[MS-WWSP]:
Workflow Web Service Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
04/04/2008	0.1		Initial Availability
06/27/2008	1.0	Major	Revised and edited the technical content
10/06/2008	1.01	Editorial	Revised and edited the technical content
12/12/2008	1.02	Editorial	Revised and edited the technical content
07/13/2009	1.03	Major	Revised and edited the technical content
08/28/2009	1.04	Editorial	Revised and edited the technical content
11/06/2009	1.05	Editorial	Revised and edited the technical content
02/19/2010	2.0	Major	Updated and revised the technical content
03/31/2010	2.01	Editorial	Revised and edited the technical content
04/30/2010	2.02	Minor	Updated the technical content
06/07/2010	2.03	Editorial	Revised and edited the technical content
06/29/2010	2.04	Editorial	Changed language and formatting in the technical content.
07/23/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
09/27/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
11/15/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
12/17/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1   Introduction

This document specifies the Workflow Web Service Protocol. This protocol specifies the communication sequences used to query, start, and manipulate workflows on a document.

1.1   Glossary

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

> **Coordinated Universal Time (UTC)**
> **globally unique identifier (GUID)**

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

> **claim**
> **document**
> **group**
> **list**
> **list identifier**
> **list item identifier**
> **site**
> **SOAP (Simple Object Access Protocol)**
> **SOAP action**
> **SOAP body**
> **SOAP fault**
> **SOAP message**
> **URL (Uniform Resource Locator)**
> **workflow**
> **workflow association**
> **workflow identifier**
> **workflow instance**
> **workflow task**
> **workflow template**
> **XML namespace**
> **XML Schema**

The following terms are specific to this document:

> **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

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.

[MS-PRSTFR] Microsoft Corporation, "ADO XML Persistence Format Protocol Specification", June 2008.

[MS-WSSPROG] Microsoft Corporation, "Windows SharePoint Services: Content Database Programmability Extensions Communications Protocol Specification", June 2008.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, http://www.ietf.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

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", May 2000, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

[SOAP1.2/1] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part1-20030624

[SOAP1.2/2] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part2-20030624

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, http://www.w3.org/TR/2001/NOTE-wsdl-20010315

[XML10] World Wide Web Consortium, "Extensible Markup Language (XML) 1.0 (Third Edition)", February 2004, http://www.w3.org/TR/REC-xml

[XMLINFOSET] World Wide Web Consortium, "XML Information Set (Second Edition)", February 2004, http://www.w3.org/TR/2004/REC-xml-infoset-20040204

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation 8 December 2009, http://www.w3.org/TR/REC-xml-names/

[XMLSCHEMA1] Thompson, H.S., Ed., Beech, D., Ed., Maloney, M., Ed., and Mendelsohn, N., Ed., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/

[XMLSCHEMA2] Biron, P.V., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/

1.2.2   Informative References

[MS-GLOS] Microsoft Corporation, "Windows Protocols Master Glossary", March 2007.

[MS-OFCGLOS] Microsoft Corporation, "Microsoft Office Master Glossary", June 2008.

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

1.3   Protocol Overview (Synopsis)

The purpose of this protocol is to enable protocol clients to query, start, and manipulate **workflows** associated with a **document**. The following information can be gathered by the protocol client when using this protocol:

- Existing **workflow instances**.

- **Workflow tasks** emitted by a workflow instances.

- Available **workflow associations** for a specified **list (1)**.

In addition, protocol clients can create new workflow instances from a workflow association for a document or modify workflow tasks related to a document.

Each method in the protocol is a **SOAP action** that accepts a set of parameters as a SOAP request and returns a set of values as a SOAP response. The protocol client sends a request to the protocol server by a request **SOAP message**, and the protocol server sends return values to the protocol client by a response SOAP message.

1.4 Relationship to Other Protocols

This protocol uses **SOAP (Simple Object Access Protocol)** for formatting requests and responses as described in either [SOAP1.1] or [SOAP1.2/1] and [SOAP1.2/2]. It transmits these messages using the HTTP protocol as described in [RFC2616] or the HTTPS protocol as described in [RFC2818].

The following diagram shows the underlying messaging and transport stack that this protocol uses:
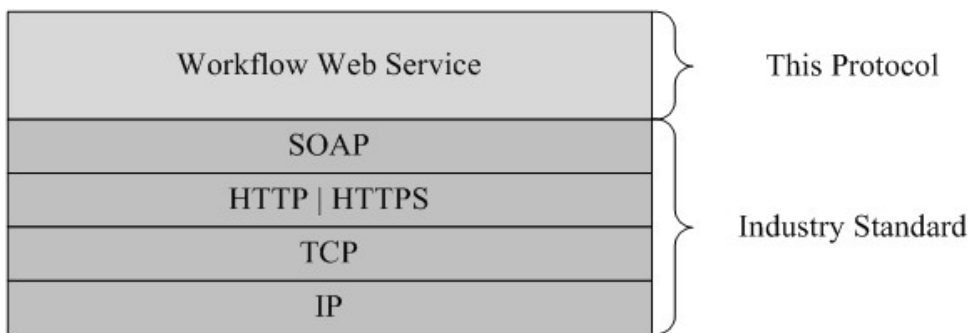
Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

The protocol client must have the **URL** of the protocol server with which it wants to communicate, which is usually provided by the user as prompted in the client user interface. If required by the protocol server, the protocol client must authenticate by using the underlying HTTP mechanisms, as described in [RFC2616] section 14.8.<1>

The protocol client is also expected to have a valid document URL or list URL for use with this protocol.

1.6 Applicability Statement

This protocol is used to query information about, instantiate, or operate on workflows or workflow associations on a remote server.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported transports:** This protocol uses multiple transports with SOAP as described in section 2.1.

- **Localization:** This protocol includes text strings in various messages. Localization considerations for such strings are described in sections 2.2 and 3.1.4.

1.8   Vendor-Extensible Fields

The AlterToDo message contains a **TaskData** section that can be any set of XML nodes as described in section 3.1.4.1. These nodes can be used to alter the workflow task described by the message. This is described in section 4.3.5.

The StartWorkflow message contains a **workflowParameters** section that can be any set of XML nodes. These nodes are passed to the workflow that was created by sending this message. The implementation could validate, modify, replace, or remove data in this element. The vendor of the **workflow template** and any implementation that runs during a workflow is responsible for handling the contents of this node. This is described in section 4.3.4.

The XML node from the common **ToDoData** element defined in 2.2.3.2 can be any valid Rowset XML, as described in [MS-PRSTFR] section 2.4, and can be modified within the constraints of that protocol specification. For example, the implementer could validate a URL in this node or add other attributes to an **rs:row** element that conforms to the specification. This is described in section 4.3.1.

The **WorkflowTemplates.WorkflowTemplate.AssociationData** node of the common **TemplateData** element, as defined in 2.2.3.1, can be any set of XML nodes. These nodes are passed from the workflow association to the protocol client. The implementer of the workflow template and any logic that creates this workflow association are responsible for the contents of this node. This is described in section 4.3.2.

The **WorkflowTemplates.WorkflowTemplate.Metadata** node of the common **TemplateData** element, as defined in 2.2.3.1 can contain five extensible nodes. These nodes are **WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURN**, **WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURI**, **WorkflowTemplates.WorkflowTemplate.Metadata.InitiationCategories**, **WorkflowTemplates.WorkflowTemplate.Metadata.AssignmentStagesName**, and **WorkflowTemplates.WorkflowTemplate.Metadata.SigClientSettings**. The vendor of the workflow template is responsible for the existence and contents of these nodes. Implementers of this protocol that send the StartWorkflow message can use the contents of these nodes to restrict, modify, or suggest contents of the **workflowParameters** node of the StartWorkflow message. This is described in section 4.3.3.

1.9   Standards Assignments

None.

2 Messages

2.1 Transport

Protocol servers MUST support SOAP over HTTP. Protocol servers SHOULD additionally support SOAP over HTTPS for securing communication with clients.

Protocol messages MUST be formatted as specified in [SOAP1.2/1] section 5. Protocol server faults MUST be returned either using HTTP Status Codes as specified in [RFC2616] section 10 or using **SOAP fault** as specified in [SOAP1.1] section 4.4, or [SOAP1.2/1] section 5.4, SOAP Fault.

2.2 Common Message Syntax

This section contains common definitions used by this protocol. The syntax of the definitions uses the **XML Schema** as specified in [XMLSCHEMA1] and [XMLSCHEMA2], and the protocol uses WSDL as specified in [WSDL].

2.2.1 Namespaces

This specification defines and references various **XML namespaces** using the mechanisms specified in [XMLNS]. Although this specification associates a specific XML namespace prefix for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
tns	http://schemas.microsoft.com/sharepoint/soap/workflow/	
s1	http://microsoft.com/wsdl/types/	
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2/1] [SOAP1.2/2]
(none)	http://schemas.microsoft.com/sharepoint/soap/workflow/	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
xsi	http://www.w3.org/2001/XMLSchema-instance	[XMLSCHEMA1] [XMLSCHEMA2]
xsd	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
dt	uuid:C2F41010-65B3-11d1-A29F-00AA00C14882	
rs	urn:schemas-microsoft-com:rowset	[MS-PRSTFR]
z	#RowsetSchema	[MS-PRSTFR]

Release: Sunday, December 19, 2010

2.2.2 Messages

None.

2.2.3 Elements

The following table summarizes the set of common XML Schema element definitions defined by this specification. XML Schema element definitions that are specific to a particular operation are described with the operation.

Element	Description
TemplateData	Specifies a set of workflow associations.
ToDoData	Specifies a set of workflow tasks.

2.2.3.1 TemplateData

The **TemplateData** element specifies a set of workflow associations for a protocol client as follows:

```
<s:element name="TemplateData" >
  <s:complexType>
    <s:sequence>
      <s:element name="Web" minOccurs="1" maxOccurs="1" >
        <s:complexType>
          <s:attribute name="Title" type="s:string" use="required" />
          <s:attribute name="Url" type="s:string" use="required" />
        </s:complexType>
      </s:element>
      <s:element name="List" minOccurs="1" maxOccurs="1" >
        <s:complexType>
          <s:attribute name="Title" type="s:string" use="required" />
          <s:attribute name="Url" type="s:string" use="required" />
        </s:complexType>
      </s:element>
      <s:element name="WorkflowTemplates" >
        <s:complexType>
          <s:sequence>
            <s:element name="WorkflowTemplate" minOccurs="0" maxOccurs="unbounded">
              <s:complexType>
                <s:sequence>
                  <s:element name="WorkflowTemplateIdSet" minOccurs="1" maxOccurs="1">
                    <s:complexType>
                      <s:attribute name="TemplateId" type="s1:guid" use="required" />
                      <s:attribute name="BaseId" type="s1:guid" use="required" />
                    </s:complexType>
                  </s:element>
                  <s:element name="AssociationData" minOccurs="0" maxOccurs="1" >
                    <s:complexType>
                      <s:sequence>
                        <s:any/>
                      </s:sequence>
                    </s:complexType>
                  </s:element>
                  <s:element name="Metadata" minOccurs="1" maxOccurs="1">
                    <s:complexType>
                      <s:group>
```

```
                                    <s:all>
                                      <s:element name="InitiationCategories" minOccurs="0" maxOccurs="1">
                                        <s:complexType>
                                          <s:sequence>
                                            <s:any/>
                                          </s:sequence>
                                        </s:complexType>
                                      </s:element>
                                      <s:element name="Instantiation_FormURN" minOccurs="0"
 maxOccurs="1">
                                        <s:complexType>
                                          <s:sequence>
                                            <s:any/>
                                          </s:sequence>
                                        </s:complexType>
                                      </s:element>
                                      <s:element name="Instantiation_FormURI" minOccurs="0"
 maxOccurs="1">
                                        <s:complexType>
                                          <s:sequence>
                                            <s:any/>
                                          </s:sequence>
                                        </s:complexType>
                                      </s:element>
                                      <s:element name="AssignmentStagesName" minOccurs="0" maxOccurs="1">
                                        <s:complexType>
                                          <s:sequence>
                                            <s:any/>
                                          </s:sequence>
                                        </s:complexType>
                                      </s:element>
                                      <s:element name="SigClientSettings" minOccurs="0" maxOccurs="1">
                                        <s:complexType>
                                          <s:sequence>
                                            <s:any/>
                                          </s:sequence>
                                        </s:complexType>
                                      </s:element>
                                    </s:all>
                                  </s:group>
                                </s:complexType>
                              </s:element>
                            </s:sequence>
                            <s:attribute name="Name" type="s:string" use="required" />
                            <s:attribute name="Description" type="s:string" use="required" />
                            <s:attribute name="InstantiationUrl" type="s:string" />
                        </s:complexType>
                      </s:element>
                    </s:sequence>
                  </s:complexType>
                </s:element>
```

Web.Title: The title of the **site (2)** for this set of workflow associations.

Web.Url: A site URL for this set of workflow associations.

List.Title: The title of the list for this set of workflow associations.

List.Url: A list URL for this set of workflow associations.

WorkflowTemplates.WorkflowTemplate: A workflow association.

WorkflowTemplates.WorkflowTemplate.WorkflowTemplateIdSet.TemplateId: A **GUID** identifying this workflow association.

WorkflowTemplates.WorkflowTemplate.WorkflowTemplateIdSet.BaseId: A GUID identifying the workflow template upon which this workflow association is based.

WorkflowTemplates.WorkflowTemplate.Name: The name of this workflow association.

WorkflowTemplates.WorkflowTemplate.Description: The description of this workflow association.

WorkflowTemplates.WorkflowTemplate.InstantiationUrl: The absolute URL of a Web page that can create a new workflow instance of this workflow association.

WorkflowTemplates.WorkflowTemplate.AssociationData: Customized settings for this workflow association. This element MUST contain no attributes. This element SHOULD contain child elements or inner text.

WorkflowTemplates.WorkflowTemplate.Metadata.InitiationCategories: A string used to enable or disable creation of a new workflow instance.

WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURN: A string reference to a form displayed during creation of a new workflow instance.

WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURI: A string reference to a URL for a form displayed during creation of a new workflow instance. This SHOULD be used as an alternate reference when **Instantiation_FormURN** is not supplied or as determined by the protocol server.<2>

WorkflowTemplates.WorkflowTemplate.Metadata.AssignmentStagesName: A string used for suggesting workflow tasks in the form referenced by either **Instantiation_FormURN** or **Instantiation_FormURI**.

