

W3C was started in 1994 to lead the Web to its full potential by developing common protocols that promote its evolution and ensure its interoperability.

What it Is

- W3C Stands for the **World Wide Web Consortium**
- W3C was created in **October 1994**
- W3C was created by **Tim Berners-Lee**
- W3C was created by the **Inventor of the Web**
- W3C is organized as a **Member Organization**
- W3C is working to **Standardize the Web**
- W3C creates and maintains **WWW Standards**
- W3C Standards are called **W3C Recommendations**

How it Started

The World Wide Web (WWW) began as a project at the European Organization for Nuclear Research (CERN), where Tim Berners-Lee developed a vision of the World Wide Web.

Tim Berners-Lee - the inventor of the World Wide Web - is now the Director of the World Wide Web Consortium (W3C).

W3C was created in 1994 as a collaboration between the Massachusetts Institute of Technology (MIT) and the European Organization for Nuclear Research (CERN), with support from the U.S. Defense Advanced Research Project Agency (DARPA) and the European Commission.

Standardizing the Web

W3C is working to make the Web accessible to all users (despite differences in culture, education, ability, resources, and physical limitations)

W3C also coordinates its work with many other standards organizations such as the Internet Engineering Task Force, the Wireless Application Protocols (WAP) Forum and the Unicode Consortium.

W3C is hosted by three universities:

- Massachusetts Institute of Technology in the U.S.
- The French National Research Institute in Europe
- Keio University in Japan

W3C Members

Because the Web is so important (both in scope and in investment) that no single organization should have control over its future, W3C functions as a member organization.

Some well known members are:

- IBM
- Microsoft
- America Online

- Apple
- Adobe
- Macromedia
- Sun Microsystems

The [Full List of Member Organisations](#) includes a variety of software vendors, content providers, corporate users, telecommunications companies, academic institutions, research laboratories, standards bodies, and governments.

W3C Recommendations

The most important work done by the W3C is the development of Web specifications (called "Recommendations") that describe communication protocols (like HTML and XML) and other building blocks of the Web.

Each W3C Recommendation is developed by a work group consisting of members and invited experts. The group obtains its input from companies and other organizations, and creates a Working Draft and finally a Proposed Recommendation. In general the Recommendation is submitted to the W3C membership and director, for a formal approval as a W3C Recommendation.

The specification approval process is described in the next chapter.

W3C Joke

Internet User: "Can I download the latest version of Internet from W3C?"

The W3C standards approval process includes up to 7 different steps.

W3C Specification Approval Steps

When W3C is publishing a new Web standard, the specification has worked its way from an idea through a lot of refining processes including the following:

- W3C receives a Submission
- W3C publishes a Note
- W3C creates a Working Group
- W3C publishes a Working Draft
- W3C publishes a Candidate Recommendation
- W3C publishes a Proposed Recommendation
- W3C publishes a Recommendation

The next chapters of this section of W3Schools summarize the HTML, CSS, XML, XSL activities at the W3C, including status and timeline for each Web standard.

W3C Submissions

Any W3C member can submit a suggestion for a Web standard to the consortium. Most W3C Recommendations started as a submission to the consortium.

If a submission is within the W3C work area (or charter), the W3C will decide if they should start working to refine the suggestion.

W3C Notes

Often a submission to the W3C becomes a Note. A Note is a description of a suggestion refined as a public document.

A Note is made available by the W3C for discussion only. Publication of a Note indicates no endorsement by W3C. The content of a Note is edited by the member that submitted the Note, and not by the W3C. A Note may be updated, replaced, or rendered obsolete at any time. The publication of a Note does not indicate that the W3C has started any work related to the Note.

W3C Working Groups

When a submission is acknowledged by the W3C, a Working Group consisting of members and other interested parties is formed.

The Working Group will normally define a time schedule and issue a Working Draft of the proposed standard, describing the work in progress.

W3C Working Drafts

W3C Working Drafts are normally posted on the W3C Web site, along with an invitation for public comments.

A Working Draft indicates work in progress, but should not be used as reference material. The content may be updated, replaced, or rendered obsolete at any time.

W3C Candidate Recommendations

Some specifications are more complex than others, and might require more input, more time, and more testing from members and software vendors. Sometimes these specifications are published as Candidate Recommendations.

A Candidate Recommendation is also a "work in progress" and should not be used as reference material. The document may be updated, obsolete, and replaced at any time.

W3C Proposed Recommendations

A Proposed Recommendation represents the final stage of the work in the Working Group.

