

## [MS-XHTML]:

# Internet Explorer Extensible HyperText Markup Language (XHTML) Standards Support Document

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## Revision Summary

| Date       | Revision History | Revision Class | Comments   |
|------------|------------------|----------------|--|
| 9/8/2010   | 0.1              | New            | Released new document.   |
| 10/13/2010 | 0.2              | Minor          | Clarified the meaning of the technical content.                              |
| 2/10/2011  | 1.0              | None           | Introduced no new technical or language changes.                             |
| 2/22/2012  | 2.0              | Major          | Significantly changed the technical content.                                 |
| 7/25/2012  | 2.1              | Minor          | Clarified the meaning of the technical content.                              |
| 6/26/2013  | 3.0              | Major          | Significantly changed the technical content.                                 |
| 3/31/2014  | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 1/22/2015  | 4.0              | Major          | Updated for new product version.   |
| 7/7/2015   | 4.1              | Minor          | Clarified the meaning of the technical content.                              |
| 11/2/2015  | 4.1              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 1/20/2016  | 4.2              | Minor          | Clarified the meaning of the technical content.                              |
| 3/22/2016  | 4.2              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 11/2/2016  | 4.2              | None           | No changes to the meaning, language, or formatting of the technical content. |

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# 1 Introduction

This document describes the level of support provided by Microsoft web browsers for the *XHTML™ 1.0 The Extensible HyperText Markup Language (Second Edition)* [W3C-XHTML1.0], published January 26, 2000, and revised August 1, 2002.

The [W3C-XHTML1.0] specifications contain guidance for authors of webpages and browser users, in addition to user agents (browser applications). Statements found in this document apply only to normative requirements in the specification targeted to user agents, not those targeted to authors.

## 1.1 Glossary

**MAY, SHOULD, MUST, SHOULD NOT, MUST NOT:** These terms (in all caps) are used as defined in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

## 1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](#).

### 1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.rfc-editor.org/rfc/rfc2119.txt>

[W3C-XHTML1.0] W3C HTML Working Group, "XHTML 1.0 The Extensible HyperText Markup Language (Second Edition)", A Reformulation of HTML 4 in XML 1.0 W3C Recommendation 26 January 2000, revised 1 August 2002, <http://www.w3.org/TR/xhtml1/>

### 1.2.2 Informative References

None.

## 1.3 Microsoft Implementations

The following Microsoft web browser versions implement some portion of the XHTML specification:

- Windows Internet Explorer 9
- Windows Internet Explorer 10
- Internet Explorer 11
- Internet Explorer 11 for Windows 10
- Microsoft Edge

Each browser version may implement multiple document rendering modes. The modes vary from one another in support of the standard. The following table lists the document modes in each browser version.

| Browser Version                     | Document Modes Supported  |
|-------------------------------------|---|
| Internet Explorer 9                 | Quirks Mode<br>IE7 Mode<br>IE8 Mode<br>IE9 Mode                           |
| Internet Explorer 10                | Quirks Mode<br>IE7 Mode<br>IE8 Mode<br>IE9 Mode<br>IE10 Mode              |
| Internet Explorer 11                | Quirks Mode<br>IE7 Mode<br>IE8 Mode<br>IE9 Mode<br>IE10 Mode<br>IE11 Mode |
| Internet Explorer 11 for Windows 10 | Quirks Mode<br>IE7 Mode<br>IE8 Mode<br>IE9 Mode<br>IE10 Mode<br>IE11 Mode |
| Microsoft Edge                      | EdgeHTML Mode   |

For each variation presented in this document there is a list of the document modes and browser versions that exhibit the behavior described by the variation. All combinations of modes and versions that are not listed conform to the specification. For example, the following list for a variation indicates that the variation exists in three document modes in all browser versions that support these modes:

*Quirks Mode, IE7 Mode, and IE8 Mode (All Versions)*

## 1.4 Standards Support Requirements

To conform to [\[W3C-XHTML1.0\]](#), a user agent must implement all required portions of the specification. Any optional portions that have been implemented must also be implemented as described by the specification. Normative language is usually used to define both required and optional portions. (For more information, see [\[RFC2119\]](#).)