WorkflowTemplates.WorkflowTemplate.Metadata.SigClientSettings: A string used for suggesting workflow tasks in the form referenced by either **Instantiation_FormURN** or **Instantiation_FormURI**.

2.2.3.2 ToDoData

The **ToDoData** element specifies a set of workflow tasks for a protocol client as follows:

```
<s:element name="ToDoData" >
  <s:complexType>
    <s:sequence>
      <s:element name="xml" type="rs:data" minOccurs="0" maxOccurs="1" />
    </s:sequence>
  </s:complexType>
</s:element>
```

xml: A set of **Rowsets** as specified in [MS-PRSTFR] section 2.4.

2.2.4 Complex Types

This specification does not define any common XML Schema complex type definitions.

2.2.5 Simple Types

This specification does not define any common XML Schema simple type definitions.

2.2.6 Attributes

This specification does not define any common XML Schema attribute definitions.

2.2.7 Groups

This specification does not define any common XML Schema group definitions.

2.2.8 Attribute Groups

This specification does not define any common XML Schema attribute group definitions.

3   Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

3.1   WorkflowSoap Server Details

The protocol server has a set of documents, installed workflow templates defined by vendors, and workflow associations.

The protocol client, given a document URL, can query the protocol server for information about a workflow association, workflow, workflow task, or any other data related to the document. The protocol client can then start new workflows with a known document URL and workflow association or modify known workflow tasks.

The protocol itself is stateless: messages can be sent in any order as long as the data required for such message is already known. The protocol server is expected to maintain any state or data related to any underlying objects, such as documents or workflows separate from this protocol.

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.

3.1.2   Timers

None.

3.1.3   Initialization

None.

3.1.4   Message Processing Events and Sequencing Rules

Operation	Description
AlterToDo	Modifies a workflow task.
ClaimReleaseTask	**Claims (1)** or releases a claim (1) on a workflow task.
GetTemplatesForItem	Obtains a set of workflow associations that can be started on a new or existing document in a specified list.
GetToDosForItem	Obtains a set of workflow tasks for an existing document.
GetWorkflowDataForItem	Obtains an aggregated set of workflows, workflow associations, and workflow tasks for an existing document.
GetWorkflowTaskData	Retrieves data about a single workflow task.
StartWorkflow	Instantiates a new workflow for an existing document and a workflow

Operation	Description
	association.

3.1.4.1 AlterToDo

This operation is used to modify the values of **Fields** on a workflow task. It is defined as follows:

```
<wsdl:operation name="AlterToDo">
    <wsdl:input message="AlterToDoSoapIn" />
    <wsdl:output message="AlterToDoSoapOut" />
</wsdl:operation>
```

The protocol client sends an **AlterToDoSoapIn** request message, and the protocol server responds with an **AlterToDoSoapOut** response message.

3.1.4.1.1 Messages

3.1.4.1.1.1 AlterToDoSoapIn

This is the message that requests the **AlterToDo** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/AlterToDo
```

The **SOAP body** contains an **AlterToDo** element.

3.1.4.1.1.2 AlterToDoSoapOut

This is the message that responds to the **AlterToDo** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/AlterToDo
```

The SOAP body contains an **AlterToDoResponse** element.

3.1.4.1.2 Elements

3.1.4.1.2.1 AlterToDo

This element is sent with **AlterToDoSoapIn** and specifies the workflow task to be modified, as well as the fields and values to be modified. It is defined as follows:

```
<s:element name="AlterToDo">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1" />
      <s:element name="todoId" type="s:int" minOccurs="1" maxOccurs="1" />
      <s:element name="todoListId" type="s1:guid" minOccurs="1" maxOccurs="1" />
      <s:element name="taskData" minOccurs="0" maxOccurs="1" >
```

```
        <s:complexType>
          <s:sequence>
            <s:any/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: A URL to a document on this site (2). The server MUST ignore this value unless the site (2) of the SOAP request URL does not contain a list with the specified **todoListId**. If so, this field MUST be the site URL of the specified **todoListId**.

todoId: A **list item identifier** identifying a workflow task to be modified.

todoListId: A **list identifier** of the workflow task to be modified.

taskData: Contains a set of elements representing field names and values to be altered on a workflow task.

3.1.4.1.2.2 AlterToDoResponse

This element is sent with **AlterToDoSoapOut** and specifies whether the **AlterToDo** operation was successful. It is defined as follows:

```
<s:element name="AlterToDoResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="AlterToDoResult" minOccurs="1" maxOccurs="1" >
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="fSuccess" type="s:int" minOccurs="1" maxOccurs="1" />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

AlterToDoResult.fSuccess: If the operation was successful, this MUST be set to 1. Otherwise, this MUST be set to zero. The success of this operation is determined by the protocol server, and MUST NOT substitute for a SOAP fault or HTTP Status Code in the case of a protocol server fault.

3.1.4.2 ClaimReleaseTask

This operation claims (1) or releases a claim (1) on workflow task. It is defined as follows:

```
<wsdl:operation name="ClaimReleaseTask">
    <wsdl:input message="ClaimReleaseTaskSoapIn" />
    <wsdl:output message="ClaimReleaseTaskSoapOut" />
</wsdl:operation>
```

The protocol client sends a **ClaimReleaseTaskSoapIn** request message, and the protocol server responds with a **ClaimReleaseTaskSoapOut** response message.

3.1.4.2.1 Messages

3.1.4.2.1.1 ClaimReleaseTaskSoapIn

This message requests the **ClaimReleaseTask** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/ClaimReleaseTask
```

The SOAP body contains a **ClaimReleaseTask** element.

3.1.4.2.1.2 ClaimReleaseTaskSoapOut

This message responds to the **ClaimReleaseTask** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/ClaimReleaseTask
```

The SOAP body contains a **ClaimReleaseTaskResponse** element.

3.1.4.2.2 Elements

3.1.4.2.2.1 ClaimReleaseTask

This element is sent with **ClaimReleaseTaskSoapIn** and specifies the workflow task on which to operate, and whether the operation is to claim or to release a claim. It is defined as follows:

```
<s:element name="ClaimReleaseTask">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1">
      <s:element name="taskId" type="s:int" minOccurs="1" maxOccurs="1">
      <s:element name="listId" type="s1:guid" minOccurs="1" maxOccurs="1">
      <s:element name="fClaim" type="s:boolean" minOccurs="1" maxOccurs="1">
    </s:sequence>
  </s:complexType>
</s:element>
```

item: The URL of a document on this site. The server MUST ignore this value unless the site of the SOAP request URL does not contain a list with the specified **listId**. If such a list is contained, this field MUST be set to the site URL of the specified **listId**.

taskId: The list item identifier for a specified workflow task that is to be claimed (1) or released from a claim.

listId: The list identifier for a specified workflow task that is to be claimed or released from a claim.

fClaim: A Boolean that specifies whether the operation is a claim or a release. This MUST be set to TRUE if the operation is a claim and MUST be set to FALSE if the operation is to release a claim.

3.1.4.2.2.2 ClaimReleaseTaskResponse

This element is sent with **ClaimReleaseTaskSoapOut**. It describes the workflow task that was claimed or released after a **ClaimReleaseTask** operation. It is defined as follows:

```
<s:element name="ClaimReleaseTaskResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="ClaimReleaseTaskResult" minOccurs="1">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="TaskData" minOccurs="1" maxOccurs="1">
              <s:complexType>
                <s:sequence>
                  <s:attribute name="AssignedTo" type="s:string" use="required">
                  <s:attribute name="TaskGroup" type="s:string" use="required">
                  <s:attribute name="ItemId" type="s:int" use="required">
                  <s:attribute name="ListId" type="s1:guid" use="required">
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

ClaimReleaseTaskResult.TaskData.AssignedTo: The user to whom this workflow task is now assigned. This MUST be the user authenticated in section 1.5 if this operation is a claim and the protocol server requires authentication.

ClaimReleaseTaskResult.TaskData.TaskGroup: The **group (2)** to whom this workflow task is now assigned.

ClaimReleaseTaskResult.TaskData.ItemId: A list item identifier of a workflow task.

ClaimReleaseTaskResult.TaskData.ListId: The list identifier of the workflow task.

3.1.4.3 GetTemplatesForItem

This operation obtains a set of workflow associations for a new or existing document. It is defined as follows

```
<wsdl:operation name="GetTemplatesForItem">
    <wsdl:input message="GetTemplatesForItemSoapIn" />
    <wsdl:output message="GetTemplatesForItemSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetTemplatesForItemSoapIn** request message, and the protocol server responds with a **GetTemplatesForItemSoapOut** response message.

3.1.4.3.1 Messages

3.1.4.3.1.1 GetTemplatesForItemSoapIn

This message is sent to request the **GetTemplatesForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetTemplatesForItem
```

The SOAP body contains a **GetTemplatesForItem** element.

3.1.4.3.1.2 GetTemplatesForItemSoapOut

This message is the response to the **GetTemplatesFromItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetTemplatesForItem
```

The SOAP body contains a **GetTemplatesForItemResponse** element.

3.1.4.3.2 Elements

3.1.4.3.2.1 GetTemplatesForItem

This element is sent with a **GetTemplatesForItemSoapIn** message. It is defined as follows:

```
<s:element name="GetTemplatesForItem">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: A document URL or a list URL. If this parameter ends with a slash (/), it MUST be a valid list URL. Otherwise, it MUST be a valid document URL.

3.1.4.3.2.2 GetTemplatesForItemResponse

This element is sent with a **GetTemplatesForItemSoapOut** message. It is defined as follows:

```
<s:element name="GetTemplatesForItemResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetTemplatesForItemResult" minOccurs="0">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="TemplateData" type="s1:TemplateData" minOccurs="1"
maxOccurs="1"/>
          </s:sequence>
        </s:complexType>
```

```
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>
```

GetTemplatesForItemResult: Contains a **TemplateData** element as specified in section 2.2.3.1 that specifies a set of workflow associations.

3.1.4.4 GetToDosForItem

This operation obtains a set of workflow tasks for a document. It is defined as follows:

```
<wsdl:operation name="GetToDosForItem">
    <wsdl:input message="GetToDosForItemSoapIn" />
    <wsdl:output message="GetToDosForItemSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetToDosForItemSoapIn** request message, and the protocol server responds with a **GetToDosForItemSoapOut** response message.

3.1.4.4.1 Messages

3.1.4.4.1.1 GetToDosForItemSoapIn

This message requests the **GetToDosForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetToDosForItem
```

The SOAP body contains a **GetToDosForItem** element.

3.1.4.4.1.2 GetToDosForItemSoapOut

This message is the response to the **GetToDosForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetToDosForItem
```

The SOAP body contains a **GetToDosForItemResponse** element.

3.1.4.4.2 Elements

3.1.4.4.2.1 GetToDosForItem

This element is sent with a **GetToDosForItem** message.

```
<s:element name="GetToDosForItem">
  <s:complexType>
    <s:sequence>
```

```
              <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
          </s:sequence>
       </s:complexType>
    </s:element>
```

item: The URL of a document.

3.1.4.4.2.2 GetToDosForItemResponse

This element is the response to a **GetToDosForItem** message.

```
   <s:element name="GetToDosForItemResponse">
     <s:complexType>
       <s:sequence>
         <s:element name="GetToDosForItemResult" minOccurs="0">
           <s:complexType mixed="true">
             <s:sequence>
               <s:element name="ToDoData" type="s1:ToDoData" minOccurs="1" maxOccurs="1"/>
             </s:sequence>
           </s:complexType>
         </s:element>
       </s:sequence>
     </s:complexType>
   </s:element>
```

GetToDosForItemResult: Contains a **ToDoData** element as specified in section 2.2.3.2 containing data about a set of workflow tasks.

3.1.4.5 GetWorkflowDataForItem

This operation queries a set of workflow associations, workflow tasks, and workflows for a document. This operation retrieves some of the same data that **GetToDosForItem** and **GetTemplatesForItem** retrieve, as well as additional data.

```
   <wsdl:operation name="GetWorkflowDataForItem">
       <wsdl:input message="GetWorkflowDataForItemSoapIn" />
       <wsdl:output message="GetWorkflowDataForItemSoapOut" />
   </wsdl:operation>
```

The protocol client sends a **GetWorkflowDataForItemSoapIn** request message, and the protocol server responds with a **GetWorkflowDataForItemSoapOut** response message.

3.1.4.5.1 Messages

3.1.4.5.1.1 GetWorkflowDataForItemSoapIn

This message requests the **GetWorkflowDataForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
   http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowDataForItem
```

The SOAP body contains a **GetWorkflowDataForItem** element.

3.1.4.5.1.2 GetWorkflowDataForItemSoapOut

This message is the response to the **GetWorkflowDataForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowDataForItem
```

The SOAP body contains a **GetWorkflowDataForItemResponse** element.