A Proposed Recommendation is still a "work in progress" and may still be updated, obsolete, and replaced. But even if it does not imply any official endorsement by the W3C, most often a Proposed Recommendation is close to the final Recommendation both in content and in time.

W3C Recommendations

W3C Recommendations have been reviewed by the W3C members, and have the W3C's director's stamp of approval.

A W3C Recommendation is considered a stable document and may be used as reference material.

The next chapters of this section of W3Schools summarize the HTML, CSS, XML, XSL activities at the W3C, including document status and timeline for each Web standard.

HTML is the *lingua franca* for publishing on the World Wide Web.

XHTML is the latest version of HTML.

HTML Tutorials

To learn more about HTML, read our [HTML tutorial](#).

To learn more about XHTML, read our [XHTML tutorial](#).

HTML Versions

HTML 2.0

HTML 2.0 was developed by the Internet Engineering Task Force HTML Working Group in 1996.

HTML 2.0 is an outdated version of HTML. All browsers available on the market today, rely on newer versions of HTML. For a Web developer there is no need to study the HTML 2.0 standard.

HTML 3.2

HTML 3.2 was released as a W3C Recommendation 14. January 1997. HTML 3.2 added widely-deployed (Netscape) features such as fonts, tables, applets, text-flow around images, superscripts and subscripts, to the existing HTML 2.0 Standard.

One of the elements that was added to the 1997 HTML 3.2 standard - the tag - have introduced unnecessary complexity to the important task of separating HTML content (text) from its presentation (style). The tag is expected to be removed from future versions of HTML.

HTML 4.0

HTML 4.0 was released as a W3C Recommendation 18. December 1997. A second release was issued on 24. April 1998 with only some editorial corrections.

The most important feature of HTML 4.0 is the introduction of style sheets (CSS).

Our [W3C CSS](#) chapter summarizes the W3C CSS activities.

HTML 4.01

HTML 4.01 was released as a W3C Recommendation 24. December 1999.

HTML 4.01 is a minor update of corrections and bug fixes in HTML 4.0.

W3C will not continue to develop HTML. Future W3C work will be focusing on XHTML.

XHTML 1.0 (the latest version of HTML)

XHTML 1.0 reformulates HTML 4.01 in XML.

XHTML 1.0 was released as a W3C Recommendation 20. January 2000.

W3C HTML Specifications and Timeline

Specification	W3C Recommendation
HTML 3.2	14. January 1997
HTML 4.0	24. April 1998
HTML 4.01	24. December 1999



The **XHTML** specifications and timeline are found in the next chapter.

W3C Reference:

[W3C HTML Home Page](#)

HTML is the *lingua franca* for publishing hypertext on the World Wide Web.

XHTML is the latest version of HTML.

XHTML Tutorial

To see how this Web Site was converted to XHTML, read our [XHTML tutorial](#).

XHTML Versions

XHTML 1.0

XHTML 1.0 was released as a W3C Recommendation 20. January 2000.

XHTML 1.0 Second Edition

XHTML 1.0 Second Edition was released as a W3C Recommendation 1. August 2002. It is not a new version, but an update and a "bug fix".

About XHTML 1.0

XHTML 1.0 was the first major change to HTML since 1997, and a very important step on the way to create a standard that will provide richer web pages on a wider range of user agents (browsers), like desktop PCs, mobile (wireless) devices, and cell phones.

XHTML is an XML application with a clean migration path from HTML 4.01. W3C's first step was to reformulate HTML 4.01 into XML, resulting in XHTML 1.0. XHTML 1.0 relies on HTML 4.01 for the meanings of HTML tags.

The next step includes modularization of XHTML into smaller element collections, to make it easier to combine XHTML with other markup languages like vector graphics and multimedia.

Modularization of XHTML also gives reduced development costs, improved cooperation with other applications (like databases), easier communication with different user agents (browsers), and cleaner integration between HTML and different XML standards.

W3C XHTML Activities

XHTML 1.0

XHTML 1.0 is a reformulation of HTML 4.01 in XML.

To learn more about XHTML visit our [XHTML tutorial](#).

XHTML 1.1 (Modular XHTML)

Small devices (like mobile devices) cannot support all XHTML functions. XHTML 1.1 divides the specification into modules with limited functionality. Small browsers can reduce their complexity by supporting only selected modules (but once a module has been chosen, all of its features must be supported).

XHTML 1.1 is a strict language. XHTML 1.1 is not backward compatible with HTML 4.

XHTML Basic

XHTML Basic is a small subset of XHTML 1.1. It contains only basic XHTML features like text structure, images, basic forms, and basic tables. It is designed for small browsers (like in handheld devices).

