About HTML

The <u>IEFT</u>, *Internet Engineering Task* Force, was founded in 1986. It mission was and is "to make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet".

The first proposal for HTML, HTML 1.0, was produced by Tim Berners Lee (CERN) in 1990. It was based on the SGML language. It was created to allow files to be "published" on the World Wide Web (www) and viewed with an application called a browser. The files could be linked across the web using *hyperlinks*. The file types created were .html files.

The purpose of HTML (HyperText Markup Language) is to enable documents published on the WWW to display headings, paragraphs, tables and other elements of a printed page. Pages can be linked or *hyperlinked* to one another. It allows forms for interaction with the visitor through forms and allows other file types to be displayed in or from a web page.

With HTML, authors describe the structure of pages using markup. The elements of the language label pieces of content such as "paragraph," "list," "table," and so on."

When the page is viewed in a browser, the browser interprets the tags of the language and uses the information stored in the styles, headings, and paragraphs, to display the page as the page author wishes.

HTML is an "interpreted" language and requires the browser to read through and act upon the code. Unlike compiled languages (exe files) which are stand alone.

HTML 1.0 included the following tags:

- <h*> for headings
- for paragraphs
- list
- for list items
- <cite> for citation of a book etc
- to embolden text
- to emphasise/italicise text
- <u> <u> to underline text
- The tag came from the Mosaic browser developed by the National Center for Supercomputer Applications (NCSA), a research institute at the University of Illinois at Champaign-Urbana.

The 'World Wide Web Consortium' (abbreviated to the W3C) didn't exist at the time so HTML 1.2 was an informal specification and it was never entered as part of the *Internet standards process*. So it was "accepted" rather than W3C Recommended.

In April 1993, version 1 of the Mosaic browser was released for Sun Microsystems Inc.'s workstation, a computer used in software development running the UNIX operating system. Mosaic extended browser features specified by Tim Berners-Lee. For example it added images, nested lists, and fillout forms. Mosaic was produced by National Center for Supercomputer Applications (NCSA).

In May 1994, Spyglass, Inc. signed a multi-million dollar licensing agreement with NCSA to distribute a commercially enhanced version of Mosaic. In August the University of Illinois, the home of NCSA, assigned all future commercial rights for NCSA Mosaic to Spyglass.

In early 1994, an 'Internet Engineering Task Force' (IETF) *Working Group* was set up to deal with HTML. The technical work of the IETF happens in groups. They are organized by topic. One of these is the HTML group.

In November 1995, HTML 2.0 was introduced. The principal editor was the Daniel Connolly.

HTML 2.0 was driven by the abilities of several browsers available at that time. Dan Connolly and colleagues put all the HTML tags in use into a draft document which Tim Berners-Lee called HTML 2.0.

HTML 2.0's key addition was forms. These could contain text input boxes, check boxes and radio buttons to capture website visitor enquiries. The form could then be sent via email to the website owner. Essentially, they enabled feedback from website visitors which meant there was now two way communication on the web.

In the first 'World Wide Web' conference at CERN, Geneva, in May 1994, Connolly had promoted the importance of the Web operating with a proper HTML specification.

The <u>W3C</u> was founded on October 1st 1994. It provided a neutral forum for discussion and got its initial funding from companies including Hewlett-Packard, IBM, Microsoft, and Sun Microsystems, which benefited from it. The key players in the browser market were ready to accept the need for standardisation of HTML.

The first World Wide Web conference was organized by CERN in May 1994.

Dave Raggett (Hewlett-Packard Labs, Bristol) had been working on some new HTML ideas, which he called HTML+. These were presented at the conference and it was agreed that work on HTML+ should be carried forward to lead to the development of an HTML 3 standard.

At the conference a decision was made to further develop the *Arena* browser (Raggett had been working part-time on it) as a <u>proof-of-concept</u> browser. Using Arena, Dave Raggett, Henrik Frystyk Nielsen, Håkon Lie and others demonstrated text flow around a figure with captions, resizable tables, image backgrounds, math and other features.

HTML 3.0 was published as a Draft in March, 1995 by Dave Raggett and his team. However due to its size, 150 pages, it was seen as impossible to get the consensus of all parties. A cast of hundreds was involved since anyone could input their ideas. So Dave and key figures of the HTML community decided to call it a day. A move was made to version 3.2.

HTML 3.0 covered tables, tabs, footnotes and forms. It also added support for 'style sheets' by including a *Style* tag and a *Class* attribute. The *Class* attribute was part of every element with a view to formatting.

In November 1995 Dave Raggett suggested that the key players in the internet meet and discuss standards for HTML.

The result was a meeting near Chicago. It was a key step as vendors and scientists and researchers saw the need to co-operate. The group were able to make quick and effective decisions about HTML. The group included Lou Montulli (Netscape browser), Charlie Kindel (Microsoft, IE), Eric Sink (Spyglass, Mosaic), Wayne Gramlich (Sun Microsystems, Mosiac), Dave Raggett (W3C), Tim Berners-Lee (W3C) and Dan Connolly (W3C), and Jonathan Hirschman (Pathfinder).