3.1.4.5.2 Elements

3.1.4.5.2.1 GetWorkflowDataForItem

This element is sent with a **GetWorkflowDataForItem** message. It is defined as follows:

```
<s:element name="GetWorkflowDataForItem">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: A document URL.

3.1.4.5.2.2 GetWorkflowDataForItemResponse

This element is the response to a **GetWorkflowDataForItem** message. It is defined as follows:

```
<s:element name="GetWorkflowDataForItemResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetWorkflowDataForItemResult" minOccurs="1" maxOccurs="1">
        <s:complexType>
          <s:sequence>
            <s:element name="WorkflowData" minOccurs="1" maxOccurs="1">
              <s:complexType>
                <s:sequence>
                  <s:element name="ToDoData" type="s1:ToDoData" minOccurs="1" maxOccurs="1"
 />
                  <s:element name="TemplateData" type="s1: TemplateData" minOccurs="1"
maxOccurs="1" />
                  <s:element name="ActiveWorkflowsData" minOccurs="1" maxOccurs="1" >
                    <s:complexType>
                      <s:sequence>
                        <s:element name="Workflows" minOccurs="1" maxOccurs="1" >
                          <s:complexType>
                            <s:sequence>
                              <s:element name="Workflow" minOccurs="0" maxOccurs="unbounded">
                                <s:complexType>
                                  <s:attribute name="StatusPageUrl" type="s:string"
use="required"/>
```

```
                                        <s:attribute name="Id" type="s1:guid" use="required" />
                                        <s:attribute name="TemplateId" type="s1:guid"
use="required" />
                                        <s:attribute name="ListId" type="s1:guid" use="required"/>
                                        <s:attribute name="SiteId" type="s1:guid" use="required" />
                                        <s:attribute name="WebId" type="s1:guid" use="required"/>
                                        <s:attribute name="ItemId" type="s:int" use="required"/>
                                        <s:attribute name="ItemGUID" type="s1:guid"
use="required"/>
                                        <s:attribute name="TaskListId" type="s1:guid"
use="required"/>
                                        <s:attribute name="AdminTaskListId" type="s1:guid"
use="required"/>
                                        <s:attribute name="Author" type="s:int" use="required"/>
                                        <s:attribute name="Modified" type="s:date" use="required"/>
                                        <s:attribute name="Created" type="s:date" use="required"/>
                                        <s:attribute name="StatusVersion" type="s:int"
use="required"/>
                                        <s:attribute name="Status1" type="s:int" use="required"/>
                                        <s:attribute name="Status2" type="s:string"
use="required"/>
                                        <s:attribute name="Status3" type="s:string"
use="required"/>
                                        <s:attribute name="Status4" type="s:string"
use="required"/>
                                        <s:attribute name="Status5" type="s:string"
use="required"/>
                                        <s:attribute name="Status6" type="s:string"
use="required"/>
                                        <s:attribute name="Status7" type="s:string"
use="required"/>
                                        <s:attribute name="Status8" type="s:string"
use="required"/>
                                        <s:attribute name="Status9" type="s:string"
use="required"/>
                                        <s:attribute name="Status10" type="s:string"
use="required"/>
                                        <s:attribute name="TextStatus1" type="s:string"
use="required"/>
                                        <s:attribute name="TextStatus2" type="s:string"
use="required"/>
                                        <s:attribute name="TextStatus3" type="s:string"
use="required"/>
                                        <s:attribute name="TextStatus4" type="s:string"
use="required"/>
                                        <s:attribute name="TextStatus5" type="s:string"
use="required"/>
                                        <s:attribute name="Modifications" type="s:string"
use="required"/>
                                        <s:attribute name="ActivityDetails" type="s:string"
use="required" />
                                        <s:attribute name="InstanceData" type="s:string"
maxLength="0" use="required"/>
                                        <s:attribute name="InstanceDataSize" type="s:int"
use="required"/>
                                        <s:attribute name="InternalState" type="s:int"
use="required"/>
                                        <s:attribute name="ProcessingId" type="s1:guid"
use="required"/>
                                    </s:complexType>
                                </s:element>
```

```
              </s:sequence>
            </s:complexType>
          </s:element>
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="DefaultWorkflows" minOccurs="1" maxOccurs="1" >
      <s:complexType>
        <s:sequence>
          <s:element name="DefaultWorkflow" minOccurs="0" maxOccurs="1" >
            <s:complexType>
              <s:attribute name="Event" type="s:string" use="required"/>
              <s:attribute name="TemplateId" type="s1:guid" use="required"/>
            </s:complexType>
          </s:element>
        </s:sequence>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
          </s:element>
        </s:sequence>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
</s:element>
```

GetWorkflowDataForItemResult.WorkflowData.ToDoData: Specifies a set of workflow tasks as defined in section 2.2.3.2.

GetWorkflowDataForItemResult.WorkflowData.TemplateData: Specifies a set of workflow associations as defined in section 2.2.3.1.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData: A set of workflows running on the document.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.StatusPageUrl: The URL of a Web page that can show the status of a workflow. This URL MUST be fully qualified and absolute.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData. Workflows.Workflow.Id: A **workflow identifier**.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData. Workflows.Workflow.TemplateId: A GUID identifying the workflow association of a workflow. This MUST be the workflow association of the workflow specified by **Workflow.Id**.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData. Workflows.Workflow.ListId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.SiteId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.WebId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ItemId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ItemGUID: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TaskListId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.AdminTaskListId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Author: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Modified: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Created: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.StatusVersion: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status1: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status2: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status3: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status4: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status5: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status6: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status7: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status8: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status9: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status10: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus1: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus2: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus3: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus4: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus5: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Modifications: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ActivityDetails: Unused. The protocol client MUST ignore this value.[<3>](#)

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.InstanceData: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.InstanceDataSize: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.InternalState: The internal state of a workflow, as specified in [MS-WSSPROG] section 2.2.3.3.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ProcessingId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.DefaultWorkflows.DefaultWorkflow: Specifies the default workflow association defined by the server to start when a document is checked in.

GetWorkflowDataForItemResult.WorkflowData.DefaultWorkflows.DefaultWorkflow.Event: MUST be set to "OnCheckInMajor".

GetWorkflowDataForItemResult.WorkflowData.DefaultWorkflows.DefaultWorkflow.TemplateId: A workflow association identifier.

3.1.4.6 GetWorkflowTaskData

This operation retrieves data about a single workflow task. It is defined as follows:

```
<wsdl:operation name="GetWorkflowTaskData">
    <wsdl:input message="GetWorkflowTaskDataSoapIn" />
    <wsdl:output message="GetWorkflowTaskDataSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetWorkflowTaskDataSoapIn** request message, and the protocol server responds with a **GetWorkflowTaskDataSoapOut** response message.

3.1.4.6.1 Messages

3.1.4.6.1.1 GetWorkflowTaskDataSoapIn

This message requests the **GetWorkflowTaskData** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowTaskData
```

The SOAP body contains a **GetWorkflowTaskData** element.

3.1.4.6.1.2 GetWorkflowTaskDataSoapOut

This message is the response to the **GetWorkflowTaskData** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowTaskData
```

The SOAP body contains a **GetWorkflowTaskDataResponse** element.

3.1.4.6.2 Elements

3.1.4.6.2.1 GetWorkflowTaskData

This element is sent with a **GetWorkflowTaskData** message. It is defined as follows:

```
<s:element name="GetWorkflowTaskData">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1"/>
      <s:element name="taskId" type="s:int"/>
      <s:element name="listId" type="s1:guid"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: The URL of a document on this site (2). The server MUST ignore this value unless the site (2) of the SOAP request URL does not contain a list with the specified **listId**. If it does, **item** MUST be the site URL of the specified **listId**.

taskId: An integer identifying a workflow task.

listId: A list identifier that MUST identify the list of the workflow task specified by **taskId**.

3.1.4.6.2.2 GetWorkflowTaskDataResponse

This element is the response to a **GetWorkflowTaskData** message. It is defined as follows:

```
<s:element name="GetWorkflowTaskDataResponse">
  <s:complexType>
    <s:sequence>
```

```
        <s:element name="GetWorkflowTaskDataResult" type="z:rowset" >
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>
```

GetWorkflowTaskDataResult: Rowset XML as specified in [MS-PRSTFR] section 2.4 that specifies a workflow task.

3.1.4.7 StartWorkflow

This operation starts a new workflow, generating a workflow from a workflow association. It is defined as follows:

```
<wsdl:operation name="StartWorkflow">
    <wsdl:input message="StartWorkflowSoapIn" />
    <wsdl:output message="StartWorkflowSoapOut" />
</wsdl:operation>
```

The protocol client sends a **StartWorkflowSoapIn** request message, and the protocol server responds with a **StartWorkflowSoapOut** response message.

3.1.4.7.1 Messages

3.1.4.7.1.1 StartWorkflowSoapIn

This message requests the **StartWorkflow** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/StartWorkflow
```

The SOAP body contains a **StartWorkflow** element.

3.1.4.7.1.2 StartWorkflowSoapOut

This message is the response to the **StartWorkflow** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/StartWorkflow
```

The SOAP body contains a **StartWorkflowResponse** element.

3.1.4.7.2 Elements

3.1.4.7.2.1 StartWorkflow

This element is sent with a **StartWorkflow** message. It is defined as follows:

```
<s:element name="StartWorkflow">
```

```
      <s:complexType>
        <s:sequence>
          <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
          <s:element name="templateId" type="s1:guid"/>
          <s:element name="workflowParameters" minOccurs="0">
            <s:complexType mixed="true">
              <s:sequence>
                <s:any/>
              </s:sequence>
            </s:complexType>
          </s:element>
        </s:sequence>
      </s:complexType>
  </s:element>
```

item: A document URL. This field MUST be fully qualified and absolute.

templateId: A GUID that identifies a workflow association that can be started for the document. This can be retrieved from the **TemplateId** attribute of a **WorkflowTemplateIdSet** element of as specified in section 2.2.3.1.

workflowParameters: XML to be used by the workflow upon creation. This element is considered vendor-extensible and is specified in section 4.3.4.

3.1.4.7.2.2   StartWorkflowResponse

This element is the response to a **StartWorkflow** message. It is defined as follows:

```
<s:element name="StartWorkflowResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="StartWorkflowResult" minOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

StartWorkflowResult: This element is unused. The protocol client MUST ignore this element.

3.1.5   Timer Events

None.

3.1.6   Other Local Events

None.

4   Protocol Examples

4.1   Create a Workflow Instance

By retrieving information about the available workflow associations, a protocol client can start a new workflow on a document. The following diagram shows how this is done.
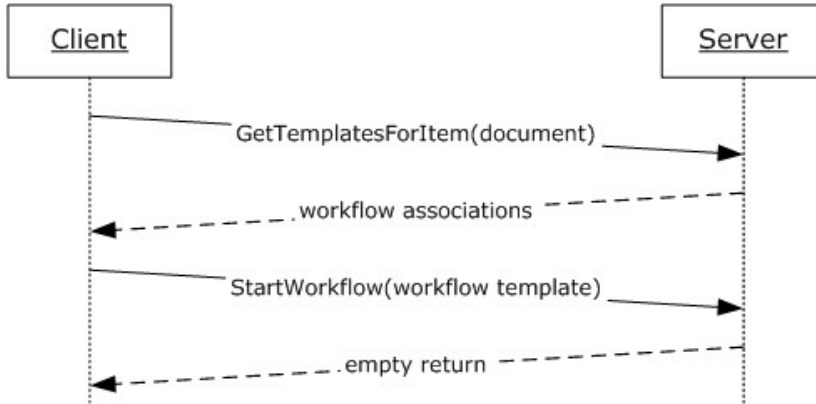
Figure 2: Creating a new workflow instance

4.1.1   Retrieve Available Workflow Associations

To retrieve the set of workflow associations for a list known as Documents (given its URL), the protocol client sends the following SOAP message as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
   <soap:Body>
      <GetTemplatesForItem xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
         <item>http://server/Documents/</item>
      </GetTemplatesForItem>
   </soap:Body>
</soap:Envelope>
```

The protocol server finds the appropriate set of workflow associations for the list known as Documents (given its URL) and returns the set in the form of the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
   <soap:Body>
      <GetTemplatesForItemResponse
xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
         <GetTemplatesForItemResult>
            <TemplateData>
               <Web Title="Site" Url="http://server" />
               <List Title="Documents" Url="http://server/Documents" />
               <WorkflowTemplates>
```

Release: Sunday, December 19, 2010

```
                    <WorkflowTemplate Name="Collect Feedback" Description="Routes a document
for review. Reviewers can provide feedback, which is compiled and sent to the document owner
when the workflow has completed."
InstantiationUrl="http://server/documents/_layouts/IniWrkflIP.aspx?List=6dc0f376-503e-4a7b-
b74f-b4b148a42772&ID=1&TemplateID={092dd5a9-78da-4ab5-b00f-320090113b81}">
                    <WorkflowTemplateIdSet TemplateId="092dd5a9-78da-4ab5-b00f-320090113b81"
BaseId="46c389a4-6e18-476c-aa17-289b0c79fb8f" />
                    <AssociationData>
                        <string>
                            <my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-us">
                            <my:Reviewers>
                            </my:Reviewers>
                            <my:CC>
                            </my:CC>
                            <my:DueDate xsi:nil="true">
                            </my:DueDate>
                            <my:Description>
                            </my:Description>
                            <my:Title>
                            </my:Title>
                            <my:DefaultTaskType>0</my:DefaultTaskType>
                            <my:CreateTasksInSerial>false</my:CreateTasksInSerial>
                            <my:AllowDelegation>true</my:AllowDelegation>
                            <my:AllowChangeRequests>true</my:AllowChangeRequests>
                            <my:StopOnAnyReject xsi:nil="true">
                            </my:StopOnAnyReject>
                            <my:WantedTasks xsi:nil="true">
                            </my:WantedTasks>
                            <my:SetMetadataOnSuccess>false</my:SetMetadataOnSuccess>
                            <my:MetadataSuccessField>
                            </my:MetadataSuccessField>
                            <my:MetadataSuccessValue>
                            </my:MetadataSuccessValue>
                            <my:ApproveWhenComplete>false</my:ApproveWhenComplete>
                            <my:TimePerTaskVal xsi:nil="true">
                            </my:TimePerTaskVal>
                            <my:TimePerTaskType xsi:nil="true">
                            </my:TimePerTaskType>
                            <my:Voting>false</my:Voting>
                            <my:MetadataTriggerField>
                            </my:MetadataTriggerField>
                            <my:MetadataTriggerValue>
                            </my:MetadataTriggerValue>
                            <my:InitLock>false</my:InitLock>
                            <my:MetadataStop>false</my:MetadataStop>
                            <my:ItemChangeStop>false</my:ItemChangeStop>
                            <my:GroupTasks>false</my:GroupTasks>
                            </my:myFields>
                        </string>
                    </AssociationData>
                    <Metadata>
                        <Instantiation_FormURN>
                            <string>urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Init:$Subst:LCID;</string>
                        </Instantiation_FormURN>
                    </Metadata>
                </WorkflowTemplate>
                <WorkflowTemplate Name="Collect Signatures" Description="Gathers signatures
needed to complete a document. This workflow can be started only from within a client.">
```

```
                        <WorkflowTemplateIdSet TemplateId="fd7a5c57-fd96-4656-a07e-712b485201e0"
  BaseId="2f213931-3b93-4f81-b021-3022434a3114" />
                    <Metadata>
                      <InitiationCategories>
                         <string>SigClientRequired</string>
                      </InitiationCategories>
                      <Instantiation_FormURN>
                         <string>urn:schemas-microsoft-
  com:office:infopath:workflow:CollectSignatures-Init:$Subst:LCID;</string>
                      </Instantiation_FormURN>
                    </Metadata>
                  </WorkflowTemplate>
                  <WorkflowTemplate Name="Approval" Description="Routes a document for approval.
  Approvers can approve or reject the document, reassign the approval task, or request changes
  to the document."
  InstantiationUrl="http://server/Documents/_layouts/IniWrkflIP.aspx?List=6dc0f376-503e-4a7b-
  b74f-b4b148a42772&ID=1&TemplateID={f002dd2c-cdba-4e9a-b9ff-cad76df6e4e7}">
                    <WorkflowTemplateIdSet TemplateId="f002dd2c-cdba-4e9a-b9ff-cad76df6e4e7"
  BaseId="c6964bff-bf8d-41ac-ad5e-b61ec111731c" />
                      <AssociationData>
                        <string>
                          <my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-us">
                            <my:Reviewers>
                            </my:Reviewers>
                            <my:CC>
                            </my:CC>
                            <my:DueDate xsi:nil="true">
                            </my:DueDate>
                            <my:Description>
                            </my:Description>
                            <my:Title>
                            </my:Title>
                            <my:DefaultTaskType>1</my:DefaultTaskType>
                            <my:CreateTasksInSerial>true</my:CreateTasksInSerial>
                            <my:AllowDelegation>true</my:AllowDelegation>
                            <my:AllowChangeRequests>true</my:AllowChangeRequests>
                            <my:StopOnAnyReject xsi:nil="true">
                            </my:StopOnAnyReject>
                            <my:WantedTasks xsi:nil="true">
                            </my:WantedTasks>
                            <my:SetMetadataOnSuccess>false</my:SetMetadataOnSuccess>
                            <my:MetadataSuccessField>
                            </my:MetadataSuccessField>
                            <my:MetadataSuccessValue>
                            </my:MetadataSuccessValue>
                            <my:ApproveWhenComplete>false</my:ApproveWhenComplete>
                            <my:TimePerTaskVal xsi:nil="true">
                            </my:TimePerTaskVal>
                            <my:TimePerTaskType xsi:nil="true">
                            </my:TimePerTaskType>
                            <my:Voting>false</my:Voting>
                            <my:MetadataTriggerField>
                            </my:MetadataTriggerField>
                            <my:MetadataTriggerValue>
                            </my:MetadataTriggerValue>
                            <my:InitLock>false</my:InitLock>
                            <my:MetadataStop>false</my:MetadataStop>
                            <my:ItemChangeStop>false</my:ItemChangeStop>
                            <my:GroupTasks>false</my:GroupTasks>
```

```
                          </my:myFields>
                      </string>
                  </AssociationData>
                  <Metadata>
                      <Instantiation_FormURN>
                          <string>urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Init:$Subst:LCID;</string>
                      </Instantiation_FormURN>
                  </Metadata>
              </WorkflowTemplate>
          </WorkflowTemplates>
      </TemplateData>
    </GetTemplatesForItemResult>
  </GetTemplatesForItemResponse>
  </soap:Body>
</soap:Envelope>
```

