HTML: An Overview

Lent 2014
HTML


HTML 5 is in the process of appearing – a draft is with the relevant standards body, and is expected to be approved later in 2014.

HTML 4 is content, or semantic, markup, not layout markup.

Content markup marks elements as being paragraphs, headings, emphasised, etc., just like \LaTeX. It says nothing about how those distinctions are to be represented. This was considered very important, for it was not to be assumed that a visual representation would be requested. From the start it was understood that HTML should be accessible to braile terminals and screen readers.

The opposite approach is PostScript, in which one defines text size, position and style with no hint of the purpose of that text: there is not even a strong concept of a word.
Layout Triumphs

HTML has long had support for tables, and tables were soon subverted not to display tabular data, but to provide positioning on a page.

Eventually CSS was added to HTML. CSS describes in what style to perform markup, but it should be possible to ignore all CSS information, and still render an HTML with CSS document sensibly.

CSS first appeared in 1996, then CSS 2 appeared in 1998, and CSS 2.1 appeared in 2004 but was not finally accepted as a standard until 2011.

CSS 3 is a collection of over fifty different enhancements to CSS 2.1, of which a few are relatively stable, and many not.

The good news is that security concerns mean that old browsers are not that common.
The Syntax of HTML

Is very simple. For HTML or XML there are three basic types of element. Things which bracket sections of text, and which have the form

<thing>...
</thing>

Things which are isolated objects, which have the form

<thing/>

Comments, which have the form

<!-- ... -->

Linebreaks are not in any way special. Blank lines do not imply end of paragraph. Linebreaks are not required. The example following could have been written on a single line, though it would be pretty unreadable.
<html>
<head>
<title>Conservation</title>
</head>

<body>
<h1>The Importance of Conserving</h1>
<p>Conserving, that is to say the art of making conserves, preserves, jams and marmalades, is an essential part of refined society. If this practice were to cease, the whole institution of the Afternoon Tea would be threatened, and with it the concept of Englishness.</p>
</body>
</html>
The Importance of Conserving

Conserving, that is to say the art of making conserves, preserves, jams and marmalades, is an essential part of refined society. If this practice were to cease, the whole institution of the Afternoon Tea would be threatened, and with it the concept of Englishness.
In detail

The whole document is marked by an html section. It starts with a head section, which is used to define just a title. This text should be used in the title-bar of the window (or tab) used to display the page.

Then there is the body section. This contains just a top level heading, denoted by <h1>, and a single paragraph, delimited by <p> and </p>.

Every tag used has a corresponding closing tag, and the sections so formed must nest.
Text Markup

There are relatively few items to remember for marking text. Apart from paragraphs, there are also six levels of heading, `<h1>` to `<h6>`, with the rule that the levels must nest, so `<h3>` can be used only if there is a preceding `<h2>`, etc.

Superscripts and subscripts can be generated with `<sup>` and `<sub>`. So `H<sub>2</sub>O` for H<sub>2</sub>O.

Emphasis can be generated with `<emph>`, and bold and italic can (but should not, see later) be generated with `<b>` and `<i>`.

Finally a line break which is not a paragraph break is produced with `<br/>`. This is the first example we have seen of a tag which exists in isolation, without a matching end tag.
Odd Characters

There are two ways of encoding characters, beyond the obvious ASCII.

One is $\&\#XX;$, where XX is the ASCII code of the character in decimal, or in hex if the first character is an x. Why bother? Because (most) robots attempting to harvest email addresses will fail to realise that $\&\#64;$ is @, so will fail to add email addresses written as spqr$\&\#64;roma.it$ to their spam lists. Humans will not notice, as it will display, and cut-and-paste, identically to an @.

The other is used for characters not in 7-bit ASCII, such as $\&\#pound;$, $\&\#copy;$ (copyright), $\&\#euro;$, $\&\#eacute;$, $\&\#ouml;$(ö).

