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**[MS-SPWFCOM] - v20190319**
SharePoint Workflow Client-Side Object Model Protocol
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### Revision Summary

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1 Introduction

The SharePoint Workflow Client-Side Object Model Protocol provides types, methods, and properties to enable a protocol client to manage and interact with workflow functionality on a collaboration server.

Sections 1.5, 1.8, 1.9, 2, and 3 of this specification are normative. All other sections and examples in this specification are informative.

1.1 Glossary

This document uses the following terms:

- **action**: A unit of work that can be performed by a workflow and is typically defined in a workflow markup file.

- **activity**: An object that stores information about either an action or an activity model.

- **application**: A participant that is responsible for beginning, propagating, and completing an atomic transaction. An application communicates with a transaction manager in order to begin and complete transactions. An application communicates with a transaction manager in order to marshal transactions to and from other applications. An application also communicates in application-specific ways with a resource manager in order to submit requests for work on resources.

- **association form**: A form that provides parameters for a workflow association.

- **authentication**: The act of proving an identity to a server while providing key material that binds the identity to subsequent communications.

- **collateral file**: Any file stored with a workflow definition. This file is intended to be used for management of the workflow definition, or to initiate and control of an instance of the workflow definition.

- **content type**: A named and uniquely identifiable collection of settings and fields that store metadata for individual items in a SharePoint list. One or more content types can be associated with a list, which restricts the contents to items of those types.

- **content type identifier**: A unique identifier that is assigned to a content type.

**Coordinated Universal Time (UTC)**: A high-precision atomic time standard that approximately tracks Universal Time (UT). It is the basis for legal, civil time all over the Earth. Time zones around the world are expressed as positive and negative offsets from UTC. In this role, it is also referred to as Zulu time (Z) and Greenwich Mean Time (GMT). In these specifications, all references to UTC refer to the time at UTC-0 (or GMT).

- **CSOM array**: An ordered collection of values that can be used in an XML request or JSON response text. The values are identified by their position and their position is determined by a zero-based integer index.

- **CSOM Boolean**: A Boolean value that can be used in an XML request or JSON response text. A CSOM Boolean value is either "true" or "false".

- **CSOM DateTime**: An Int64 value that represents the number of 100-nanosecond time intervals that have elapsed since 12:00:00, January 1, 0001. It can be used in an XML request or as a string in JSON response text. The value can represent time intervals through 23:59:59.9999999, December 31, 9999. It can also specify whether a local, UTC, or no time zone applies.
**CSOM dictionary**: An object that contains an unordered collection of key/value pairs that can be used in an XML request or JSON response text. Each key in a CSOM dictionary has a unique name.

**CSOM GUID**: A GUID, as described in [MS-DTYP], that can be used in an XML request or as a string in JSON response text.

**CSOM Int32**: A 32-bit, signed integer value, which is the INT32 type described in [MS-DTYP], that can be used in an XML request or as a number in JSON response text. The range of CSOM Int32 values is from "-2147483648" to "2147483647".

**CSOM Stream**: A series of bytes that is used to transfer data and that supports reading, writing, and seeking.

**CSOM String**: A representation of text as a series of Unicode characters. It can be used in an XML request or JSON response text.

**empty GUID**: A 128-bit, 16-byte identification number that is represented by all zeros.

**event**: (1) Any significant occurrence in a system or an application that requires users to be notified or an entry to be added to a log.

(2) An action or occurrence to which an application might respond. Examples include state changes, data transfers, key presses, and mouse movements.

**event receiver**: A structured modular component that enables built-in or user-defined managed code classes to act upon objects, such as list items, lists, or content types, when specific triggering actions occur.

**Extensible Application Markup Language (XAML)**: A declarative XML-based language that is used to represent a tree of objects. XAML markup is stored in .xaml files or, for workflow schemas, .xoml files.

**field**: A container for metadata within a SharePoint list and associated list items.

**globally unique identifier (GUID)**: A term used interchangeably with universally unique identifier (UUID) in Microsoft protocol technical documents (TDs). Interchanging the usage of these terms does not imply or require a specific algorithm or mechanism to generate the value. Specifically, the use of this term does not imply or require that the algorithms described in [RFC4122] or [C706] must be used for generating the GUID. See also universally unique identifier (UUID).

**item**: A unit of content that can be indexed and searched by a search application.

**JavaScript Object Notation (JSON)**: A text-based, data interchange format that is used to transmit structured data, typically in Asynchronous JavaScript + XML (AJAX) web applications, as described in [RFC7159]. The JSON format is based on the structure of ECMAScript (Jscript, JavaScript) objects.

**leaf name**: The segment of a URL that follows the last slash. If the resource is a directory, the leaf name can be an empty string.

**list**: A container within a SharePoint site that stores list items. A list has a customizable schema that is composed of one or more fields.

**list item**: An individual entry within a SharePoint list. Each list item has a schema that maps to fields in the list that contains the item, depending on the content type of the item.

**published**: A condition of portions of a workbook that are marked as being available to the user when that workbook is processed by a protocol server.
**site**: A group of related pages and data within a SharePoint site collection. The structure and content of a site is based on a site definition. Also referred to as SharePoint site and web site.

**solution package**: A compressed file that can be deployed to a server farm or a site. It can contain assemblies, resource files, site and feature definitions, templates, code access security policies, and Web Parts. Solution packages have a .wsp file name extension.

**Uniform Resource Locator (URL)**: A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [RFC1738].

**workflow**: A structured modular component that enables the automated movement of documents or items through a specific sequence of actions or tasks that are related to built-in or user-defined business processes.

**workflow association**: An association of a workflow template to a specific list or content type.

**workflow host**: A service that runs XAML workflows.

**workflow identifier**: A GUID that is used to identify a workflow.

**workflow initiation form**: An implementation-specific file, typically an ASPX page, that is a part of a workflow. It contains fields and other elements that can be used to initiate a process for a list item, based on the rules and settings in a workflow template that is associated with the list that contains the item.

**workflow instance**: An instance of a workflow association that performs on a list item the process that is defined in a workflow template.

**workflow store**: A stored collection of workflow definitions, workflow associations, and files that are related to workflows.

**workflow subscription**: A relationship that determines the data a workflow uses and when the workflow will launch.

**XML**: The Extensible Markup Language, as described in [XML1.0].

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

### 1.2 References

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

### 1.2.1 Normative References

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

- [MS-CSOM] Microsoft Corporation, "SharePoint Client Query Protocol".
- [MS-WSSCAML] Microsoft Corporation, "Collaborative Application Markup Language (CAML) Structure".
1.2.2 Informative References


1.3 Overview

This protocol defines types, methods, and properties that protocol clients use to manage workflows on a site on a protocol server. The types, properties, and methods enable remote clients to manage workflow associations, to send workflow events, to control or to query workflow instances, and to manage workflow definitions and actions.