4.1.2   Start a Workflow from a Known Workflow Association

To start a new workflow from a known workflow association on a document, the protocol client
sends the following SOAP message as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
   <soap:Body>
       <StartWorkflow xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
       <item>http://server/Documents/Document.xml</item>
       <templateId>8637567d-fd4a-4bbc-a994-7854df1ebd7a</templateId>
       <workflowParameters>
       <my:myFields xml:lang="en-us" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD">
           <my:Reviewers>
             <my:Person>
                <my:DisplayName>User</my:DisplayName>
                <my:AccountId>DOMAIN\user</my:AccountId>
                <my:AccountType>User</my:AccountType>
             </my:Person>
             </my:Reviewers>
             <my:CC>
             </my:CC>
             <my:DueDate xsi:nil="true">
             </my:DueDate>
             <my:Description>
             </my:Description>
             <my:Title>
             </my:Title>
             <my:DefaultTaskType>0</my:DefaultTaskType>
             <my:CreateTasksInSerial>false</my:CreateTasksInSerial>
             <my:AllowDelegation>true</my:AllowDelegation>
             <my:AllowChangeRequests>true</my:AllowChangeRequests>
             <my:StopOnAnyReject xsi:nil="true">
             </my:StopOnAnyReject>
             <my:WantedTasks xsi:nil="true">
             </my:WantedTasks>
             <my:SetMetadataOnSuccess>false</my:SetMetadataOnSuccess>
             <my:MetadataSuccessField>
             </my:MetadataSuccessField>
```

```
                <my:MetadataSuccessValue>
                </my:MetadataSuccessValue>
                <my:ApproveWhenComplete>false</my:ApproveWhenComplete>
                <my:TimePerTaskVal xsi:nil="true">
                </my:TimePerTaskVal>
                <my:TimePerTaskType xsi:nil="true">
                </my:TimePerTaskType>
                <my:Voting>false</my:Voting>
                <my:MetadataTriggerField>
                </my:MetadataTriggerField>
                <my:MetadataTriggerValue>
                </my:MetadataTriggerValue>
                <my:InitLock>false</my:InitLock>
                <my:MetadataStop>false</my:MetadataStop>
                <my:ItemChangeStop>false</my:ItemChangeStop>
                <my:GroupTasks>false</my:GroupTasks>
            </my:myFields>
          </workflowParameters>
        </StartWorkflow>
      </soap:Body>
    </soap:Envelope>
```

The protocol server finds the appropriate set of data for the document and returns the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<soap:Body>
<StartWorkflowResponse xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
<StartWorkflowResult>
</StartWorkflowResult>
</StartWorkflowResponse>
</soap:Body>
</soap:Envelope>
```

4.2 Update a Workflow Task

By retrieving information about all available data on a specific document, which includes workflows, workflow associations, and workflow tasks, a protocol client can retrieve and modify a workflow task. The following diagram shows how this is done.
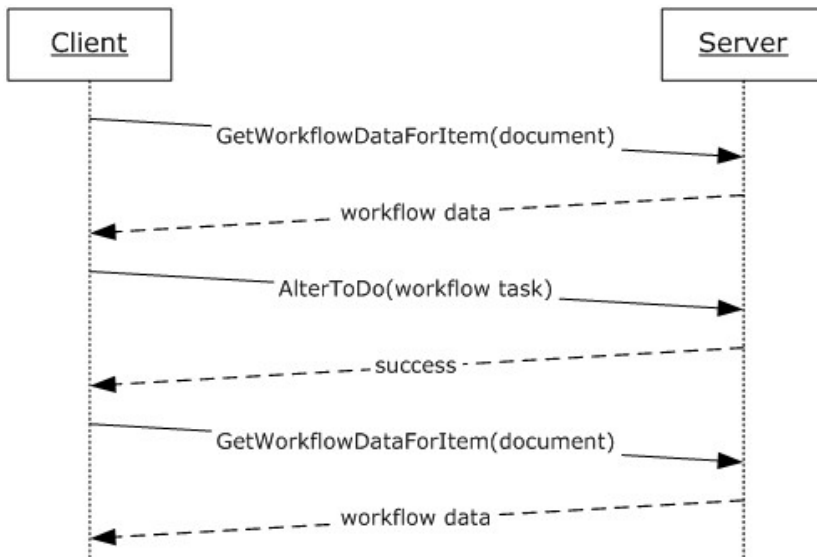
Figure 3: Querying all workflow data, altering a workflow task

