[MS-PUBCSOM]:
Publishing Client-Side Object Model Protocol Specification

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1 Introduction

The Publishing Client-Side Object Model Protocol defines types, methods, and properties that a protocol client uses to manage publishing web sites on a protocol server, for example operations involving the navigation hierarchy or URLs.

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in RFC 2119. Sections 1.5 and 1.9 are also normative but cannot contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

The following terms are defined in [MS-GLOS]:

language code identifier (LCID)

The following terms are defined in [MS-OFCGLOS]:

content database
CSOM Boolean
CSOM GUID
CSOM Int32
CSOM Int64
CSOM String
deprecated term
empty GUID
empty string
item
list item
locale
navigation node
parent site
server-relative URL
site
site collection
site subscription
term
term set
term store
Uniform Resource Locator (URL)
URI query
variation label
variations
web control
website

The following terms are specific to this document:

catalog friendly URL: A web address that is designed to be easily readable by both people and search engine web crawler programs. This type of URL has additional segments appended to control the webpage content.

catalog friendly URL suffix: The additional segment that is appended to a friendly Uniform Resource Locator (URL) in order to construct a catalog friendly URL.

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current navigation menu: The navigation menu that appears vertically on the left side of the default master page and shows the set of current navigation nodes.

global navigation menu: The navigation menu that appears horizontally at the top of the default master page and shows the set of navigation nodes from the site map provider's root node.

pinned term: A term in a term set that cannot be directly moved or deleted.

portal site map provider: A site map provider that uses the location of objects, such as pages, in the file system as its source data for constructing a site map.

publishing page: A document that binds to a page layout to generate an HTML page for display to a reader. Publishing pages have specific fields that contain the content that is displayed in an HTML page.

root node: The highest-ranking or uppermost node in a hierarchy of information.

site map provider: An object that provides a hierarchy of nodes that represent navigation for a site (2).

switchable site map provider: A site map provider that uses other site map providers as its source data when constructing a site map.

taxonomy navigation: A hierarchy of navigation menus that represents the navigation menus in terms and term sets and are independent of where their underlying objects, such as pages, are located.

taxonomy site map provider: A site map provider that uses taxonomy navigation as its source data for constructing a site map.

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.

[ISO-3166] International Organization for Standardization, "Codes for the Representation of Names of Countries and Their Subdivisions", ISO 3166, http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=24591

Note There is a charge to download the specification.

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[ISO-639-1] International Organization for Standardization, "Codes for the representation of names of languages -- Part 1: Alpha-2 code", 2002, http://www.iso.org/iso/catalogue_detail?csnumber=22109

[MS-CSOM] Microsoft Corporation, "SharePoint Client Query Protocol Specification".

[MS-EMMCSOM] Microsoft Corporation, "Enterprise Managed Metadata Client-Side Object Model Protocol Specification".

[MS-WSSTS] Microsoft Corporation, "Windows SharePoint Services Technical Specification".

[RFC1766] Alvestrand, H., "Tags for the Identification of Languages", RFC 1766, March 1995, http://www.ietf.org/rfc/rfc1766.txt

[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

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, http://www.ietf.org/rfc/rfc2616.txt

[RFC2818] Rescorla, E., "HTTP Over TLS", RFC 2818, May 2000, http://www.ietf.org/rfc/rfc2818.txt

[RFC3986] Berners-Lee, T., Fielding, R., and Masinter, L., "Uniform Resource Identifier (URI): Generic Syntax", STD 66, RFC 3986, January 2005, http://www.ietf.org/rfc/rfc3986.txt

[RFC4627] Crockford, D., "The application/json Media Type for Javascript Object Notation (JSON)", RFC 4627, July 2006, http://www.ietf.org/rfc/rfc4627.txt

1.2.2 Informative References

[MS-GLOS] Microsoft Corporation, "Windows Protocols Master Glossary".

[MS-OFCGLOS] Microsoft Corporation, "Microsoft Office Master Glossary".

1.3 Overview

This protocol defines types, methods, and properties that a protocol client uses to manage publishing web sites on a protocol server. For example, a protocol client can retrieve a tree of menu entries from the protocol server. The menu data could be used to provide custom rendering for various scenarios, such as custom menus for a mobile device. Also, a protocol client can update the managed navigation data on the protocol server. This enables a protocol client to modify URLs, the hierarchy, and other aspects of menu navigation.

1.4 Relationship to Other Protocols

The Publishing Client-Side Object Model Protocol is a set of types, properties, and methods that can be accessed by using the SharePoint Client Query Protocol as described in [MS-CSOM]. This protocol uses JSON as described in [RFC4627] to format data returned to a protocol client. This protocol also uses HTTP, as described in [RFC2616], and HTTPS, as described in [RFC2818]. The dependencies for this protocol are shown in the following layering diagram.

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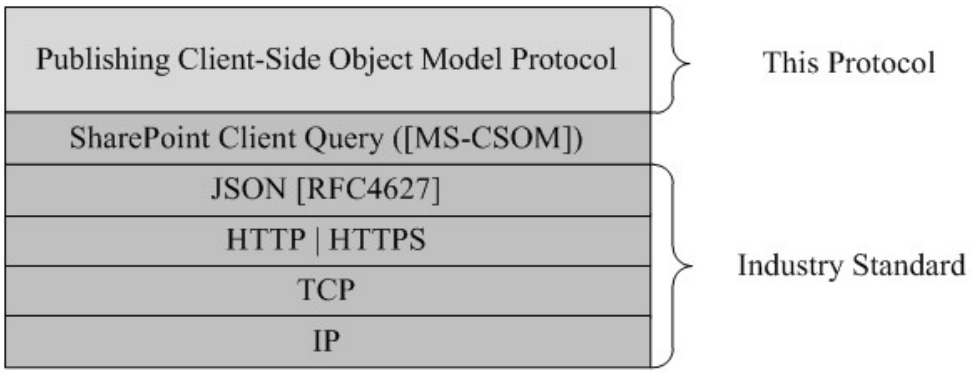

Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a **site (2)** that is identified by a **Uniform Resource Locator (URL)** that is known by protocol clients. This protocol assumes that authentication has been performed by underlying protocols.

1.6 Applicability Statement

This protocol can be used by a protocol client to manage publishing web sites on a protocol server, for example operations involving the navigation hierarchy or URLs. This protocol is optimized to enable a protocol client to specify the exact set of data and operations to perform in a single batch, making it suitable for situations where the connection speed between the protocol client and the protocol server can be slow. This protocol is not suitable and is inefficient if both the protocol client and protocol server are on the same computer. In this case, the client should use an API that does not require communication over a network.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

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2 Messages

2.1 Transport

Messages are transported by using the SharePoint Client Query Protocol Specification, as specified in [MS-CSOM].

2.2 Message Syntax

None.

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3 Protocol Details

3.1 Server Details

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

This protocol deals with various structures associated with sites (2), **items**, navigation, and other structures as specified in [MS-WSSTS].

This protocol also deals with **terms**, **term sets**, and other Enterprise managed metadata as specified in [MS-EMMCSOM]. Changes by types in this protocol that affect underlying terms do not apply until the protocol client calls the **TermStore.CommitAll** ([MS-EMMCSOM] section 3.1.5.23.2.1.1) method.

3.1.1.1 Parent Type

This protocol deals with various types that are logically derived from a parent type. The following table lists the relationship between such types.

Parent type	Derived type(s)
Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem (section 3.1.5.9)	**Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm** (section 3.1.5.6) **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet** (section 3.1.5.8)
Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase (section 3.1.5.11)	**Microsoft.SharePoint.Client.Publishing.Navigation.SwitchableSiteMapProviderSettings** (section 3.1.5.16) **Microsoft.SharePoint.Client.Publishing.Navigation.TaxonomySiteMapProviderSettings** (section 3.1.5.18)

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Higher-Layer Triggered Events

None.

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3.1.5 Message Processing Events and Sequencing Rules

3.1.5.1 Microsoft.SharePoint.Client.Publishing.VariationLabel

TypeId: {FD2E4D24-40A9-4E14-9233-05AFE7BCA149}

ShortName: SP.Publishing.VariationLabel

Represents a **variation label**.

3.1.5.1.1 Properties

3.1.5.1.1.1 Scalar Properties

3.1.5.1.1.1.1 DisplayName

Type: **CSOM String**

Accessibility: Read Only

Gets the UI display name of the label.

Remarks:

The default value for this property is the value of the **Title** (section 3.1.5.1.1.5) property.

3.1.5.1.1.1.2 IsSource

Type: **CSOM Boolean**

Accessibility: Read Only

Gets whether the **VariationLabel** (section 3.1.5.1) is set as the source label.

Remarks:

Returns true if the **VariationLabel** is a source label; otherwise, false. A source label represents the site (2) or pages that are the source of authoring and publishing and are used to copy changes to target variation sites (2).

3.1.5.1.1.1.3 Language

Type: CSOM String

Accessibility: Read Only

Gets the language of the **VariationLabel** (section 3.1.5.1).

Remarks:

This property specifies the language value in the format "languagecode2-country/regioncode2" as specified in [RFC1766], where "languagecode2" is a lowercase two-letter code derived as specified in [ISO-639-1] and "country/regioncode2" is an uppercase two-letter code derived as specified in [ISO-3166].

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3.1.5.1.1.1.4 Locale

Type: CSOM String

Accessibility: Read Only

Gets the **locale** of the **VariationLabel** (section 3.1.5.1).

Remarks:

The locale is specified in the format of the **language code identifier (LCID)**.

3.1.5.1.1.1.5 Title

Type: CSOM String

Accessibility: Read Only

Gets the title of the **VariationLabel** (section 3.1.5.1), that is the unique string identifier of the label.

3.1.5.1.1.1.6 TopWebUrl

Type: CSOM String

Accessibility: Read Only

Gets the URL of the top site (2) that is used to publish the hierarchy of sites and pages associated with this **VariationLabel** (section 3.1.5.1).

3.1.5.1.1.2 ObjectPath Properties

None.

3.1.5.1.2 Methods

3.1.5.1.2.1 Scalar Methods

None.

3.1.5.1.2.2 ObjectPath Methods

None.

3.1.5.2 Microsoft.SharePoint.Client.Publishing.Variations

TypeId: {1339CD8A-5DC8-4932-9BB3-32A5BC2C0D48}

ShortName: SP.Publishing.Variations

The **Variations** class exposes essential information for managing **variations**.

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3.1.5.2.1 Properties

3.1.5.2.1.1 Scalar Properties

None.

3.1.5.2.1.2 ObjectPath Properties

None.

3.1.5.2.2 Methods

3.1.5.2.2.1 Scalar Methods

3.1.5.2.2.1.1 GetPeerUrl

This method is a static CSOM method.

Return Type: CSOM String

Retrieves the URL of the object that corresponds to the requested page in the specified label.

Parameters:

currentUrl: The **server-relative URL** of the page whose corresponding object in the specified label is requested.

Type: CSOM String

labelTitle: The *Title* of the target label that the page is requested in.

Type: CSOM String

Remarks:

This method returns the server-relative URL of the corresponding page in the indicated label if there is one. If that URL is not found, then it returns the corresponding **Web site (2)** URL in that label. Finally if that URL is not found, then it returns the corresponding URL of the label.

3.1.5.2.2.1.2 UpdateListItems

This method is a static CSOM method.

Return Type: None

Copies the content of the selected items into all variation labels that the list is nominated to.

Parameters:

listId: Identifies the list that contains the items referenced in the *itemIds* parameter.

Type: **CSOM GUID**

itemIds: An array of list item identifiers to update in the target labels that this list is nominated to.

Type: System.Int32[]

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Remarks:

When a variation is created, the entire hierarchy of Web sites(2) is copied to the new variation for translation. Lists are excluded unless a user nominates them to the new variation. Items in lists that are nominated are updated by this method.

3.1.5.2.2.2 ObjectPath Methods

3.1.5.2.2.2.1 GetLabels

This method is a static CSOM method.

Return Type:
System.Collections.Generic.IEnumerable<Microsoft.SharePoint.Client.Publishing.VariationLabel>

Fetches the list of VariationLabels that are available for the site collection in the context.

Parameters: None

3.1.5.3 Microsoft.SharePoint.Client.Publishing.Navigation.NavigationLinkType

ShortName: SP.Publishing.Navigation.NavigationLinkType

Flag: false

NavigationLinkType is an enumeration that describes the type of **navigation node** for the **NavigationTerm** (section 3.1.5.6) class.

3.1.5.3.1 Field Values

3.1.5.3.1.1 Root

Value: 0

The navigation node is a **root node** in the navigation tree that corresponds to the **NavigationTermSet** (section 3.1.5.8) class.

3.1.5.3.1.2 FriendlyUrl

Value: 1

The navigation node defines a friendly URL that maps to an existing SharePoint page.

3.1.5.3.1.3 SimpleLink

Value: 2

The navigation node has a URL that is not restricted in any way and is not required to map to a SharePoint page. This value is also used to define a navigation node with no associated URL.

3.1.5.4 Microsoft.SharePoint.Client.Publishing.Navigation.TaxonomyNavigation

TypeId: {F3724139-55ED-4C05-8576-2C3830831C10}

ShortName: SP.Publishing.Navigation.TaxonomyNavigation

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Provides common operations related to the **NavigationTermSet** (section 3.1.5.8), **NavigationTerm** (section 3.1.5.6), and **WebNavigationSettings** (section 3.1.5.19) classes, as well as basic management and querying of the taxonomy navigation cache.

3.1.5.4.1 Properties

3.1.5.4.1.1 Scalar Properties

None.

3.1.5.4.1.2 ObjectPath Properties

3.1.5.4.1.2.1 CacheConfig

Type: Microsoft.SharePoint.Client.Publishing.Navigation.TaxonomyNavigationCacheConfig

Accessibility: Read Only

Gets the **TaxonomyNavigationCacheConfig** (section 3.1.5.17) object that can be used to configure taxonomy navigation cache settings.

3.1.5.4.2 Methods

3.1.5.4.2.1 Scalar Methods

3.1.5.4.2.1.1 FlushAllCacheContents

This method is a static CSOM method.

Return Type: None

Removes all terms, sites (2), Web sites (2), and term sets from the taxonomy navigation cache for a specified **site subscription**.

Parameters:

site: A site (2) associated with the taxonomy navigation cache.

Type: Microsoft.SharePoint.Client.Site

The *site* parameter is used to identify the site subscription whose cache will be flushed.

3.1.5.4.2.1.2 FlushSiteFromCache

This method is a static CSOM method.