1.4 Relationship to Other Protocols

This 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] as the transport. The dependencies for this protocol are shown in the following layering diagram.

![Layering Diagram]

Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against workflows on a site that is identified by a Uniform Resource Locator (URL) that is recognized 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 workflows on a protocol server. 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 a suitable solution when the connection speed between the protocol client and the protocol server is 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 protocol client can use an API that does not require communication over a network.

1.7 Versioning and Capability Negotiation

- Security and Authentication Methods: This protocol operates in the context of the authenticated user that made a request to the service, and that it runs in the context of a particular site.

- Localization: Localization-specific properties, such as the title of a list, are returned by using the preferred language of the user, if available, or by using the default language of the site as a fallback. Certain properties can be read or written for specific locales, and are listed in the document.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.
2 Messages

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

2.2 Message Syntax
None.
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 specification does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this specification.

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

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Higher-Layer Triggered Events

None.

3.1.5 Message Processing Events and Sequencing Rules

3.1.5.1 Microsoft.SharePoint.Client.WorkflowServices.WorkflowDefinition

TypeId: {60320D36-4B4D-4BAC-A092-8F8B5610EDCD}

ShortName: SP.WorkflowServices.WorkflowDefinition

Represents a workflow definition and associated properties.

3.1.5.1.1 Properties

3.1.5.1.1.1 Description

Type: CSOM String

Accessibility: Read/Write

Specifies the description for WorkflowDefinition (section 3.1.5.1).

3.1.5.1.1.2 DisplayName

Type: CSOM String

Accessibility: Read/Write
Specifies the display name for `WorkflowDefinition` (section 3.1.5.1).

3.1.5.1.1.3 Id

Type: CSOM GUID

Accessibility: Read/Write

Specifies the workflow identifier for `WorkflowDefinition` (section 3.1.5.1).

3.1.5.1.1.4 Properties

Type: CSOM dictionary

Accessibility: Read Only

Gets the custom properties for `WorkflowDefinition` (section 3.1.5.1).

3.1.5.1.1.5 Xaml

Type: CSOM String

Accessibility: Read/Write

Specifies the XAML for `WorkflowDefinition` (section 3.1.5.1).

3.1.5.1.1.6 AssociationUrl

Type: CSOM String

Accessibility: Read/Write

Specifies the Uniform Resource Locator (URL) of the association form.

Remarks:

If the value is null or empty, the workflow has no association form.

3.1.5.1.1.7 FormField

Type: CSOM String

Accessibility: Read/Write

Defines the fields of the workflow initiation forms and association forms as specified in [MS-WSSCAML] section 2.3.2.9.

3.1.5.1.1.8 InitiationUrl

Type: CSOM String

Accessibility: Read/Write

Specifies the Uniform Resource Locator (URL) of the workflow initiation form.

Remarks:

If the value is null or empty, the workflow has no workflow initiation form.

3.1.5.1.1.9 RequiresAssociationForm
Type: **CSOM Boolean**

Accessibility: Read/Write

Determines whether to automatically generate an association form for this workflow.

Remarks:

If the value is true, and the AssociationUrl (section 3.1.5.1.1.1.6) is not already set, a default association form is automatically generated for the workflow when SaveDefinition (section 3.1.5.8.2.1.6) is called.

### 3.1.5.1.1.1.10 RequiresInitiationForm

Type: **CSOM Boolean**

Accessibility: Read/Write

Determines whether to automatically generate a workflow initiation form for this workflow.

Remarks:

If the value is true, and the InitiationUrl (section 3.1.5.1.1.1.8) is not already set, a default workflow initiation form is automatically generated for the workflow when SaveDefinition (section 3.1.5.8.2.1.6) is called.

### 3.1.5.1.1.1.11 Published

Type: **CSOM Boolean**

Accessibility: Read Only

"true" if the WorkflowDefinition (section 3.1.5.1) has been published to the external workflow host; "false" if the WorkflowDefinition is only saved on the site.

### 3.1.5.1.1.1.12 RestrictToScope

Type: **CSOM String**

Accessibility: Read/Write

Specifies the restricted scope of the WorkflowDefinition (section 3.1.5.1).

Remarks:

RestrictToScope is a GUID value, used in conjunction with the RestrictToType property to further restrict the scope of the definition. For example, if the RestrictToType is "List", then setting the RestrictToScope to a particular list identifier limits the definition to be associable only to the specified list. If the RestrictToType is "List" but the RestrictToScope is null or the empty string, then the definition is associable to any list.

### 3.1.5.1.1.1.13 RestrictToType

Type: **CSOM String**

Accessibility: Read/Write

Specifies the restricted type of the WorkflowDefinition (section 3.1.5.1).

Remarks:
**RestrictToType** determines the possible event source type for a workflow subscription that uses this definition. Possible values include "List", "Site", the empty string, or null. For example, a value of "List" indicates this definition is a list workflow and can only be associated to a list. An empty string or null value indicates this definition is a universal template, available to associate to any type.

### 3.1.5.1.1.1.14 DraftVersion

**Type:** CSOM String  
**Accessibility:** Read/Write

Identifier for a draft version of a WorkflowDefinition (section 3.1.5.1).

**Remarks:**

If **SaveDefinition** (section 3.1.5.8.2.1.6) is called with a WorkflowDefinition (section 3.1.5.1) identifier that matches the identifier of a WorkflowDefinition on the server, then the DraftVersion of the WorkflowDefinition MUST match the DraftVersion of the WorkflowDefinition on the server.

### 3.1.5.1.2 ObjectPath Properties

None.

### 3.1.5.1.2 Methods

#### 3.1.5.1.2.1 Scalar Methods

**3.1.5.1.2.1.1 SetProperty**

**Return Type:** None

This method adds a key-value pair (propertyName, value) to the WorkflowDefinition (section 3.1.5.1) object's property bag.

**Parameters:**

- **propertyName:** Name of the property to add.  
  **Type:** CSOM String
- **value:** Value of the property to add.  
  **Type:** CSOM String

#### 3.1.5.1.2.2 ObjectPath Methods

**3.1.5.1.2.2.1 CSOM Constructor**

Creates an instance of the WorkflowDefinition (section 3.1.5.1) object.

**Parameters:** None

### 3.1.5.2 Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance

**TypeId:** {AEC0FE18-F5E5-4C65-A9D3-550B4169B1BC}  
**ShortName:** SP.WorkflowServices.WorkflowInstance
Represents a workflow instance.

3.1.5.2.1 Properties

3.1.5.2.1.1 Scalar Properties

3.1.5.2.1.1.1 InstanceCreated
Type: CSOM DateTime
Accessibility: Read Only
Gets the Coordinated Universal Time (UTC) when this WorkflowInstance (section 3.1.5.2) was created.