4.2.1 Retrieve All Workflow Data on a Document

To retrieve the aggregated set of workflow associations, workflows, workflow tasks, and other related information for a document, the protocol client sends the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <soap:Body>
        <GetWorkflowDataForItem xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
            <item>http://server/Documents/Document.docx</item>
        </GetWorkflowDataForItem>
    </soap:Body>
</soap:Envelope>
```

The protocol server finds the appropriate set of data for the document and responds with the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <soap:Body>
        <GetWorkflowDataForItemResponse
xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
            <GetWorkflowDataForItemResult>
                <WorkflowData>
                    <ToDoData>
                        <xml xmlns:s="uuid:BDC6E3F0-6DA3-11d1-A2A3-00AA00C14882"
xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882" xmlns:rs="urn:schemas-microsoft-
com:rowset" xmlns:z="#RowsetSchema">
                            <rs:data ItemCount="2">
                                <z:row
ows_ContentTypeId="0x01080100C9C9515DE4E24001905074F980F93160003CB2AB313AE62048BEE174C9F41ECC
7C" ows_Title="Please approve Document" ows_Priority="(2) Normal" ows_Status="Not Started"
```

```
ows_AssignedTo="1;#User" ows_Body="Please approve Document" ows_StartDate="2008-02-06
10:18:13" ows_WorkflowLink="http://server/Documents/Document.docx, Document"
ows_WorkflowName="Approval" ows_TaskType="1" ows_FormURN="urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Review:$Subst:LCID;" ows_HasCustomEmailBody="0"
ows_SendEmailNotification="1" ows_Completed="0" ows_WorkflowListId="{5F2F1E89-06D7-44F5-886B-
3EE11FF2D5B3}" ows_WorkflowItemId="6" ows_AllowChangeRequests="True"
ows_AllowDelegation="True" ows_BodyText="Please approve Document" ows_ContentType="Office
SharePoint Server Workflow Task" ows_ID="13" ows_Modified="2008-02-06 10:18:13"
ows_Created="2008-02-06 10:18:13" ows_Author="1;#User" ows_Editor="1073741823;#System
Account" ows_owshiddenversion="1" ows_WorkflowVersion="1" ows__UIVersion="512"
ows__UIVersionString="1.0" ows_Attachments="0" ows__ModerationStatus="0"
ows_LinkTitleNoMenu="Please approve Document" ows_LinkTitle="Please approve Document"
ows_SelectTitle="13" ows_Order="1300.00000000000" ows_GUID="{C72C44AB-3DD7-4947-8E60-
BAF09E56E9BF}" ows_WorkflowInstanceID="{3EFDE9D9-C8DE-463B-8FE6-F13E15419C79}"
ows_FileRef="13;#Lists/Tasks/13_.000" ows_FileDirRef="13;#Lists/Tasks"
ows_Last_x0020_Modified="13;#2008-02-06 10:18:13" ows_Created_x0020_Date="13;#2008-02-06
10:18:13" ows_FSObjType="13;#0" ows_PermMask="0x7ffffffffffffff"
ows_FileLeafRef="13;#13_.000" ows_UniqueId="13;#{0B46AE7B-EB5E-4C2A-9B0A-3FE29BE2078C}"
ows_ProgId="13;#" ows_ScopeId="13;#{349A0AFD-F2F8-4564-A1D4-CCFF4880C19C}"
ows__EditMenuTableStart="13_.000" ows__EditMenuTableEnd="13" ows_LinkFilenameNoMenu="13_.000"
ows_LinkFilename="13_.000" ows_ServerUrl="/Lists/Tasks/13_.000"
ows_EncodedAbsUrl="http://server/Lists/Tasks/13_.000" ows_BaseName="13_" ows__Level="1"
ows__IsCurrentVersion="1"
ows_MetaInfo_vti_versionhistory="4c620c8dbfe64857a29e5b628ebb9ddb:1"
ows_MetaInfo_WorkflowCreationPath="94218b95-47d3-4fa3-8e3f-f44f6d234acd;"
ows_TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb"
ows_EditFormURL="http://server/_layouts/WrkTaskIP.aspx?ID=13&amp;List=4c620c8d-bfe6-4857-
a29e-5b628ebb9ddb" />
                        <z:row
ows_ContentTypeId="0x01080100C9C9515DE4E24001905074F980F93160003CB2AB313AE62048BEE174C9F41ECC
7C" ows_Title="Please approve Document" ows_Priority="(2) Normal" ows_Status="Not Started"
ows_AssignedTo="1;#User" ows_Body="asdf" ows_StartDate="2008-02-13 13:28:52"
ows_WorkflowLink="http://server/Documents/Document.docx, Document" ows_WorkflowName="app"
ows_TaskType="1" ows_FormURN="urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Review:$Subst:LCID;" ows_HasCustomEmailBody="0"
ows_SendEmailNotification="1" ows_Completed="0" ows_WorkflowListId="{5F2F1E89-06D7-44F5-886B-
3EE11FF2D5B3}" ows_WorkflowItemId="6" ows_AllowChangeRequests="True"
ows_AllowDelegation="True" ows_BodyText="asdf" ows_ContentType="Office SharePoint Server
Workflow Task" ows_ID="21" ows_Modified="2008-02-13 13:28:52" ows_Created="2008-02-13
13:28:52" ows_Author="1;#User" ows_Editor="1073741823;#System Account"
ows_owshiddenversion="1" ows_WorkflowVersion="1" ows__UIVersion="512"
ows__UIVersionString="1.0" ows_Attachments="0" ows__ModerationStatus="0"
ows_LinkTitleNoMenu="Please approve Document" ows_LinkTitle="Please approve Document"
ows_SelectTitle="21" ows_Order="2100.00000000000" ows_GUID="{F390F9F9-4942-482C-A238-
3002A332BF4D}" ows_WorkflowInstanceID="{874E77FB-144F-4E4E-9500-25C9D1FC53E4}"
ows_FileRef="21;#Lists/Tasks/21_.000" ows_FileDirRef="21;#Lists/Tasks"
ows_Last_x0020_Modified="21;#2008-02-13 13:28:53" ows_Created_x0020_Date="21;#2008-02-13
13:28:53" ows_FSObjType="21;#0" ows_PermMask="0x7ffffffffffffff"
ows_FileLeafRef="21;#21_.000" ows_UniqueId="21;#{21C0167B-0810-456B-BC87-2490301830C1}"
ows_ProgId="21;#" ows_ScopeId="21;#{349A0AFD-F2F8-4564-A1D4-CCFF4880C19C}"
ows__EditMenuTableStart="21_.000" ows__EditMenuTableEnd="21" ows_LinkFilenameNoMenu="21_.000"
ows_LinkFilename="21_.000" ows_ServerUrl="/Lists/Tasks/21_.000"
ows_EncodedAbsUrl="http://server/Lists/Tasks/21_.000" ows_BaseName="21_" ows__Level="1"
ows__IsCurrentVersion="1"
ows_MetaInfo_vti_versionhistory="4c620c8dbfe64857a29e5b628ebb9ddb:1"
ows_MetaInfo_WorkflowCreationPath="ab6d93ed-0fc1-49ca-8259-b02533f51859;"
ows_TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb"
ows_EditFormURL="http://server/_layouts/WrkTaskIP.aspx?ID=21&amp;List=4c620c8d-bfe6-4857-
a29e-5b628ebb9ddb" />
                </rs:data>
            </xml>
        </ToDoData>
        <TemplateData>
            <Web Title="Home" Url="http://server" />
            <List Title="Documents" Url="http://server/Documents" />
```

```
                  <WorkflowTemplates>
                        <WorkflowTemplate Name="app" Description="Routes a document for approval.
Approvers can approve or reject the document, reassign the approval task, or request changes
to the document." InstantiationUrl="http://server/_layouts/IniWrkflIP.aspx?List=5f2f1e89-
06d7-44f5-886b-3ee11ff2d5b3&amp;ID=6&amp;TemplateID={ab6d93ed-0fc1-49ca-8259-b02533f51859}">
                              <WorkflowTemplateIdSet TemplateId="ab6d93ed-0fc1-49ca-8259-b02533f51859"
BaseId="c6964bff-bf8d-41ac-ad5e-b61ec111731c" />
                        <AssociationData>
                              <string>&lt;my:myFields xml:lang="en-us"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"&gt;
&lt;my:Reviewers&gt;&lt;/my:Reviewers&gt;  &lt;my:CC&gt;&lt;/my:CC&gt;   &lt;my:DueDate
xsi:nil="true"&gt;&lt;/my:DueDate&gt;  &lt;my:Description&gt;&lt;/my:Description&gt;
&lt;my:Title&gt;&lt;/my:Title&gt;  &lt;my:DefaultTaskType&gt;1&lt;/my:DefaultTaskType&gt;
&lt;my:CreateTasksInSerial&gt;true&lt;/my:CreateTasksInSerial&gt;
&lt;my:AllowDelegation&gt;true&lt;/my:AllowDelegation&gt;
&lt;my:AllowChangeRequests&gt;true&lt;/my:AllowChangeRequests&gt;  &lt;my:StopOnAnyReject
xsi:nil="true"&gt;&lt;/my:StopOnAnyReject&gt;  &lt;my:WantedTasks
xsi:nil="true"&gt;&lt;/my:WantedTasks&gt;
&lt;my:SetMetadataOnSuccess&gt;false&lt;/my:SetMetadataOnSuccess&gt;
&lt;my:MetadataSuccessField&gt;&lt;/my:MetadataSuccessField&gt;
&lt;my:MetadataSuccessValue&gt;&lt;/my:MetadataSuccessValue&gt;
&lt;my:ApproveWhenComplete&gt;false&lt;/my:ApproveWhenComplete&gt;  &lt;my:TimePerTaskVal
xsi:nil="true"&gt;&lt;/my:TimePerTaskVal&gt;  &lt;my:TimePerTaskType
xsi:nil="true"&gt;&lt;/my:TimePerTaskType&gt;  &lt;my:Voting&gt;false&lt;/my:Voting&gt;
&lt;my:MetadataTriggerField&gt;&lt;/my:MetadataTriggerField&gt;
&lt;my:MetadataTriggerValue&gt;&lt;/my:MetadataTriggerValue&gt;
&lt;my:InitLock&gt;false&lt;/my:InitLock&gt;
&lt;my:MetadataStop&gt;false&lt;/my:MetadataStop&gt;
&lt;my:ItemChangeStop&gt;false&lt;/my:ItemChangeStop&gt;
&lt;my:GroupTasks&gt;false&lt;/my:GroupTasks&gt;&lt;/my:myFields&gt;</string>
                        </AssociationData>
                        <Metadata>
                              <Instantiation_FormURN>
                                    <string>urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Init:$Subst:LCID;</string>
                              </Instantiation_FormURN>
                        </Metadata>
                  </WorkflowTemplate>
                  <WorkflowTemplate Name="Collect Feedback" Description="Routes a document for
review. Reviewers can provide feedback, which is compiled and sent to the document owner when
the workflow has completed."
InstantiationUrl="http://server/_layouts/IniWrkflIP.aspx?List=5f2f1e89-06d7-44f5-886b-
3ee11ff2d5b3&amp;ID=6&amp;TemplateID={b03dba1a-b247-451f-9ea2-117d7e366cdb}">
                        <WorkflowTemplateIdSet TemplateId="b03dba1a-b247-451f-9ea2-117d7e366cdb"
BaseId="46c389a4-6e18-476c-aa17-289b0c79fb8f" />
                        <AssociationData>
                              <string>&lt;my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-
us"&gt;&lt;my:Reviewers&gt;&lt;/my:Reviewers&gt;&lt;my:CC&gt;&lt;/my:CC&gt;&lt;my:DueDate
xsi:nil="true"&gt;&lt;/my:DueDate&gt;&lt;my:Description&gt;&lt;/my:Description&gt;&lt;my:Titl
e&gt;&lt;/my:Title&gt;&lt;my:DefaultTaskType&gt;0&lt;/my:DefaultTaskType&gt;&lt;my:CreateTask
sInSerial&gt;false&lt;/my:CreateTasksInSerial&gt;&lt;my:AllowDelegation&gt;true&lt;/my:AllowD
elegation&gt;&lt;my:AllowChangeRequests&gt;true&lt;/my:AllowChangeRequests&gt;&lt;my:StopOnAn
yReject xsi:nil="true"&gt;&lt;/my:StopOnAnyReject&gt;&lt;my:WantedTasks
xsi:nil="true"&gt;&lt;/my:WantedTasks&gt;&lt;my:SetMetadataOnSuccess&gt;false&lt;/my:SetMetad
ataOnSuccess&gt;&lt;my:MetadataSuccessField&gt;&lt;/my:MetadataSuccessField&gt;&lt;my:Metadat
aSuccessValue&gt;&lt;/my:MetadataSuccessValue&gt;&lt;my:ApproveWhenComplete&gt;false&lt;/my:A
pproveWhenComplete&gt;&lt;my:TimePerTaskVal
xsi:nil="true"&gt;&lt;/my:TimePerTaskVal&gt;&lt;my:TimePerTaskType
xsi:nil="true"&gt;&lt;/my:TimePerTaskType&gt;&lt;my:Voting&gt;false&lt;/my:Voting&gt;&lt;my:M
etadataTriggerField&gt;&lt;/my:MetadataTriggerField&gt;&lt;my:MetadataTriggerValue&gt;&lt;/my
:MetadataTriggerValue&gt;&lt;my:InitLock&gt;false&lt;/my:InitLock&gt;&lt;my:MetadataStop&gt;f
```

```
alse&lt;/my:MetadataStop&gt;&lt;my:ItemChangeStop&gt;false&lt;/my:ItemChangeStop&gt;&lt;my:Gr
oupTasks&gt;false&lt;/my:GroupTasks&gt;&lt;/my:myFields&gt;</string>
                </AssociationData>
                <Metadata>
                    <Instantiation_FormURN>
                        <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
                    </Instantiation_FormURN>
                </Metadata>
            </WorkflowTemplate>
            <WorkflowTemplate Name="Collect Signatures" Description="Gathers signatures needed
to complete a Microsoft Office document. This workflow can be started only from within an
Office client.">
                <WorkflowTemplateIdSet TemplateId="5b8d2cf1-3ef0-46ee-ae87-61c595a34fb7"
BaseId="2f213931-3b93-4f81-b021-3022434a3114" />
                <Metadata>
                    <InitiationCategories>
                        <string>SigClientRequired</string>
                    </InitiationCategories>
                    <Instantiation_FormURN>
                        <string>urn:schemas-microsoft-
com:office:infopath:workflow:CollectSignatures-Init:$Subst:LCID;</string>
</Instantiation_FormURN>
                </Metadata>
            </WorkflowTemplate>
            <WorkflowTemplate Name="Approval" Description="Routes a document for approval.
Approvers can approve or reject the document, reassign the approval task, or request changes
to the document." InstantiationUrl="http://server/_layouts/IniWrkflIP.aspx?List=5f2f1e89-
06d7-44f5-886b-3ee11ff2d5b3&amp;ID=6&amp;TemplateID={94218b95-47d3-4fa3-8e3f-f44f6d234acd}">
                <WorkflowTemplateIdSet TemplateId="94218b95-47d3-4fa3-8e3f-f44f6d234acd"
BaseId="c6964bff-bf8d-41ac-ad5e-b61ec111731c" />
                <AssociationData>
                    <string>&lt;my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-
us"&gt;&lt;my:Reviewers&gt;&lt;/my:Reviewers&gt;&lt;my:CC&gt;&lt;/my:CC&gt;&lt;my:DueDate
xsi:nil="true"&gt;&lt;/my:DueDate&gt;&lt;my:Description&gt;&lt;/my:Description&gt;&lt;my:Titl
e&gt;&lt;/my:Title&gt;&lt;my:DefaultTaskType&gt;1&lt;/my:DefaultTaskType&gt;&lt;my:CreateTask
sInSerial&gt;true&lt;/my:CreateTasksInSerial&gt;&lt;my:AllowDelegation&gt;true&lt;/my:AllowDe
legation&gt;&lt;my:AllowChangeRequests&gt;true&lt;/my:AllowChangeRequests&gt;&lt;my:StopOnAny
Reject xsi:nil="true"&gt;&lt;/my:StopOnAnyReject&gt;&lt;my:WantedTasks
xsi:nil="true"&gt;&lt;/my:WantedTasks&gt;&lt;my:SetMetadataOnSuccess&gt;false&lt;/my:SetMetad
ataOnSuccess&gt;&lt;my:MetadataSuccessField&gt;&lt;/my:MetadataSuccessField&gt;&lt;my:Metadat
aSuccessValue&gt;&lt;/my:MetadataSuccessValue&gt;&lt;my:ApproveWhenComplete&gt;false&lt;/my:A
pproveWhenComplete&gt;&lt;my:TimePerTaskVal
xsi:nil="true"&gt;&lt;/my:TimePerTaskVal&gt;&lt;my:TimePerTaskType
xsi:nil="true"&gt;&lt;/my:TimePerTaskType&gt;&lt;my:Voting&gt;false&lt;/my:Voting&gt;&lt;my:M
etadataTriggerField&gt;&lt;/my:MetadataTriggerField&gt;&lt;my:MetadataTriggerValue&gt;&lt;/my
:MetadataTriggerValue&gt;&lt;my:InitLock&gt;false&lt;/my:InitLock&gt;&lt;my:MetadataStop&gt;f
alse&lt;/my:MetadataStop&gt;&lt;my:ItemChangeStop&gt;false&lt;/my:ItemChangeStop&gt;&lt;my:Gr
oupTasks&gt;false&lt;/my:GroupTasks&gt;&lt;/my:myFields&gt;</string>
                </AssociationData>
                <Metadata>
                    <Instantiation_FormURN>
                        <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
                    </Instantiation_FormURN>
                </Metadata>
            </WorkflowTemplate>
        </WorkflowTemplates>
    </TemplateData>
    <ActiveWorkflowsData>
        <Workflows>
```

```
        <Workflow
StatusPageUrl="http://server/_layouts/WrkStat.aspx?List=%7B5F2F1E89%2D06D7%2D44F5%2D886B%2D3E
E11FF2D5B3%7D&amp;WorkflowInstanceID=%7B874e77fb%2D144f%2D4e4e%2D9500%2D25c9d1fc53e4%7D"
Id="874e77fb-144f-4e4e-9500-25c9d1fc53e4" TemplateId="ab6d93ed-0fc1-49ca-8259-b02533f51859"
ListId="5f2f1e89-06d7-44f5-886b-3ee11ff2d5b3" SiteId="4ca76181-d8d6-4535-86c7-2eb7fcf91c0e"
WebId="598b4ef0-3ec0-4282-aac9-ed6d114f2b7f" ItemId="6" ItemGUID="7522c63c-a7b4-4bff-bf34-
3c274b2d8ea7" TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb" AdminTaskListId="" Author="1"
Modified="20080213 21:28:53" Created="20080213 21:28:52" StatusVersion="0" Status1="2"
Status2="" Status3="" Status4="" Status5="" Status6="" Status7="" Status8="" Status9=""
Status10="" TextStatus1="" TextStatus2="" TextStatus3="" TextStatus4="" TextStatus5=""
Modifications="&lt;Mods&gt;&lt;Mod&gt;&lt;SubId&gt;{5227289E-3495-45C3-94B4-
459B80A2D40A}&lt;/SubId&gt;&lt;Id&gt;{27F914AE-3112-493D-86CF-
43DC93870418}&lt;/Id&gt;&lt;Data&gt;&amp;lt;my:DueDate&amp;gt;&amp;lt;/my:DueDate&amp;gt;&amp
;lt;my:Description&amp;gt;asdf&amp;lt;/my:Description&amp;gt;&lt;/Data&gt;&lt;/Mod&gt;&lt;Mod
&gt;&lt;SubId&gt;{7B38EE35-538E-4EF5-B560-631F4B9C367B}&lt;/SubId&gt;&lt;Id&gt;{B21BCC38-
2C23-4B64-8E7D-
C32C43AD42CF}&lt;/Id&gt;&lt;Data&gt;&lt;/Data&gt;&lt;/Mod&gt;&lt;Mod&gt;&lt;SubId&gt;{4235BEB
6-C0CA-42DE-9397-9D2E6D47BCA7}&lt;/SubId&gt;&lt;Id&gt;{AF71F77B-E6C8-483A-ACBF-
30B4A84BD209}&lt;/Id&gt;&lt;Data&gt;&amp;lt;my:NewReviewers&amp;gt;&amp;lt;/my:NewReviewers&a
mp;gt;&amp;lt;my:DueDate&amp;gt;&amp;lt;/my:DueDate&amp;gt;&amp;lt;my:Description&amp;gt;asdf
&amp;lt;/my:Description&amp;gt;&amp;lt;my:Duration
xsi:nil=&amp;quot;true&amp;quot;&amp;gt;&amp;lt;/my:Duration&amp;gt;&amp;lt;my:DurType&amp;gt
;0&amp;lt;/my:DurType&amp;gt;&amp;lt;my:GroupTasks&amp;gt;false&amp;lt;/my:GroupTasks&amp;gt;
&amp;lt;my:ShowDuration&amp;gt;1&amp;lt;/my:ShowDuration&amp;gt;&lt;/Data&gt;&lt;/Mod&gt;&lt;
/Mods&gt;" ActivityDetails="System.Byte[]" InstanceData="" InstanceDataSize="0"
InternalState="2" ProcessingId="" />
<Workflow
StatusPageUrl="http://server/_layouts/WrkStat.aspx?List=%7B5F2F1E89%2D06D7%2D44F5%2D886B%2D3E
E11FF2D5B3%7D&amp;WorkflowInstanceID=%7B3efde9d9%2Dc8de%2D463b%2D8fe6%2Df13e15419c79%7D"
Id="3efde9d9-c8de-463b-8fe6-f13e15419c79" TemplateId="94218b95-47d3-4fa3-8e3f-f44f6d234acd"
ListId="5f2f1e89-06d7-44f5-886b-3ee11ff2d5b3" SiteId="4ca76181-d8d6-4535-86c7-2eb7fcf91c0e"
WebId="598b4ef0-3ec0-4282-aac9-ed6d114f2b7f" ItemId="6" ItemGUID="7522c63c-a7b4-4bff-bf34-
3c274b2d8ea7" TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb" AdminTaskListId="" Author="1"
Modified="20080206 18:18:13" Created="20080206 18:18:12" StatusVersion="0" Status1="2"
Status2="" Status3="" Status4="" Status5="" Status6="" Status7="" Status8="" Status9=""
Status10="" TextStatus1="" TextStatus2="" TextStatus3="" TextStatus4="" TextStatus5=""
Modifications="&lt;Mods&gt;&lt;Mod&gt;&lt;SubId&gt;{9A3C5C0B-E44F-433B-9F0D-
93D36536D443}&lt;/SubId&gt;&lt;Id&gt;{27F914AE-3112-493D-86CF-
43DC93870418}&lt;/Id&gt;&lt;Data&gt;&amp;lt;my:DueDate&amp;gt;&amp;lt;/my:DueDate&amp;gt;&amp
;lt;my:Description&amp;gt;Please approve
Document&amp;lt;/my:Description&amp;gt;&lt;/Data&gt;&lt;/Mod&gt;&lt;Mod&gt;&lt;SubId&gt;{71C7
7799-E68F-4502-9B72-867A35E4E920}&lt;/SubId&gt;&lt;Id&gt;{B21BCC38-2C23-4B64-8E7D-
C32C43AD42CF}&lt;/Id&gt;&lt;Data&gt;&lt;/Data&gt;&lt;/Mod&gt;&lt;Mod&gt;&lt;SubId&gt;{9460953
6-C610-438C-911F-62B60AF55337}&lt;/SubId&gt;&lt;Id&gt;{AF71F77B-E6C8-483A-ACBF-
30B4A84BD209}&lt;/Id&gt;&lt;Data&gt;&amp;lt;my:NewReviewers&amp;gt;&amp;lt;/my:NewReviewers&a
mp;gt;&amp;lt;my:DueDate&amp;gt;&amp;lt;/my:DueDate&amp;gt;&amp;lt;my:Description&amp;gt;Plea
se approve Document&amp;lt;/my:Description&amp;gt;&amp;lt;my:Duration
xsi:nil=&amp;quot;true&amp;quot;&amp;gt;&amp;lt;/my:Duration&amp;gt;&amp;lt;my:DurType&amp;gt
;0&amp;lt;/my:DurType&amp;gt;&amp;lt;my:GroupTasks&amp;gt;false&amp;lt;/my:GroupTasks&amp;gt;
&amp;lt;my:ShowDuration&amp;gt;1&amp;lt;/my:ShowDuration&amp;gt;&lt;/Data&gt;&lt;/Mod&gt;&lt;
/Mods&gt;" ActivityDetails="System.Byte[]" InstanceData="" InstanceDataSize="0"
InternalState="2" ProcessingId="" />
        <Workflow
StatusPageUrl="http://server/_layouts/WrkStat.aspx?List=%7B5F2F1E89%2D06D7%2D44F5%2D886B%2D3E
E11FF2D5B3%7D&amp;WorkflowInstanceID=%7Bcc2ec83f%2Dab79%2D4e18%2D85eb%2Df90c72427b21%7D"
Id="cc2ec83f-ab79-4e18-85eb-f90c72427b21" TemplateId="b03dba1a-b247-451f-9ea2-117d7e366cdb"
ListId="5f2f1e89-06d7-44f5-886b-3ee11ff2d5b3" SiteId="4ca76181-d8d6-4535-86c7-2eb7fcf91c0e"
WebId="598b4ef0-3ec0-4282-aac9-ed6d114f2b7f" ItemId="6" ItemGUID="7522c63c-a7b4-4bff-bf34-
3c274b2d8ea7" TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb" AdminTaskListId="" Author="1"
Modified="20080213 22:08:29" Created="20080213 21:58:33" StatusVersion="1" Status1="15"
Status2="" Status3="" Status4="" Status5="" Status6="" Status7="" Status8="" Status9=""
Status10="" TextStatus1="" TextStatus2="" TextStatus3="" TextStatus4="" TextStatus5=""
Modifications="" ActivityDetails="System.Byte[]" InstanceData="" InstanceDataSize="0"
InternalState="4" ProcessingId="" />
    </Workflows>
```

```
            </ActiveWorkflowsData>
        <DefaultWorkflows>
        </DefaultWorkflows>
              </WorkflowData>
          </GetWorkflowDataForItemResult>
        </GetWorkflowDataForItemResponse>
      </soap:Body>
  </soap:Envelope>
```