The following table lists the sections of [\[W3C-XHTML1.0\]](#) and whether they are considered normative or informative.

| Sections | Normative/Informative |
|----------|-----------------------|
| 1        | Informative           |
| 2 - 3    | Normative             |
| 4        | Informative           |
| 5        | Normative             |

| Sections         | Normative/Informative |
|------------------|-----------------------|
| Appendices A - B | Normative             |
| Appendices C - E | Informative           |

## 1.5 Notation

The following notations are used in this document to differentiate between notes of clarification, variation from the specification, and extension points.

| Notation | Explanation  |
|----------|--|
| C####    | Identifies a clarification of ambiguity in the target specification. This includes imprecise statements, omitted information, discrepancies, and errata. This does not include data formatting clarifications. |
| V####    | Identifies an intended point of variability in the target specification such as the use of MAY, SHOULD, or RECOMMENDED. (See <a href="#">RFC2119</a> .) This does not include extensibility points.            |
| E####    | Identifies extensibility points (such as optional implementation-specific data) in the target specification, which can impair interoperability.  |

For document mode and browser version notation, see section [1.3](#).

## 2 Standards Support Statements

This section contains a full list of variations, clarifications, and extension points in the Microsoft implementation of [\[W3C-XHTML1.0\]](#).

- Section [2.1](#) includes only those variations that violate a MUST requirement in the target specification.
- Section [2.2](#) describes further variations from MAY and SHOULD requirements.
- Section [2.3](#) identifies variations in error handling.
- Section [2.4](#) identifies variations that impact security.

### 2.1 Normative Variations

The following subsections detail the normative variations from MUST requirements of [\[W3C-XHTML1.0\]](#).

#### 2.1.1 [W3C-XHTML1.0] Section 3.2, User Agent Conformance

V0001:

The specification states:

```
When a user agent processes an XHTML document as generic XML, it shall only recognize attributes of type ID (i.e. the id attribute on most XHTML elements) as fragment identifiers.
```

*IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions)*

In documents that are processed as generic XML, **name** attributes are also recognized as fragment identifiers.

V0002:

The specification states:

```
If a user agent encounters an attribute it does not recognize, it must ignore the entire attribute specification (i.e., the attribute and its value).
```

*IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions)*

Unrecognized attributes are preserved in the DOM.

V0003:

The specification states:

```
If it encounters an entity reference (other than one of the entities defined in this recommendation or in the XML recommendation) for which the user agent has processed no declaration (which could happen if the declaration is in the external subset which the user agent hasn't read), the entity reference should be processed as the characters (starting with the ampersand and ending with the semi-colon) that make up the entity reference.
```

*IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions)*

An undeclared entity reference causes a parse error to be reported.

## **2.2 Clarifications**

The following subsections identify clarifications to recommendations made by [\[W3C-XHTML1.0\]](#).

### **2.2.1 [W3C-XHTML1.0] Section 3.2, User Agent Conformance**

C0001:

The specification states:

A conforming user agent must meet all of the following criteria:

1. In order to be consistent with the XML 1.0 Recommendation [XML], the user agent must parse and evaluate an XHTML document for well-formedness. If the user agent claims to be a validating user agent, it must also validate documents against their referenced DTDs according to [XML].

*IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions)*

Validation is not performed on documents.

C0002:

The specification states:

When processing content, user agents that encounter characters or character entity references that are recognized but not renderable may substitute another rendering that gives the same meaning, or must display the document in such a way that it is obvious to the user that normal rendering has not taken place.

*IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions)*

Another rendering that gives the same meaning is substituted when characters or character entity references are encountered that are recognized but not renderable. If no such rendering is available, the rendering for the replacement character is substituted.

C0003:

The specification states:

Note that in order to produce a Canonical XHTML document, the rules above must be applied and the rules in [XMLC14N] must also be applied to the document.

*IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions)*

Canonical XHTML documents are not necessarily created.

### **2.2.2 [W3C-XHTML1.0] Section a.1, Document Type Definitions**

C0004:

The specification states:



These DTDs approximate the HTML 4 DTDs. The W3C recommends that you use the authoritative versions of these DTDs at their defined SYSTEM identifiers when validating content. If you need to use these DTDs locally you should download one of the archives of this version.

### *IE9 Mode, IE10 Mode, IE11 Mode, and EdgeHTML Mode (All Versions)*

External DTDs are not loaded. XHTML entities are loaded when one of the public identifiers for the specified DTDs is used.

## **2.3 Error Handling**

There are no additional considerations for error handling.

## **2.4 Security**

There are no additional security considerations.

### **3 Change Tracking**

No table of changes is available. The document is either new or has had no changes since its last release.

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