3.1.5.2.1.1.2 LastUpdated
Type: CSOM DateTime
Accessibility: Read Only
Gets the Coordinated Universal Time (UTC) when this WorkflowInstance (section 3.1.5.2) state was last persisted.

3.1.5.2.1.1.3 Properties
Type: CSOM dictionary
Accessibility: Read Only
Specifies the properties of this WorkflowInstance (section 3.1.5.2).

3.1.5.2.1.1.4 Status
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowStatus
Accessibility: Read Only
Specifies the runtime status of this WorkflowInstance (section 3.1.5.2).

3.1.5.2.1.1.5 UserStatus
Type: CSOM String
Accessibility: Read/Write
Specifies the custom status set by workflow authors of this WorkflowInstance (section 3.1.5.2).

3.1.5.2.1.1.6 WorkflowSubscriptionId
Type: CSOM GUID
Accessibility: Read Only
Gets the unique identifier of the subscription that instantiates the WorkflowInstance (section 3.1.5.2).

3.1.5.2.1.1.7 Id
Type: **CSOM GUID**

**Accessibility:** Read Only

Gets the unique identifier of the **WorkflowInstance** (section 3.1.5.2).

### 3.1.5.2.1.8 FaultInfo

**Type:** **CSOM String**

**Accessibility:** Read Only

Contains the error string or exception information if the workflow faults.

### 3.1.5.2.1.2 ObjectPath Properties

None.

### 3.1.5.2.2 Methods

#### 3.1.5.2.2.1 Scalar Methods

None.

#### 3.1.5.2.2.2 ObjectPath Methods

None.

### 3.1.5.3 Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceCollection

**TypeId:** `{AEC0FE18-F5E5-4C65-A9D3-550B4169B1BB}`

**ShortName:** SP.WorkflowServices.WorkflowInstanceCollection

A collection of **WorkflowInstance** (section 3.1.5.2) objects.

#### 3.1.5.3.1 Properties

##### 3.1.5.3.1.1 Scalar Properties

None.

##### 3.1.5.3.1.2 ObjectPath Properties

None.

#### 3.1.5.3.2 Methods

##### 3.1.5.3.2.1 Scalar Methods

None.

##### 3.1.5.3.2.2 ObjectPath Methods

None.
3.1.5.4 Microsoft.SharePoint.Client.WorkflowServices.WorkflowServicesManager

TypeId: {4CCC7F0E-BF7E-4477-999C-6458A7D0039}

ShortName: SP.WorkflowServices.WorkflowServicesManager

Describes the workflow host configuration states and provides service objects that interact with the workflow.

3.1.5.4.1 Properties

3.1.5.4.1.1 Scalar Properties

3.1.5.4.1.1.1 AppId

Type: CSOM String

Accessibility: Read Only

The current application identifier.

3.1.5.4.1.1.2 IsConnected

Type: CSOM Boolean

Accessibility: Read Only

Indicates whether this workflow service is actively connected to a workflow host.

3.1.5.4.1.1.3 ScopePath

Type: CSOM String

Accessibility: Read Only

Returns the path of the current scope in the workflow host.

3.1.5.4.1.1.4 ServiceHealthStatus

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowServiceHealthStatus

Accessibility: Read Only

Returns the status of the current scope in the workflow host.

3.1.5.4.1.2 ObjectPath Properties

3.1.5.4.1.2.1 Current

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowServicesManager

Accessibility: Read Only

Returns the WorkflowServicesManager (section 3.1.5.4) for the current Web ([MS-CSOMSPT] section 3.2.5.143) context.

3.1.5.4.2 Methods

3.1.5.4.2.1 Scalar Methods
3.1.5.4.2.1.1 IsIntegratedApp  
Return Type: CSOM Boolean  
Indicates whether the current Web ([MS-CSOMSPT] section 3.2.5.143) is an integrated application.  
Parameters: None

3.1.5.4.2.2 ObjectPath Methods

3.1.5.4.2.2.1 GetWorkflowDeploymentService  
Returns the WorkflowDeploymentService (section 3.1.5.8), which manages WorkflowDefinition (section 3.1.5.1) objects and activities.  
Parameters: None

3.1.5.4.2.2.2 GetWorkflowInstanceService  
Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceService  
Returns the WorkflowInstanceService (section 3.1.5.9), which manages workflow instances.  
Parameters: None

3.1.5.4.2.2.3 GetWorkflowInteropService  
Return Type: Microsoft.SharePoint.Client.WorkflowServices.InteropService  
Returns the InteropService (section 3.1.5.7), which provides methods to start or to wait for other workflows.  
Parameters: None

3.1.5.4.2.2.4 GetWorkflowSubscriptionService  
Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionService  
Returns the WorkflowSubscriptionService (section 3.1.5.10), which manages workflow subscriptions.  
Parameters: None

3.1.5.4.2.2.5 CSOM Constructor  
Creates an instance of the WorkflowServicesManager (section 3.1.5.4) scoped to the specified Web ([MS-CSOMSPT] section 3.2.5.143).  
Parameters:  
web: The Web in which the WorkflowServicesManager will operate. The WorkflowServicesManager can be used to return instances of objects that allow management and interaction with workflow services, and these will be scoped to the Web specified by this constructor.  
Type: Microsoft.SharePoint.Client.Web
3.1.5.5 Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

TypeId: {D185EDE6-C3C3-4D37-9E8C-2382DEB37708}

ShortName: SP.WorkflowServices.WorkflowSubscription

Represents a workflow subscription. Updating this subscription will asynchronously update the subscription in the external workflow host.

3.1.5.5.1 Properties

3.1.5.5.1.1 Scalar Properties

3.1.5.5.1.1.1 DefinitionId

Type: CSOM GUID

Accessibility: Read/Write

Specifies the identifier of the WorkflowDefinition (section 3.1.5.1) that this WorkflowSubscription (section 3.1.5.5) will use.

3.1.5.5.1.1.2 EventSourceId

Type: CSOM GUID

Accessibility: Read/Write

Specifies a unique identifier for the logical source of the event. Used by the EnumerateSubscriptionsByEventSource (section 3.1.5.10.2.2.3).

3.1.5.5.1.1.3 Id

Type: CSOM GUID

Accessibility: Read/Write

Gets or sets the unique identifier of this WorkflowSubscription (section 3.1.5).

3.1.5.5.1.1.4 Name

Type: CSOM String

Accessibility: Read/Write

Gets or sets the display name of this WorkflowSubscription (section 3.1.5).

3.1.5.5.1.1.5 PropertyDefinitions

Type: CSOM dictionary

Accessibility: Read Only

Specifies the set of properties that will be available to the workflow instance at runtime.