It is also needed for those characters with a special meaning in html: $\&\#amp;$ for &,$\&\#lt;$ for < and $\&\#gt;$ for >. Also the useful non-breaking space $\&\#nbsps;$.
Modern and Foreign

Just as \texttt{LATEX} has sensibly always had the idea of accents which can be added to any character, so too does modern HTML. However, one seems stuck with remembering the Unicode numbers of the accents to use this system, so
d\texttt{ö} or o\texttt{x308}
should both give ö. Note that the accent comes after the character to which it is added, the opposite of \texttt{LATEX}'s \texttt{"{o}}. If using numeric codes greater than 127 (x7f) for characters, one must also specify the character set. This is generally a good reason not to, but, if one must, putting in the \texttt{<head>} section the magic line

\texttt{<meta http-equiv="Content-type" content="text/html; charset=UTF-8" />}

should do the trick.
Lists

The most common list is an Unnumbered List of List Items, for which the syntax is:

```
<ul>
<li>Apples</li>
<li>Pears</li>
</ul>
```

Which should look something like

- Apples
- Pears

If you want the items numbered, use an Ordered List (`<ol>`).

Note that lists cannot be embedded in paragraphs – end paragraphs with `</p>` first. Lists can be nested in other lists.
Preformatted

Pieces of program code, etc., should be placed between `<pre>` and `</pre>`, which will act like \LaTeX’s `verbatim` environment.

Things which should be typeset in a monospaced (typewriter) font can be placed between `<tt>` and `</tt>`.
Images

An image can be included using an img tag. It has the basic form

```html
<img src="foo.png" width="200" height="200" alt="A Foo" />
```

Note:
the tag, having no closing tag, ends `/>`, not `>`
the `src` is any valid URL
`width` & `height` are strongly recommended
the `alt` text is what a text-only browser will use.
Be Nice!

The width & height entries allow browsers on slow links to reserve space for the image before they have downloaded the image. They also allow one to resize images, but this is pointless. Be careful! If you specify the wrong width and height, the image will be resized...

The alt text is required by the current standard – we must say something to the blind and the text-based. If there is nothing to say, you must say nothing explicitly with alt="".

It is the job of the remote browser to interpret the image, so it is best to stick with PNG, GIF or JPG.
The Importance of Conserving

Conserving, that is to say the art of making conserves, preserves, jams and marmalades, is an essential part of refined society. If this practice were to cease, the whole institution of the Afternoon Tea would be threatened, and with it the concept of Englishness.

The essential elements of life are:

- jam
- scones
- tea
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Validity

As far as being a valid web page is concerned, that certainly is, or, at least, was. Due to the proliferation of HTML standards, it is now considered necessary to specify precisely which one one is following. This can be achieved by the magic lines:

```html
<!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">
```

replacing the plain

```html
<html>
```

above. This magic will not be mentioned again, but if one wants fully standards conforming web pages, this, plus the advice in this talk, should suffice.
More style

The modern way of controlling layout is with style. One can use separate style sheets, one can embed style sheets in the `<head>` section of a document, or one can simply add elements within a tag.

For the latter approach,

```html
<h1 style="color: red; text-align: center;">The Importance of Conserving</h1>

<img [...] style="float:right;"/>
```
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Links

The point of web pages is that they link to other web pages. This is done quite simply:

\(<a \text{ href=\"jam.html\"}>jam</a>\)

There are three ways of specifying a link.

- relative to current page, possibly including ‘..’
- absolute, but on current server (i.e. starting with ‘/’)
- a full URL including server name (e.g. starting with ‘http://’)

\(<a \text{ href=\"/\"}>home</a>\)

will take one back to the home page of the current server, and

\(<a \text{ href=\"http://www.rolls-roycemotorcars.com/\"}>car</a>\)

would link to a remote site using an absolute URL.

The thing between the two anchor markers can be (almost) anything – a word, several words, an image, a heading, part of a heading,…
With Links

Starting from the `<ul>` on the previous example:

```
<ul>
  <li><a href="jam.html">jam</a></li>
  <li><a href="scones.html">scones</a></li>
  <li><a href="tea.html">tea</a></li>
</ul>

<p>These elements are all so important that each has a separate page linked to above, carefully written by one well-schooled in such matters. One should be mindful that education, though a necessity, is not in itself sufficient, and only through the frequent practice of the arts of Afternoon Tea can civilisation be properly preserved.</p>
```

</body></html>
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To make a link point at a particular section of a page, one should mark that point with

```html
<a name="foo">...</a>
```

and then suffix `#foo` to the end of the link pointing to it (if the link is on the same page, then

```html
<a href="#foo">...</a>
```

suffices). But, in general, the answer is to make the page shorter!
The End?