Return Type: None

Removes the indicated site (2) and all of its associated Web sites (2) from the taxonomy navigation cache.

Parameters:

site: The site (2) to remove from the taxonomy navigation cache.

Type: Microsoft.SharePoint.Client.Site

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The *site* parameter is used to locate the taxonomy navigation cache to flush.

3.1.5.4.2.1.3 FlushTermSetFromCache

This method is a static CSOM method.

Return Type: None

Removes the indicated term set from the taxonomy navigation cache, for a specific site subscription.

Parameters:

site: A site (2) associated with the taxonomy navigation cache.

Type: Microsoft.SharePoint.Client.Site

The *site* parameter is used to identify the site subscription whose cache will be flushed.

termStoreId: The identifier of the **term store** that contains the term set.

Type: CSOM GUID

termSetId: The identifier of the term set to flush from the taxonomy navigation cache.

Type: CSOM GUID

3.1.5.4.2.1.4 FlushWebFromCache

This method is a static CSOM method.

Return Type: None

Removes the indicated Web site (2) from the taxonomy navigation cache.

Parameters:

site: A site (2) associated with the taxonomy navigation cache.

Type: Microsoft.SharePoint.Client.Site

The *site* parameter is used to locate the taxonomy navigation cache to flush.

webId: The identifier of the Web site (2) to flush from the taxonomy navigation cache.

Type: CSOM GUID

3.1.5.4.2.1.5 GetNavigationLcidForWeb

This method is a static CSOM method.

Return Type: **CSOM Int32**

Returns the language code identifier (LCID) that is in use for **taxonomy navigation** when retrieving a **Term** ([MS-EMMCSOM] section 3.1.5.16) object for the specified Web site (2). The LCID SHOULD be assigned as the **TermStore.WorkingLanguage** ([MS-EMMCSOM] section 3.1.5.23.1.1.6) when making changes to taxonomy navigation.

Parameters:

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web: The Web site (2) from which to retrieve the LCID.

Type: Microsoft.SharePoint.Client.Web

3.1.5.4.2.2 ObjectPath Methods

3.1.5.4.2.2.1 GetTermSetForWeb

This method is a static CSOM method.

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet

Returns a cached **NavigationTermSet** (section 3.1.5.8) object for the specified Web site (2). If the object is not already in the taxonomy navigation cache, it will be added.

Parameters:

web: The Web site (2) from which to retrieve the **NavigationTermSet** object.

Type: Microsoft.SharePoint.Client.Web

siteMapProviderName: The name of the **site map provider** associated with the **NavigationTermSet**.

Type: CSOM String

3.1.5.4.2.2.2 GetWebNavigationSettings

This method is a static CSOM method.

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.WebNavigationSettings

Returns a cached **WebNavigationSettings** (section 3.1.5.19) object. If the object is not already in the taxonomy navigation cache, it will be added. This method returns null if there are no navigation settings defined for the Web site (2), or if the settings data is not valid (such as a user entering a wrong value for a setting.)

Parameters:

web: The Web site (2) from which to retrieve the navigation settings.

Type: Microsoft.SharePoint.Client.Web

Remarks:

Because the object is fetched from the cache, this method is more efficient than explicitly constructing an instance of **WebNavigationSettings**.

3.1.5.5 Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

TypeId: {13EBB0D0-559A-4248-BA69-C57D5FABF4C4}

ShortName: SP.Publishing.Navigation.CustomizableString

A helper class used by the **NavigationTerm** (section 3.1.5.6) class to represent properties that are string types, and that have a default value that can be optionally overridden by a custom value.

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3.1.5.5.1 Properties

3.1.5.5.1.1 Scalar Properties

3.1.5.5.1.1.1 DefaultValue

Type: CSOM String

Accessibility: Read Only

Gets the default value for the property.

Remarks:

The protocol server MUST NOT return null for this property. The protocol server can return an **empty string (1)** as a valid value.

3.1.5.5.1.1.2 UsesDefaultValue

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets whether the **CustomizableString** object (section 3.1.5.5) uses the default value.

Remarks:

If true then the **Value** (section 3.1.5.5.1.1.3) property MUST return the default value as specified by the **DefaultValue** (section 3.1.5.5.1.1.1) property. If false, then the **Value** property returns the custom value. If the **UsesDefaultValue** property is false and the protocol client assigns it to be true, then the custom value is set to a copy of the current default value; in this state, if something caused the **DefaultValue** to change, the **Value** property MUST retain the custom value.

3.1.5.5.1.1.3 Value

Type: CSOM String

Accessibility: Read/Write

Gets or sets the current value of the property.

Remarks:

If the **UsesDefaultValue** (section 3.1.5.5.1.1.2) property is true, then the **Value** property MUST return the default value, as specified by the **DefaultValue** (section 3.1.5.5.1.1.1) property. If the **UsesDefaultValue** property is false, then the **Value** property returns the custom value.

The **Value** property MUST NOT return null. If the protocol client makes an assignment to the **Value** property (even if the new value is the same as the current value), then the **UsesDefaultValue** property MUST be set to false.

3.1.5.5.1.2 ObjectPath Properties

None.

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3.1.5.5.2 Methods

3.1.5.5.2.1 Scalar Methods

None.

3.1.5.5.2.2 ObjectPath Methods

None.

3.1.5.6 Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

TypeId: {74B7367A-E303-43E8-891E-DAC764C96E53}

ShortName: SP.Publishing.Navigation.NavigationTerm

Specifies navigation behavior and properties for a term that is used for taxonomy navigation. The **NavigationTerm** class is based on the **Term** class ([MS-EMMCSOM] section 3.1.5.16).

Remarks:

The properties of the **NavigationTerm** class MAY be stored in **TermSet.CustomProperties** ([MS-EMMCSOM] section 3.1.5.20.1.1.3). However this protocol intends that the properties be accessed through the **NavigationTerm** class for clarity and efficiency.

Each **NavigationTerm** object belongs to a **NavigationTermSet** object (section 3.1.5.8).

The **NavigationTerm** object has two modes: an "editable" mode that is required in order to make updates to the object, and a "read-only" mode that, when used, improves performance by retrieving the object from the taxonomy navigation cache. The read-only mode is indicated by the **NavigationTermSetItem.IsReadOnly** property (section 3.1.5.9.1.1.4).

If the **NavigationTerm** is read-only and the protocol client attempts to assign any property or call any method that would change the object state, then the protocol server MUST return an **InvalidOperationException** error.

3.1.5.6.1 Properties

3.1.5.6.1.1 Scalar Properties

3.1.5.6.1.1.1 AssociatedFolderUrl

Type: CSOM String

Accessibility: Read/Write

Gets or sets a URL value that is used to associate certain page URLs with this object, associating it with a particular location in the site map provider hierarchy.

Remarks:

This property is used to help calculate the current node for a site map provider. The current node indicates a page's location in the navigation hierarchy, for example as displayed by a breadcrumb control "Investor Relations > News > Press Releases". Typically the current node is determined by searching the navigation hierarchy to find a node whose link matches the URL of the page being viewed, for example "/Pages/PressReleases/January2010.aspx". If a current node cannot be found

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(for example, the January2010.aspx page is not linked by any navigation node), then the breadcrumb would be empty. This problem could be solved by assigning the containing folder "/Pages/PressReleases" to the **AssociatedFolderUrl** property of the "Press Releases" term; the breadcrumb will now show "Investor Relations > News > Press Releases" for any page in that folder (unless the page is explicitly linked by a navigation node).

3.1.5.6.1.1.2 ExcludeFromCurrentNavigation

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets whether this navigation term (and its child terms) will be hidden from the **current navigation menu**. The current navigation menu (also called the "left nav") is the contextual navigation pane typically on the left side of the page.

3.1.5.6.1.1.3 ExcludeFromGlobalNavigation

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether this navigation term (and its child terms) will be hidden from the **global navigation menu**. Global navigation (also called "top nav") is the unchanging menu bar along the top of the page.

3.1.5.6.1.1.4 HoverText

Type: CSOM String

Accessibility: Read/Write

Gets or sets an informational description that is typically displayed by menu and bread crumb controls when the cursor hovers over the navigation link.

3.1.5.6.1.1.5 Id

Type: CSOM GUID

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.ID**, specified in section 3.1.5.9.1.1.1.

3.1.5.6.1.1.6 IsDeprecated

Type: CSOM Boolean

Accessibility: Read Only

Gets a value that indicates whether the underlying term is a **deprecated term**.

Remarks:

This property returns the underlying **Term.IsDeprecated** ([MS-EMMCSOM] section 3.1.5.16.1.1.6) property. It is true if the term is deprecated; otherwise, false.

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3.1.5.6.1.1.7 LinkType

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationLinkType

Accessibility: Read/Write

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.LinkType**, specified in section 3.1.5.9.1.1.2.

3.1.5.6.1.1.8 SimpleLinkUrl

Type: CSOM String

Accessibility: Read/Write

Gets or sets a URL that this **NavigationTerm** (section 3.1.5.6) object links to.

Remarks:

This property is only used when **LinkType** (section 3.1.5.6.1.1.7) is set to **NavigationLinkType.SimpleLink** (section 3.1.5.3.1.3). If the protocol client attempts to assign the property for a different link type, then the protocol server MAY return an **InvalidOperationException** error.

3.1.5.6.1.1.9 TaxonomyName

Type: CSOM String

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.TaxonomyName**, specified in section 3.1.5.9.1.1.3.

3.1.5.6.1.1.10 TopicDescription

Type: CSOM String

Accessibility: Read/Write

Gets or sets user-defined text content that can optionally be displayed by the **TargetUrl** (section 3.1.5.6.1.2.5) template.

Remarks:

Suppose that several different **NavigationTerm** objects have **TargetUrl**'s pointing to the same page URL, but showing different page content for each term, for example "Camping Gear," "Fishing," and "Tents." The **TopicDescription** property could store different introductory text for each product category.

This property is only used when the **LinkType** (section 3.1.5.6.1.1.7) is **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2). If the protocol client attempts to assign the property for a different link type, then the protocol server MAY return an **InvalidOperationException** error.

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3.1.5.6.1.1.11 TopicImageUrl

Type: CSOM String

Accessibility: Read/Write

Gets or sets the URL of an image that can optionally be displayed by the **TargetUrl** (section 3.1.5.6.1.2.5) template.

Remarks:

Suppose that several different **NavigationTerm** objects have **TargetUrl**'s pointing to the same page URL, but showing different page content for each term, for example "Camping Gear," "Fishing," and "Tents." The **TopicImageUrl** property could store the URL for an image of camping equipment, a person fishing, or a tent.

This property is only used when the **LinkType** (section 3.1.5.6.1.1.7) is **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2). If the protocol client attempts to assign the property for a different link type, then the protocol server MAY return an **InvalidOperationException** error.

3.1.5.6.1.1.12 IsPinned

Type: CSOM Boolean

Accessibility: Read Only

Gets a value that indicates whether the term is pinned.

Remarks:

Returns true if the term is a **pinned term**; otherwise false. This property returns the **Term.IsPinned** property ([MS-EMMCSOM] section 3.1.5.16.1.1.15) for the underlying term.

3.1.5.6.1.1.13 IsPinnedRoot

Type: CSOM Boolean

Accessibility: Read Only

Gets a value that indicates whether the term is the root of a subtree of pinned terms.

Remarks:

Returns true if the term is the root of a hierarchy of pinned terms; otherwise, false. This property returns the **Term.IsPinnedRoot** property for the underlying term.

3.1.5.6.1.1.14 IsReadOnly

Type: CSOM Boolean

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.IsReadOnly**, specified in section 3.1.5.9.1.1.4.

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3.1.5.6.1.2 ObjectPath Properties

3.1.5.6.1.2.1 CatalogTargetUrl

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

Gets or sets the target URL used when performing URL rewriting for **catalog friendly URLs** based on this term.

Remarks:

Normally the protocol server performs URL rewriting to render the friendly URL for this a navigation term using the page specified by the **TargetUrl** property (section 3.1.5.6.1.2.5). For example, for the term "Cameras" the URLs might look like this:

friendly URL:http://example.com/products/cameras

target URL:/store/Pages/TopicTemplate.aspx

However, if a **catalog friendly URL suffix** is appended, then the **CatalogTargetUrl** property will be used instead. Continuing the example term "Cameras":

catalog friendly URL:http://example.com/products/cameras/nice-pix-35mm/sku12345

URL suffix:nice-pix-35mm/sku12345

catalog target URL:/store/Pages/CatalogItemTemplate.aspx

Typically catalog friendly URLs are used for products such as the hypothetical "Nice Pix 35mm camera" in the preceding example, which do not have a corresponding navigation term, but belong to the category represented by that term. However, the interpretation of the catalog friendly URL suffix is left to the target URL and other usage scenarios are possible.

If the **CatalogTargetUrl** value is an empty string (1), then URL rewriting will not be performed for the term and the catalog friendly URL MAY result in an HTTP 404 error.

The **CatalogTargetUrl** property is a **CustomizableString** (section 3.1.5.5) object. The default value is inherited from the **CatalogTargetUrlForChildTerms.Value** (section 3.1.5.5.1.1.3) property of the immediate parent node.

This property is only used when the **LinkType** (section 3.1.5.6.1.1.7) is **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2). If the protocol client attempts to assign the property for a different link type, then the protocol server MAY return an **InvalidOperationException** error.

3.1.5.6.1.2.2 CatalogTargetUrlForChildTerms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

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See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.CatalogTargetUrlForChildTerms**, specified in section 3.1.5.9.1.2.1.

3.1.5.6.1.2.3 FriendlyUrlSegment

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

Gets a friendly URL segment for the node represented by the **NavigationTerm** (section 3.1.5.6) object.

Remarks:

This property is a **CustomizableString** (section 3.1.5.5) object. The default value can be based on the **Term.Name** ([MS-EMMCSOM] section 3.1.5.16.1.1.12) property. The value MUST exclude reserved characters as specified in [RFC3986], and the value MUST not be percent-encoded as specified in [RFC3986].

This property is only used when the **LinkType** (section 3.1.5.6.1.1.7) is **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2). If the protocol client attempts to assign the property for a different link type, then the protocol server MAY return an **InvalidOperationException** error.

3.1.5.6.1.2.4 Parent

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

Accessibility: Read Only

Gets the parent **NavigationTerm** (section 3.1.5.6) object.

Remarks:

If this **NavigationTerm** object is a top-level term in the **NavigationTermSet** (section 3.1.5.8), then null is returned.

3.1.5.6.1.2.5 TargetUrl

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

Gets the URL that targets a page that will be used to render the friendly URL.