3.1.5.5.1.1.6 Enabled

Type: CSOM Boolean

Accessibility: Read/Write
Enables or disables this WorkflowSubscription (section 3.1.5.5). When "false", new instances of the subscription cannot be started, but existing instances will continue to run.

3.1.5.5.1.7 StatusFieldName

Type: CSOM String

Accessibility: Read/Write

Gets or sets the name of the workflow status field on the list.

Remarks:

Only used for list workflows. If the value is null or the empty string, then a new status field will be created on the specified list when calling PublishSubscriptionForList (section 3.1.5.10.2.1.3), and StatusFieldName is then set to the name of the new status field.

3.1.5.5.1.8 EventTypes

Type: CSOM array of CSOM String

Accessibility: Read/Write

Specifies the list of event (1) types that this WorkflowSubscription (section 3.1.5.5) monitors.

For list events, these map to an SPEventReceiverType enumeration value, as specified in [MS-SPPTC] section 2.2.1.5.

3.1.5.5.1.9 ManualStartBypassesActivationLimit

Type: CSOM Boolean

Accessibility: Read/Write

If the value is true, then multiple workflow instances can be manually started on the same list item at the same time. Otherwise, the maximum number of workflow instances is limited. Only applicable on list workflows.

3.1.5.5.1.10 ParentContentTypeId

Type: CSOM String

Accessibility: Read/Write

Specifies the parent content type identifier workflow can be activated with.

3.1.5.5.1.2 ObjectPath Properties

None.

3.1.5.5.2 Methods

3.1.5.5.2.1 Scalar Methods

3.1.5.5.2.1.1 SetProperty

Return Type: None

Specifies the properties for the PropertyDefinitions (section 3.1.5.1.5).
Parameters:

*name*: The name of the property.

Type: **CSOM String**

*value*: The value of the property.

Type: CSOM String

### 3.1.5.5.2.1.2 GetExternalVariable

**Return Type**: CSOM String

Returns the value associated with the external variable name.

Parameters:

*name*: The name of the external variable.

Type: CSOM String

### 3.1.5.5.2.1.3 SetExternalVariable

**Return Type**: None

Specifies the default value for this external variable.

Parameters:

*name*: The name of the external variable.

Type: **CSOM String**

*value*: The value of the external variable.

Type: CSOM String

### 3.1.5.5.2.2 ObjectPath Methods

#### 3.1.5.5.2.2.1 CSOM Constructor

Creates an instance of the **WorkflowSubscription** (section 3.1.5.5) object.

**Parameters**: None

### 3.1.5.6 Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionCollection

**TypeId**: `{D185EDE6-C3C3-4D37-9E8C-2382DEB37707}`

**ShortName**: SP.WorkflowServices.WorkflowSubscriptionCollection

A collection of **WorkflowSubscription** (section 3.1.5.5) objects.

### 3.1.5.6.1 Properties

#### 3.1.5.6.1.1 Scalar Properties

None.
3.1.5.6.2.1 Sort

Return Type: None

Sorts the workflow subscriptions in this collection.

Parameters: None

3.1.5.6.2.2 ObjectPath Methods

None.

3.1.5.7 Microsoft.SharePoint.Client.WorkflowServices.InteropService

TypeId: {AEDA1AE7-A445-429D-AD92-1D6B00DF7102}

ShortName: SP.WorkflowServices.InteropService

Allows the workflows to call other workflows.

3.1.5.7.1 Properties

3.1.5.7.1.1 Scalar Properties

None.

3.1.5.7.1.2 ObjectPath Properties

3.1.5.7.1.2.1 Current

Type: Microsoft.SharePoint.Client.WorkflowServices.InteropService

Accessibility: Read Only

Gets the current InteropService (section 3.1.5.7) for this request.

3.1.5.7.2 Methods

3.1.5.7.2.1 Scalar Methods

3.1.5.7.2.1.1 CancelWorkflow

Return Type: None

Stops a workflow.

Parameters:

instanceId: Identifier of the workflow to cancel.
**Type:** CSOM GUID

### 3.1.5.7.2.1.2 DisableEvents

**Return Type:** None

Removes workflow events from an object.

**Parameters:**

*listId:* Identifier of a list on which to remove workflow events. Use an empty GUID to specify events that SHOULD be disabled at the higher web scope.

**Type:** CSOM GUID

*itemGuid:* GUID that identifies a list item. Use an empty GUID to ignore the parameter.

**Type:** CSOM GUID

### 3.1.5.7.2.1.3 EnableEvents

**Return Type:** None

Enables workflow events on an object.

**Parameters:**

*listId:* Optional identifier of a list on which to enable workflow events. Use an empty GUID to specify events will be enabled at the higher web scope.

**Type:** CSOM GUID

*itemGuid:* GUID that identifies a list item. Use an empty GUID to ignore the parameter.

**Type:** CSOM GUID

### 3.1.5.7.2.1.4 StartWorkflow

**Return Type:** CSOM GUID

Starts a workflow.

**Parameters:**

*associationName:* The association name of the workflow to start.

**Type:** CSOM String

*correlationId:* GUID that represents this request.

**Type:** CSOM GUID

*listId:* Identifier of a list on which to start. Use an empty GUID to specify this is a site workflow that runs at the scope of the web rather than a specific list.

**Type:** CSOM GUID

*itemGuid:* GUID that identifies a list item. Use an empty GUID for site workflows.

**Type:** CSOM GUID

*workflowParameters:* Parameters passed to the new workflow.
Type: **CSOM dictionary**

### 3.1.5.7.2.2 ObjectPath Methods

None.

### 3.1.5.8 Microsoft.SharePoint.Client.WorkflowServices.WorkflowDeploymentService

**TypeId:** {3573A52F-3A27-4700-A08E-822C191C2C5D}

**ShortName:** SP.WorkflowServices.WorkflowDeploymentService

Manages the **WorkflowDefinition** (section 3.1.5.1) objects and activity authoring.

#### 3.1.5.8.1 Properties

**3.1.5.8.1.1 Scalar Properties**

None.

**3.1.5.8.1.2 ObjectPath Properties**

None.

#### 3.1.5.8.2 Methods

**3.1.5.8.2.1 Scalar Methods**

**3.1.5.8.2.1.1 DeleteDefinition**

**Return Type:** None

Deletes a **WorkflowDefinition** (section 3.1.5.1).

**Parameters:**

- `definitionId`: Identifier of the **WorkflowDefinition** (section 3.1.5.1).
  
  **Type:** **CSOM GUID**

**3.1.5.8.2.1.2 DeprecateDefinition**

**Return Type:** None

Marks a **WorkflowDefinition** (section 3.1.5.1) object as deprecated.