That, save perhaps the page on tables (page 50), is it for HTML. It is about everything you need to know for creating and editing HTML documents \textit{if} you are content to follow an existing style.

The rest, CSS, is about controlling style.
Boxing

Certain elements in CSS are considered as boxes (c.f. \( \text{TEX} \)'s layout model).

In CSS a box has content, padding, border and margins.
Borders

The padding is in the colour of the background of the content, the border the colour of the foreground of the content, and the margin the colour of the background of the enclosing element.

The Importance of Conserving

Add `background: #a0ffff; border: 2px solid;` to the style. (Rather than a named colour, here we use the common notation of rrggbb with two-digit hex numbers, so $r = 160$, $g = b = 255$.)

The Importance of Conserving

Widths are (unfortunately) specified in pixels.
Tuning

Not ideal – certainly more space needed between the border and the bottom of the descenders. This is what padding is for, so add padding: 5px;

Problem solved!

The padding, border-width and margin can take one, two, three or four arguments, meaning all sides; top/bottom and left/right; top, left/right, bottom; and top, right, bottom, left. The shorthand border used above also sets the border-style property, which can be one of solid, dashed, dotted, double, groove, ridge, inset and outset.
CSS has two layout modes, by block, and inline. By default, a top level heading is considered to be in block mode. This means that it automatically gains linebreaks and vertical space before and after it (like a paragraph), and that it stretches the full width of the page.

It is possible to change it to inline mode, by adding `display: inline;` to its style. If the following text does not start with a new paragraph, it will then follow on on the same line, which is probably not very useful.
Creating Blocks

A block can be created, and be given style elements which the items it contains will inherit, using the div tag.

```html
<div style="border: 10px ridge; border-color: red; background: #ffa;">...
</div>
```

Here we also see a colour being specified as just three hex digits, rgb not rrggbb.

(The `<div>` is added before the `img` tag, and the closing `</div>` before the `</body>` tag.)
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Tuning

Not quite what was wanted. The biggest problem is that the floating image has not been cleared before the div ended. Then there is also the problem that a left ‘margin’ (really padding) would improve things. So we want:

```html
<div style="border: 10px ridge; border-color: red; background: #ffaf; padding: 0 0 0 8px;">...
</div>
```

The empty div with the style of clear:both makes sure that anything floating to the left or right is finished.
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Every web page seems to require a boring footer of some form. So here we suggest

```
<div style="background: #555; color: #fff; padding: 2px;
   margin: 10px 0 0;">
  <div style="float: left;">
    &copy; 2014 MJR&nbsp;&nbsp;&nbsp;
    <a href="privacy.html">Privacy Policy</a>
  </div>
  <div style="float: right;">
    Maintained by mjr19@cam.ac.uk
  </div>
  <div style="clear:both;"></div>
</div>
```

with the divs indented for readability.

If one omits that empty div which clears floating objects, the enclosing div has zero height, for all of its contents is floating, and thus its background colour has no effect.
More Style

Some more sophisticated options of CSS are not available if one merely adds style attributes to elements. One may need to use proper style sheets too. For these example, the CSS will be embedded in the head section of the document.

The prizes for using this sort of CSS include control over the colour and style of links, and also the ability to make things change when the mouse pointer hovers over them (without the use of Javascript!).

The penalty is the realisation that the syntax of CSS files is not XML, but rather something like C or perl. Indeed, to prevent older browsers being surprised, it is common to put embedded CSS in an XML comment.
<html>
<head>
<title>Conservation</title>
<style type="text/css">
<!--
a:link {text-decoration:none;}
a:visited {text-decoration:none;}
a:hover {text-decoration:underline;}
a:active {text-decoration:underline;}
-->  
</style>
</head>

This sets the style globally for a elements (i.e. links) to being underlined only when the mouse is hovering over them, or clicking on them. There is no way of specifying these four states by using <a style=...>. If set, they must be set in the above order.
Class

We may wish to set a style for just some element in a page. This can be done with classes.

```
a.white:link {text-decoration: none; color: white;}
a.white:visited {text-decoration: none; color: white;}
a.white:hover {text-decoration: underline; color: #ccc;}
a.white:active {text-decoration: underline; color: #ccc;}
```

This defines a ‘white’ class of an anchor. It can then be used as

```
<a class="white" href="privacy.html">Privacy Policy</a>
```

In CSS, styles add, with the specific over-riding the more general if there is a clash. So the style specified in an element’s tag will over-ride clashing specifications in its class, which over-ride clashing inherited or global specifications.
Resizing

A brief interlude to consider how well our page resizes. The answer is quite well over a reasonable range of sizes – there is no point in trying to make a page look good if the window width is less than the length of a reasonable word!