Remarks:

The protocol server performs URL rewriting to render the friendly URL for this a navigation term using the page specified by the **TargetUrl** property (section 3.1.5.6.1.2.5). For example, for the term "Cameras" the URLs might look like this:

friendly URL:http://example.com/products/cameras

target URL:/store/Pages/TopicTemplate.aspx

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The protocol server MAY support implementation-specific relative URL syntaxes such as "~site/Pages/TopicTemplate.aspx" or "~sitecollection/Pages/TopicTempalte.aspx".

The **TargetUrl** property is a **CustomizableString** (section 3.1.5.5) object. The default value is inherited from the **TargetUrlForChildTerms.Value** (section 3.1.5.5.1.1.3) property of the immediate parent node.

This property is only used when the **LinkType** (section 3.1.5.6.1.1.7) is **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2). If the protocol client attempts to assign the property for a different link type, then the protocol server MAY return an **InvalidOperationException** error.

3.1.5.6.1.2.6 TargetUrlForChildTerms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.TargetUrlForChildTerms**, specified in section 3.1.5.9.1.2.2.

3.1.5.6.1.2.7 Terms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermCollection

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.Terms**, specified in section 3.1.5.9.1.2.3.

3.1.5.6.1.2.8 TermSet

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet

Accessibility: Read Only

Gets the associated **NavigationTermSet** (section 3.1.5.8) object that this **NavigationTerm** (section 3.1.5.6) object belongs to.

3.1.5.6.1.2.9 Title

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.Title**, specified in section 3.1.5.9.1.2.4.

3.1.5.6.1.2.10 View

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.View**, specified in section 3.1.5.9.1.2.5.

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3.1.5.6.2 Methods

3.1.5.6.2.1 Scalar Methods

3.1.5.6.2.1.1 DeleteObject

Return Type: None

Deletes this **NavigationTerm** (section 3.1.5.6) object and its child objects from the **TermStore** ([MS-EMMCSOM] section 3.1.5.23) object.

Remarks:

This operation is equivalent to calling the **Term.DeleteObject** method ([MS-EMMCSOM] section 3.1.5.16.2.1.2) for the underlying term.

Parameters: None

3.1.5.6.2.1.2 GetResolvedAssociatedFolderUrl

Return Type: CSOM String

Gets the resolved URL for the **AssociatedFolderUrl** (section 3.1.5.6.1.1.1) property.

Remarks:

This property returns null if no associated folder URL is specified.

Parameters: None

3.1.5.6.2.1.3 GetResolvedDisplayUrl

Return Type: CSOM String

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.GetResolvedDisplayUrl**, specified in section 3.1.5.9.2.1.1.

Parameters:

browserQueryString:

Type: CSOM String

3.1.5.6.2.1.4 GetResolvedTargetUrl

Return Type: CSOM String

Uses the **NavigationTerm.View** (section 3.1.5.6.1.2.10) property to calculate and return a resolved server-relative URL from the **NavigationTerm.TargetUrl** (section 3.1.5.6.1.2.5) property.

Remarks:

This property is only used when the **LinkType** (section 3.1.5.6.1.1.7) is **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2)

Parameters:

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browserQueryString: A query string that, if specified, is merged into the resulting URL.

Type: CSOM String

remainingUrlSegments: Specifies a catalog friendly URL suffix, as an array of URL segments. The segments will be assigned as the value of the "UrlSuffix=" **URI query** parameter.

Type: CSOM Array

If *remainingUrlSegments* is specified, then the **NavigationTerm.CatalogTargetUrl** (section 3.1.5.6.1.2.1) property is used as the basis for the returned URL instead of the **NavigationTerm.TargetUrl** property.

3.1.5.6.2.1.5 GetResolvedTargetUrlQueryString

Return Type: CSOM String

Returns the URI query string that can be combined with the **TargetUrl** (section 3.1.5.6.1.2.5) property to specify the **TermStore.Id** ([MS-EMMCSOM] section 3.1.5.23.1.1.2), **TermSet.Id** ([MS-EMMCSOM] section 3.1.5.20.1.1.6), and **Term.Id** ([MS-EMMCSOM] section 3.1.5.16.1.1.4) for a friendly URL.

Parameters:

catalogUrlSegments: Specifies additional URL segments to append to the end of the URL. The segments will appear after the parameter "UrlSuffix=".

Type: CSOM Array

Remarks:

The query string is formatted as "TermStoreId=*aaaa*&TermSetId=*bbbb*&TermId=*cccc*", where *aaaa*, *bbbb*, and *cccc* are the **TermStore.Id**, **TermSet.Id**, and **Term.Id** respectively.

3.1.5.6.2.1.6 GetWebRelativeFriendlyUrl

Return Type: CSOM String

Returns a friendly URL relative to the Web site (2) in use.

Remarks:

This method is intended for advanced operations that need to consider the underlying technical details for how a URL is calculated. A protocol client can also call **GetResolvedDisplayUrl** (section 3.1.5.6.2.1.3) to obtain a friendly URL. **GetWebRelativeFriendlyUrl** returns the portion of the friendly URL that should be appended to the **Web.Url** (). It does not include any query parameters.

Parameters: None

3.1.5.6.2.1.7 Move

Return Type: None

Moves this **NavigationTerm** (section 3.1.5.6) object to be a child of a the specified **NavigationTerm** or **NavigationTermSet** (section 3.1.5.8).

Parameters:

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newParent: The **NavigationTerm** or **NavigationTermSet** that becomes the new parent of this **NavigationTerm** object.

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem

Remarks:

If this **NavigationTerm** object is editable, then this method performs an operation analogous to **Term.Move** ([MS-EMMCSOM] section 3.1.5.16.2.1.7).

3.1.5.6.2.2 ObjectPath Methods

3.1.5.6.2.2.1 CreateTerm

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.CreateTerm**, specified in section 3.1.5.9.2.2.1.

Parameters:

termName:

Type: CSOM String

linkType:

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationLinkType

termId:

Type: CSOM GUID

3.1.5.6.2.2.2 GetAsEditable

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

Returns an editable copy of this **NavigationTerm** (section 3.1.5.6) object.

Remarks:

After calling this method, the protocol client can update properties on the returned **NavigationTerm** object. Save the changes by calling the **TermStore.CommitAll** ([MS-EMMCSOM] section 3.1.5.23.2.1.1) method.

Parameters:

taxonomySession:

Type: Microsoft.SharePoint.Client.Taxonomy.TaxonomySession

3.1.5.6.2.2.3 GetTaxonomyTerm

Return Type: Microsoft.SharePoint.Client.Taxonomy.Term

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If this **NavigationTerm** (section 3.1.5.6) object is in the "editable" mode, then this method returns the underlying **Term** ([MS-EMMCSOM] section 3.1.5.16) object.

If the protocol client calls this method when the **NavigationTerm** object is read-only, then the protocol server MUST return an **InvalidOperationException** error.

Parameters: None

3.1.5.6.2.2.4 GetWithNewView

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

This method returns a **NavigationTerm** (section 3.1.5.6) object that refers to the same underlying term, but replacing its view with the **NavigationTermSetView** (section 3.1.5.10) object specified by *newView*. For example, in order to enable security trimming while traversing the navigation hierarchy, a *newView* could be provided with **NavigationTermSetView.ExcludeTermsByPermissions** (section 3.1.5.10.1.1.2) changed to true.

Parameters:

newView: The **NavigationTermSetView** object to apply to the **NavigationTerm** (section 3.1.5.6) object.

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

3.1.5.6.2.2.5 GetAsResolvedByView

This method is a static CSOM method.

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

This method returns a **NavigationTerm** (section 3.1.5.6) object that is editable and bound to the specified *term* object, using the specified *view*.

Parameters:

term: The **Term** ([MS-EMMCSOM] section 3.1.5.16) object that the new **NavigationTerm** object will be bound to.

Type: Microsoft.SharePoint.Client.Taxonomy.Term

view: The **NavigationTermSetView** (section 3.1.5.10) used to resolve the properties of the new **NavigationTerm** object

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

Remarks:

This method supports editing of **NavigationTerm** objects that are not yet in use by a Web site (2). If a **NavigationTerm** object is in use, then a simpler approach is to call the **GetAsEditable** (section 3.1.5.6.2.2.2) method to obtain a copy of the **NavigationTerm** object that can be edited.

3.1.5.6.2.2.6 GetAsResolvedByWeb

This method is a static CSOM method.

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Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

This method returns a **NavigationTerm** (section 3.1.5.6) object that is editable and bound to the specified *term* object, using a new **NavigationTermSetView** (section 3.1.5.10) instance that is constructed from the provided *web*.

Parameters:

term: The **Term** ([MS-EMMCSOM] section 3.1.5.16) object that the new **NavigationTerm** object will be bound to.

Type: Microsoft.SharePoint.Client.Taxonomy.Term

web: The Web site (2) that will be used to construct the **NavigationTermSetView** (section 3.1.5.10) object.

Type: Microsoft.SharePoint.Client.Web

siteMapProviderName: The name of the site map provider to be used for the new **NavigationTerm** object.

Type: CSOM String

This method supports editing of **NavigationTerm** objects that are not yet in use by a Web site (2). If a **NavigationTerm** object is in use, then the preferred approach is to call the **GetAsEditable** (section 3.1.5.6.2.2.2) method to obtain a copy of the **NavigationTerm** object that can be edited.

3.1.5.6.2.2.7 GetTaxonomyTermStore

Return Type: Microsoft.SharePoint.Client.Taxonomy.TermStore

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.GetTaxonomyTermStore**, specified in section 3.1.5.9.2.2.2.

Parameters: None

3.1.5.7 Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermCollection

TypeId: {E651F3AF-BF88-44BA-8208-798EBF7D4F1F}

ShortName: SP.Publishing.Navigation.NavigationTermCollection

Represents a collection of **NavigationTerm** (section 3.1.5.6) objects.

3.1.5.7.1 Properties

3.1.5.7.1.1 Scalar Properties

None.

3.1.5.7.1.2 ObjectPath Properties

None.

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3.1.5.7.2 Methods

3.1.5.7.2.1 Scalar Methods

None.

3.1.5.7.2.2 ObjectPath Methods

None.

3.1.5.8 Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet

TypeId: {5ED5AE4C-8E92-4E56-AF6E-D349611614D8}

ShortName: SP.Publishing.Navigation.NavigationTermSet

Specifies navigation behavior and properties for a term set that is used for taxonomy navigation. The **NavigationTermSet** class is based on the **TermSet** class ([MS-EMMCSOM] section 3.1.5.20). **NavigationTermSet** inherits from the **NavigationTermSetItem** class (section 3.1.5.9).

Remarks:

The properties of the **NavigationTermSet** class MAY be stored in **TermSet.CustomProperties** ([MS-EMMCSOM] section 3.1.5.20.1.1.3). However, this protocol intends that the properties be accessed through the **NavigationTermSet** class for clarity and efficiency.

The **NavigationTermSet** object has two modes: an "editable" mode that is required in order to make updates to the object, and a "read-only" mode that, when used, improves performance by retrieving the object from the taxonomy navigation cache. The read-only mode is indicated by the **NavigationTermSetItem.IsReadOnly** property (section 3.1.5.9.1.1.4). Use the **GetAsEditable** (section 3.1.5.8.2.2.4) method to obtain an editable instance.

If the **NavigationTermSet** is read-only and the protocol client attempts to assign any property or call any method that would change the object state, then the protocol server MUST return an **InvalidOperationException** error.

3.1.5.8.1 Properties

3.1.5.8.1.1 Scalar Properties

3.1.5.8.1.1.1 Id

Type: CSOM GUID

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.Id**, specified in section 3.1.5.9.1.1.1.

3.1.5.8.1.1.2 IsNavigationTermSet

Type: CSOM Boolean

Accessibility: Read/Write

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Gets or sets a value that indicates whether the underlying term set is intended to be used for taxonomy navigation.

Remarks:

True if the term set is intended to be used for taxonomy navigation; otherwise, false. This property is used by to affect the appearance of the term set in administrative screens. A value of true does not guarantee that the term set is currently in use by any **taxonomy site map provider**, nor does a value of false guarantee that the term set is not in use.

3.1.5.8.1.1.3 IsSearchTermSet

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether the underlying term set is used for search navigation.

Remarks:

True if the underlying term set is used for search navigation; otherwise, false.

If this property is true, then the underlying **TermSet** ([MS-EMMCSOM] section 3.1.5.20) object MUST NOT define any friendly URLs, and it MAY be used simultaneously by more than one Web site (2).

3.1.5.8.1.1.4 Lcid

Type: CSOM Int32

Accessibility: Read Only

Gets the language code identifier (LCID) that is used when accessing properties on the **NavigationTermSet** (section 3.1.5.8) object that have multiple representations based on language or culture.

3.1.5.8.1.1.5 LinkType

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationLinkType

Accessibility: Read/Write

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.LinkType**, specified in section 3.1.5.9.1.1.2.

3.1.5.8.1.1.6 TaxonomyName

Type: CSOM String

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.TaxonomyName**, specified in section 3.1.5.9.1.1.3.

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3.1.5.8.1.1.7 TermGroupId

Type: CSOM GUID

Accessibility: Read Only

Gets the underlying **TermGroup.Id** ([MS-EMMCSOM] section 3.1.5.18.1.1.3) value.

3.1.5.8.1.1.8 TermStoreId

Type: CSOM GUID

Accessibility: Read Only

Gets the underlying **TermStore.Id** ([MS-EMMCSOM] section 3.1.5.23.1.1.2) value.

3.1.5.8.1.1.9 IsReadOnly

Type: CSOM Boolean

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.IsReadOnly**, specified in section 3.1.5.9.1.1.4.

3.1.5.8.1.2 ObjectPath Properties

3.1.5.8.1.2.1 CatalogTargetUrlForChildTerms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.CatalogTargetUrlForChildTerms**, specified in section 3.1.5.9.1.2.1.

3.1.5.8.1.2.2 TargetUrlForChildTerms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.TargetUrlForChildTerms**, specified in section 3.1.5.9.1.2.2.

3.1.5.8.1.2.3 Terms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermCollection

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.Terms**, specified in section 3.1.5.9.1.2.3.

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3.1.5.8.1.2.4 Title

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.Title**, specified in section 3.1.5.9.1.2.4.

3.1.5.8.1.2.5 View

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.View**, specified in section 3.1.5.9.1.2.5.

3.1.5.8.2 Methods

3.1.5.8.2.1 Scalar Methods

3.1.5.8.2.1.1 GetResolvedDisplayUrl

Return Type: CSOM String

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.GetResolvedDisplayUrl**, specified in section 3.1.5.9.2.1.1.