**Parameters:**

- `definitionId`: Identifier of the definition to deprecate.
  
  **Type:** **CSOM GUID**

**3.1.5.8.2.1.3 GetActivitySignatures**

**Return Type:** **CSOM dictionary**

Returns a collection of **XML** that represents the signature of a **XAML** (section 3.1.5.1.1.5) class.

**Parameters:**

None.
**lastChanged:** The time to check for latest changes. Any signatures older than this time are excluded.

Type: **CSOM DateTime**

**3.1.5.8.2.1.4 GetDesignerActions**

**Return Type:** **CSOM String**

Returns the list of valid workflow actions for this server.

**Parameters:**

- **web:** The site from which to read the workflow actions.
  
  Type: Microsoft.SharePoint.Client.Web

**3.1.5.8.2.1.5 PublishDefinition**

**Return Type:** None

Publishes a **WorkflowDefinition** (section 3.1.5.1) to the workflow store.

**Parameters:**

- **definitionId:** The identifier of the definition to publish.
  
  Type: **CSOM GUID**

**3.1.5.8.2.1.6 SaveDefinition**

**Return Type:** **CSOM GUID**

Returns the unique identifier of the **WorkflowDefinition** (section 3.1.5.1) in the workflow store.

**Parameters:**

- **definition:** The definition to save.
  
  Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowDefinition

**3.1.5.8.2.1.7 ValidateActivity**

**Return Type:** **CSOM String**

Validates the activity against the workflow store. Returns the error message encountered during validation, or null if successful.

**Parameters:**

- **activityXaml:** The activity to validate.
  
  Type: CSOM String

**3.1.5.8.2.1.8 DeleteCollateral**

**Return Type:** None

Deletes the URL of a collateral file for a **WorkflowDefinition** (section 3.1.5.1).

**Parameters:**
**workflowDefinitionId**: Identifier of the **WorkflowDefinition** (section 3.1.5.1).

Type: **CSOM GUID**

**leafFileName**: The **leaf name** of the collateral file.

Type: **CSOM String**

### 3.1.5.8.2.1.9 GetCollateralUri

**Return Type**: **CSOM String**

Retrieves the **URL** of a collateral file for a **WorkflowDefinition** (section 3.1.5.1).

**Parameters**:

**workflowDefinitionId**: Identifier of the **WorkflowDefinition** (section 3.1.5.1).

Type: **CSOM GUID**

**leafFileName**: The **leaf name** of the collateral file.

Type: **CSOM String**

### 3.1.5.8.2.1.10 PackageDefinition

**Return Type**: **CSOM String**


**Parameters**:

**definitionId**: The ID of the definition to package.

Type: **CSOM GUID**

**packageDefaultFilename**: The default file name to choose for the new package.

Type: **CSOM String**

**packageTitle**: The package title.

Type: **CSOM String**

**packageDescription**: The package description.

Type: **CSOM String**

### 3.1.5.8.2.1.11 SaveCollateral

**Return Type**: None

Saves the collateral file for a **WorkflowDefinition** (section 3.1.5.1).

**Parameters**:

**workflowDefinitionId**: Identifier of the **WorkflowDefinition** (section 3.1.5.1).

Type: **CSOM GUID**

**leafFileName**: The **leaf name** of the collateral file.
IsIntegratedApp

Return Type: CSOM Boolean
Indicates whether the current Web ([MS-CSOMSPT] section 3.2.5.143) is an integrated application.

Parameters: None

ObjectPath Methods

GetDefinition

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowDefinition
Returns a WorkflowDefinition (section 3.1.5.1) from the workflow store.

Parameters:
definitionId: The identifier of the definition to retrieve.
Type: CSOM GUID

EnumerateDefinitions

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowDefinitionCollection
Returns the WorkflowDefinition (section 3.1.5.1) objects from the workflow store that match the specified parameters.

Parameters:
publishedOnly: "true" if only published workflows will be returned.
Type: CSOM Boolean

EnumerateIntegratedApps

Return Type: CSOM array of Microsoft.SharePoint.Client.AppInstance
Returns a list of instances of the integrated application in the current Web ([MS-CSOMSPT] section 3.2.5.143).

Parameters: None


TypeId: {71252277-2470-4022-BCAF-C4657AA118C3}
ShortName: SP.WorkflowServices.WorkflowInstanceService
Manages and reads workflow instances from the workflow host.

Properties
3.1.5.9.1.1  Scalar Properties
None.

3.1.5.9.1.2  ObjectPath Properties

3.1.5.9.1.2.1 Current
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceService
Accessibility: Read Only
Returns the current instance of the WorkflowInstanceService (section 3.1.5.9)

3.1.5.9.2 Methods

3.1.5.9.2.1  Scalar Methods

3.1.5.9.2.1.1 CancelWorkflow
Return Type: None
Sends a cancel message to a workflow specified by the given instance.

Parameters:
instance: The WorkflowInstance (section 3.1.5.2) to cancel.
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance

3.1.5.9.2.1.2 StartWorkflow
Return Type: CSOM GUID
Starts a WorkflowInstance (section 3.1.5.2) specified by the given workflow subscription and payload.

Parameters:
subscription: The WorkflowSubscription (section 3.1.5.5) from which to start a new WorkflowInstance (section 3.1.5.2).
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription
payload: Parameters to pass into the WorkflowInstance (section 3.1.5.2).
Type: CSOM dictionary

3.1.5.9.2.1.3 TerminateWorkflow
Return Type: None
Terminates a workflow specified by the given workflow instance).

Parameters:
instance: The WorkflowInstance (section 3.1.5.2) to terminate.
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance
### 3.1.5.9.2.1.4 PublishCustomEvent

**Return Type:** None

Sends a custom event and its payload to a *workflow* specified by the given *workflow instance*.

**Parameters:**

- **instance:** The *WorkflowInstance* (section 3.1.5.2) to receive the custom event.
  
  Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance

- **eventName:** Name of the custom event.
  
  Type: CSOM String

- **payload:** Payload of the custom event.
  
  Type: CSOM String

### 3.1.5.9.2.1.5 CountInstances

**Return Type:** CSOM Int32

Returns a count of all the *workflow instances* of the specified *WorkflowSubscription* (section 3.1.5.5).

**Parameters:**

- **parentSubscription:** The parent *workflow subscription* of the instances to count.
  
  Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

### 3.1.5.9.2.1.6 CountInstancesWithStatus

**Return Type:** CSOM Int32

Returns a count of the *workflow instances* of the specified *WorkflowSubscription* (section 3.1.5.5) with the specified status.

**Parameters:**

- **parentSubscription:** The parent *workflow subscription* of the instances to count.
  
  Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

- **status:** Only instances with this status (section 3.1.5.12) value are counted. If the value is *WorkflowStatus.NotSpecified* (section 3.1.5.12.1.8), instances in all statuses are counted.
  
  Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowStatus

### 3.1.5.9.2.1.7 StartWorkflowOnListItem

**Return Type:** CSOM GUID

Starts a *WorkflowInstance* (section 3.1.5.2) specified by the given *workflow subscription* on the given *list item*, and passes additional parameters.

**Parameters:**

---

[MS-SPWFCOM] - v20190319
SharePoint Workflow Client-Side Object Model Protocol
Copyright © 2019 Microsoft Corporation
Release: March 19, 2019
subscription: The **WorkflowSubscription** (section 3.1.5.5) from which to start a new **WorkflowInstance** (section 3.1.5.2).

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

**itemId:** The identifier of an existing list item on which to start a new **WorkflowInstance** (section 3.1.5.2).

Type: **CSOM Int32**

**payload:** Parameters to pass into the **WorkflowInstance** (section 3.1.5.2).

Type: **CSOM dictionary**

### 3.1.5.9.2.1.8 GetDebugInfo

**Return Type:** **CSOM String**

Retrieves the debug information for the specified **WorkflowInstance** (section 3.1.5.2) in **JavaScript Object Notation (JSON)** format.

**Parameters:**

**instance:** The workflow instance to get debug information for.

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance

### 3.1.5.9.2.1.9 ResumeWorkflow

**Return Type:** None

Resumes a workflow instance.

**Parameters:**

**instance:** The workflow instance to resume.

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance

### 3.1.5.9.2.1.10 SuspendWorkflow

**Return Type:** None

Suspends a workflow instance.

**Parameters:**

**instance:** The workflow instance to suspend.

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance

### 3.1.5.9.2.1.11 StartWorkflowOnListItemBySubscriptionId

**Return Type:** **CSOM GUID**

Starts a **WorkflowInstance** (section 3.1.5.2) specified by the given workflow instance id on the given list item, and passes additional parameters.

**Parameters:**

---
subscriptionId: The guid of WorkflowSubscription (section 3.1.5.5) from which to start a WorkflowInstance (section 3.1.5.2).
Type: CSOM GUID

itemId: The identifier of an existing list item on which to start a new WorkflowInstance (section 3.1.5.2).
Type: CSOM Int32

payload: Parameters to pass into the WorkflowInstance (section 3.1.5.2).
Type: CSOM dictionary

3.1.5.9.2.2 ObjectPath Methods

3.1.5.9.2.2.1 Enumerate

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceCollection

Gets a collection of workflow instances started by the specified workflow subscription.

Parameters:

parentSubscription: The WorkflowSubscription (section 3.1.5.5) that started the workflow instances.
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

3.1.5.9.2.2.2 GetInstance

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstance

Returns a WorkflowInstance (section 3.1.5.2) from an external workflow store matching a specified workflow instance identifier.

Parameters:

instanceId: Unique identifier of the WorkflowInstance (section 3.1.5.2).
Type: CSOM GUID

3.1.5.9.2.2.3 EnumerateInstancesForListItem

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceCollection

Returns the workflow instances for the specified list item.

Parameters:

listId: The identifier of the list to which the item belongs.
Type: CSOM GUID

itemId: The identifier of the item to get the instances for.
Type: CSOM Int32

3.1.5.9.2.2.4 EnumerateInstancesForSite

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceCollection
Returns the site workflow instances for the current site.

Parameters: None

3.1.5.9.2.2.5 EnumerateInstancesForListItemWithOffset

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceCollection

Returns the collection of up to 100 workflow instances for the specified list item, starting from the specified offset.

Parameters:

listId: The identifier of the list to which the item belongs.
Type: CSOM GUID

itemId: The identifier of the item to get the workflow instances for.
Type: CSOM Int32

offset: The number of workflow instances to skip before returning the next 100 instances.
Type: CSOM Int32

3.1.5.9.2.2.6 EnumerateInstancesForSiteWithOffset

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceCollection

Returns the collection of up to 100 site workflow instances for the current site, starting from the specified offset.

Parameters:

offset: The number of workflow instances to skip before returning the next 100 instances.
Type: CSOM Int32

3.1.5.9.2.2.7 EnumerateWithOffset

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowInstanceCollection

Returns a collection of up to 100 workflow instances started by the specified subscription, starting from the specified offset.

Parameters:

parentSubscription: The subscription that started the workflow instances to get.
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

offset: The number of workflow instances to skip before returning the next 100 instances.
Type: CSOM Int32

3.1.5.10 Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionService

TypeId: {FC956693-2419-4950-8963-52EBC3E46501}

ShortName: SP.WorkflowServices.WorkflowSubscriptionService
Manages workflow subscriptions for a workflow.

3.1.5.10.1 Properties

3.1.5.10.1.1 Scalar Properties

None.

3.1.5.10.1.2 ObjectPath Properties

3.1.5.10.1.2.1 Current

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionService

Accessibility: Read Only

Returns the current WorkflowSubscriptionService (section 3.1.5.10) object.

3.1.5.10.2 Methods

3.1.5.10.2.1 Scalar Methods

3.1.5.10.2.1.1 DeleteSubscription

Return Type: None

Deletes the specified WorkflowSubscription (section 3.1.5.5).

Parameters:

subscriptionId: The identifier of the subscription to delete.

Type: CSOM GUID

3.1.5.10.2.1.2 PublishSubscription

Return Type: CSOM GUID

Creates a workflow subscription for a workflow, and returns the unique identifier of the new subscription.

Parameters:

subscription: The WorkflowSubscription (section 3.1.5.5) data to publish.

Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

3.1.5.10.2.1.3 PublishSubscriptionForList

Return Type: CSOM GUID

Creates a workflow subscription for a workflow and if necessary an event receiver on the specified list. Also writes an EventSourceId (section 3.1.5.1.1.2) that matches the list as the event (2) source. Returns the unique identifier of the new subscription.

Parameters:

subscription: The WorkflowSubscription (section 3.1.5.5) data to publish.
Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

**listId**: Identifier for the specified list.
Type: CSOM GUID

### 3.1.5.10.2.1.4 RegisterInterestInHostWebList
**Return Type**: None

Creates an **event receiver** on a **list** for the specified **event (2)** on the host web if necessary.

**Parameters**:

- **listId**: **GUID** of the list to ensure the event receiver on.
  Type: CSOM GUID

- **eventName**: The name of the event (2) the receiver is for.
  Type: CSOM String

### 3.1.5.10.2.1.5 RegisterInterestInList
**Return Type**: None

Ensures that an **event receiver** will monitor a list for the specified **event (2)**.