4.2.2 Alter a Workflow Task

To modify a workflow task for a document, the protocol client sends the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Body>
    <AlterToDo
        xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
        <item>http://server/Documents/Document.xml</item>
        <todoId>23</todoId>
        <todoListId>4c620c8d-bfe6-4857-a29e-5b628ebb9ddb</todoListId>
        <taskData>
        <my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xmlns:xhtml="http://www.w3.org/1999/xhtml"
            xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
            xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
            xmlns:o="urn:schemas-microsoft-com:office:office"
            xmlns:o12="http://schemas.microsoft.com/office/2004/7/core"
            xmlns:w10="urn:schemas-microsoft-com:office:word"
            xmlns:v="urn:schemas-microsoft-com:vml"
            xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
            xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
            xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
            xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
            xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/
                dataFormSolution"
            xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
            xmlns:s1="http://microsoft.com/wsdl/types/"
            xmlns:z="#RowsetSchema"
            xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
            xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
            xml:lang="en-us">
            <my:TaskStatus>#</my:TaskStatus>
            <my:Comments>Comment1</my:Comments>
            <my:DelegateTo>User</my:DelegateTo>
            <my:NewDescription>Please review Form</my:NewDescription>
            <my:NewDueDate xsi:nil="true">
    </my:NewDueDate>
            <my:RequestTo>
    </my:RequestTo>
            <my:Decline>0</my:Decline>
            <my:dcr>0</my:dcr>
            <my:Status>Completed</my:Status>
        </my:myFields>
    </taskData>
    </AlterToDo>
    </soap:Body>
```

```
      </soap:Envelope>
```

The protocol server modifies the specified workflow task and responds with the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <soap:Body>
        <AlterToDoResponse
          xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
            <AlterToDoResult>
                <fSuccess>1</fSuccess>
            </AlterToDoResult>
        </AlterToDoResponse>
    </soap:Body>
</soap:Envelope>
```

4.3   Related Files

4.3.1   TodoData.Xml

Implementations of this protocol return workflow tasks that have a field named **WorkflowInstanceId** matching the **Id** of a workflow started on the queried document.

If the queried document is part of a workflow with **WorkflowTemplateIdSet.TemplateId** set to the GUID {B4154DF4-CC53-4C4F-ADEF-1ECF0B7417F6}, this workflow is a Translation Workflow then the protocol server also returns workflow tasks belonging to the parent of this document that satisfy the following conditions:

▪ The workflow task has a **WorkflowInstanceId** that identifies a workflow based on a Translation Workflow template.

▪ The workflow task has a field named **ows_PlaceholderDocListItemID** matching the queried document list item identifier.

The parent of the document is determined by checking the **TranslationBaseDocument** field, which contains a list item identifier specifying a document in the queried document list. If this field identifies a valid document, there is a parent document.

4.3.2   TemplateData.WorkflowTemplates.WorkflowTemplate.AssocationData

As defined by this protocol, this element can contain any XML or be empty. Proof-of-concept implementations of workflow templates use the following XML format for this node.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema
    targetNamespace="http://schemas.microsoft.com/office/
        infopath/2003/myXSD" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
        instance"
    xmlns:xhtml="http://www.w3.org/1999/xhtml"
    xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
    xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
```

```
        xmlns:o="urn:schemas-microsoft-com:office:office"
        xmlns:o12="http://schemas.microsoft.com/office/2004/7/core"
        xmlns:w10="urn:schemas-microsoft-com:office:word"
        xmlns:v="urn:schemas-microsoft-com:vml"
        xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
        xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
        xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
        xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
        xmlns:dfs="http://schemas.microsoft.com/office/
            infopath/2003/dataFormSolution"
        xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
        xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
        xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
        xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
        xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="myFields">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:fieldALS" minOccurs="0"/>
        <xsd:element ref="my:InitiatedBy" minOccurs="0"/>
        <xsd:element ref="my:Reviewers" minOccurs="0"/>
        <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
        <xsd:element ref="my:MySignatureURL" minOccurs="0"/>
        <xsd:element ref="my:LastSignatureID" minOccurs="0"/>
        <xsd:element ref="my:CurrentSignatureID" minOccurs="0"/>
        <xsd:element ref="my:AllowArbitraryApproval" minOccurs="0"/>
        <xsd:element ref="my:RejectedImageURL" minOccurs="0"/>
        <xsd:element ref="my:CanSubmit" minOccurs="0"/>
        <xsd:element ref="my:EawfAttachments" minOccurs="0"/>
        <xsd:element ref="my:group1" minOccurs="0"/>
        <xsd:element ref="my:group2" minOccurs="0"/>
        <xsd:element ref="my:group3" minOccurs="0"/>
      </xsd:sequence>
      <xsd:anyAttribute processContents="lax"
          namespace="http://www.w3.org/XML/1998/namespace"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="fieldALS" type="xsd:string"/>
  <xsd:element name="InitiatedBy" type="xsd:string"/>
  <xsd:element name="Reviewers">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="Person">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:ID" minOccurs="0"/>
        <xsd:element ref="my:Type" minOccurs="0"/>
        <xsd:element ref="my:DisplayName" minOccurs="0"/>
        <xsd:element ref="my:EmailAddress" minOccurs="0"/>
        <xsd:element ref="my:Order" minOccurs="0"/>
        <xsd:element ref="my:Comment" minOccurs="0"/>
        <xsd:element ref="my:ApprovalType" minOccurs="0"/>
        <xsd:element ref="my:SignatureID" minOccurs="0"/>
        <xsd:element ref="my:Department" minOccurs="0"/>
      </xsd:sequence>
```

```
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="ID" type="xsd:string"/>
    <xsd:element name="Type" type="xsd:string"/>
    <xsd:element name="DisplayName" type="xsd:string"/>
    <xsd:element name="EmailAddress" type="xsd:string"/>
    <xsd:element name="Order" type="xsd:string"/>
    <xsd:element name="Comment" type="xsd:string"/>
    <xsd:element name="ApprovalType" type="xsd:string"/>
    <xsd:element name="SignatureID" type="xsd:string"/>
    <xsd:element name="Department" type="xsd:string"/>
    <xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
    <xsd:element name="MySignatureURL" type="xsd:string"/>
    <xsd:element name="LastSignatureID" type="xsd:string"/>
    <xsd:element name="CurrentSignatureID" type="xsd:string"/>
    <xsd:element name="AllowArbitraryApproval" nillable="true"
        type="xsd:boolean"/>
    <xsd:element name="RejectedImageURL" type="xsd:string"/>
    <xsd:element name="CanSubmit" nillable="true" type="xsd:boolean"/>
    <xsd:element name="EawfAttachments">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:EawfAttachment" minOccurs="0"
                    maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="EawfAttachment">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:AttachedFile" minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="AttachedFile" nillable="true" type="xsd:base64Binary"/>
    <xsd:element name="group1">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group2">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group3">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema
    targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xhtml="http://www.w3.org/1999/xhtml"
    xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
    xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
    xmlns:o="urn:schemas-microsoft-com:office:office"
```

```
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core"
xmlns:w10="urn:schemas-microsoft-com:office:word" xmlns:v="urn:schemas-
    microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/
    infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<xsd:element name="myFields">
   <xsd:complexType>
      <xsd:sequence>
         <xsd:element ref="my:Reviewers" minOccurs="0"/>
         <xsd:element ref="my:CC" minOccurs="0"/>
         <xsd:element ref="my:DueDate" minOccurs="0"/>
         <xsd:element ref="my:Description" minOccurs="0"/>
         <xsd:element ref="my:Title" minOccurs="0"/>
         <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
         <xsd:element ref="my:CreateTasksInSerial" minOccurs="0"/>
         <xsd:element ref="my:AllowDelegation" minOccurs="0"/>
         <xsd:element ref="my:AllowChangeRequests" minOccurs="0"/>
         <xsd:element ref="my:StopOnAnyReject" minOccurs="0"/>
         <xsd:element ref="my:WantedTasks" minOccurs="0"/>
         <xsd:element ref="my:SetMetadataOnSuccess" minOccurs="0"/>
         <xsd:element ref="my:MetadataSuccessField" minOccurs="0"/>
         <xsd:element ref="my:MetadataSuccessValue" minOccurs="0"/>
         <xsd:element ref="my:ApproveWhenComplete" minOccurs="0"/>
         <xsd:element ref="my:TimePerTaskVal" minOccurs="0"/>
         <xsd:element ref="my:TimePerTaskType" minOccurs="0"/>
         <xsd:element ref="my:Voting" minOccurs="0"/>
         <xsd:element ref="my:MetadataTriggerField" minOccurs="0"/>
         <xsd:element ref="my:MetadataTriggerValue" minOccurs="0"/>
         <xsd:element ref="my:InitLock" minOccurs="0"/>
         <xsd:element ref="my:MetadataStop" minOccurs="0"/>
         <xsd:element ref="my:ItemChangeStop" minOccurs="0"/>
         <xsd:element ref="my:GroupTasks" minOccurs="0"/>
      </xsd:sequence>
      <xsd:anyAttribute processContents="lax"
         namespace="http://www.w3.org/XML/1998/namespace"/>
   </xsd:complexType>
</xsd:element>
<xsd:element name="Reviewers">
   <xsd:complexType>
      <xsd:sequence>
         <xsd:element ref="my:Person" minOccurs="0"
            maxOccurs="unbounded"/>
      </xsd:sequence>
   </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
   <xsd:complexType>
      <xsd:sequence>
         <xsd:element ref="my:DisplayName" minOccurs="0"/>
         <xsd:element ref="my:AccountId" minOccurs="0"/>
```