The 'HTML Editorial Review Board' was set up in November 1995 and took over from the IEFT which was dissolved in December 1995. The IEFT had become too large and was unable to get consensus and operate effectively. This board consisted of representatives from IBM, Microsoft, Netscape, Novell, Softquad and the W3 Consortium. A mix of commercial and other interests.

The W3C introduced a formal procedure for the introduction of new versions of HTML. These are:

• "Working Draft (WD):

A Working Draft is a document that W3C has published for review by the community, including W3C Members, the public, and other technical organizations.

Candidate Recommendation (CR):

A Candidate Recommendation is a document that W3C believes has been widely reviewed and satisfies the Working Group's technical requirements. W3C publishes a Candidate Recommendation to gather implementation experience.

Proposed Recommendation (PR):

A Proposed Recommendation is a mature technical report that, after wide review for technical soundness and implementability, W3C has sent to the W3C Advisory Committee for final endorsement.

• W3C Recommendation (REC):

A W3C Recommendation is a specification or set of guidelines that, after extensive consensus-building, has received the endorsement of W3C Members and the Director. W3C recommends the wide deployment of its Recommendations."

Source: W3C Maturity Levels

As a result of all these changes, progress was made on the next version of HTML which became known as HTML 3.2. Dave Raggett was the author of HTML 3.2. His team was the HTML Working group.

Some of the items added in HTML 3.2 were:

tables	used to create tables on the webpage
applets	enables embedding of Java applets into HTML documents. PARAM elements are used to pass parameters to the applet.
text flow around images	-
sub	SUB places text in subscript style

sub SUB places text in subscript style sup SUP places text in superscript style

div division of parts of the page

These tags were widely in use in browsers available at that time.

HTML 3.2 also introduced the idea of *Cascading Style Sheets* to separate the text from the formatting.

The W3C was able to get agreement on HTML 3.2 (there was no 3.1 version) and it became the W3C Recommendation on January 14th, 1997.

HTML 4.0 was first published as a W3C Recommendation in December 1997 and then re-issued in April 1998.

There were three variations, *Strict* (deprecated elements forbidden), *Transitional* (deprecated elements allowed), and *Frameset* (only frame related elements allowed).

According to the official specification "HTML 4.0 supports more multimedia options, scripting languages, style sheets, better printing facilities, and documents that are more accessible to users with disabilities. HTML 4.0 also takes great strides towards the internationalization of documents, with the goal of making the Web truly World Wide".

HTML 4.0 was superseded very quickly by HTML 4.1.

In December 1996 the HTML Working Group began to work on `Cougar', the next version of HTML with a planned completion date of late Spring 1997. This became HTML 4.01 in December 1999. Its authors were Dave Raggett, Arnaud Le Hors, and Cian Jacobs were the editors of HTML 4.01.

The following elements were added in HTML 4.01:

q	used to indicate a quotation. Surrounds text with quotation marks
ins	indicates added/inserted text
del	indicates text to be deleted
acronym	indicates an acronym, abbreviation formed from the initial letters of other words and pronounced as a
colgroup	creates an explicit column group
fieldset	element to group thematically related controls and labels in a form
legend	used to assign a caption to a fieldset in a form
button	enables processing information on a form

Between versions of HTML, tags get added, and *deprecated* or dropped. Some elements which were deprecated from HTML 3.2 to 4.01 are:

<acronym></acronym>	Defines an acronym
<applet></applet>	Defines an applet
<basefont/>	Defines an base font for the page
 	Defines big text
<center></center>	Defines centered text
<dir></dir>	Defines a directory list
	Defines text font, size, and color

<frame/>	Defines a frame
<frameset></frameset>	Defines a set of frames
<isindex/>	Defines a single-line input field
<noframes></noframes>	Defines a noframe section

Source: http://www.tutorialspoint.com/html5/html5_deprecated_tags.htm

HTML 4.01 became the W3C Recommendation on December 24th, 1999.

HTML 5 is the current standard and became that on October 28th, 2014.

Robin Berjon (W3C), Steve Faulkner (The Paciello Group), Travis Leithead (Microsoft), Erika Doyle Navara (Microsoft), Edward O'Connor (Apple Inc.), Silvia Pfeiffer (WHATWG) and Ian Hickson, (Google, Inc) are the editors of HTML 5.

HTML 5's history is interesting in that it was started by a group, the 'Web Hypertext Application Technology Working Group' (WHATWG), which was formed due to the W3C's focus on XHTML, a stricter code format than HTML. When the W3C abandoned the XHTML 2 project in 2009, they joined forces with the WHATWG group and HTML 5 became the new W3C recommended version.

HTML 5 has many new elements which replace the <div>. These include <header>, <footer>, <main>, <section>, <article>, and <nav>.

Sources

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