**Parameters**:

- **listId**: **GUID** that specifies the list to monitor via an event receiver.
  Type: CSOM GUID

- **eventName**: The name of the event (2) to monitor.
  Type: CSOM String

### 3.1.5.10.2.1.6 UnregisterInterestInHostWebList
**Return Type**: None

Removes an **event receiver** from the **list** on the host web for the specified **event (2)**.

**Parameters**:

- **listId**: **GUID** of the list containing the event receiver to be unregistered.
  Type: CSOM GUID

- **eventName**: The name of the event (2) to be removed.
  Type: CSOM String

### 3.1.5.10.2.1.7 UnregisterInterestInList
**Return Type**: None

Removes monitoring for an **event receiver** on the specified list with the specified event.

**Parameters**: 

---
listId: GUID of the list containing the event receiver to be unregistered.
Type: CSOM GUID

eventName: The name of the event (2) to be removed.
Type: CSOM String

3.1.5.10.2.2 ObjectPath Methods

3.1.5.10.2.2.1 EnumerateSubscriptions

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionCollection

Retrieves a WorkflowSubscriptionCollection (section 3.1.5.6) that contains all of the workflow subscriptions on the Web ([MS-CSOMSP] section 3.2.5.143).

Parameters: None

3.1.5.10.2.2.2 EnumerateSubscriptionsByDefinition

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionCollection

Retrieves a WorkflowSubscriptionCollection (section 3.1.5.6) based on a WorkflowDefinition (section 3.1.5.1).

Parameters:

definitionId: Identifier of a WorkflowDefinition (section 3.1.5.1) object.
Type: CSOM GUID

3.1.5.10.2.2.3 EnumerateSubscriptionsByEventSource

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionCollection

Retrieves a WorkflowSubscriptionCollection (section 3.1.5.6) based on the specified EventSourceId (section 3.1.5.5.1.1.2).

Parameters:

eventSourceId: The unique identifier of the EventSource (section 3.1.5.5.1.1.2) for the subscriptions.
Type: CSOM GUID

3.1.5.10.2.2.4 EnumerateSubscriptionsByList

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionCollection

Retrieves a WorkflowSubscriptionCollection (section 3.1.5.6) based on the specified list.

Parameters:

listId: The unique identifier of the list on which to filter the subscriptions.
Type: CSOM GUID

3.1.5.10.2.2.5 EnumerateSubscriptionsByListAndParentContentType

Return Type: Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionCollection

Retrieves a WorkflowSubscriptionCollection (section 3.1.5.6) based on the specified list and parent content type.

Parameters:

listId: The unique identifier of the list on which to filter the subscriptions.
Type: CSOM GUID
Retrieves a `WorkflowSubscriptionCollection` (section 3.1.5.6) based on the specified list and parent content type.

**Parameters:**

- **listId:** The unique identifier of the list on which to filter the subscriptions.
  - Type: CSOM GUID

- **parentContentTypeId:** The parent content type identifier.
  - Type: Microsoft.SharePoint.Client.ContentType

- **includeNoContentTypeSpecified:** True if subscriptions to the list with no content type specified is returned together.
  - Type: CSOM Boolean

**3.1.5.10.2.2.6  EnumerateSubscriptionsByListWithContentType**

**Return Type:** Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscriptionCollection

Retrieves a `WorkflowSubscriptionCollection` (section 3.1.5.6) based on the specified list.

**Parameters:**

- **listId:** The unique identifier of the list on which to filter the subscriptions.
  - Type: CSOM GUID

- **includeContentTypeSpecified:** True if subscriptions to the list with no content type specified is returned together.
  - Type: CSOM Boolean

**3.1.5.10.2.2.7  GetSubscription**

**Return Type:** Microsoft.SharePoint.Client.WorkflowServices.WorkflowSubscription

Retrieves an instance of the `WorkflowSubscription` (section 3.1.5.5) based on its unique identifier.

**Parameters:**

- **subscriptionId:** The unique identifier of the subscription.
  - Type: CSOM GUID

**3.1.5.11  Microsoft.SharePoint.Client.WorkflowServices.WorkflowDefinitionCollecti on**

**TypeId:** {66F013C8-F126-4F84-BC22-8FD0E9A3E7D3}

**ShortName:** SP.WorkflowServices.WorkflowDefinitionCollection

Represents a collection of `WorkflowDefinition` (section 3.1.5.1) objects.

**3.1.5.11.1  Properties**

**3.1.5.11.1.1  Scalar Properties**
None.

### 3.1.5.11.1.2 ObjectPath Properties

None.

### 3.1.5.11.2 Methods

#### 3.1.5.11.2.1 Scalar Methods

##### 3.1.5.11.2.1.1 Sort

**Return Type:** None

Sorts the workflow definitions in this collection.

**Parameters:** None

#### 3.1.5.11.2.2 ObjectPath Methods

None.

### 3.1.5.12 Microsoft.SharePoint.Client.WorkflowServices.WorkflowStatus

**ShortName:** SP.WorkflowServices.WorkflowStatus

**Flag:** false

An enumeration that represents the runtime status of a workflow instance.

#### 3.1.5.12.1 Field Values

##### 3.1.5.12.1.1 NotStarted

**Value:** 0

The workflow instance has not started.

##### 3.1.5.12.1.2 Started

**Value:** 1

The workflow instance has started.

##### 3.1.5.12.1.3 Suspended

**Value:** 2

The workflow instance was suspended.

##### 3.1.5.12.1.4 Canceling

**Value:** 3

The workflow instance received a cancel command and is responding to the request.

##### 3.1.5.12.1.5 Canceled
Value: 4
The workflow instance has been canceled.

3.1.5.12.1.6 Terminated
Value: 5
The workflow instance has been terminated.

3.1.5.12.1.7 Completed
Value: 6
The workflow instance has finished running and is in the completed state.

3.1.5.12.1.8 NotSpecified
Value: 7
No status has been specified.

3.1.5.12.1.9 Invalid
Value: 8
The workflow instance is in an invalid state.

3.1.5.13 Microsoft.SharePoint.Client.WorkflowServices.WorkflowServiceHealthStatus

ShortName: SP.WorkflowServices.WorkflowServiceHealthStatus
Flag: false
An enumeration that represents the status of the current scope in a workflow instance.

3.1.5.13.1 Field Values

3.1.5.13.1.1 Active
Value: 0
The workflow instance is active.

3.1.5.13.1.2 NoScope
Value: 1
The workflow instance has not been created yet.

3.1.5.13.1.3 NotConnected
Value: 2
The workflow instance is not connected.

3.1.5.13.1.4 Suspended
Value: 3
The workflow instance is suspended.

3.1.5.13.1.5 Throttled
Value: 4
The workflow instance is throttled.

3.1.5.13.1.6 Unknown
Value: 5
The workflow instance status is unrecognized.

3.1.5.13.1.7 Unregistered
Value: 6
The workflow instance is unregistered.

3.1.6 Timer Events
None.

3.1.7 Other Local Events
None.
4 Protocol Examples

4.1 Associate Workflow

In this example, a published workflow definition is associated with a list.