Parameters:

browserQueryString:

Type: CSOM String

3.1.5.8.2.2 ObjectPath Methods

3.1.5.8.2.2.1 CreateTerm

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.CreateTerm**, specified in section 3.1.5.9.2.2.1.

Parameters:

termName:

Type: CSOM String

linkType:

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationLinkType

termId:

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Type: CSOM GUID

3.1.5.8.2.2.2 FindTermForUrl

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

This method is used for example by breadcrumb controls to determine the location of the current page in the navigation hierarchy. It searches all child **NavigationTerm** objects for a navigation node whose hyperlink URL matches the specified URL. The matching algorithm used by the protocol server is implementation-defined, and MAY ignore certain query parameters or character casing/encoding differences, and MAY normalize relative URL syntaxes (for example "/Pages/Example.aspx" or "~site/Pages/Example.aspx"), but MUST honor the **NavigationTerm.AssociatedFolderUrl** property (section 3.1.5.6.1.1.1). If a match is not found, then null is returned.

Parameters:

url: The URL to search for.

Type: CSOM String

3.1.5.8.2.2.3 GetAllTerms

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermCollection

Returns a collection of the complete tree of child **NavigationTerm** (section 3.1.5.6) objects in the **NavigationTermSet** (section 3.1.5.8).

Parameters: None

3.1.5.8.2.2.4 GetAsEditable

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet

Returns an editable copy of the **NavigationTermSet** (section 3.1.5.8) object.

Parameters:

taxonomySession: A **TaxonomySession** ([MS-EMMCSOM] section 3.1.5.15) object that is used to help construct the editable underlying **Term** object ([MS-EMMCSOM] section 3.1.5.16).

Type: Microsoft.SharePoint.Client.Taxonomy.TaxonomySession

3.1.5.8.2.2.5 GetTaxonomyTermSet

Return Type: Microsoft.SharePoint.Client.Taxonomy.TermSet

Returns the underlying **TermSet** ([MS-EMMCSOM] section 3.1.5.20) object.

Remarks:

If the **NavigationTermSet** (section 3.1.5.8) object is in the "editable" mode, then this method returns the underlying **TermSet** object. If the protocol client calls this method when the **NavigationTerm** object is read-only, then the protocol server MUST return an **InvalidOperationException** error.

Parameters: None

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3.1.5.8.2.2.6 GetWithNewView

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet

Returns a **NavigationTermSet** (section 3.1.5.8) object that will reflect the **NavigationTermSetView** (section 3.1.5.10) object specified by *newView*.

Parameters:

newView: The **NavigationTermSetView** object to apply to the **NavigationTermSet** (section 3.1.5.8) object.

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

3.1.5.8.2.2.7 GetAsResolvedByView

This method is a static CSOM method.

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet

Creates and returns a **NavigationTermSet** (section 3.1.5.8) object that can be edited.

Parameters:

termSet: The **TermSet** ([MS-EMMCSOM] section 3.1.5.20) object that the new **NavigationTermSet** object will be bound to.

Type: Microsoft.SharePoint.Client.Taxonomy.TermSet

view: The **NavigationTermSetView** (section 3.1.5.10) used to resolve the properties of the new **NavigationTermSet** object.

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

Remarks:

This method supports editing of **NavigationTermSet** objects that are not yet in use by a Web site (2). If a **NavigationTermSet** object is in use, then a simpler approach is to call the **GetAsEditable** (section 3.1.5.8.2.2.4) method to obtain a copy of the **NavigationTermSet** object that can be edited.

3.1.5.8.2.2.8 GetAsResolvedByWeb

This method is a static CSOM method.

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSet

Creates and returns a **NavigationTermSet** (section 3.1.5.8) object that can be edited.

Parameters:

termSet: The **TermSet** ([MS-EMMCSOM] section 3.1.5.20) object that the new **NavigationTermSet** object will be bound to.

Type: Microsoft.SharePoint.Client.Taxonomy.TermSet

web: The Web site (2) that is a context for URLs for the new **NavigationTermSet** object.

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Type: Microsoft.SharePoint.Client.Web

siteMapProviderName: The name of the site map provider to be used for the new **NavigationTermSet** object.

Type: CSOM String

Remarks:

This method supports editing of **NavigationTermSet** objects that are not yet in use by a Web site (2). If a **NavigationTermSet** object is in use, then the preferred approach is to call the **GetAsEditable** (section 3.1.5.8.2.2.4) method to obtain a copy of the **NavigationTermSet** object that can be edited.

3.1.5.8.2.2.9 GetTaxonomyTermStore

Return Type: Microsoft.SharePoint.Client.Taxonomy.TermStore

See **Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem.GetTaxonomyTermStore**, specified in section 3.1.5.9.2.2.2.

Parameters: None

3.1.5.9 Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetItem

TypeId: {F99351D7-E3F3-4185-A0CA-D0426FF83FDE}

ShortName: SP.Publishing.Navigation.NavigationTermSetItem

The **NavigationTermSetItem** class is an abstract base class for the **NavigationTermSet** (section 3.1.5.8) and **NavigationTerm** (section 3.1.5.6) classes.

Remarks:

The **NavigationTermSetItem** class is analogous to the **TermSetItem** ([MS-EMMCSOM] section 3.1.5.22) class.

The **NavigationTerm** and **NavigationTermSet** objects have two modes: an "editable" mode that is required in order to make updates to the object, and a "read-only" mode that, when used, improves performance by retrieving the object from the taxonomy navigation cache. The read-only mode is indicated by the **NavigationTermSetItem.IsReadOnly** property (section 3.1.5.9.1.1.4).

If the **NavigationTermSetItem** is read-only and the protocol client attempts to assign any property or call any method that would change the object state, then the protocol server MUST return an **InvalidOperationException** error.

3.1.5.9.1 Properties

3.1.5.9.1.1 Scalar Properties

3.1.5.9.1.1.1 Id

Type: CSOM GUID

Accessibility: Read Only

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Gets the underlying **Term.Id** ([MS-EMMCSOM] section 3.1.5.16.1.1.4) or **TermSet.Id** ([MS-EMMCSOM] section 3.1.5.20.1.1.6) property.

3.1.5.9.1.1.2 LinkType

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationLinkType

Accessibility: Read/Write

Gets or sets a value that indicates what kind of link is used by the navigation node that the taxonomy site map provider creates for a **NavigationTerm**. For a **NavigationTermSet** (section 3.1.5.8) object, the value is always **NavigationLinkType.Root** (section 3.1.5.3.1.1).

Remarks:

The link type is specified by the **NavigationLinkType** (section 3.1.5.3) enumeration. The link type also determines whether the protocol server will use URL rewriting to implement a friendly URL or catalog friendly URL for a **NavigationTerm**.

3.1.5.9.1.1.3 TaxonomyName

Type: CSOM String

Accessibility: Read Only

Gets the underlying **Term.Name** ([MS-EMMCSOM] section 3.1.5.16.1.1.12) or **TermSet.Name** ([MS-EMMCSOM] section 3.1.5.20.1.1.10) property.

3.1.5.9.1.1.4 IsReadOnly

Type: CSOM Boolean

Accessibility: Read Only

This returns true if the object is in "read-only" mode; otherwise it is in "editable" mode. See the **NavigationTermSetItem** documentation (section 3.1.5.9) for a discussion of these two modes.

3.1.5.9.1.2 ObjectPath Properties

3.1.5.9.1.2.1 CatalogTargetUrlForChildTerms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

Gets or sets the default value of the **CatalogTargetUrl** property for child **NavigationTerm** (section 3.1.5.6) objects.

Remarks:

This property does not affect the current node.

This property is a **CustomizableString** (section 3.1.5.5) object. The default value is inherited from the **CatalogTargetUrlForChildTerms.Value** (section 3.1.5.5.1.1.3) property of the immediate parent node. In the case of a **NavigationTermSet** (section 3.1.5.8) object, the default value is an empty string (1).

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3.1.5.9.1.2.2 TargetUrlForChildTerms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

Gets the default value that is to be used for the **TargetUrl** (section 3.1.5.6.1.2.5) property on child **NavigationTerm** (section 3.1.5.6) objects.

Remarks:

This property does not affect the current node.

This property is a **CustomizableString** (section 3.1.5.5) object. The default value is inherited from the **TargetUrlForChildTerms.Value** (section 3.1.5.5.1.1.3) property of the immediate parent node. In the case of a **NavigationTermSet** (section 3.1.5.8) object, the default value is an empty string (1).

3.1.5.9.1.2.3 Terms

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermCollection

Accessibility: Read Only

Gets a collection of all immediate child **NavigationTerm** (section 3.1.5.6) objects of this **NavigationTerm** or **NavigationTermSet** (section 3.1.5.8) object.

Remarks:

The **Terms** collection may exclude certain objects according to the trimming specified by the associated **NavigationTerm.View** (section 3.1.5.6.1.2.10). For example, if **NavigationTermSetView.ExcludeDeprecatedTerms** (section 3.1.5.10.1.1.1) is true, then objects will be trimmed (that is, excluded) from the collection if their **NavigationTerm.IsDeprecated** property (section 3.1.5.6.1.1.6) is true.

3.1.5.9.1.2.4 Title

Type: Microsoft.SharePoint.Client.Publishing.Navigation.CustomizableString

Accessibility: Read Only

Gets or sets the title that menus and breadcrumbs will display for the navigation node.

Remarks:

This property is a **CustomizableString** (section 3.1.5.5) object. For a **NavigationTerm** object, the default value MUST be the **Term.Name** ([MS-EMMCSOM] section 3.1.5.16.1.1.12) property for the underlying term. For a **NavigationTermSet** object, this property SHOULD be the same as the Web site (2) title, as indicated by the **NavigationTermSetView.WebTitle** property (section 3.1.5.10.1.1.8) for the current view.

3.1.5.9.1.2.5 View

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

Accessibility: Read Only

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Gets the **NavigationTermSetView** (section 3.1.5.10) object that is used to calculate certain properties for this **NavigationTerm**.

3.1.5.9.2 Methods

3.1.5.9.2.1 Scalar Methods

3.1.5.9.2.1.1 GetResolvedDisplayUrl

Return Type: CSOM String

Returns the server-relative URL that is displayed for this **NavigationTermSet** (section 3.1.5.8) or **NavigationTerm** (section 3.1.5.6) object.

Parameters:

browserQueryString: A query string that, if specified, is included in the resolved URL.

Type: CSOM String

Remarks:

The URL MAY be resolved by expanding any implementation-specific tokens such as "~sitecollection/". If the *browserQueryString* parameter is provided, it is used as the query string part of the resulting URL.

The URL is derived differently depending on the **NavigationLinkType** (section 3.1.5.3) value. If the term is of type **NavigationLinkType.SimpleLink** (section 3.1.5.3.1.3) then the **NavigationTerm.SimpleLinkUrl** (section 3.1.5.6.1.1.8) property MUST be returned. If the term is of type **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2), then the friendly URL MUST be returned. If a valid URL is not specified, then the protocol server MUST return null.

3.1.5.9.2.2 ObjectPath Methods

3.1.5.9.2.2.1 CreateTerm

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTerm

Creates a new **NavigationTerm** (section 3.1.5.6) object with the specified *termName* for the **Term.Name** property ([MS-EMMCSOM] section 3.1.5.16.1.1.12). This operation is similar to **TermSetItem.CreateTerm** method ([MS-EMMCSOM] section 3.1.5.22.2.2.1), but with two important differences:

1. If the **Terms** collection ([MS-EMMCSOM] section 3.1.5.22.1.2.1) already contains a sibling term whose **Term.Name** property would conflict with *termName*, then the protocol server MUST generate a unique name. For example, if the name "St. Louis" is already in use, the *termName* could be changed to "St. Louis (2)". The method for generating the unique value is implementation-specific and MAY depend on the active language code identifier (LCID).

2. If the *linkType* is **NavigationLinkType.FriendlyUrl** (section 3.1.5.3.1.2), and if the **Terms** collection already contains a sibling term whose **NavigationTerm.FriendlyUrlSegment** (section 3.1.5.6.1.2.3) would conflict with the default **FriendlyUrlSegment** for the newly created term, then the protocol server MUST generate a unique segment and assign it as the custom value for the **CustomizableString** object (section 3.1.5.5). For example, suppose *termName* is "St. Louis" but there is already a friendly URL "http://example.com/locations/st-louis". In this case, the newly created term's URL segment could be assigned as "st-louis-2" instead of "st-louis".

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The method for generating the unique value is implementation-specific and MAY depend on the active language code identifier (LCID).

Parameters:

termName: The name for the new **NavigationTerm** object. The name to be stored in the **NavigationTerm.TaxonomyName** (section 3.1.5.6.1.1.9) property.

Type: CSOM String

linkType: The type of link for the new **NavigationTerm** object as specified by the **NavigationLinktype** (section 3.1.5.3) enumeration.

Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationLinkType

termId: A unique identifier for the new **NavigationTerm** object.

Type: CSOM GUID

Remarks:

The new **NavigationTerm** will be a child of this object.

3.1.5.9.2.2.2 GetTaxonomyTermStore

Return Type: Microsoft.SharePoint.Client.Taxonomy.TermStore

Returns the underlying **TermStore** ([MS-EMMCSOM] section 3.1.5.23) object.

Remarks:

If the **NavigationTermSet** (section 3.1.5.8) object is in the "editable" mode, then this method returns the underlying **TermStore** object. If the protocol client calls this method when the **NavigationTermSet** object is read-only, then the protocol server MUST return an **InvalidOperationException** error.

Parameters: None

3.1.5.10 Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

TypeId: {097234E9-47DA-431F-BD12-173C296B187B}

ShortName: SP.Publishing.Navigation.NavigationTermSetView

The **NavigationTermSetView** class stores contextual information (for example the active Web site (2), site map provider, and policy for trimming child nodes) that affects the calculation of certain properties for the **NavigationTerm** (section 3.1.5.6) objects in a **NavigationTermSet** (section 3.1.5.8).

Remarks:

Resolving URLs depends on which Web site (2) is in use. For example, the **NavigationTerm.GetResolvedDisplayUrl** (section 3.1.5.6.2.1.3) method resolves a relative URL differently when the **TermSet** ([MS-EMMCSOM] section 3.1.5.20) object is attached to a different Web site (2).

