph text.

`<p>This is my paragraph text.</p>`

`Content` is what is between the tags. This can be, as in this example, the text of this paragraph.

Attributes

```
<a href="mylink.html">link</a>
```

```

```

Attributes control the behavior of an element. This can be, for instance, the destination of a link, or the source file of an image.

Style

```
<div style="background:black;">  
    some text  
</div>
```

Style controls the *appearance* of an element.

Style can be set through a specific attribute, style, or through other means.

Raw properties

```
<form>
```

```
  <input type="checkbox" checked>
```

```
  Check me out
```

```
</form>
```

Properties are values that can be changed by the user during interaction with a page, like the values in a form.

Summary

- HTML is how web pages are coded.
- It is a hierarchical language: elements are added to containers. Those elements can be containers themselves, such as `<div>`.
- Elements may have characteristics: **content**, **attributes** that control their behavior, **style** that affect their appearance, and **properties** that reflect interaction.