Request:

```xml
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
<Actions>
  <SetProperty Id="78" ObjectPathId="74" Name="DefinitionId">
    <Parameter Type="Guid">{3988dd69-2ffa-45b5-b3f0-5735d4150110}</Parameter>
  </SetProperty>
  <SetProperty Id="79" ObjectPathId="74" Name="EventSourceId">
    <Parameter Type="Guid">{96424cc8-dc44-409d-ad9e-87236ee608a2}</Parameter>
  </SetProperty>
  <SetProperty Id="80" ObjectPathId="74" Name="EventSource">
    <Parameter Type="String">e3137044-d96b-4989-ad80-aed34f0cc10b/375160a8-0ab6-46f2-9b3d-b98768430e3/96424cc8-dc44-409d-ad9e-87236ee608a2</Parameter>
  </SetProperty>
  <SetProperty Id="81" ObjectPathId="74" Name="EventType">
    <Parameter Type="String">WorkflowStart</Parameter>
  </SetProperty>
  <SetProperty Id="82" ObjectPathId="74" Name="Name">
    <Parameter Type="String">testWorkflowAssociation1</Parameter>
  </SetProperty>
  <Method Name="PublishSubscription" Id="83" ObjectPathId="30">
    <Parameters>
      <Parameter ObjectPathId="74" />
    </Parameters>
  </Method>
</Actions>
<ObjectPaths>
  <Identity Id="74" Name="50e607f0-ceab-4a8c-90c5-81e2f2ba78d9:00000000-0000-0000-0000-000000000000" />
  <Method Id="30" ParentId="25" Name="GetWorkflowSubscriptionService" />
  <Constructor Id="25" TypeId="{4ccc7f0e-bf7e-4477-999c-6458a73d0039}"
    Parameters>
    <Parameter ObjectPathId="7" />
  </Parameters>
  <Constructor Id="7" Name="740c6a0b-85e2-48a0-a494-e0f1759d4aa7:web:375160a8-0ab6-46f2-9b3d-b98768430e3" />
</ObjectPaths>
</Request>
```

Response:

```
[
  {
    "SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3427.1000","ErrorInfo":null,
    "Guid":83,"/Guid(b72d25f3-8327-41d5-836d-ad956da3eb45)"\"
  }
]
```

4.2 Publish Definition

In this example, a saved workflow definition is published.

Request:
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xn xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <Method Name="PublishDefinition" Id="24" ObjectPathId="14">
      <Parameters>
        <Parameter Type="Guid">{3988dd69-2ffa-45b5-b3f0-5735d4150110}</Parameter>
      </Parameters>
    </Method>
  </Actions>
  <ObjectPaths>
    <Method Id="14" ParentId="11" Name="GetWorkflowDeploymentService" />
    <Constructor Id="11" TypeId="{4ccc7f0e-bf7e-4477-99c6-6458a73d0039}"
      <Parameters>
        <Parameter ObjectPathId="7" />
      </Parameters>
    </Constructor>
    <Identity Id="7" Name="740c6a0b-85e2-48a0-a494-0f1759d4aa7:web:375160a8-0ab6-46f2-9b3d-b987684b30e3" />
  </ObjectPaths>
</Request>

Response:
[
{
  "SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3427.1000","ErrorInfo":null
}
]

4.3 Save Definition

In this example, a WorkflowDefinition (section 3.1.5.1) is saved.

Request:

<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xn xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <SetProperty Id="20" ObjectPathId="16" Name="DisplayName">
      <Parameter Type="String">csomTest2</Parameter>
    </SetProperty>
    <SetProperty Id="21" ObjectPathId="16" Name="Id">
      <Parameter Type="Guid">{3988dd69-2ffa-45b5-b3f0-5735d4150110}</Parameter>
    </SetProperty>
    <SetProperty Id="22" ObjectPathId="16" Name="Xaml">
      <Parameter Type="String">
        <![CDATA[
            <p:Activity mva:VisualBasic.Settings="Assembly references and imported namespaces for internal implementation" &quot;x:D;
            xmlns:mva="clr-namespace:Microsoft.VisualBasic.Activities;assembly=System.Activities" &quot;x:D;
            xmlns:s="clr-namespace:System;assembly=mscorlib" &quot;x:D;
            xmlns:s1="clr-namespace:System;assembly=mscorlib" &quot;x:D;
            xmlns:scg="clr-namespace:System.Collections.Generic;assembly=mscorlib" &quot;x:D;
            xmlns:scg1="clr-namespace:System.Collections.Generic;assembly=System.ServiceModel" &quot;x:D;
            xmlns:scg2="clr-namespace:System.Collections.Generic;assembly=System.Core" &quot;x:D;
            xmlns:scg3="clr-namespace:System.Collections.Generic;assembly=System.Core" &quot;x:D;
            xmlns:sd="clr-namespace:System.Data;assembly=System.Data" &quot;x:D;
          ]]>&quot;x:D;
        </Parameter>
      </SetProperty>
    </Request>
4.4 Start Workflow

In this example, a workflow instance is triggered from an existing workflow association.

Request:

```xml
<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="StartWorkflow" Id="150" ObjectPathId="87">
    <Parameters>
      <Parameter ObjectPathId="131" />
      <Parameter Type="Dictionary">
        <Property Name="ListId" Type="Guid">{96424cc8-dc44-409d-ad9e-87236ee608a2}</Property>
      </Parameter>
    </Parameters>
  </Method>
</Actions>
<ObjectPaths>
  <Method Id="87" ParentId="84" Name="GetWorkflowInstanceService" />
  <Identity Id="131" Name="50e607f0-ceab-4a8c-90c5-81e2f2ba78d9:b72d25f3-8327-41d5-836d-ad956da3eb45" />
</ObjectPaths>
</Request>
```

Response:

```
{
  "SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3427.1000","ErrorInfo":null
},23,"/Guid(3988dd69-2ffa-45b5-b3f0-5735d4150110)"
}
```
Response:

```
[
{
"SchemaVersion":"15.0.0.0","LibraryVersion":"15.0.3427.1000","ErrorInfo":null
},150,"\Guid(4f5dc953-22c4-40ad-8ae8-75c3af9bf339)\n"
}
```
5 Security

5.1 Security Considerations for Implementers
None.

5.2 Index of Security Parameters
None.
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 updates to those products.

- Microsoft SharePoint Server 2013
- Microsoft SharePoint Server 2016
- Microsoft SharePoint Server 2019

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates 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.
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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