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To minimize the size of **NavigationTermSet** objects in the taxonomy navigation cache, this additional contextual information is separated into the **NavigationTermSetView** class. This allows the protocol server to return different cached views of the **NavigationTermSet** without making expensive copies of the internal tree structure. The protocol client can call **NavigationTermSet.GetWithNewView** section 3.1.5.8.2.2.6) to switch between views.

3.1.5.10.1 Properties

3.1.5.10.1.1 Scalar Properties

3.1.5.10.1.1.1 ExcludeDeprecatedTerms

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether **NavigationTerm** (section 3.1.5.6) objects are trimmed if the underlying term is a deprecated term.

Remarks:

When traversing a tree of **NavigationTerm** objects, if this property is true then objects MUST be excluded from the **NavigationTermSetItem.Terms** collection (section 3.1.5.9.1.2.3) whenever the **NavigationTerm.IsDeprecated** property is true (section 3.1.5.6.1.1.6).

3.1.5.10.1.1.2 ExcludeTermsByPermissions

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether **NavigationTerm** (section 3.1.5.6) objects are trimmed if the current user does not have permission to view the linked URL.

Remarks:

When traversing a tree of **NavigationTerm** objects, if this property is true then objects MUST be excluded from the **NavigationTermSetItem.Terms** collection (section 3.1.5.9.1.2.3) whenever the current user does not have permissions to view the page referenced by **NavigationTerm.GetResolvedTargetUrl** (section 3.1.5.6.2.1.4). This property only applies to **publishing pages** within the current Web site (2).

3.1.5.10.1.1.3 ExcludeTermsByProvider

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether **NavigationTerm** (section 3.1.5.6) objects are trimmed according to the active site map provider.

Remarks:

When traversing a tree of **NavigationTerm** objects, if this property is true then objects MUST be excluded from the **NavigationTermSetItem.Terms** collection (section 3.1.5.9.1.2.3) whenever the term is marked as hidden for the site map provider indicated by the

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NavigationTermSetView.SiteMapProviderName property (section 3.1.5.10.1.1.6). To mark a term as hidden, use the properties **NavigationTerm.ExcludeFromGlobalNavigation** (section 3.1.5.6.1.1.3) and **NavigationTerm.ExcludeFromCurrentNavigation** (section 3.1.5.6.1.1.2).

3.1.5.10.1.1.4 ServerRelativeSiteUrl

Type: CSOM String

Accessibility: Read Only

Returns the server-relative URL for the **site collection** associated with this view.

Remarks:

For example, this property MAY be used by the **NavigationTerm.GetResolvedTargetUrl** method (section 3.1.5.6.2.1.4) to resolve an implementation-defined relative URL syntax. For example, if the **ServerRelativeSiteUrl** is "/sites/spsite", then the protocol server could resolve "~sitecollection/Pages/Example.aspx" as "/sites/spsite/Pages/Example.aspx".

This property's value may also be an empty string (1).

3.1.5.10.1.1.5 ServerRelativeWebUrl

Type: CSOM String

Accessibility: Read Only

Returns the server-relative URL for the Web site (2) associated with this view.

Remarks:

For example, this property MAY be used by the **NavigationTerm.GetResolvedTargetUrl** method (section 3.1.5.6.2.1.4) to resolve an implementation-defined relative URL syntax. For example, if the **ServerRelativeWebUrl** is "/sites/spsite/spweb", then the protocol server could resolve "~site/Pages/Example.aspx" as "/sites/spsite/spweb/Pages/Example.aspx".

This property's value may also be an empty string (1).

3.1.5.10.1.1.6 SiteMapProviderName

Type: CSOM String

Accessibility: Read/Write

Gets or sets the name used to refer to the site map provider to be used for trimming **NavigationTerm** (section 3.1.5.6) objects.

Remarks:

This property is used to trim child navigation nodes when **ExcludeTermsByProvider** (section 3.1.5.10.1.1.3) is true. It is valid to assign an empty string (1) to **SiteMapProviderName**; in this case, no trimming is performed for the current view.

3.1.5.10.1.1.7 WebId

Type: CSOM GUID

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Accessibility: Read Only

Gets the unique identifier of the Web site (2) associated with this view.

3.1.5.10.1.1.8 WebTitle

Type: CSOM String

Accessibility: Read Only

Gets the title of the Web site (2) associated with this view.

Remarks:

This property is used as the **NavigationTermSetItem.Title** property (section 3.1.5.9.1.2.4) for the **NavigationTermSet** (section 3.1.5.8) object that is the root of the navigation hierarchy.

This property's value may also be an empty string (1).

3.1.5.10.1.2 ObjectPath Properties

None.

3.1.5.10.2 Methods

3.1.5.10.2.1 Scalar Methods

3.1.5.10.2.1.1 set_ExcludeDeprecatedTerms

Return Type: None

Set_ExcludeDeprecatedTerms

Parameters:

value:

Type: CSOM Boolean

3.1.5.10.2.2 ObjectPath Methods

3.1.5.10.2.2.1 CreateEmptyInstance

This method is a static CSOM method.

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

Creates and returns a new instance of the **NavigationTermSetView** (section 3.1.5.10) class. The **WebId** property (section 3.1.5.10.1.1.7) will be assigned the **empty GUID**, the string typed properties will be assigned as empty strings (1), and the Boolean typed properties will be initialized to false.

Parameters: None

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3.1.5.10.2.2.2 GetCopy

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.NavigationTermSetView

Returns a copy of this **NavigationTermSetView** (section 3.1.5.10) object.

Parameters: None

3.1.5.10.2.2.3 CSOM Constructor

Creates a new instance of the **NavigationTermSetView** class and initializes its properties. The Boolean typed properties will be initialized to false, and the other properties will be assigned according to the *web* and *siteMapProviderName* parameters.

Parameters:

web: The Web site (2) whose data will be used to initialize the **NavigationTermSetView** properties.

Type: Microsoft.SharePoint.Client.Web

siteMapProviderName: The site map provider name to be assigned to the **SiteMapProviderName** property (section 3.1.5.10.1.1.6).

Type: CSOM String

3.1.5.11 Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase

TypeId: {A183AD83-E647-434A-BEEF-D173BDBD57A9}

ShortName: SP.Publishing.Navigation.SiteMapProviderSettingsBase

The **SiteMapProviderSettingsBase** class is the common base class for the **SwitchableSiteMapProviderSettings** (section 3.1.5.16) and **TaxonomySiteMapProviderSettings** (section 3.1.5.18) classes.

3.1.5.11.1 Properties

3.1.5.11.1.1 Scalar Properties

3.1.5.11.1.1.1 Disabled

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether the site map provider is disabled.

Remarks:

True if the site map provider is disabled; otherwise, false. If the site map provider is disabled, then any **web controls** bound to the provider can display an error message. Disabling a taxonomy site map provider also prevents its friendly URLs from being processed by the protocol server. The configuration settings such as **TaxonomySiteMapProviderSettings.TermSetId** (section 3.1.5.18.1.1.3) are preserved and will take effect again when the settings are re-enabled.

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This property takes precedence over all other site map provider settings.

3.1.5.11.1.1.2 Name

Type: CSOM String

Accessibility: Read Only

Gets the name of the site map provider that will use the settings provided by the **SwitchableSiteMapProviderSettings** (section 3.1.5.16) or **TaxonomySiteMapProviderSettings** (section 3.1.5.18) objects.

Remarks:

This property is used to identify the provider in the web.config "SiteMap" section.

3.1.5.11.1.1.3 UseParentSiteMap

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether settings are inherited from the **parent site**.

Remarks:

If true, then the settings on the **SwitchableSiteMapProviderSettings** (section 3.1.5.16) or **TaxonomySiteMapProviderSettings** (section 3.1.5.18) object are ignored, and the settings are inherited from the parent site.

If the protocol client attempts to call **Update** (section 3.1.5.19.2.1.1) to save settings where the **UseParentSiteMap** would be true for a Web site (2) that is located at the root of its site collection, then the protocol server MUST return an **InvalidOperationException** error.

3.1.5.11.1.2 ObjectPath Properties

None.

3.1.5.11.2 Methods

3.1.5.11.2.1 Scalar Methods

None.

3.1.5.11.2.2 ObjectPath Methods

None.

3.1.5.12 Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsCollection

TypeId: {276E3584-875F-401D-9D5E-28C608CACB4B}

ShortName: SP.Publishing.Navigation.SiteMapProviderSettingsCollection

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This class stores a collection of objects whose class inherits from the base class **SiteMapProviderSettingsBase** (section 3.1.5.11).

3.1.5.12.1 Properties

3.1.5.12.1.1 Scalar Properties

None.

3.1.5.12.1.2 ObjectPath Properties

None.

3.1.5.12.2 Methods

3.1.5.12.2.1 Scalar Methods

None.

3.1.5.12.2.2 ObjectPath Methods

None.

3.1.5.13 Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationScheme

ShortName: SP.Publishing.Navigation.StandardNavigationScheme

Flag: false

This enumeration represents two "standard" navigation schemes.

Remarks:

See the **StandardNavigationSettings** class (section 3.1.5.14) for more information about "standard" configurations.

3.1.5.13.1 Field Values

3.1.5.13.1.1 GlobalNavigation

Value: 0

The navigation scheme is global navigation (also called "top nav"). It is the unchanging menu bar along the top of the page.

3.1.5.13.1.2 CurrentNavigation

Value: 1

The navigation scheme is current Navigation (also called "left nav"). It is the contextual navigation pane typically on the left side of the page. The starting node normally changes to reflect the current page's location in the site map.

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3.1.5.14 Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationSettings

TypeId: {5EBDD423-1350-43F9-AD8C-CBE0887C7C42}

ShortName: SP.Publishing.Navigation.StandardNavigationSettings

The **StandardNavigationSettings** class is used to manage the "standard" navigation configurations for a site collection, versus other "advanced" configurations that are possible.

Remarks:

Each site map provider has independent configurations, and the web.config file may define many different providers that are used together to produce the final navigation for a Web site (2).

By contrast, the protocol server's administrative user interface presents a simplified perspective with only two schemes: global navigation and current navigation. Each scheme can be configured for only one of three navigation sources: taxonomy site map provider, **portal site map provider**, and inherit from parent site. The OM classes and members whose names contain the word "standard" refer to the simplified configurations supported by the administrative user interface, as compared to the more advanced configurations that can be specified by manipulating the objects in the **WebNavigationSettings.SiteMapProviderSettingsList** collection (section 3.1.5.19.1.2.3).

3.1.5.14.1 Properties

3.1.5.14.1.1 Scalar Properties

3.1.5.14.1.1.1 PortalTargetProviderName

Type: CSOM String

Accessibility: Read Only

Gets the name of the portal site map provider.

Remarks:

This property depends on the **Scheme** (section 3.1.5.14.1.1.2) property. If Scheme is set to **StandardNavigationScheme.GlobalNavigation** (section 3.1.5.13.1.1), then "GlobalNavigationPortalProvider" is returned. If **Scheme** is set to **StandardNavigationScheme.CurrentNavigation** (section 3.1.5.13.1.2), then "CurrentNavigationPortalProvider" is returned.

3.1.5.14.1.1.2 Scheme

Type: Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationScheme

Accessibility: Read Only

Gets a value that indicates whether the settings apply to global or current navigation.

3.1.5.14.1.1.3 Source

Type: Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationSource

Accessibility: Read/Write

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Gets or sets the navigation source for the site collection.

Remarks:

This property determines whether the switchable site map provider will use the taxonomy site map provider or the portal site map provider in the standard configurations. If the settings are in an advanced configuration, then this property returns **StandardNavigationSource.Unknown** (section 3.1.5.15.1.1). If the protocol client attempts to assign the **StandardNavigationSource.Unknown** value to this property, the protocol server MUST return an **InvalidOperationException** error.

3.1.5.14.1.1.4 SwitchableTargetProviderName

Type: CSOM String

Accessibility: Read Only

Gets the name of the **switchable site map provider**.

Remarks:

Returns the name of the standard switchable site map provider, as defined in the web.config file.

This property depends on the **Scheme** (section 3.1.5.14.1.1.2) property. If Scheme is set to **StandardNavigationScheme.GlobalNavigation** (section 3.1.5.13.1.1), then "GlobalNavigationSwitchableProvider" is returned. If **Scheme** is set to **StandardNavigationScheme.CurrentNavigation** (section 3.1.5.13.1.2), then "CurrentNavigationSwitchableProvider" is returned.

3.1.5.14.1.1.5 TaxonomyTargetProviderName

Type: CSOM String

Accessibility: Read Only

Gets the name of the taxonomy site map provider.

Remarks:

Returns the name of the standard taxonomy site map provider, as defined in the web.config file.

This property depends on the **Scheme** (section 3.1.5.14.1.1.2) property. If Scheme is set to **StandardNavigationScheme.GlobalNavigation** (section 3.1.5.13.1.1), then "GlobalNavigationTaxonomyProvider" is returned. If **Scheme** is set to **StandardNavigationScheme.CurrentNavigation** (section 3.1.5.13.1.2), then "CurrentNavigationTaxonomyProvider" is returned.

3.1.5.14.1.1.6 TermSetId

Type: CSOM GUID

Accessibility: Read/Write

Gets or sets a unique identifier for the **TermSet** ([MS-EMMCSOM] section 3.1.5.20) object used by the taxonomy site map provider.

Remarks:

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This property is ignored unless **StandardNavigationSource.TaxonomyProvider** (section 3.1.5.15.1.3) is selected. It specifies the **TaxonomySiteMapProviderSettings.TermSetId** (section 3.1.5.18.1.1.3) property for the provider name indicated by the **TaxonomyTargetProviderName** property (section 3.1.5.14.1.1.5).

3.1.5.14.1.1.7 TermStoreId

Type: CSOM GUID

Accessibility: Read/Write

Gets or sets a unique identifier for the **TermStore** ([MS-EMMCSOM] section 3.1.5.23) object used by the taxonomy site map provider.

Remarks:

This property is ignored unless **StandardNavigationSource.TaxonomyProvider** (section 3.1.5.15.1.3) is selected. It specifies the **TaxonomySiteMapProviderSettings.TermStoreId** (section 3.1.5.18.1.1.4) property for the provider name indicated by the **TaxonomyTargetProviderName** property (section 3.1.5.14.1.1.5).

3.1.5.14.1.2 ObjectPath Properties

3.1.5.14.1.2.1 WebNavigationSettings

Type: Microsoft.SharePoint.Client.Publishing.Navigation.WebNavigationSettings

Accessibility: Read Only

Gets the parent **WebNavigationSettings** (section 3.1.5.19) object of this **StandardNavigationSettings** (section 3.1.5.14) object.