However, resizing did suddenly reveal the lack of any margin between the text and the image of the jam pot, so for some widths the text touched the image. This was a silly omission, and, now spotted, it can be corrected by updating the image tag.

```html
<img src="jam_pot.jpg" width="201" height="276" alt="jam pot" style="float:right; margin: 0 0 0 8px;"/>
```

The following three images show Firefox on Linux rendering into a window approximately 530, 415 and 340 pixels wide. The last is a mess, but I do not care, as even smartphones in portrait mode are likely to offer at least 480 pixels.
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The essential elements of life are:

- jam
- scones
- tea

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- jam
- scones
- tea

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The essential elements of life are:

- jam
- sauces
- tea

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There are five generic font families which are always available. These are serif, sans-serif, monospace, cursive and fantasy.

So to add a little style to the title of this page, one can try

```html
<h1 style="color: red; text-align: center;
  font-family: cursive;">
```

Regrettably this does not work in Firefox under Linux as installed in TCM – it produces a sans serif font! One needs

```html
<h1 style="color: red; text-align: center;
  font-style: italic; font-family: 'URW Chancery L', cursive;">
```

One issue is that Firefox (correctly) regards Chancery as an italic font, so will not use it if the style is not set to italic. However, even with the style set, cursive is still insufficient to get Chancery used.
Font Madness

Thus long lists of specific alternatives tend to be given on a font-family line. It would be surprising if Windows or MacOS clients understood ‘URW Chancery L.’ The list should end with a backstop of one of the generic names, and the first match found will be used.

The answer is to include a downloadable font, defined in the style-sheet.

@font-face{
  font-family: NameUsedToReferToFont;
  src: url(chancery.ttf);
  font-style: italic; font-weight: bold;
}

The best font type to use is WOFF (web open font format), but TTF and OTF are fairly widely supported also.

Be very careful with font licences!
Pretty

And the file `Italianno-Regular.woff` is placed in the same directory. It can be created from a TTF or OTF font with a command such as:

```
sfnt2woff Italianno-Regular.ttf
```

Being a Google font, its licence is fairly permissive, see [https://www.google.com/fonts/](https://www.google.com/fonts/).
Worth it?

The Importance of Conserving

For a title, no. It would be better to use an image with some alt text.

Is supported by more browsers, and involves downloading a 6KB image, not a 60KB font. If you wish to change the font for many paragraphs, or text which may need to be reflowed, then maybe the downloadable font is the correct answer.
How Big?

To pick on one particular font, Google’s Noto Sans, which has a good range of glyphs:

Full font, TTF: 405KB
Full font, WOFF: 126KB
Latin & Greek, TTF: 59KB
Latin & Greek, WOFF: 36KB

‘Latin’ means those characters necessary for English, French, Spanish, Italian, etc., though strangely not necessarily œ or æ. However, Google’s view of Latin does include those ligatures. Greek adds the expected Greek lowercase and uppercase letters. The full font (in this case) includes Cyrillic, extended Latin (i.e. glyphs for ‘accents’ on letters in combinations not found in the above languages), and other non-European scripts, in this case Vietnamese and Nagari (Hindi).

If you want bold and italic as well, triple the above numbers.
Small Changes

Sometimes a piece of text in the middle of a paragraph needs its style changed. This cannot be done with a `<div>`, which would start a new block, but rather with a `<span>`, for instance:

```
the whole institution of the
<span style="font-family: 'Italianno', cursive;">Afternoon Tea</span>
```

It would be more common to use this to make text bold (font-weight: bold;), or italic (font-style: italic;), or to change its colour. Or one could set text-decoration to underline or line-through.

```
... is to say the art of making conserves,
institution of the Afternoon Tea would be
```

Fancy fonts at small sizes tend to be a Bad Idea.
Sizes

Images have sizes expressed in pixels.

Fonts have sizes expressed in percentages of the default size, or in pixels.

Divs (and tables and their columns) have sizes expressed in pixels or percentages of window size.

