

[MS-RUBY]:

Internet Explorer Ruby Annotation Standards Support Document

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation ("this documentation") for protocols, file formats, data portability, computer languages, and standards support. Additionally, overview documents cover inter-protocol relationships and interactions.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you can make copies of it in order to develop implementations of the technologies that are described in this documentation and can distribute portions of it in your implementations that use these technologies or in your documentation as necessary to properly document the implementation. You can also distribute in your implementation, with or without modification, any schemas, IDLs, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications documentation.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that might cover your implementations of the technologies described in the Open Specifications documentation. Neither this notice nor Microsoft's delivery of this documentation grants any licenses under those patents or any other Microsoft patents. However, a given Open Specifications document might be covered by the Microsoft [Open Specifications Promise](#) or the [Microsoft Community Promise](#). If you would prefer a written license, or if the technologies described in this documentation are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting iplg@microsoft.com.
- **License Programs.** To see all of the protocols in scope under a specific license program and the associated patents, visit the [Patent Map](#).
- **Trademarks.** The names of companies and products contained in this documentation might be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights. For a list of Microsoft trademarks, visit www.microsoft.com/trademarks.
- **Fictitious Names.** The example companies, organizations, products, domain names, email addresses, logos, people, places, and events that are depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

Reservation of Rights. All other rights are reserved, and this notice does not grant any rights other than as specifically described above, whether by implication, estoppel, or otherwise.

Tools. The Open Specifications documentation does not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments, you are free to take advantage of them. Certain Open Specifications documents are intended for use in conjunction with publicly available standards specifications and network programming art and, as such, assume that the reader either is familiar with the aforementioned material or has immediate access to it.

Support. For questions and support, please contact dochelp@microsoft.com.

Revision Summary

Date	Revision History	Revision Class	Comments
3/17/2010	0.1	New	Released new document.
3/26/2010	1.0	None	Introduced no new technical or language changes.
5/26/2010	1.2	None	Introduced no new technical or language changes.
9/8/2010	1.3	Major	Significantly changed the technical content.
10/13/2010	1.4	Minor	Clarified the meaning of the technical content.
2/10/2011	2.0	None	Introduced no new technical or language changes.
2/22/2012	3.0	Major	Significantly changed the technical content.
7/25/2012	3.1	Minor	Clarified the meaning of the technical content.
6/26/2013	4.0	Major	Significantly changed the technical content.
3/31/2014	4.0	None	No changes to the meaning, language, or formatting of the technical content.
1/22/2015	5.0	Major	Updated for new product version.
7/7/2015	5.1	Minor	Clarified the meaning of the technical content.
11/2/2015	5.1	None	No changes to the meaning, language, or formatting of the technical content.
1/20/2016	5.2	Minor	Clarified the meaning of the technical content.
3/22/2016	5.2	None	No changes to the meaning, language, or formatting of the technical content.
11/2/2016	5.2	None	No changes to the meaning, language, or formatting of the technical content.
3/14/2017	5.2	None	No changes to the meaning, language, or formatting of the technical content.
10/3/2017	5.2	None	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1	Introduction	4
1.1	Glossary	4
1.2	References	4
1.2.1	Normative References	4
1.2.2	Informative References	4
1.3	Microsoft Implementations	4
1.4	Standards Support Requirements	5
1.5	Notation.....	6
2	Standards Support Statements	7
2.1	Normative Variations	7
2.1.1	[W3C-RUBY] Section 2.4, The rtc element	7
2.1.2	[W3C-RUBY] Section 2.6, The rt element.....	7
2.1.3	[W3C-RUBY] Section 2.7, The rp element	8
2.2	Clarifications	8
2.2.1	[W3C-RUBY] Section 2.2, The ruby element.....	8
2.2.2	[W3C-RUBY] Section 2.3, The rbc element.....	8
2.2.3	[W3C-RUBY] Section 2.5, The rb element	9
2.2.4	[W3C-RUBY] Section 2.6, The rt element.....	9
2.3	Error Handling	9
2.4	Security	9
3	Change Tracking.....	10
4	Index.....	11

1 Introduction

This document describes the level of support provided by Microsoft web browsers for the *Ruby Annotation* [W3C-Ruby], W3C Recommendation 31 May 2001. Internet Explorer displays web pages written in HTML.

The [W3C-Ruby] specification may contain guidance for authors of webpages and browser users, in addition to user agents (browser applications). This document considers only normative language from the specification that applies directly to user agents.

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. 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-Ruby] World Wide Web Consortium, "Ruby Annotation", W3C Recommendation 31 May 2001 (Markup errors corrected 25 June 2008), <http://www.w3.org/TR/ruby/>

1.2.2 Informative References

None.

1.3 Microsoft Implementations

The following Microsoft web browser versions implement some portion of [W3C-Ruby]:

- Windows Internet Explorer 7
- Windows Internet Explorer 8
- 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 supported by each browser version.