3.1.5.14.2 Methods

3.1.5.14.2.1 Scalar Methods

None.

3.1.5.14.2.2 ObjectPath Methods

None.

3.1.5.15 Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationSource

ShortName: SP.Publishing.Navigation.StandardNavigationSource

Flag: false

StandardNavigationSource is an enumeration that specifies the three "standard" configurations that can be assigned to the "global" and "current" schemes described by the **StandardNavigationScheme** enumeration (section 3.1.5.13).

Remarks:

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See the **StandardNavigationSettings** class (section 3.1.5.14) for more information about "standard" configurations.

3.1.5.15.1 Field Values

3.1.5.15.1.1 Unknown

Value: 0

Indicates that the navigation scheme is in an advanced configuration that does not correspond to one of the "standard" configurations.

3.1.5.15.1.2 PortalProvider

Value: 1

Indicates that the navigation scheme is configured so that the switchable site map provider is pointing to the portal site map provider, and the taxonomy site map provider is disabled so that the protocol server will not process its friendly URLs.

3.1.5.15.1.3 TaxonomyProvider

Value: 2

Indicates that the navigation scheme is configured so that the switchable site map provider is pointing to the taxonomy site map provider.

3.1.5.15.1.4 InheritFromParentWeb

Value: 3

Indicates that the navigation scheme is inheriting its settings from the parent site. If this value is used, then the **SwitchableSiteMapProviderSettings.UseParentSiteMap** section 3.1.5.16.1.1.4) property MUST be set to true, and the **TaxonomySiteMapProviderSettings.UseParentSiteMap** (section 3.1.5.18.1.1.6) property MUST be set to true, and the portal site map provider is be configured to inherit its settings from the parent site.

3.1.5.16 Microsoft.SharePoint.Client.Publishing.Navigation.SwitchableSiteMapProviderSettings

TypeId: {2F5E980F-D6B8-46ED-A867-2FB75A9302B4}

ShortName: SP.Publishing.Navigation.SwitchableSiteMapProviderSettings

The **SwitchableSiteMapProviderSettings** class stores settings for a switchable site map provider.

3.1.5.16.1 Properties

3.1.5.16.1.1 Scalar Properties

3.1.5.16.1.1.1 Disabled

Type: CSOM Boolean

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Accessibility: Read/Write

See **Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase.Disabled**, specified in section 3.1.5.11.1.1.1.

3.1.5.16.1.1.2 Name

Type: CSOM String

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase.Name**, specified in section 3.1.5.11.1.1.2.

3.1.5.16.1.1.3 TargetProviderName

Type: CSOM String

Accessibility: Read/Write

Gets or sets the name of the site map provider, as specified in the web.config file.

Remarks:

This property is used for configuring the switchable site map provider. If the value is the empty string (1), then the protocol server can substitute an implementation-specific default value instead.

3.1.5.16.1.1.4 UseParentSiteMap

Type: CSOM Boolean

Accessibility: Read/Write

See **Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase.UseParentSiteMap**, specified in section 3.1.5.11.1.1.3.

3.1.5.16.1.2 ObjectPath Properties

None.

3.1.5.16.2 Methods

3.1.5.16.2.1 Scalar Methods

None.

3.1.5.16.2.2 ObjectPath Methods

3.1.5.16.2.2.1 CSOM Constructor

Creates a new instance of the **SwitchableSiteMapProviderSettings** class for the specified site map provider name.

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Parameters:

name: The value to be assigned to the **SiteMapProviderSettingsBase.Name** property (section 3.1.5.11.1.1.2).

Type: CSOM String

3.1.5.17 Microsoft.SharePoint.Client.Publishing.Navigation.TaxonomyNavigationCacheConfig

TypeId: {E9287CE8-04D5-4184-97DB-7488EDBC33B8}

ShortName: SP.Publishing.Navigation.TaxonomyNavigationCacheConfig

The **TaxonomyNavigationCacheConfig** class manages configuration settings for the taxonomy navigation cache.

3.1.5.17.1 Properties

3.1.5.17.1.1 Scalar Properties

3.1.5.17.1.1.1 MaximumCacheSizeInBytes

Type: **CSOM Int64**

Accessibility: Read/Write

Gets or sets the maximum size for the taxonomy navigation cache.

Remarks:

This property is not enforced strictly. The limit can be exceeded temporarily until the next pruning operation. During the pruning operation objects are discarded until the total memory usage no longer exceeds the limit. Zero can be specified as the limit, which causes all objects to be freed whenever the pruning operation occurs.

3.1.5.17.1.1.2 UsePersistedTermSets

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether the taxonomy navigation cache should attempt to load persisted term sets when Managed Metadata Service is offline.

Remarks:

If true, then the taxonomy navigation system will attempt to load cached **TermSet** ([MS-EMMCSOM] section 3.1.5.20) objects from persisted files in the **content database** if they cannot be obtained from the Managed Metadata Service (for example because it is offline). The "Persisted Navigation Term Set" timer job is responsible for maintaining these files.

3.1.5.17.1.2 ObjectPath Properties

None.

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3.1.5.17.2 Methods

3.1.5.17.2.1 Scalar Methods

None.

3.1.5.17.2.2 ObjectPath Methods

None.

3.1.5.18 Microsoft.SharePoint.Client.Publishing.Navigation.TaxonomySiteMapProviderSettings

TypeId: {2822F11E-C73E-41DB-8AAE-208AA959C709}

ShortName: SP.Publishing.Navigation.TaxonomySiteMapProviderSettings

The **TaxonomySiteMapProvierSettings** class stores settings for a taxonomy site map provider.

3.1.5.18.1 Properties

3.1.5.18.1.1 Scalar Properties

3.1.5.18.1.1.1 Disabled

Type: CSOM Boolean

Accessibility: Read/Write

See **Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase.Disabled**, specified in section 3.1.5.11.1.1.1.

3.1.5.18.1.1.2 Name

Type: CSOM String

Accessibility: Read Only

See **Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase.Name**, specified in section 3.1.5.11.1.1.2.

3.1.5.18.1.1.3 TermSetId

Type: CSOM GUID

Accessibility: Read/Write

Gets or sets a unique identifier of a term set that the taxonomy site map provider will use as its **NavigationTermSet** (section 3.1.5.8) object. The associated term store object is specified using the **TermStoreId** property (section 3.1.5.18.1.1.4).

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3.1.5.18.1.1.4 TermStoreId

Type: CSOM GUID

Accessibility: Read/Write

Gets or sets a unique identifier of the **TermStore** ([MS-EMMCSOM] section 3.1.5.23) object that contains the term set referenced by the **TermSetId** property (section 3.1.5.18.1.1.3). If the value is the empty GUID, then the **TaxonomySession.DefaultKeywordsTermStore** ([MS-EMMCSOM] section 3.1.5.15.1.2.1) is used instead.

3.1.5.18.1.1.5 UseDefaultKeywordsTermStore

Type: CSOM Boolean

Accessibility: Read Only

Gets a value that indicates whether the **TaxonomySession.DefaultKeywordsTermStore** ([MS-EMMCSOM] section 3.1.5.15.1.2.1) property will be used.

Remarks:

This property MUST return true if the **TermStoreId** (section 3.1.5.18.1.1.4) property's value is the empty GUID; false otherwise. If true, the protocol server uses the **TaxonomySession.DefaultKeywordsTermStore** object to find the referenced **TermSetId**.

3.1.5.18.1.1.6 UseParentSiteMap

Type: CSOM Boolean

Accessibility: Read/Write

See **Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsBase.UseParentSiteMap**, specified in section 3.1.5.11.1.1.3.

3.1.5.18.1.2 ObjectPath Properties

None.

3.1.5.18.2 Methods

3.1.5.18.2.1 Scalar Methods

None.

3.1.5.18.2.2 ObjectPath Methods

3.1.5.18.2.2.1 CSOM Constructor

Creates a new instance of the **TaxonomySiteMapProviderSettings** class for the specified site map provider name.

Parameters:

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name: The value to be assigned to the **SiteMapProviderSettingsBase.Name** property (section 3.1.5.11.1.1.2).

Type: CSOM String

3.1.5.19 Microsoft.SharePoint.Client.Publishing.Navigation.WebNavigationSettings

TypeId: {00AC02AA-86E2-4D48-AA73-341ED7962374}

ShortName: SP.Publishing.Navigation.WebNavigationSettings

The **WebNavigationSettings** class manages navigation settings for a Web site (2).

3.1.5.19.1 Properties

3.1.5.19.1.1 Scalar Properties

3.1.5.19.1.1.1 AddNewPagesToNavigation

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether clicking the **New Page** button will automatically create a **NavigationTerm** (section 3.1.5.6) in the term set for the active taxonomy site map provider.

Remarks:

True if new pages will automatically create a **NavigationTerm** (section 3.1.5.6); otherwise, false.

3.1.5.19.1.1.2 CreateFriendlyUrlsForNewPages

Type: CSOM Boolean

Accessibility: Read/Write

Gets or sets a value that indicates whether clicking the **New Page** button will automatically create a friendly URL for the newly created page.

Remarks:

True if new pages will automatically create a friendly URL; otherwise, false.

3.1.5.19.1.1.3 DefaultTargetUrlForChildTerms

Type: CSOM String

Accessibility: Read/Write

Gets or sets a default target URL for new child **NavigationTerm** (section 3.1.5.6) objects.

Remarks:

This property allows features to specify a publishing page that should be used as the default NavigationTerm.TargetUrl (section 3.1.5.6.1.2.5) for newly created navigation term sets.

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The protocol server applies this property as part of the **WebNavigationSettings.Update** (section 3.1.5.19.2.1.1) operation: If the change to the settings causes a new term set to become referenced by a taxonomy site map provider, and if its **NavigationTermSet.TargetUrlForChildTerms** property (section 3.1.5.8.1.2.2) is equal to the empty string (1), then it will be assigned to be equal to the **WebNavigationSettings.DefaultTargetUrlForChildTerms** value.

3.1.5.19.1.2 ObjectPath Properties

3.1.5.19.1.2.1 CurrentNavigation

Type: Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationSettings

Accessibility: Read Only

Returns an object that manages the "standard" navigation settings for the **StandardNavigationScheme.CurrentNavigation** (section 3.1.5.13.1.2) scheme.

Remarks:

The protocol server MUST NOT return null.

It MUST NOT be NULL.

3.1.5.19.1.2.2 GlobalNavigation

Type: Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationSettings

Accessibility: Read Only

Returns an object that manages the "standard" navigation settings for the **StandardNavigationScheme.GlobalNavigation** (section 3.1.5.13.1.1) scheme.

Remarks:

The protocol server MUST NOT return null.

It MUST NOT be NULL.

3.1.5.19.1.2.3 SiteMapProviderSettingsList

Type: Microsoft.SharePoint.Client.Publishing.Navigation.SiteMapProviderSettingsCollection

Accessibility: Read Only

Returns a collection of differently typed objects that inherit from the base class **SiteMapProviderSettingsBase** (section 3.1.5.11), which store the navigation settings for this Web site (2).

Remarks:

Whereas the **GlobalNavigation** (section 3.1.5.19.1.2.2) and **CurrentNavigation** (section 3.1.5.19.1.2.1) properties provide a simplified perspective for managing "standard" configurations, the **SiteMapProviderSettingsList** property allows access to the complete object state that is required to manage advanced configurations. This is described in more detail in section 3.1.5.14.

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3.1.5.19.2 Methods

3.1.5.19.2.1 Scalar Methods

3.1.5.19.2.1.1 Update

Return Type: None

Writes the new settings to the Web site (2) that was passed to the constructor (section 3.1.5.19.2.2.2).

Remarks:

If **TaxonomySiteMapProviderSettings** (section 3.1.5.18) **list items** are present, then this method also checks whether the navigation term set is being changed for any taxonomy site map providers. If so, changes can be written to both the old **TermSet** and the new **TermSet** to indicate whether they are being used by this Web site (2).

This method also applies the **DefaultTargetUrlForChildTerms** property (section 3.1.5.19.1.1.3) to newly selected term sets.

Parameters:

taxonomySession: The **TaxonomySession** ([MS-EMMCSOM] section 3.1.5.15) object to use to make the update.

Type: Microsoft.SharePoint.Client.Taxonomy.TaxonomySession

3.1.5.19.2.1.2 ResetToDefaults

Return Type: None

This operation resets the **WebNavigationSettings** object to the default state that the protocol server would use for a newly created Web site (2). This default state MAY depend on whether the Web site (2) is located at the root of its site collection, for example to ensure an allowable value for the **SiteMapProviderSettingsBase.UseParentSiteMap** property (section 3.1.5.11.1.1.3).

Parameters: None

3.1.5.19.2.2 ObjectPath Methods

3.1.5.19.2.2.1 GetStandardNavigationSettings

Return Type: Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationSettings

Returns the **GlobalNavigation** (section 3.1.5.19.1.2.2) or **CurrentNavigation** (section 3.1.5.19.1.2.1) property depending on the value of the *scheme* parameter.

Parameters:

scheme: Indicates which type of navigation settings to return.

Type: Microsoft.SharePoint.Client.Publishing.Navigation.StandardNavigationScheme

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3.1.5.19.2.2.2 CSOM Constructor

Creates a new instance of the **WebNavigationSettings** class that will be used to access the settings for the specified Web site (2).

Parameters:

web: The Web site (2) whose settings will be accessed.

Type: Microsoft.SharePoint.Client.Web

3.1.6 Timer Events

None.

3.1.7 Other Local Events

None.

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4 Protocol Examples

4.1 Create a New Navigation Hierarchy

In this example, a new navigation hierarchy is created. The navigation hierarchy will be created using the menu names, link types, and URLs specified in the following table.

Menu name	Link type	URL
Home	Simple	http://www.contoso.com
Products	Friendly URL	/sites/site1/products
Bicycles	Friendly URL	/sites/site1/products/bicycles
Skis	Friendly URL	/sites/site1/products/skis
Events	Friendly URL	/sites/site1/events
Summer Expo	Friendly URL	/sites/site1/events/summer-expo

The operation is summarized in the following sequence of requests and responses.