XHTML Events

With the support for the W3C Document Object Model level 2 in XHTML, event handlers can be attached to XHTML elements so that parent elements can handle events before and after child elements.

To learn more about the DOM, study our [DOM tutorial](#).

XHTML Print

XHTML-Print is a part of XHTML 1.1 (Modular XHTML).

XHTML-Print is designed for mobile devices and low-cost printers that generally print from top to bottom of a page with no printing buffer and without a device specific printer driver.

XForms

With HTML forms, a user can visit a Web page, add information to the page, and submit the page to a Web server.

XForms are the successors to HTML forms, providing a much richer and presentation independent way of handling interactive Web transactions. Designed to be integrated with XHTML, we can expect that future e-commerce applications will demand the use of XForms.

To learn more about XForms, study our [XForms tutorial](#).

XHTML Modularization

XHTML Modularization is about splitting XHTML 1.0 into a collection of small modules that provide specific functionality.

Modularization of XHTML 1.0 is implemented using the XML DTD (Document Type Definition)

Modularization of XHTML 2.0 will be implemented using XML Schemas.

To learn more about DTD, visit our [DTD tutorial](#).

To learn more about XML Schemas, visit our [Schema tutorial](#).

XHTML 2.0

XHTML 2.0 is a next generation markup language. The functionality is expected to remain similar to XHTML 1.1, but the markup language may be altered to conform to the requirements of XML standards like XML Linking and XML Schema.

XLink

XLink is a language for creating hyperlinks in XML documents. XLink is similar to HTML links - but it is a lot more powerful
XLink supports simple links (like HTML) and extended links (for linking multiple resources together).

You can learn more about XLink in our [XLink tutorial](#).

HLink

HLink adds the ability to specify which attributes of elements represent hyperlinks in XHTML, and specifies how hyperlinks should be traversed.

HLink is an extension to XLink.

W3C HTML Specifications and Timeline

Specification	Draft / Proposal	W3C Recommendation
XHTML 1.0		26. Jan 2000
XHTML 1.0 Revision		01. Aug 2002
XHTML 1.1		31. May 2001
XHTML Modules		10. Apr 2001
XHTML Modules 1.1	13. Feb 2006	
XHTML Basic		19. Decr 2000
XHTML Basic 1.1	07. Jun 2006	
XHTML Events		14. Oct 2003
XHTML Print	31. Jan 2006	
XHTML Media Types	01. Aug 2002	
XForms 1.0		14. Oct 2003
XForms 1.0 (SE)		14. Mar 2006

XForms 1.1	09. Dec 2005	
XHTML 2.0	27. May 2005	
XLink		27. Jun 2001
HLink	13. Sep 2002	

W3C Reference:

[W3C HTML Home Page](#)

XML was designed to describe, store, carry and exchange data.

XML 1.0 is the latest version of XML.

XML Tutorial

To learn more about XML, read our [XML tutorial](#).

XML Versions

XML 1.0

XML 1.0 was released as a W3C Recommendation 10. February 1998.

XML 1.0 (Second Edition)

XML 1.0 (SE) was released as a W3C Recommendation 6. October 2000.
Second Edition is only a correction to XML 1.0 that incorporates the first-edition errata (bug fixes).

XML 1.0 (Third Edition)

Third Edition is only a correction to XML 1.0 that incorporates the first- and second-edition errata (bug fixes).

XML 1.1

XML 1.1 was released as a Working Draft 13. December 2001, and as a Candidate Recommendation 15. October 2002.
XML 1.1 allows almost any Unicode characters to be used in names.

Other W3C XML Technologies

XML Namespaces

XML namespaces defines a method for defining element and attribute names used in XML by associating them with URI references.

XML Linking (XLink, XPointer, and XML Base)

The XML Linking Language (XLink), allows you to insert links into XML documents.

The XML Pointer Language (XPointer), allows the links to address into specific parts of an XML document.

XML Base is a standard for defining a default reference to external XML resources (similar to <base> in HTML).

XInclude

XInclude is a mechanism for merging XML documents using elements, attributes, and URI references.

