



XHTML

extensible html

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About the Tutorial

This tutorial provides a basic understanding of XHTML, its syntax and attributes with rules for using the same along with their practical examples. It also describes Doctypes, attributes and events of XHTML. In addition, it provides a few handy tips and tricks of using XTHML.

Audience

This tutorial is designed for the aspiring web designers and web developers who are keen to understand XHTML in detail. Enthusiastic readers can use this tutorial as a source of additional reading.

Prerequisites

Before proceeding with this tutorial, you need to have a basic knowledge of working on Windows or Linux. You need to be familiar with any of the text editors such as Notepad, Notepad++, or Editplus. You are also required to work with browsers such as IE, Firefox, or Google Chrome, comfortably.

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1. XTHML—Introduction

XHTML stands for EXtensible HyperText Markup Language. It is the next step in the evolution of the internet. The XHTML 1.0 is the first document type in the XHTML family.

XHTML is almost identical to HTML 4.01 with only few differences. This is a cleaner and stricter version of HTML 4.01. If you already know HTML, then you need to give little attention to learn this latest version of HTML.

XHTML was developed by World Wide Web Consortium (W3C) to help web developers make the transition from HTML to XML. By migrating to XHTML today, web developers can enter the XML world with all of its benefits, while still remaining confident in the backward and future compatibility of the content.

Why Use XHTML?

Developers who migrate their content to XHTML 1.0 get the following benefits:

- XHTML documents are XML conforming as they are readily viewed, edited, and validated with standard XML tools.
- XHTML documents can be written to operate better than they did before in existing browsers as well as in new browsers.
- XHTML documents can utilize applications such as scripts and applets that rely upon either the HTML Document Object Model or the XML Document Object Model.
- XHTML gives you a more consistent, well-structured format so that your webpages can be easily parsed and processed by present and future web browsers.
- You can easily maintain, edit, convert and format your document in the long run.
- Since XHTML is an official standard of the W3C, your website becomes more compatible with many browsers and it is rendered more accurately.
- XHTML combines strength of HTML and XML. Also, XHTML pages can be rendered by all XML enabled browsers.
- XHTML defines quality standard for your webpages and if you follow that, then your web pages are counted as quality web pages. The W3C certifies those pages with their quality stamp.

Web developers and web browser designers are constantly discovering new ways to express their ideas through new markup languages. In XML, it is relatively easy to introduce new elements or additional element attributes. The XHTML family is designed to accommodate these extensions through XHTML modules and techniques for developing new XHTML-conforming modules. These modules permit the combination of existing and new features at the time of developing content and designing new user agents.



Basic Understanding

Before we proceed further, let us have a quick view on what are HTML, XML, and SGML.

What is HTML?

This is **S**tandard **G**eneralized **M**arkup **L**anguage (SGML) application conforming to International Standard ISO 8879. HTML is widely regarded as the standard publishing language of the World Wide Web.

What is SGML?

This is a language for describing markup languages, particularly those used in electronic document exchange, document management, and document publishing. HTML is an example of a language defined in SGML.

What is XML?

XML stands for EXtensible Markup Language. XML is a markup language much like HTML and it was designed to describe data. XML tags are not predefined. You must define your own tags according to your needs.



2. XHTML—Syntax

XHTML syntax is very similar to HTML syntax and almost all the valid HTML elements are valid in XHTML as well. But when you write an XHTML document, you need to pay a bit extra attention to make your HTML document compliant to XHTML.

Here are the important points to remember while writing a new XHTML document or converting existing HTML document into XHTML document:

- Write a DOCTYPE declaration at the start of the XHTML document.
- Write all XHTML tags and attributes in lower case only.
- Close all XHTML tags properly.
- Nest all the tags properly.
- Quote all the attribute values.
- Forbid Attribute minimization.
- Replace the **name** attribute with the **id** attribute.
- Deprecate the **language** attribute of the script tag.

Here is the detail explanation of the above XHTML rules:

DOCTYPE Declaration

All XHTML documents must have a DOCTYPE declaration at the start. There are three types of DOCTYPE declarations, which are discussed in detail in XHTML Doctypes chapter. Here is an example of using DOCTYPE:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"</pre>
```

"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

Case Sensitivity

XHTML is case sensitive markup language. All the XHTML tags and attributes need to be written in lower case only.

```
<!-- This is invalid in XHTML -->
```

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<!-- Correct XHTML way of writing this is as follows -->



```
<a href="/xhtml/xhtml_tutorial.html">XHTML Tutorial</a>
```

In the example, **Href** and anchor tag **A** are not in lower case, so it is incorrect.

Closing the Tags

Each and every XHTML tag should have an equivalent closing tag, even empty elements should also have closing tags. Here is an example showing valid and invalid ways of using tags:

```
<!-- This is invalid in XHTML -->
This paragraph is not written according to XHTML syntax.

<!-- This is also invalid in XHTML -->
<img src="/images/xhtml.gif" >
```

The following syntax shows the correct way of writing above tags in XHTML. Difference is that, here we have closed both the tags properly.

```
<!-- This is valid in XHTML -->
This paragraph is not written according to XHTML syntax.
<!-- This is also valid now -->
<img src="/images/xhtml.gif" />
```

Attribute Quotes

All the values of XHTML attributes must be quoted. Otherwise, your XHTML document is assumed as an invalid document. Here is the example showing syntax:

```
<!-- This is invalid in XHTML -->
<img src="/images/xhtml.gif" width=250 height=50 />
<!-- Correct XHTML way of writing this is as follows -->
<img src="/images/xhtml.gif" width="250" height="50" />
```



Attribute Minimization

XHTML does not allow attribute minimization. It means you need to explicitly state the attribute and its value. The following example shows the difference:

```
<!-- This is invalid in XHTML -->
<option selected>
<!-- Correct XHTML way of writing this is as follows -->
<option selected="selected">
```

Here is a list of the minimized attributes in HTML and the way you need to write them in XHTML:

HTML Style	XHTML Style
compact	compact="compact"
checked	checked="checked"
declare	declare="declare"
readonly	readonly="readonly"
disabled	disabled="disabled"
selected	selected="selected"
defer	defer="defer"
ismap	ismap="ismap"
nohref	nohref="nohref"
noshade	noshade="noshade"
nowrap	nowrap="nowrap"
multiple	multiple="multiple"
noresize	noresize="noresize"



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