The protocol client creates a **TaxonomySession** ([MS-EMMCSOM] section 3.1.5.15) object, and queries for all **TermStore** ([MS-EMMCSOM] section 3.1.5.23) objects.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="2" ObjectPathId="1" />
    <ObjectPath Id="4" ObjectPathId="3" />
    <ObjectPath Id="6" ObjectPathId="5" />
    <Query Id="7" ObjectPathId="5">
      <Query SelectAllProperties="false">
        <Properties>
          <Property Name="TermStores" SelectAll="true">
            <Query SelectAllProperties="false">
              <Properties />
            </Query>
          </Property>
        </Properties>
      </Query>
    </Query>
  </Actions>
  <ObjectPaths>
    <StaticProperty Id="1" TypeId="{3747adcd-a3c3-41b9-bfab-4a64dd2f1e0a}" Name="Current" />
    <Property Id="3" ParentId="1" Name="Site" />
    <Constructor Id="5" TypeId="{981cbc68-9edc-4f8d-872f-71146fcbb84f}">
      <Parameters>
        <Parameter ObjectPathId="3" />
        <Parameter Type="Boolean">true</Parameter>
      </Parameters>
    </Constructor>
  </ObjectPaths>
```

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```
</Request>
```

The protocol server returns a collection of **TermStore** objects. In this case, there is only one.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},2,{
"IsNull":false
},4,{
"IsNull":false
},6,{
"IsNull":false
},7,{
"_ObjectType_":"SP.Taxonomy.TaxonomySession","_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:ta:","TermStores":{
"_ObjectType_":"SP.Taxonomy.TermStoreCollection","_Child_Items_":[
{
"_ObjectType_":"SP.Taxonomy.TermStore","_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ==","ContentTypePublishingHub":null,"DefaultLanguage":1
033,"Id":"\/Guid(293aa14c-2740-4a96-bb05-8b3018900399)\/","IsOnline":true,"Languages":[
1033
],"Name":"Managed Metadata Service Application Proxy","WorkingLanguage":1033
}
]
}
}
]
```

The protocol client calls the **TermStore.GetSiteCollectionGroup** () method to retrieve a **SiteCollectionGroup** () object. Then it calls the **SiteCollectionGroup.CreateTermSet** method to create a new navigation term set. The name of the new term set is "Navigation Demo".

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="30" ObjectPathId="29" />
    <ObjectIdentityQuery Id="31" ObjectPathId="29" />
    <ObjectPath Id="33" ObjectPathId="32" />
    <ObjectIdentityQuery Id="34" ObjectPathId="32" />
    <Method Name="CommitAll" Id="35" ObjectPathId="11" />
  </Actions>
  <ObjectPaths>
    <Method Id="29" ParentId="11" Name="GetSiteCollectionGroup">
      <Parameters>
        <Parameter ObjectPathId="3" />
        <Parameter Type="Boolean">true</Parameter>
      </Parameters>
    </Method>
    <Method Id="32" ParentId="29" Name="CreateTermSet">
      <Parameters>
```

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```
        <Parameter Type="String">Navigation Demo</Parameter>
        <Parameter Type="Guid">{e742cc24-69e6-428e-81ca-156119ff0979}</Parameter>
        <Parameter Type="Int32">1033</Parameter>
      </Parameters>
    </Method>
    <Identity Id="11" Name="fec14c62-7c3b-481b-851b-c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ=="
/>
    <Property Id="3" ParentId="1" Name="Site" />
    <StaticProperty Id="1" TypeId="{3747adcd-a3c3-41b9-bfab-4a64dd2f1e0a}" Name="Current" />
  </ObjectPaths>
</Request>
```

The protocol server returns the ID of the new **TermSet** object.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},30,{
"IsNull":false
},31,{
"_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:gr:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMc="
},33,{
"IsNull":false
},34,{
"_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5"
}
]
```

The protocol client calls the **NavigationTermSet.GetAsResolvedByWeb** (section 3.1.5.8.2.2.8) method to create a new **NavigationTermSet** (section 3.1.5.8) object using the global navigation taxonomy provider. It sets the **IsNavigationTermSet** (section 3.1.5.8.1.1.2) property to true, and the **TargetUrlforChildTerms** (section 3.1.5.8.1.2.2) property to "~site/Pages/Topics/Topic.aspx".

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="39" ObjectPathId="38" />
    <ObjectPath Id="41" ObjectPathId="40" />
    <ObjectIdentityQuery Id="42" ObjectPathId="40" />
    <SetProperty Id="43" ObjectPathId="40" Name="IsNavigationTermSet">
      <Parameter Type="Boolean">true</Parameter>
    </SetProperty>
    <ObjectPath Id="45" ObjectPathId="44" />
    <SetProperty Id="46" ObjectPathId="44" Name="Value">
      <Parameter Type="String">~site/Pages/Topics/Topic.aspx</Parameter>
    </SetProperty>
    <Method Name="CommitAll" Id="47" ObjectPathId="11" />
  </Actions>
  <ObjectPaths>
    <Property Id="38" ParentId="1" Name="Web" />
```

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```
    <StaticMethod Id="40" Name="GetAsResolvedByWeb" TypeId="{5ed5ae4c-8e92-4e56-af6e-
d349611614d8}">
      <Parameters>
        <Parameter ObjectPathId="32" />
        <Parameter ObjectPathId="38" />
        <Parameter Type="String">GlobalNavigationTaxonomyProvider</Parameter>
      </Parameters>
    </StaticMethod>
    <Property Id="44" ParentId="40" Name="TargetUrlForChildTerms" />
    <Identity Id="11" Name="fec14c62-7c3b-481b-851b-c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ=="
/>
    <StaticProperty Id="1" TypeId="{3747adcd-a3c3-41b9-bfab-4a64dd2f1e0a}" Name="Current" />
    <Identity Id="32" Name="fec14c62-7c3b-481b-851b-
c80d7802b224:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ/wl5" />
  </ObjectPaths>
</Request>
```

The protocol server returns the ID of the new **NavigationTermSet** object.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},39,{
"IsNull":false
},41,{
"IsNull":false
},42,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5;\u00
2fsites\u002fpub1||`1|0"
},45,{
"IsNull":false
}
]
```

Finally the protocol client creates the navigation hierarchy of **NavigationTerm** (section 3.1.5.6) objects. It calls the **NavigationTermSet.CreateTerm** (section 3.1.5.8.2.2.1) and **NavigationTerm.CreateTerm** (section 3.1.5.6.2.2.1) methods on objects to construct each node in the hierarchy. For the "Home" menu item, it sets the **SimpleLinkUrl** (section 3.1.5.6.1.1.8) property to "http://www.contoso.com". All other **NavigationTerm** objects are configured to use a friendly URL.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="50" ObjectPathId="49" />
    <ObjectIdentityQuery Id="51" ObjectPathId="49" />
    <SetProperty Id="52" ObjectPathId="49" Name="SimpleLinkUrl">
      <Parameter Type="String">http://www.contoso.com/</Parameter>
    </SetProperty>
    <ObjectPath Id="54" ObjectPathId="53" />
    <ObjectIdentityQuery Id="55" ObjectPathId="53" />
```

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```
    <ObjectPath Id="57" ObjectPathId="56" />
    <ObjectIdentityQuery Id="58" ObjectPathId="56" />
    <ObjectPath Id="60" ObjectPathId="59" />
    <ObjectIdentityQuery Id="61" ObjectPathId="59" />
    <ObjectPath Id="63" ObjectPathId="62" />
    <ObjectIdentityQuery Id="64" ObjectPathId="62" />
    <ObjectPath Id="66" ObjectPathId="65" />
    <ObjectIdentityQuery Id="67" ObjectPathId="65" />
    <Method Name="CommitAll" Id="68" ObjectPathId="11" />
  </Actions>
  <ObjectPaths>
    <Method Id="49" ParentId="40" Name="CreateTerm">
      <Parameters>
        <Parameter Type="String">Home</Parameter>
        <Parameter Type="Enum">2</Parameter>
        <Parameter Type="Guid">{33e12d60-2332-4612-917d-48b2896699b9}</Parameter>
      </Parameters>
    </Method>
    <Method Id="53" ParentId="40" Name="CreateTerm">
      <Parameters>
        <Parameter Type="String">Products</Parameter>
        <Parameter Type="Enum">1</Parameter>
        <Parameter Type="Guid">{87faa433-4e3e-4500-aa5b-e04330b12acd}</Parameter>
      </Parameters>
    </Method>
    <Method Id="56" ParentId="53" Name="CreateTerm">
      <Parameters>
        <Parameter Type="String">Bicycles</Parameter>
        <Parameter Type="Enum">1</Parameter>
        <Parameter Type="Guid">{da5e60a5-d339-44c9-8c8f-a7e6eaa2d587}</Parameter>
      </Parameters>
    </Method>
    <Method Id="59" ParentId="53" Name="CreateTerm">
      <Parameters>
        <Parameter Type="String">Skis</Parameter>
        <Parameter Type="Enum">1</Parameter>
        <Parameter Type="Guid">{d30a51bf-a71b-45b5-ae1e-945327df6f49}</Parameter>
      </Parameters>
    </Method>
    <Method Id="62" ParentId="40" Name="CreateTerm">
      <Parameters>
        <Parameter Type="String">Events</Parameter>
        <Parameter Type="Enum">1</Parameter>
        <Parameter Type="Guid">{7408f146-623e-4384-a53a-ec0a8c39a17a}</Parameter>
      </Parameters>
    </Method>
    <Method Id="65" ParentId="62" Name="CreateTerm">
      <Parameters>
        <Parameter Type="String">Summer Expo</Parameter>
        <Parameter Type="Enum">1</Parameter>
        <Parameter Type="Guid">{2236b9e8-5d6e-42fc-bf47-49a02af1ca4e}</Parameter>
      </Parameters>
    </Method>
    <Identity Id="11" Name="fec14c62-7c3b-481b-851b-c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ==" />
    <Identity Id="40" Name="c9a9c738-3bb7-475b-83f4-7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ/wl5;/sites/pub1||`1|0" />
  </ObjectPaths>
```

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```
</Request>
```

The protocol server returns the IDs of the new **NavigationTerm** objects.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},50,{
"IsNull":false
},51,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5YC3hM
zIjEkaRfUiyiWaZuQ==;\u002fsites\u002fpub1||`1|0"
},54,{
"IsNull":false
},55,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5M6T6h
z5OAEWqW+BDMLEqzQ==;\u002fsites\u002fpub1||`1|0"
},57,{
"IsNull":false
},58,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5pWBe2
jnTyUSMj6fm6qLVhw==;\u002fsites\u002fpub1||`1|0"
},60,{
"IsNull":false
},61,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5v1EK0
xuntUWuHpRTJ99vSQ==;\u002fsites\u002fpub1||`1|0"
},63,{
"IsNull":false
},64,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5RvEId
D5ihEOlOuwKjDmheg==;\u002fsites\u002fpub1||`1|0"
},66,{
"IsNull":false
},67,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl56Lk2I
m5d\u002fEK\u002fR0mgKvHKTg==;\u002fsites\u002fpub1||`1|0"
}
]
```

4.2 Resolve URLs

In this example, URLs for navigation terms are resolved and returned to the protocol client. This is a useful operation in scenarios where the protocol client needs custom control over navigation. An example is where the protocol client is a mobile application that is rendering the menus for a small screen.

Using the menu items described in section 4.1, this example shows how to resolve the URLs for each top-level menu item: Home, Products, and Events.

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The operation is summarized in the following sequence of requests and responses.

The protocol client creates a **TaxonomySession** ([MS-EMMCSOM] section 3.1.5.15) object, and queries for all **TermStore** ([MS-EMMCSOM] section 3.1.5.23) objects.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="2" ObjectPathId="1" />
    <ObjectPath Id="4" ObjectPathId="3" />
    <ObjectPath Id="6" ObjectPathId="5" />
    <Query Id="7" ObjectPathId="5">
      <Query SelectAllProperties="false">
        <Properties>
          <Property Name="TermStores" SelectAll="true">
            <Query SelectAllProperties="false">
              <Properties />
            </Query>
          </Property>
        </Properties>
      </Query>
    </Query>
  </Actions>
  <ObjectPaths>
    <StaticProperty Id="1" TypeId="{3747adcd-a3c3-41b9-bfab-4a64dd2f1e0a}" Name="Current" />
    <Property Id="3" ParentId="1" Name="Site" />
    <Constructor Id="5" TypeId="{981cbc68-9edc-4f8d-872f-71146fcbb84f}">
      <Parameters>
        <Parameter ObjectPathId="3" />
        <Parameter Type="Boolean">true</Parameter>
      </Parameters>
    </Constructor>
  </ObjectPaths>
</Request>
```

The protocol server returns a collection of **TermStore** objects. In this case, there is only one.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},2,{
"IsNull":false
},4,{
"IsNull":false
},6,{
"IsNull":false
},7,{
"_ObjectType_":"SP.Taxonomy.TaxonomySession","_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:ta:","TermStores":{
"_ObjectType_":"SP.Taxonomy.TermStoreCollection","_Child_Items_":[
{
```

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```
"_ObjectType_":"SP.Taxonomy.TermStore","_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ==","ContentTypePublishingHub":null,"DefaultLanguage":1
033,"Id":"\/Guid(293aa14c-2740-4a96-bb05-8b3018900399)\/","IsOnline":true,"Languages":[
1033
],"Name":"Managed Metadata Service Application Proxy","WorkingLanguage":1033
}
]
}
}
]
```

The protocol client calls the **TermStore.GetTermSet** ([MS-EMMCSOM] section 3.1.5.23.2.2.6) passing the ID of the "Navigation Demo" term set. It calls the **NavigationTermSet.GetAsResolvedByWeb** (section 3.1.5.8.2.2.7) method to get the **NavigationTermSet** (section 3.1.5.8) wrapper for the term set. Finally it queries for all child **NavigationTerm** (section 3.1.5.6) objects and their **Title** (section 3.1.5.6.1.2.9) properties to be loaded into the new **NavigationTermSet** object.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="13" ObjectPathId="12" />
    <ObjectIdentityQuery Id="14" ObjectPathId="12" />
    <ObjectPath Id="16" ObjectPathId="15" />
    <ObjectPath Id="18" ObjectPathId="17" />
    <ObjectIdentityQuery Id="19" ObjectPathId="17" />
    <Query Id="20" ObjectPathId="17">
      <Query SelectAllProperties="false">
        <Properties>
          <Property Name="Terms">
            <Query SelectAllProperties="false">
              <Properties />
            </Query>
            <ChildItemQuery SelectAllProperties="false">
              <Properties>
                <Property Name="Title">
                  <Query SelectAllProperties="false">
                    <Properties>
                      <Property Name="Value" ScalarProperty="true" />
                    </Properties>
                  </Query>
                </Property>
              </Properties>
            </ChildItemQuery>
          </Property>
        </Properties>
      </Query>
    </Query>
  </Actions>
  <ObjectPaths>
    <Method Id="12" ParentId="11" Name="GetTermSet">
      <Parameters>
        <Parameter Type="Guid">{e742cc24-69e6-428e-81ca-156119ff0979}</Parameter>
      </Parameters>
    </Method>
```

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```
    <Property Id="15" ParentId="1" Name="Web" />
    <StaticMethod Id="17" Name="GetAsResolvedByWeb" TypeId="{5ed5ae4c-8e92-4e56-af6e-
d349611614d8}">
      <Parameters>
        <Parameter ObjectPathId="12" />
        <Parameter ObjectPathId="15" />
        <Parameter Type="String">GlobalNavigationTaxonomyProvider</Parameter>
      </Parameters>
    </StaticMethod>
    <Identity Id="11" Name="fec14c62-7c3b-481b-851b-c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ==" 
/>
    <StaticProperty Id="1" TypeId="{3747adcd-a3c3-41b9-bfab-4a64dd2f1e0a}" Name="Current" />
  </ObjectPaths>
</Request>
```