```
              <xsd:element ref="my:AccountType" minOccurs="0"/>
         </xsd:sequence>
      </xsd:complexType>
   </xsd:element>
   <xsd:element name="DisplayName" type="xsd:string"/>
   <xsd:element name="AccountId" type="xsd:string"/>
   <xsd:element name="AccountType" type="xsd:string"/>
   <xsd:element name="CC">
      <xsd:complexType>
         <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0"
               maxOccurs="unbounded"/>
         </xsd:sequence>
      </xsd:complexType>
   </xsd:element>
   <xsd:element name="DueDate" nillable="true" type="xsd:date"/>
   <xsd:element name="Description" type="xsd:string"/>
   <xsd:element name="Title" type="xsd:string"/>
   <xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
   <xsd:element name="CreateTasksInSerial" nillable="true"
      type="xsd:boolean"/>
   <xsd:element name="AllowDelegation" nillable="true" type="xsd:boolean"/>
   <xsd:element name="AllowChangeRequests" nillable="true"
      type="xsd:boolean"/>
   <xsd:element name="StopOnAnyReject" nillable="true" type="xsd:boolean"/>
   <xsd:element name="WantedTasks" nillable="true" type="xsd:integer"/>
   <xsd:element name="SetMetadataOnSuccess" nillable="true"
      type="xsd:boolean"/>
   <xsd:element name="MetadataSuccessField" type="xsd:string"/>
   <xsd:element name="MetadataSuccessValue" type="xsd:string"/>
   <xsd:element name="ApproveWhenComplete" nillable="true"
      type="xsd:boolean"/>
   <xsd:element name="TimePerTaskVal" nillable="true" type="xsd:integer"/>
   <xsd:element name="TimePerTaskType" nillable="true" type="xsd:integer"/>
   <xsd:element name="Voting" nillable="true" type="xsd:boolean"/>
   <xsd:element name="MetadataTriggerField" type="xsd:string"/>
   <xsd:element name="MetadataTriggerValue" type="xsd:string"/>
   <xsd:element name="InitLock" nillable="true" type="xsd:boolean"/>
   <xsd:element name="MetadataStop" nillable="true" type="xsd:boolean"/>
   <xsd:element name="ItemChangeStop" nillable="true" type="xsd:boolean"/>
   <xsd:element name="GroupTasks" nillable="true" type="xsd:boolean"/>
</xsd:schema>
```

4.3.3   TemplateData.WorkflowTemplates.WorkflowTemplate.Metadata

As defined by this protocol, this element, if supplied, can contain elements that are vendor-extensible. These vendor-extensible elements are **InitiationCategories**, **Instantiation_FormURN**, **Instantiation_FormURI**, **SigClientSettings**, and **AssignmentStagesName**. Proof-of-concept implementations of workflow templates use the following strings for these nodes in the **TemplateData.WorkflowTemplates.WorkflowTemplate.Metadata** node:

```
<Metadata>
   <Instantiation_FormURN>
      <string>http://server/_catalogs/wfpub/Collect Feedback - SharePoint
14/reviewfeedback_1033.xsn</string>
   </Instantiation_FormURN>
```

```
<InitiationCategories>
    <string>List;Language:1033;#ContentType;Language:1033</string>
</InitiationCategories>
<AssignmentStagesName>
    <string>Reviewers</string>
</AssignmentStagesName>
</Metadata>

<Metadata>
    <Instantiation_FormURN>
        <string>http://server/_catalogs/wfpub/Approval - SharePoint
14/reviewapproval_1033.xsn</string>
    </Instantiation_FormURN>
    <InitiationCategories>
        <string>List;Language:1033;#ContentType;Language:1033</string>
    </InitiationCategories>
    <AssignmentStagesName>
        <string>Approvers</string>
    </AssignmentStagesName>
</Metadata>

<Metadata>
    <Instantiation_FormURN>
        <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
    </Instantiation_FormURN>
    <InitiationCategories>
        <string>General</string>
    </InitiationCategories>
</Metadata>

<Metadata>
    <InitiationCategories>
        <string>SigClientRequired</string>
    </InitiationCategories>
    <Instantiation_FormURN>
        <string>urn:schemas-microsoft-com:office:infopath:workflow:CollectSignatures-
Init:$Subst:LCID;</string>
    </Instantiation_FormURN>
</Metadata>

<Metadata>
    <Instantiation_FormURN>
        <string>http://server/_catalogs/wfpub/Collect Feedback - SharePoint
14/reviewfeedback_1033.xsn</string>
    </Instantiation_FormURN>
    <InitiationCategories>
        <string>List;Language:1033;#ContentType;Language:1033</string>
    </InitiationCategories>
    <AssignmentStagesName>
        <string>Reviewers</string>
    </AssignmentStagesName>
</Metadata>

<Metadata>
    <InitiationCategories>
        <string>List;Language:1033;#ContentType;Language:1033;#SigClientRequired</string>
    </InitiationCategories>
    <Instantiation_FormURI>
```

```
            <string>http://server/_catalogs/wfpub/Collect Signatures - SharePoint
14/Signatures_1033.xsn</string>
        </Instantiation_FormURI>
        <SigClientSettings>
            <string>DigitalSignaturesEnabled;#UseAssociationDataToSuggestedSigners</string>
        </SigClientSettings>
        <AssignmentStagesName>
            <string>Signers</string>
        </AssignmentStagesName>
    </Metadata>

    <Metadata>
        <Instantiation_FormURN>
            <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
        </Instantiation_FormURN>
        <InitiationCategories>
            <string>General</string>
        </InitiationCategories>
    </Metadata>

    <Metadata>
        <Instantiation_FormURN>
            <string>http://server/_catalogs/wfpub/Approval - SharePoint
14/reviewapproval_1033.xsn</string>
        </Instantiation_FormURN>
        <InitiationCategories>
            <string>List;Language:1033;#ContentType;Language:1033</string>
        </InitiationCategories>
        <AssignmentStagesName>
            <string>Approvers</string>
        </AssignmentStagesName>
    </Metadata>
```

4.3.4   StartWorkflow.workflowParameters

As defined by this protocol, this element can contain any XML or be empty. Proof-of-concept
implementations of workflow templates require the following XML format for this node when
initializing a new workflow:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xhtml="http://www.w3.org/1999/xhtml"
    xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
    xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
    xmlns:o="urn:schemas-microsoft-com:office:office"
    xmlns:o12="http://schemas.microsoft.com/office/2004/7/core"
    xmlns:w10="urn:schemas-microsoft-com:office:word" xmlns:v="urn:schemas-
        microsoft-com:vml"
    xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
    xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
    xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
    xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
    xmlns:dfs="http://schemas.microsoft.com/office/
        infopath/2003/dataFormSolution"
    xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
```

```
      xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
      xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
      xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema">
        <xsd:element name="myFields">
          <xsd:complexType>
             <xsd:sequence>
                <xsd:element ref="my:Reviewers" minOccurs="0"/>
                <xsd:element ref="my:CC" minOccurs="0"/>
                <xsd:element ref="my:DueDate" minOccurs="0"/>
                <xsd:element ref="my:Description" minOccurs="0"/>
                <xsd:element ref="my:Title" minOccurs="0"/>
                <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
                <xsd:element ref="my:CreateTasksInSerial" minOccurs="0"/>
                <xsd:element ref="my:AllowDelegation" minOccurs="0"/>
                <xsd:element ref="my:AllowChangeRequests" minOccurs="0"/>
                <xsd:element ref="my:StopOnAnyReject" minOccurs="0"/>
                <xsd:element ref="my:WantedTasks" minOccurs="0"/>
                <xsd:element ref="my:SetMetadataOnSuccess" minOccurs="0"/>
                <xsd:element ref="my:MetadataSuccessField" minOccurs="0"/>
                <xsd:element ref="my:MetadataSuccessValue" minOccurs="0"/>
                <xsd:element ref="my:ApproveWhenComplete" minOccurs="0"/>
                <xsd:element ref="my:TimePerTaskVal" minOccurs="0"/>
                <xsd:element ref="my:TimePerTaskType" minOccurs="0"/>
                <xsd:element ref="my:Voting" minOccurs="0"/>
                <xsd:element ref="my:MetadataTriggerField" minOccurs="0"/>
                <xsd:element ref="my:MetadataTriggerValue" minOccurs="0"/>
                <xsd:element ref="my:InitLock" minOccurs="0"/>
                <xsd:element ref="my:MetadataStop" minOccurs="0"/>
                <xsd:element ref="my:ItemChangeStop" minOccurs="0"/>
                <xsd:element ref="my:GroupTasks" minOccurs="0"/>
             </xsd:sequence>
             <xsd:anyAttribute processContents="lax"
                namespace="http://www.w3.org/XML/1998/namespace"/>
          </xsd:complexType>
        </xsd:element>
        <xsd:element name="Reviewers">
          <xsd:complexType>
             <xsd:sequence>
                <xsd:element ref="my:Person" minOccurs="0"
                   maxOccurs="unbounded"/>
             </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
        <xsd:element name="Person">
          <xsd:complexType>
             <xsd:sequence>
                <xsd:element ref="my:DisplayName" minOccurs="0"/>
                <xsd:element ref="my:AccountId" minOccurs="0"/>
                <xsd:element ref="my:AccountType" minOccurs="0"/>
             </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
        <xsd:element name="DisplayName" type="xsd:string"/>
        <xsd:element name="AccountId" type="xsd:string"/>
        <xsd:element name="AccountType" type="xsd:string"/>
        <xsd:element name="CC">
          <xsd:complexType>
             <xsd:sequence>
```

```
                    <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="DueDate" nillable="true" type="xsd:date"/>
        <xsd:element name="Description" type="xsd:string"/>
        <xsd:element name="Title" type="xsd:string"/>
        <xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
        <xsd:element name="CreateTasksInSerial" nillable="true" type="xsd:boolean"/>
        <xsd:element name="AllowDelegation" nillable="true" type="xsd:boolean"/>
        <xsd:element name="AllowChangeRequests" nillable="true" type="xsd:boolean"/>
        <xsd:element name="StopOnAnyReject" nillable="true" type="xsd:boolean"/>
        <xsd:element name="WantedTasks" nillable="true" type="xsd:integer"/>
        <xsd:element name="SetMetadataOnSuccess" nillable="true" type="xsd:boolean"/>
        <xsd:element name="MetadataSuccessField" type="xsd:string"/>
        <xsd:element name="MetadataSuccessValue" type="xsd:string"/>
        <xsd:element name="ApproveWhenComplete" nillable="true" type="xsd:boolean"/>
        <xsd:element name="TimePerTaskVal" nillable="true" type="xsd:integer"/>
        <xsd:element name="TimePerTaskType" nillable="true" type="xsd:integer"/>
        <xsd:element name="Voting" nillable="true" type="xsd:boolean"/>
        <xsd:element name="MetadataTriggerField" type="xsd:string"/>
        <xsd:element name="MetadataTriggerValue" type="xsd:string"/>
        <xsd:element name="InitLock" nillable="true" type="xsd:boolean"/>
        <xsd:element name="MetadataStop" nillable="true" type="xsd:boolean"/>
        <xsd:element name="ItemChangeStop" nillable="true" type="xsd:boolean"/>
        <xsd:element name="GroupTasks" nillable="true" type="xsd:boolean"/>
    </xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:DueDate" minOccurs="0"/>
                <xsd:element ref="my:DueDateDays" minOccurs="0"/>
                <xsd:element ref="my:TaskDescription" minOccurs="0"/>
                <xsd:element ref="my:TranslatorsList" minOccurs="0"/>
                <xsd:element ref="my:ManuallyInitiated" minOccurs="0"/>
                <xsd:element ref="my:StopOnBaseDocChange" minOccurs="0"/>
            </xsd:sequence>
            <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="DueDate" nillable="true" type="xsd:date"/>
```

```
        <xsd:element name="DueDateDays" nillable="true" type="xsd:integer"/>
        <xsd:element name="TaskDescription" type="xsd:string"/>
        <xsd:element name="TranslatorsList" type="xsd:string"/>
        <xsd:element name="ManuallyInitiated" nillable="true" type="xsd:boolean"/>
        <xsd:element name="StopOnBaseDocChange" nillable="true" type="xsd:boolean"/>
</xsd:schema>

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:attribute name="SignatureSpotID" type="xsd:string"/>
    <xsd:attribute name="SuggestedSigner" type="xsd:string"/>
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:CC" minOccurs="0"/>
                <xsd:element ref="my:SignatureSpots" minOccurs="0"/>
                <xsd:element ref="my:IsSerial" minOccurs="0"/>
            </xsd:sequence>
            <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="CC">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="Person">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:DisplayName" minOccurs="0"/>
                <xsd:element ref="my:AccountId" minOccurs="0"/>
                <xsd:element ref="my:AccountType" minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="DisplayName" type="xsd:string"/>
    <xsd:element name="AccountId" type="xsd:string"/>
    <xsd:element name="AccountType" type="xsd:string"/>
    <xsd:element name="SignatureSpots">
        <xsd:complexType>
            <xsd:sequence>
```

```
                <xsd:element ref="my:SignatureSpot" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="SignatureSpot">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:Assignee" minOccurs="0"/>
            </xsd:sequence>
            <xsd:attribute ref="my:SignatureSpotID"/>
            <xsd:attribute ref="my:SuggestedSigner"/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="Assignee">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="IsSerial" nillable="true" type="xsd:boolean"/>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:fieldALS" minOccurs="0"/>
                <xsd:element ref="my:InitiatedBy" minOccurs="0"/>
                <xsd:element ref="my:Reviewers" minOccurs="0"/>
                <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
                <xsd:element ref="my:MySignatureURL" minOccurs="0"/>
                <xsd:element ref="my:LastSignatureID" minOccurs="0"/>
                <xsd:element ref="my:CurrentSignatureID" minOccurs="0"/>
                <xsd:element ref="my:AllowArbitraryApproval" minOccurs="0"/>
                <xsd:element ref="my:RejectedImageURL" minOccurs="0"/>
                <xsd:element ref="my:CanSubmit" minOccurs="0"/>
                <xsd:element ref="my:EawfAttachments" minOccurs="0"/>
                <xsd:element ref="my:group1" minOccurs="0"/>
                <xsd:element ref="my:group2" minOccurs="0"/>
                <xsd:element ref="my:group3" minOccurs="0"/>
            </xsd:sequence>
            <xsd:anyAttribute processContents="lax"
  namespace="http://www.w3.org/XML/1998/namespace"/>
```

```xsd
        </xsd:complexType>
      </xsd:element>
      <xsd:element name="fieldALS" type="xsd:string"/>
      <xsd:element name="InitiatedBy" type="xsd:string"/>
      <xsd:element name="Reviewers">
         <xsd:complexType>
            <xsd:sequence>
               <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
         </xsd:complexType>
      </xsd:element>
      <xsd:element name="Person">
         <xsd:complexType>
            <xsd:sequence>
               <xsd:element ref="my:ID" minOccurs="0"/>
               <xsd:element ref="my:Type" minOccurs="0"/>
               <xsd:element ref="my:DisplayName" minOccurs="0"/>
               <xsd:element ref="my:EmailAddress" minOccurs="0"/>
               <xsd:element ref="my:Order" minOccurs="0"/>
               <xsd:element ref="my:Comment" minOccurs="0"/>
               <xsd:element ref="my:ApprovalType" minOccurs="0"/>
               <xsd:element ref="my:SignatureID" minOccurs="0"/>
               <xsd:element ref="my:Department" minOccurs="0"/>
            </xsd:sequence>
         </xsd:complexType>
      </xsd:element>
      <xsd:element name="ID" type="xsd:string"/>
      <xsd:element name="Type" type="xsd:string"/>
      <xsd:element name="DisplayName" type="xsd:string"/>
      <xsd:element name="EmailAddress" type="xsd:string"/>
      <xsd:element name="Order" type="xsd:string"/>
      <xsd:element name="Comment" type="xsd:string"/>
      <xsd:element name="ApprovalType" type="xsd:string"/>
      <xsd:element name="SignatureID" type="xsd:string"/>
      <xsd:element name="Department" type="xsd:string"/>
      <xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
      <xsd:element name="MySignatureURL" type="xsd:string"/>
      <xsd:element name="LastSignatureID" type="xsd:string"/>
      <xsd:element name="CurrentSignatureID" type="xsd:string"/>
      <xsd:element name="AllowArbitraryApproval" nillable="true" type="xsd:boolean"/>
      <xsd:element name="RejectedImageURL" type="xsd:string"/>
      <xsd:element name="CanSubmit" nillable="true" type="xsd:boolean"/>
      <xsd:element name="EawfAttachments">
         <xsd:complexType>
            <xsd:sequence>
               <xsd:element ref="my:EawfAttachment" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
         </xsd:complexType>
      </xsd:element>
      <xsd:element name="EawfAttachment">
         <xsd:complexType>
            <xsd:sequence>
               <xsd:element ref="my:AttachedFile" minOccurs="0"/>
            </xsd:sequence>
         </xsd:complexType>
      </xsd:element>
      <xsd:element name="AttachedFile" nillable="true" type="xsd:base64Binary"/>
      <xsd:element name="group1">
         <xsd:complexType>
```

```
              <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group2">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group3">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
</xsd:schema>
```