Pixels are generally useless, especially when faced with ‘retina display’ devices, for which they are too small for the Human eye to resolve. There is no way of knowing what size is needed to be readable by your current visitor on his current choice of device and eye distance.

However, to mix text and images in a manner which requires size matching requires both sizes to be expressed in pixels...
Interaction

Code for an image which changes when the mouse hovers over it would look like:

```html
div#pots { background-image: url("pot_china.jpg");
   width: 480px; height: 330px;
}
div#pots:hover { background-image: url("pot_silver.jpg");}
```

in the CSS section, followed by

```html
<div id="pots"></div>
```

where the image is wanted. Of course this can be included in another div, as

```html
<div style="border: 10px ridge; border-color: red; background: #ffa;
   width: 480px; text-align: center; margin: 0 auto;">
   <div id="pots"></div>
   <span style="font-size: 150%;">The Great Teapot Debate</span>
</div>
```
On the left, before the mouse hovers, on the right, whilst it hovers.

Note no Javascript here!

(But note also that the concept of hovering may upset some tablet and smartphone users.)
Other Hovering Examples

Which weighs more, a pound of feathers or a pound of gold?

Hint (hover mouse over to reveal): Do both "pounds" refer to the same system of units?

and

Which weighs more, a pound of feathers or a pound of gold?

Hint (hover mouse over to reveal): Do both "pounds" refer to the same system of units?
The least said the better, but

<table style="margin: auto; background: #eec; border: 1px solid;">  
<tr>  
<td></td>  
<th>silver</th>  
<th>china</th>  
</tr>  
<tr>  
<td>5 min</td>  
<td>84.0&deg;C</td>  
<td>84.0&deg;C</td>  
</tr>  
<tr>  
<td>10 min</td>  
<td>80.0&deg;C</td>  
<td>78.5&deg;C</td>  
</tr>  
<tr>  
<td>15 min</td>  
<td>77.0&deg;C</td>  
<td>75.5&deg;C</td>  
</tr>  
<tr>  
<td>20 min</td>  
<td>74.5&deg;C</td>  
<td>72.5&deg;C</td>  
</tr>  
<tr>  
<td>25 min</td>  
<td>72.5&deg;C</td>  
<td>69.5&deg;C</td>  
</tr>  
<tr>  
<td>30 min</td>  
<td>70.5&deg;C</td>  
<td>67.0&deg;C</td>  
</tr>  
</table>

is one, with Table Rows, Table (cell) Data, and Table Headings. Applying styles to each td is tedious, so the CSS said

```html
td { text-align: right; padding-left: 5px; padding-right: 5px; }
th { font-weight: normal; }
```
We can perform a crude experiment by pouring a little over a pint of boiling water into the two (unwarmed) teapots, and recording the water temperature to the nearest 0.5°C at five minute intervals. The initial fall in temperature is governed by the heat capacities and thermal conductivities of the teapots, but, by chance, at the first five minute interval both recorded the same temperature.

<table>
<thead>
<tr>
<th></th>
<th>silver</th>
<th>china</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 min</td>
<td>84.0°C</td>
<td>84.0°C</td>
</tr>
<tr>
<td>10 min</td>
<td>80.0°C</td>
<td>78.5°C</td>
</tr>
<tr>
<td>15 min</td>
<td>77.0°C</td>
<td>75.5°C</td>
</tr>
<tr>
<td>20 min</td>
<td>74.5°C</td>
<td>72.5°C</td>
</tr>
<tr>
<td>25 min</td>
<td>72.5°C</td>
<td>69.5°C</td>
</tr>
<tr>
<td>30 min</td>
<td>70.5°C</td>
<td>67.0°C</td>
</tr>
</tbody>
</table>

Though the results are closer than the above argument suggests, it is clear that the metal teapot is retaining heat better. The test is slightly unfair, as the teapots are different shapes. However, those who would expect the metal teapot to be significantly worse are confounded by these data.

(Note that, unlike LaTeX, html counts the number of columns used itself. The setting of margin to auto produces centering somewhat like LaTeX's \hspace*{\fill} trick.)\hspace{\fill} trick.)
Implicit Style

There is no default definition of how a browser should style a tag such as `<h1>`. As far as the display is concerned, in Firefox `<h1>` is approximately equivalent to:

```html
<div style="font-weight: bold; font-size: 32px; margin: 21px 0;">
```

with the result being a block element. Note that this implies the use of a bold font.