The protocol server returns the ID of the new **NavigationTermSet** object and loads it with the 3 child **NavigationTerm** objects: Events, Home, and Products.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},13,{
"IsNull":false
},14,{
"_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5"
},16,{
"IsNull":false
},18,{
"IsNull":false
},19,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5;\u00
2fsites\u002fpub1||`1|0"
},20,{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTermSet","_ObjectIdentity_":"c9a9c738-
3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5;\u00
2fsites\u002fpub1||`1|0","Terms":{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTermCollection","_Child_Items_":[
{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl58Ho9S
KGXCUqqbdjzasJELQ==;\u002fsites\u002fpub1||`1|0","Title":{
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Events"
}
},{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5uTfpl
XVHWESrCvYXjTJJQA==;\u002fsites\u002fpub1||`1|0","Title":{
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Home"
}
},{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
```

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```
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5M6T6h
z5OAEWqW+BDMLEqzQ==;\u002fsites\u002fpub1||`1|0","Title":{
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Products"
}
}
]
}
}
]
```

The protocol client iterates through the 3 child **NavigationTerm** objects. It calls the **GetResolvedTargetUrl** (section 3.1.5.6.2.1.4) method on the Events **NavigationTerm** object.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <Method Name="GetResolvedTargetUrl" Id="34" ObjectPathId="28">
      <Parameters>
        <Parameter Type="Null" />
        <Parameter Type="Array" />
      </Parameters>
    </Method>
  </Actions>
  <ObjectPaths>
    <Identity Id="28" Name="c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ/wl58Ho9SKGXCU
qqbdjzasJELQ==;/sites/pub1||`1|0" />
  </ObjectPaths>
</Request>
```

The protocol server returns the resolved URL for Events.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},34,"\u002fsites\u002fpub1\u002fPages\u002fTopics\u002fTopic.aspx?TermStoreId=293aa14c-2740-
4a96-bb05-8b3018900399&TermSetId=e742cc24-69e6-428e-81ca-156119ff0979&TermId=483d7af0-97a1-
4a09-aa6d-d8f36ac2442d"
]
```

Next the protocol client calls the **GetResolvedTargetUrl** method on the Home **NavigationTerm** object.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <Method Name="GetResolvedTargetUrl" Id="35" ObjectPathId="30">
      <Parameters>
```

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```
        <Parameter Type="Null" />
        <Parameter Type="Array" />
      </Parameters>
    </Method>
  </Actions>
  <ObjectPaths>
    <Identity Id="30" Name="c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ/wl5uTfplXVHWE
SrCvYXjTJJQA==;/sites/pub1||`1|0" />
  </ObjectPaths>
</Request>
```

Because the Home menu item is a simple link URL, the protocol server returns null.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},35,null
]
```

Finally the protocol client calls the **GetResolvedTargetUrl** method on the Products **NavigationTerm** object.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <Method Name="GetResolvedTargetUrl" Id="36" ObjectPathId="32">
      <Parameters>
        <Parameter Type="Null" />
        <Parameter Type="Array" />
      </Parameters>
    </Method>
  </Actions>
  <ObjectPaths>
    <Identity Id="32" Name="c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ/wl5M6T6hz5OAE
WqW+BDMLEqzQ==;/sites/pub1||`1|0" />
  </ObjectPaths>
</Request>
```

The protocol server returns the resolved URL for Products.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},36,"\u002fsites\u002fpub1\u002fPages\u002fTopics\u002fTopic.aspx?TermStoreId=293aa14c-2740-
4a96-bb05-8b3018900399&TermSetId=e742cc24-69e6-428e-81ca-156119ff0979&TermId=87faa433-4e3e-
4500-aa5b-e04330b12acd"
```

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```
]
```

4.3 Changing a View

In this example, the protocol client applies a **NavigationTermSetView** (section 3.1.5.10) object to a **NavigationTermSet** (section 3.1.5.8) object to exclude deprecated terms. This example uses the same menu items that are specified in section 4.1. The only change is that the **NavigationTerm** (section 3.1.5.6) object that represents the Events menu item is deprecated.

In the first query for **NavigationTerm** objects, the protocol client will receive the **NavigationTerm** objects for the Home, Products, and Events menu items. The protocol client then creates a **NavigationTermSetView** object that excludes deprecated terms. After applying the new **NavigationTermSetView** object, and querying again, the protocol client will receive only the **NavigationTerm** objects for Home and Products.

The operation is summarized in the following sequence of requests and responses.

The protocol client creates a **TaxonomySession** ([MS-EMMCSOM] section 3.1.5.15) object, and queries for all **TermStore** ([MS-EMMCSOM] section 3.1.5.23) objects.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="2" ObjectPathId="1" />
    <ObjectPath Id="4" ObjectPathId="3" />
    <ObjectPath Id="6" ObjectPathId="5" />
    <Query Id="7" ObjectPathId="5">
      <Query SelectAllProperties="false">
        <Properties>
          <Property Name="TermStores" SelectAll="true">
            <Query SelectAllProperties="false">
              <Properties />
            </Query>
          </Property>
        </Properties>
      </Query>
    </Query>
  </Actions>
  <ObjectPaths>
    <StaticProperty Id="1" TypeId="{3747adcd-a3c3-41b9-bfab-4a64dd2f1e0a}" Name="Current" />
    <Property Id="3" ParentId="1" Name="Site" />
    <Constructor Id="5" TypeId="{981cbc68-9edc-4f8d-872f-71146fcbb84f}">
      <Parameters>
        <Parameter ObjectPathId="3" />
        <Parameter Type="Boolean">true</Parameter>
      </Parameters>
    </Constructor>
  </ObjectPaths>
</Request>
```

The protocol server returns a collection of **TermStore** objects. In this case, there is only one.

Response:

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```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},2,{
"IsNull":false
},4,{
"IsNull":false
},6,{
"IsNull":false
},7,{
"_ObjectType_":"SP.Taxonomy.TaxonomySession","_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:ta:","TermStores":{
"_ObjectType_":"SP.Taxonomy.TermStoreCollection","_Child_Items_":[
{
"_ObjectType_":"SP.Taxonomy.TermStore","_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ==","ContentTypePublishingHub":null,"DefaultLanguage":1
033,"Id":"\/Guid(293aa14c-2740-4a96-bb05-8b3018900399)\/","IsOnline":true,"Languages":[
1033
],"Name":"Managed Metadata Service Application Proxy","WorkingLanguage":1033
}
]
}
}
]
```

The protocol client calls the **GetAsResolvedByWeb** (section 3.1.5.8.2.2.8) method to obtain a **NavigationTermSet** object. The protocol client queries to load the child **NavigationTerm** objects for the **NavigationTermSet**.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="13" ObjectPathId="12" />
    <ObjectIdentityQuery Id="14" ObjectPathId="12" />
    <ObjectPath Id="16" ObjectPathId="15" />
    <ObjectPath Id="18" ObjectPathId="17" />
    <ObjectIdentityQuery Id="19" ObjectPathId="17" />
    <Query Id="20" ObjectPathId="17">
      <Query SelectAllProperties="false">
        <Properties>
          <Property Name="Terms">
            <Query SelectAllProperties="false">
              <Properties />
            </Query>
            <ChildItemQuery SelectAllProperties="false">
              <Properties>
                <Property Name="Title">
                  <Query SelectAllProperties="false">
                    <Properties>
                      <Property Name="Value" ScalarProperty="true" />
                    </Properties>
                  </Query>
                </Property>
                <Property Name="IsDeprecated" ScalarProperty="true" />
              </Properties>
```

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```
            </ChildItemQuery>
          </Property>
        </Properties>
      </Query>
    </Query>
  </Actions>
  <ObjectPaths>
    <Method Id="12" ParentId="11" Name="GetTermSet">
      <Parameters>
        <Parameter Type="Guid">{e742cc24-69e6-428e-81ca-156119ff0979}</Parameter>
      </Parameters>
    </Method>
    <Property Id="15" ParentId="1" Name="Web" />
    <StaticMethod Id="17" Name="GetAsResolvedByWeb" TypeId="{5ed5ae4c-8e92-4e56-af6e-
d349611614d8}">
      <Parameters>
        <Parameter ObjectPathId="12" />
        <Parameter ObjectPathId="15" />
        <Parameter Type="String">GlobalNavigationTaxonomyProvider</Parameter>
      </Parameters>
    </StaticMethod>
    <Identity Id="11" Name="fec14c62-7c3b-481b-851b-c80d7802b224:st:TKE6KUAnlkq7BYswGJADmQ=="
/>
    <StaticProperty Id="1" TypeId="{3747adcd-a3c3-41b9-bfab-4a64dd2f1e0a}" Name="Current" />
  </ObjectPaths>
</Request>
```

The protocol server returns the new **NavigationTermSet**, and 3 **NavigationTerm** objects. The 3 **NavigationTerm** objects represent the 3 menu items: Home, Products, and Events.

Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},13,{
"IsNull":false
},14,{
"_ObjectIdentity_":"fec14c62-7c3b-481b-851b-
c80d7802b224:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5"
},16,{
"IsNull":false
},18,{
"IsNull":false
},19,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5;\u00
2fsites\u002fpub1||`1|0"
},20,{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTermSet","_ObjectIdentity_":"c9a9c738-
3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5;\u00
2fsites\u002fpub1||`1|0","Terms":{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTermCollection","_Child_Items_":[
{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5Ez3RQ
qmod02eII2HbRGvzA==;\u002fsites\u002fpub1||`1|0","Title":{
```


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```
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Events"
},"IsDeprecated":true
},{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5fNhsJ
pWSxk22iH3zNA65Tw==;\u002fsites\u002fpub1||`1|0","Title":{
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Home"
},"IsDeprecated":false
},{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5M6T6h
z5OAEWqW+BDMLEqzQ==;\u002fsites\u002fpub1||`1|0","Title":{
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Products"
},"IsDeprecated":false
}
]
}
}
]
```

The protocol client calls the **CreateEmptyInstance** (section 3.1.5.10.2.2.1) method to create a new **NavigationTermSetView** object. Then it sets the **ExcludeDeprecatedTerms** (section 3.1.5.10.1.1.1) property to true on the new object. Then it calls **GetWithNewView** (section 3.1.5.8.2.2.6) to obtain a new **NavigationTermSet** object that will exclude deprecated terms.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <ObjectPath Id="35" ObjectPathId="34" />
    <SetProperty Id="36" ObjectPathId="34" Name="ExcludeDeprecatedTerms">
      <Parameter Type="Boolean">true</Parameter>
    </SetProperty>
    <ObjectPath Id="38" ObjectPathId="37" />
    <ObjectIdentityQuery Id="39" ObjectPathId="37" />
  </Actions>
  <ObjectPaths>
    <StaticMethod Id="34" Name="CreateEmptyInstance" TypeId="{097234e9-47da-431f-bd12-
173c296b187b}" />
    <Method Id="37" ParentId="17" Name="GetWithNewView">
      <Parameters>
        <Parameter ObjectPathId="34" />
      </Parameters>
    </Method>
    <Identity Id="17" Name="c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ/wl5;/sites/pu
b1||`1|0" />
  </ObjectPaths>
</Request>
```

The protocol server returns the ID of the new **NavigationTermSetView** object.

Response:

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```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},35,{
"IsNull":false
},38,{
"IsNull":false
},39,{
"_ObjectIdentity_":"c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5;|||1
"
}
]
```

The protocol client queries to load the child **NavigationTerm** objects that match the new **NavigationTermSetView** object.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <Query Id="41" ObjectPathId="37">
      <Query SelectAllProperties="false">
        <Properties>
          <Property Name="Terms">
            <Query SelectAllProperties="false">
              <Properties />
            </Query>
            <ChildItemQuery SelectAllProperties="false">
              <Properties>
                <Property Name="Title">
                  <Query SelectAllProperties="false">
                    <Properties>
                      <Property Name="Value" ScalarProperty="true" />
                    </Properties>
                  </Query>
                </Property>
                <Property Name="IsDeprecated" ScalarProperty="true" />
              </Properties>
            </ChildItemQuery>
          </Property>
        </Properties>
      </Query>
    </Query>
  </Actions>
  <ObjectPaths>
    <Identity Id="37" Name="c9a9c738-3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ/wl5;|||1" />
  </ObjectPaths>
</Request>
```

The protocol server returns 2 **NavigationTerm** objects that represent the menu items Home, and Products. Because the new view excludes deprecated terms, the **NavigationTerm** for Events was not returned.

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Response:


```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3410.1000","ErrorInfo":null
},41,{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTermSet","_ObjectIdentity_":"c9a9c738-
3bb7-475b-83f4-
7edbc963099e:nt:se:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5;|||1
","Terms":{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTermCollection","_Child_Items_":[
{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5fNhsJ
pWSxk22iH3zNA65Tw==;|||1","Title":{
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Home"
},"IsDeprecated":false
},{
"_ObjectType_":"SP.Publishing.Navigation.NavigationTerm","_ObjectIdentity_":"c9a9c738-3bb7-
475b-83f4-
7edbc963099e:nt:te:TKE6KUAnlkq7BYswGJADmeRWdF1GK2tPuhG99p0rWMckzELn5mmOQoHKFWEZ\u002fwl5M6T6h
z5OAEWqW+BDMLEqzQ==;|||1","Title":{
"_ObjectType_":"SP.Publishing.Navigation.CustomizableString","Value":"Products"
},"IsDeprecated":false
}
]
}
}
]
```


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5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

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6 Appendix A: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs:

- Microsoft® SharePoint® Server 2013 Preview

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms SHOULD or SHOULD NOT implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term MAY implies that the product does not follow the prescription.

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7 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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