



The W3C is the recognized body that oversees standards on the web. See the latest developments on their informative website at www.w3.org.

Introducing HTML5

Historically, the desire to have text printed in specific formats meant that original manuscripts were “marked up” with annotation to indicate to the book-printer how the author would like sections of text laid out. This annotation had to be concise and needed to be easily understood both by the printer and the author. A series of commonly recognized abbreviations therefore formed the basis of a standard markup language.

HyperText Markup Language (HTML) is a modern standard markup language that uses common abbreviations called “tags” to indicate to the web browser how the author would like to have sections of a web page laid out. It was first devised in March 1989 by British physicist Tim Berners-Lee at CERN in Switzerland (the European organization for nuclear research) to share all computer-stored information between the CERN physicists. Berners-Lee created a text browser to transfer information over the Internet using hypertext to provide point-and-click navigation. In May 1990 this system was named the World Wide Web and was enhanced in 1993 when college student Marc Andreessen added an image tag. Now that HTML could display both text and images the World Wide Web quickly became hugely popular.

As various web browsers were developed their makers began to add individual proprietary tags – effectively creating their own versions of HTML! The World Wide Web Consortium (W3C) standards organization recognized the danger that HTML could become fragmented so they created a standard specification to which all web browsers should adhere. This successfully encouraged the browser makers to support the standard tags. The W3C’s HTML specification was continually revised to introduce new features until the publication of HTML version 4.01 at the turn of the century. At that time the W3C also published a specification for XHTML (eXtensible HTML), which strictly required all code to be “well-formed”, to comply with the rules of eXtensible Markup Language (XML). This attempt to coerce web authors into adopting rigorous syntax, as Berners-Lee admits, did not work. So the W3C have returned to HTML and produced a draft specification, in consultation with all the browser makers, for version 5. The supported features of this version are described and demonstrated in this book, where it is generically referred to as “HTML5” or just plain “HTML”.



Sir Tim Berners-Lee,
creator of
the World Wide Web.

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What's new in HTML5?

Placing great emphasis on backward compatibility HTML5 is largely a superset of the previous version, but it introduces some great new features that let authors create more meaningful and exciting web pages:

- **<article>** – a structural element to contain stand-alone content, such as a self-contained topic
- **<section>** – a structural element to group together associated content, such as articles related to a common topic
- **<aside>** – a structural element to contain related supplemental content, such as a sidebar alongside a topic
- **<header>** – a structural element to contain page header content, such as a title and logo
- **<footer>** – a structural element to contain page footer content, such as copyright information and contact details
- **<ruby>** , **<rt>**, and **<rp>** – semantic elements to indicate pronunciation for East Asian languages, such as Japanese
- **<audio>** , **<video>**, and **<source>** – embedding elements to incorporate audio and video media that does not require external plug-ins, such as music files in MP3 format
- **<embed>** – an embedding element to incorporate media that does require an external plug-in, such as movies in SWF format
- **<canvas>** – an embedding element to create an area in which to dynamically draw bitmap graphics, such as graphs, games, and animations

Drawing on the area provided by the **<canvas>** element is accomplished exclusively using JavaScript and the new Canvas 2D API (Application Programming Interface). HTML5 also includes new DragNDrop, Web Storage, and Messaging APIs with which JavaScript can provide dynamic web page functionality.

Don't forget



Much effort has been made in HTML5 so that it does not “break the web” – by continuing to define how browsers should deal with legacy markup code.

Hot tip



HTML5 finally brings intrinsic support for audio and video content with codec support built into the browsers.