Browser Version	Documents Modes Supported
Internet Explorer 7	Quirks Mode Standards Mode
Internet Explorer 8	Quirks Mode IE7 Mode IE8 Mode
Internet Explorer 9	Quirks Mode IE7 Mode IE8 Mode IE9 Mode
Internet Explorer 10	Quirks Mode IE7 Mode IE8 Mode IE9 Mode IE10 Mode
Internet Explorer 11	Quirks Mode IE7 Mode IE8 Mode IE9 Mode IE10 Mode IE11 Mode
Internet Explorer 11 for Windows 10	Quirks Mode IE7 Mode IE8 Mode IE9 Mode IE10 Mode 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)

Note: "Standards Mode" in Internet Explorer 7 and "IE7 Mode" in Internet Explorer 8 refer to the same document mode. "IE7 Mode" is the preferred way of referring to this document mode across all versions of the browser.

1.4 Standards Support Requirements

To conform to [\[W3C-Ruby\]](#) 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-Ruby] and whether they are considered normative or informative.

Sections	Normative/Informative
1-3	Normative
4	Informative
Appendix A-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####	This 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####	This identifies an intended point of variability in the target specification such as the use of MAY, SHOULD, or RECOMMENDED. (See [RFC2119].) This does not include extensibility points.
E####	Because the use of extensibility points (such as optional implementation-specific data) can impair interoperability, this profile identifies such points in the target specification.

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

2 Standards Support Statements

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

- 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 in [\[W3C-Ruby\]](#).

2.1.1 [W3C-RUBY] Section 2.4, The rtc element

V0001:

The specification states:

The rtc (ruby text container) element serves as the container for rt elements in the case of complex ruby markup. One or two rtc elements may appear inside a ruby element to associate ruby texts with a single base text, represented by an rbc element. More than two rtc elements MUST NOT appear inside a ruby element.

All Document Modes (All Versions)

All **rtc** elements within **ruby** elements are displayed.

2.1.2 [W3C-RUBY] Section 2.6, The rt element

V0002:

The specification states:

The rt element may contain inline elements or character data as its content, but the ruby element is not allowed as its descendant element.

All Document Modes (All Versions)

The **ruby** element is allowed as a descendent element to the **rt** element.

V0003:

The specification states:

In complex ruby markup, the rbspan attribute allows an rt element to span multiple rb elements. The value shall be an integer value greater than zero ("0"). The default value of this attribute is one ("1"). The rbspan attribute should not be used in simple ruby markup, and user agents should ignore the rbspan attribute when it appears in simple ruby markup.

All Document Modes (All Versions)

The **rbspan** attribute is not supported in **rt** elements.

2.1.3 [W3C-RUBY] Section 2.7, The **rp** element

V0004:

The specification states:

The **rp** element can be used in the case of simple ruby markup to specify characters that can denote the beginning and end of ruby text when user agents do not have other ways to present ruby text distinctively from the base text. Parentheses (or similar characters) can provide an acceptable fallback. In this situation, ruby text will only degrade to be rendered inline and enclosed in the fallback parentheses. This is the least inappropriate rendering under the condition that only inline rendering is available. The **rp** element cannot be used with complex ruby markup.

All Document Modes (All Versions)

The **rp** element is allowed within complex **ruby** elements.

2.2 Clarifications

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

2.2.1 [W3C-RUBY] Section 2.2, The **ruby** element

C0001:

The specification states:

The **ruby** element is an inline (or text-level) element that serves as an overall container. It contains either the **rb**, **rt** and optional **rp** elements (simple ruby markup) or the **rbc** and **rtc** elements (complex ruby markup).

All Document Modes (All Versions)

The **dir** attribute is not supported in simple or complex **ruby** elements.

2.2.2 [W3C-RUBY] Section 2.3, The **rbc** element

C0002:

The specification states:

The **rbc** (ruby base container) element serves as the container for **rb** elements in the case of complex ruby markup. Only one **rbc** element may appear inside a **ruby** element.

All Document Modes (All Versions)

All **rbc** elements within **ruby** elements are displayed.

2.2.3 [W3C-RUBY] Section 2.5, The rb element

C0003:

The specification states:

The `rb` (ruby base) element serves to markup the base text. For simple ruby markup, only one `rb` element may appear. For complex ruby markup, multiple `rb` elements may appear inside an `rbcs` element. Each `rb` element is associated with a corresponding `rt` element, for fine-grained control of ruby presentation. The `rb` element may contain inline elements or character data as its content, but the ruby element is not allowed as its descendant element.

All Document Modes (All Versions)

The following clarifications apply:

- All **rb** elements within simple or complex **ruby** elements are displayed.
- No error handling occurs for an **rb** element with a descendant **ruby** element.

2.2.4 [W3C-RUBY] Section 2.6, The rt element

C0004:

The specification states:

The `rt` element is the markup for ruby text. For simple ruby markup, only one `rt` element may appear. For complex ruby markup, multiple `rt` elements may appear inside an `rtcs` element, and each `rt` element contains the ruby text for the relevant base text, represented by the corresponding `rb` element.

All Document Modes (All Versions)

All **rt** elements within simple or complex **ruby** elements are displayed.

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.

4 Index

C

[Change tracking](#) 10

G

[Glossary](#) 4

I

[Informative references](#) 4

[Introduction](#) 4

N

[Normative references](#) 4

R

References

[informative](#) 4

[normative](#) 4

T

[The rb element](#) 9

[The rbc element](#) 8

[The rp element](#) 8

The rt element ([section 2.1.2](#) 7, [section 2.2.4](#) 9)

[The rtc element](#) 7

[The ruby element](#) 8

[Tracking changes](#) 10