If one uses an `@font-face` command to specify a particular normal weight font, and then has bold text too, will the browser display the text without any boldness, create artificial boldness by widening lines, or select another font for which it has access to bold characters?
More Implicit Style

Having text touch the end of a window looks bad. How does Firefox avoid this? The default style for the `<body>` element is actually

```html
<body style="margin: 8px;">
```

So if one does not want an eight pixel white margin between one’s content and the edge of the window, this needs explicitly over-riding.

Some people believe that for consistent appearance one ought to explicitly set defaults for everything imaginable, or maybe just some key things (try Googling for ‘reset.css’). My style is much more minimalist.
Debugging in Firefox

Firefox has quite a good CSS debugger, findable as ‘Tools, Web Developer, Inspector.’ One then clicks on an element on the page.

One sees a folded version of the source at the bottom left, a breadcrumb trail showing that we have selected an anchor in a list item in an unnumbered list in a division in the body for an html document. The bottom right shows the (minimal) CSS rules from the inline CSS code. The ‘hover’ part wins, as to select the element we had to hover the mouse over it. Clicking on the pointer symbol to the left of the breadcrumbs allows us to select a new element.
More Debugging

Worried by the space between the title and the first paragraph? This time we look at the ‘Box Model’ (far right) having selected the heading element.

We see that the heading has a lower margin of 37px, which suggests that explicitly setting a smaller lower margin would address this issue.
The Source of Bugs

Margin Collapse. In many cases, the margins of two adjacent objects collapse to give single margin the size of the greater. However, a `<div>` with no padding may inherit the margin of its last element as a bottom margin, and its top element as a top margin.

```html
<html><head><title>Collapses</title></head>
<body>
<div style="background: #faa">
<p>Rats</p>
</div>
<div style="background: #aaf">
<p>Mice</p>
</div>
</body></html>
```
Stopping Collapse

With non-zero padding, the 16 pixel top and bottom margin which Firefox gives to paragraphs now lies inside the `<div>`, not outside it. Further tuning would require explicitly adjusting the margins of the `<p>` elements.
Most sane web servers support Apache-style ‘include’ files. These enable one to place common page elements (headers, footers, etc.) into a single file, so there is a single place to update them.

Apache’s recipe is to ensure that the source file has the execute bit set (chmod +x foo.html), and then use syntax such as

<!--#include virtual="footer.html" -->

The inclusion is done by the server before the document is sent: the client is unaware that anything special has happened.
More Server Side Tricks

<!--#config timefmt="%U" -->
<!--#set var="week" value="${DATE_LOCAL}"-->
<!--#if expr="v('week') lt 14"-->
   Lent
<!--#else -->
   <!--#if expr="v('week') lt 24"-->
   Easter
   <!--#else -->
   <!--#if expr="v('week') lt 38"-->
   Long Vacation
   <!--#else -->
   Michaelmas
   <!--#endif -->
<!--#endif -->
<!--#endif -->
<!--#config timefmt="%Y" -->
<!--#echo var="DATE_LOCAL"-->

will print the current Term in the form ‘Easter 2014’. It could appear within a <h1> tag. The above syntax is specific to Apache ≥2.4.
CSS and Includes

If one has a lot of CSS which is common to several pages, the recommended way of including it is not via server-specific include statements such as the above, but rather by placing in the head section of one’s document a line such as

```html
<link rel="stylesheet" type="text/css" href="mystyle.css">
```

It is then up to the client to fetch the relevant document. More than one stylesheet can be included in this manner.
Another Link

The icon used by the browser’s tab, or bookmark menu, for a web page is determined as:

Anything specified by

```html
<link rel="icon" href="icon.png">
```

Else the URL `favicon.ico`. Else blank.

The icon should probably be sixteen pixels square.
The Final Word

This talk is intended simply to whet your appetite, and to convince you that HTML / CSS is fun and easy. Sites like http://www.w3schools.com/ will teach you more.

A major omission is any discussion of tables. Valid reasons for using them are rare: they exist for displaying tabular data, not for performing layout tricks. So, in the unusual case that you need one, Google will tell you more.

Professional HTML is valid HTML, and http://validator.w3.org/ will quickly check any page you like.