[MS-XPATH]: Microsoft XML XPath Standards Support Document

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation for protocols, file formats, languages, standards as well as overviews of the interaction among each of these technologies.
- **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 may make copies of it in order to develop implementations of the technologies described in the Open Specifications and may distribute portions of it in your implementations using these technologies or your documentation as necessary to properly document the implementation. You may also distribute in your implementation, with or without modification, any schema, IDL's, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications.
- No Trade Secrets. Microsoft does not claim any trade secret rights in this documentation.
- Patents. Microsoft has patents that may cover your implementations of the technologies described in the Open Specifications. Neither this notice nor Microsoft's delivery of the documentation grants any licenses under those or any other Microsoft patents. However, a given Open Specification may be covered by Microsoft Open Specification Promise or the Community Promise. If you would prefer a written license, or if the technologies described in the Open Specifications are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting ipla@microsoft.com.
- **Trademarks.** The names of companies and products contained in this documentation may be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights.
- **Fictitious Names.** The example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events 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 specifically described above, whether by implication, estoppel, or otherwise.

Tools. The Open Specifications do 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 are intended for use in conjunction with publicly available standard specifications and network programming art, and assumes that the reader either is familiar with the aforementioned material or has immediate access to it.

Revision Summary

Date	Revision History	Revision Class	Comments	
03/17/2010	0.1	New	Released new document.	
03/26/2010	1.0	None	Introduced no new technical or language changes.	
05/26/2010	1.2	None	Introduced no new technical or language changes.	
09/08/2010	1.3	Major	Significantly changed the technical content.	
02/10/2011	2.0	No change	Introduced no new technical or language changes.	
02/22/2012	3.0	Major	Significantly changed the technical content.	
07/25/2012	3.1	Minor	Clarified the meaning of the technical content.	

Table of Contents

1 Introduction	
1.1 Glossary	4
1.2 References	
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	5
	_
2 Standards Support Statements	6
2.1 Normative Variations	
2.1.1 [XPATH] Section 5. Data Model	6
2.2 Clarifications	6
2.3 Error Handling	6
2.4 Security	6
3 Change Tracking	7
5 Change Hacking	·····/
4 Index	g

1 Introduction

This document describes the level of support provided by the Microsoft XML Core Services (MSXML) 3.0 and 6.0 for the *XML Path Language (XPath), Version 1.0* [XPATH], W3C Recommendation 16 November 1999.

The [XPATH] specification may 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 described in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical documents, which are updated frequently. References to other documents include a publishing year when one is available.

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. Please check the archive site, http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624, as an additional source.

[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

[RFC2396] Berners-Lee, T., Fielding, R., and Masinter, L., "Uniform Resource Identifiers (URI): Generic Syntax", RFC 2396, August 1998, http://www.ietf.org/rfc/rfc2396.txt

[XPATH] Clark, J. and DeRose, S., "XML Path Language (XPath), Version 1.0", W3C Recommendation, November 1999, http://www.w3.org/TR/xpath

1.2.2 Informative References

None.

1.3 Microsoft Implementations

Throughout this document, Microsoft XML Core Services (MSXML) 3.0 is referred to as *MSXML3* and Microsoft XML Core Services (MSXML) 6.0 is referred to as *MSXML6*.

MSXML3 is the only version of MSXML that is implemented in Windows® Internet Explorer® 7 and Windows® Internet Explorer® 8. Both MSXML3 and MSXML6 are implemented in Windows® Internet Explorer® 9 and Windows® Internet Explorer® 10.

1.4 Standards Support Requirements

To conform to [XPATH], 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 <a>[XPATH] and whether they are considered normative or informative.

Sections	Normative/Informative
1	Informative
2-5	Normative
6	Informative
Appendices A-B	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 [RFC2119] .) 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 [XPATH].

- 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 <u>2.3</u> 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 [XPATH].

2.1.1 [XPATH] Section 5, Data Model

V0001:

The specification states:

The namespace URI specified in the XML document can be a URI reference as defined in [RFC2396]; this means it can have a fragment identifier and can be relative. A relative URI should be resolved into an absolute URI during namespace processing: the namespace URIs of expanded-names of nodes in the data model should be absolute. Two expanded-names are equal if they have the same local part, and either both have a null namespace URI or both have non-null namespace URIs that are equal.

MSXML3 and MSXML6

A relative namespace URI is not resolved into an absolute URI during namespace processing.

2.2 Clarifications

There are no additional clarifications to [XPATH].

2.3 Error Handling

There are no additional considerations for error handling.

2.4 Security

There are no additional security considerations.

3 Change Tracking

This section identifies changes that were made to the [MS-XPATH] protocol document between the February 2012 and July 2012 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.
- An extensive rewrite, addition, or deletion of major portions of content.
- The removal of a document from the documentation set.
- Changes made for template compliance.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **Editorial** means that the language and formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

Major and minor changes can be described further using the following change types:

- New content added.
- Content updated.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- New content added for template compliance.
- Content updated for template compliance.
- Content removed for template compliance.
- Obsolete document removed.

Editorial changes are always classified with the change type Editorially updated.

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.
- Protocol revision refers to changes made to a protocol that affect the bits that are sent over the wire.

The changes made to this document are listed in the following table. For more information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
1 Introduction	Updated document to remove beta tagging.	N	Content updated.

4 Index

C

Change tracking 7

D

Data Model 6

G

Glossary 4

Ι

<u>Informative references</u> 4 <u>Introduction</u> 4

Ν

Normative references 4

R

References <u>informative</u> 4 <u>normative</u> 4

т

Tracking changes 7