W3C XML Specifications and Timeline

Specification	Draft / Proposal	W3C Recommendation
XML 1.0		10. Feb 1998
XML 1.0 (2.Ed)		06. Oct 2000
XML 1.0 (3.Ed)		04. Feb 2004
XML 1.1		04. Feb 2004
XML Namespaces		14. Jan 1999
XML 1.1 Namespaces		04. Feb 2004
XML Infoset		24. Oct. 2001
XML Infoset (2.Ed)		04. Feb. 2004
XML Base		27. Jun 2001
XLink 1.0		27. Jun 2001
XPointer Framework		25. Mar 2003
XPointer element() scheme		25. Mar 2003
XPointer xmlns() scheme		25. Mar 2003
XInclude 1.0		20. Dec 2004
XML Processing Model	05. Apr 04	

W3C Reference:

[W3C XML Home Page](#)

Style sheets describe how documents are displayed, pronounced, or printed. CSS is a mechanism for adding style to Web pages.

CSS Tutorial

To learn more about CSS, read our [CSS tutorial](#).

CSS Versions

CSS1

CSS1 was released as a W3C Recommendation 17. December 1996. The Recommendation was revised 11. January 1999.

CSS2

CSS2 was released as a W3C Recommendation 11. January 1999. CSS2 has added support for media (printers and aural devices), downloadable fonts, element positioning and tables.

CSS3

CSS3 is about breaking CSS into smaller modules

W3C CSS Specifications and Timeline

Specification	Draft / Proposal	W3C Recommendation
CSS 1		17. Dec 1996
CSS 1 (Revised)		11. Jan 1999
CSS 2		12. May 1998
CSS 2.1	11. Apr 2006	
CSS Mobile	25. Jul 2002	
CSS TV	14. May 2003	
CSS 3	23. May 2001	
CSS 3 User Interface	11. May 2004	
CSS 3 Selectors	15. Des 2005	
CSS 3 Fonts	02. Aug 2002	
CSS 3 Web Fonts	02. Aug 2002	
CSS 3 Colors	14. May 2003	
CSS 3 Backgrounds	16. Feb 2005	
CSS 3 Text	27. Jun 2005	
CSS 3 Lists	07. Nov 2002	
CSS 3 Line	15. May 2002	
CSS 3 Box	24. Oct 2002	
CSS 3 Ruby	14. May 2003	
CSS 3 Border	16. Feb 2005	

CSS 3 Speech	16. Dec 2004	

W3C Reference:

[W3C CSS Home Page](#)

Style sheets describe how documents are displayed, pronounced, or printed. The XSL language consists of three parts: XSLT, XPath, and XSL Formatting Objects.

XSL Tutorial

To learn more about XSL, read our [XSL tutorial](#).

XSL Versions

XSL 1.0

XSL 1.0 was released as a W3C Recommendation 15. October 2001 as a language for expressing style sheets. It consists of three parts: XSLT, XPath, and XSL Formatting Objects. An XSL style sheet specifies the presentation of a class of XML documents by describing how an instance of the class is transformed into an XML document that uses the formatting vocabulary.

XSLT 1.0

XSLT 1.0 was released as a W3C Recommendation 16. November 1999. XSLT is a language for transforming XML documents into other XML documents.

XSLT 2.0

XSLT 2.0 became a W3C Working Draft 20. December 2002.

XSL-FO (XSL Formatting Objects)

XSL Formatting Objects is an XML vocabulary for specifying formatting semantics. Formatting is the process of turning the result of an XSL transformation into a suitable output form for a reader or listener. No separate W3C document exists for XSL Formatting Objects, but a description can be found inside the XSL 1.0 Recommendation.

W3C XSL Specifications and Timeline

Specification	Draft / Proposal	W3C Recommendation
XSL 1.0 (XSL-FO)		15. Oct 2001
XSLT 1.0		16. Nov 1999
XSLT 1.1	24. Aug 2001	

XSLT 2.0 Requirements	14. Feb 2001	
XSLT 2.0	08. Jun 2006	

W3C Reference:

[W3C XSL Home Page](#)

XML Schema is an XML based alternative to DTD.

XML Schema Tutorial

To learn more about XML Schema, read our [XML Schema tutorial](#).

XML Schema

XML 1.0 supports DTD for defining the structure of documents.

XML Schema has better support for applications, document structure, attributes, and data-typing.

Future versions of XML will rely on XML Schema for defining XML document types.

- XML Schema Structures specifies the XML Schema definition language.
- XML Schema Data types specifies extensible data types for XML.

W3C XML Specifications and Timeline

Specification	Draft / Proposal	W3C Recommendation
XML Schema		02. May 2001
XML Schema Structures		02. May 2001
XML Schema Datatypes		02. May 2001
XML Schema (2.Ed)		28. Oct 2004
XML Schema Structures (2.Ed)		28. Oct 2004
XML Schema Datatypes (2.Ed)		28. Oct 2004
XML Schema Component Designators	29. Mar 2005	

W3C Reference:

[W3C XML Schema Home Page](#)