This XML is handled by the protocol server verbatim, without any modifications. The protocol server supplies this data to the new workflow being created.

4.3.5   AlterToDo.taskData

As defined by this protocol, this element can contain any XML or be empty. Proof-of-concept implementations of workflow templates require the following XML format for this node when initializing a new workflow:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                    <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                    <xsd:element ref="my:DelegateTo" minOccurs="0"/>
                    <xsd:element ref="my:SigInstructions" minOccurs="0"/>
                    <xsd:element ref="my:SigDetails" minOccurs="0"/>
                    <xsd:element ref="my:Status" minOccurs="0"/>
            </xsd:sequence>
            <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="TaskStatus" type="xsd:string"/>
    <xsd:element name="DelegateTo">
        <xsd:complexType>
            <xsd:sequence>
```

```
                    <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>
    <xsd:element name="Person">
            <xsd:complexType>
                <xsd:sequence>
                    <xsd:element ref="my:DisplayName" minOccurs="0"/>
                    <xsd:element ref="my:AccountId" minOccurs="0"/>
                    <xsd:element ref="my:AccountType" minOccurs="0"/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="DisplayName" type="xsd:string"/>
        <xsd:element name="AccountId" type="xsd:string"/>
        <xsd:element name="AccountType" type="xsd:string"/>
        <xsd:element name="SigInstructions">
            <xsd:complexType>
                <xsd:sequence>
                    <xsd:element ref="my:OffsiteParticipant" minOccurs="0"/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="OffsiteParticipant">
            <xsd:complexType>
                <xsd:sequence/>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="SigDetails">
            <xsd:complexType>
                <xsd:sequence/>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="Status" type="xsd:string"/>
    </xsd:schema>

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
    <xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                <xsd:element ref="my:Comments" minOccurs="0"/>
                <xsd:element ref="my:AssigneeEmail" minOccurs="0"/>
```

```
                  <xsd:element ref="my:Description" minOccurs="0"/>
                  <xsd:element ref="my:IsHold" minOccurs="0"/>
                  <xsd:element ref="my:fieldALS" minOccurs="0"/>
                  <xsd:element ref="my:Reviewers" minOccurs="0"/>
                  <xsd:element ref="my:IsArbitrary" minOccurs="0"/>
                  <xsd:element ref="my:IsInvalidated" minOccurs="0"/>
                  <xsd:element ref="my:IsALSAllowed" minOccurs="0"/>
                  <xsd:element ref="my:MySignatureURL" minOccurs="0"/>
                  <xsd:element ref="my:LastSignatureID" minOccurs="0"/>
                  <xsd:element ref="my:CurrentSignatureID" minOccurs="0"/>
                  <xsd:element ref="my:CurrentSigner" minOccurs="0"/>
                  <xsd:element ref="my:CurrentSignerTitle" minOccurs="0"/>
                  <xsd:element ref="my:CurrentApprovalType" minOccurs="0"/>
                  <xsd:element ref="my:LastApprover" minOccurs="0"/>
                  <xsd:element ref="my:EnableArbitraryApproval" minOccurs="0"/>
                  <xsd:element ref="my:RejectedImageURL" minOccurs="0"/>
                  <xsd:element ref="my:CanSubmit" minOccurs="0"/>
                  <xsd:element ref="my:EawfAttachments" minOccurs="0"/>
                  <xsd:element ref="my:group1" minOccurs="0"/>
                  <xsd:element ref="my:group2" minOccurs="0"/>
                  <xsd:element ref="my:group3" minOccurs="0"/>
                  <xsd:element ref="my:group4" minOccurs="0"/>
               </xsd:sequence>
               <xsd:anyAttribute processContents="lax"
 namespace="http://www.w3.org/XML/1998/namespace"/>
            </xsd:complexType>
      </xsd:element>
      <xsd:element name="TaskStatus" type="xsd:string"/>
      <xsd:element name="Comments" type="xsd:string"/>
      <xsd:element name="AssigneeEmail" type="xsd:string"/>
      <xsd:element name="Description" type="xsd:string"/>
      <xsd:element name="IsHold" nillable="true" type="xsd:boolean"/>
      <xsd:element name="fieldALS" type="xsd:string"/>
      <xsd:element name="Reviewers">
         <xsd:complexType>
            <xsd:sequence>
               <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
         </xsd:complexType>
      </xsd:element>
      <xsd:element name="Person">
         <xsd:complexType>
            <xsd:sequence>
               <xsd:element ref="my:ID" minOccurs="0"/>
               <xsd:element ref="my:Type" minOccurs="0"/>
               <xsd:element ref="my:DisplayName" minOccurs="0"/>
               <xsd:element ref="my:EmailAddress" minOccurs="0"/>
               <xsd:element ref="my:Order" minOccurs="0"/>
               <xsd:element ref="my:Comment" minOccurs="0"/>
               <xsd:element ref="my:ApprovalType" minOccurs="0"/>
               <xsd:element ref="my:SignatureID" minOccurs="0"/>
               <xsd:element ref="my:Department" minOccurs="0"/>
            </xsd:sequence>
         </xsd:complexType>
      </xsd:element>
      <xsd:element name="ID" type="xsd:string"/>
      <xsd:element name="Type" type="xsd:string"/>
      <xsd:element name="DisplayName" type="xsd:string"/>
      <xsd:element name="EmailAddress" type="xsd:string"/>
```

```xsd
    <xsd:element name="Order" type="xsd:string"/>
    <xsd:element name="Comment" type="xsd:string"/>
    <xsd:element name="ApprovalType" type="xsd:string"/>
    <xsd:element name="SignatureID" type="xsd:string"/>
    <xsd:element name="Department" type="xsd:string"/>
    <xsd:element name="IsArbitrary" nillable="true" type="xsd:boolean"/>
    <xsd:element name="IsInvalidated" nillable="true" type="xsd:boolean"/>
    <xsd:element name="IsALSAllowed" nillable="true" type="xsd:boolean"/>
    <xsd:element name="MySignatureURL" type="xsd:string"/>
    <xsd:element name="LastSignatureID" type="xsd:string"/>
    <xsd:element name="CurrentSignatureID" type="xsd:string"/>
    <xsd:element name="CurrentSigner" type="xsd:string"/>
    <xsd:element name="CurrentSignerTitle" type="xsd:string"/>
    <xsd:element name="CurrentApprovalType" type="xsd:string"/>
    <xsd:element name="LastApprover" type="xsd:string"/>
    <xsd:element name="EnableArbitraryApproval" nillable="true" type="xsd:boolean"/>
    <xsd:element name="CanSubmit" nillable="true" type="xsd:boolean"/>
    <xsd:element name="RejectedImageURL" type="xsd:string"/>
    <xsd:element name="EawfAttachments">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:EawfAttachment" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="EawfAttachment">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:AttachedFile" minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="AttachedFile" nillable="true" type="xsd:base64Binary"/>
    <xsd:element name="group1">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group2">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group3">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group4">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
```

```
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                <xsd:element ref="my:Description" minOccurs="0"/>
                <xsd:element ref="my:ActionGroupChoice" minOccurs="0"/>
                <xsd:element ref="my:CommentsTextBox" minOccurs="0"/>
                <xsd:element ref="my:KeepMetadataCheckBox" minOccurs="0"/>
                <xsd:element ref="my:group5" minOccurs="0"/>
                <xsd:element ref="my:group7" minOccurs="0"/>
                <xsd:element ref="my:field1" minOccurs="0"/>
                <xsd:element ref="my:group8" minOccurs="0"/>
                <xsd:element ref="my:group9" minOccurs="0"/>
                <xsd:element ref="my:group10" minOccurs="0"/>
            </xsd:sequence>
            <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="TaskStatus" type="xsd:string"/>
    <xsd:element name="Description" type="xsd:string"/>
    <xsd:element name="ActionGroupChoice" type="xsd:string"/>
    <xsd:element name="CommentsTextBox" type="xsd:string"/>
    <xsd:element name="KeepMetadataCheckBox" nillable="true" type="xsd:boolean"/>
    <xsd:element name="group5">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group7">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="field1" nillable="true" type="xsd:boolean"/>
    <xsd:element name="group8">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group9">
        <xsd:complexType>
            <xsd:sequence/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="group10">
        <xsd:complexType>
            <xsd:sequence/>
```

```
            </xsd:complexType>
        </xsd:element>
    </xsd:schema>
    <?xml version="1.0" encoding="UTF-8" standalone="no"?>
    <xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xhtml="http://www.w3.org/1999/xhtml"
    xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
    A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
    xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
    com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
    xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
    xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
    xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
    xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
    xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
    xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
    xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
    xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
    xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
        <xsd:element name="myFields">
            <xsd:complexType>
                <xsd:sequence>
                    <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                    <xsd:element ref="my:Comments" minOccurs="0"/>
                    <xsd:element ref="my:DelegateTo" minOccurs="0"/>
                    <xsd:element ref="my:NewDescription" minOccurs="0"/>
                    <xsd:element ref="my:NewDueDate" minOccurs="0"/>
                    <xsd:element ref="my:RequestTo" minOccurs="0"/>
                    <xsd:element ref="my:Decline" minOccurs="0"/>
                    <xsd:element ref="my:dcr" minOccurs="0"/>
                    <xsd:element ref="my:Status" minOccurs="0"/>
                </xsd:sequence>
                <xsd:anyAttribute processContents="lax"
    namespace="http://www.w3.org/XML/1998/namespace"/>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="TaskStatus" type="xsd:string"/>
        <xsd:element name="Comments" type="xsd:string"/>
        <xsd:element name="DelegateTo">
            <xsd:complexType>
                <xsd:sequence>
                    <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="Person">
            <xsd:complexType>
                <xsd:sequence>
                    <xsd:element ref="my:DisplayName" minOccurs="0"/>
                    <xsd:element ref="my:AccountId" minOccurs="0"/>
                    <xsd:element ref="my:AccountType" minOccurs="0"/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="DisplayName" type="xsd:string"/>
        <xsd:element name="AccountId" type="xsd:string"/>
        <xsd:element name="AccountType" type="xsd:string"/>
        <xsd:element name="NewDescription" type="xsd:string"/>
```

```
    <xsd:element name="NewDueDate" nillable="true" type="xsd:date"/>
    <xsd:element name="RequestTo">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="Decline" nillable="true" type="xsd:integer"/>
    <xsd:element name="dcr" nillable="true" type="xsd:integer"/>
    <xsd:element name="Status" type="xsd:string"/>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:o12="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                <xsd:element ref="my:Description" minOccurs="0"/>
                <xsd:element ref="my:Status" minOccurs="0"/>
            </xsd:sequence>
            <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="TaskStatus" type="xsd:string"/>
    <xsd:element name="Description" type="xsd:string"/>
    <xsd:element name="Status" type="xsd:string"/>
</xsd:schema>
```

As defined by this protocol, **AlterToDo.taskData** is used to modify fields on a workflow task. Proof-of-concept implementations do this by interpreting the name of each subnode under the root node of the **AlterToDo.taskData** element as the name of a field to be altered. The contents of each subnode are treated as text data used to set the value of the field.

If the type of the field being modified is **datetime**, the provided text data uses **Coordinated Universal Time (UTC)** formatting. If the type of the field being modified is a user, the text data can be either of the following:

▪ A valid e-mail address.

▪ An XML node with a subnode **AccountId**, where the **AccountId** subnode contains a valid e-mail address.

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

The following full WSDL, as referred to in [WSDL] is provided to ease implementation:

```
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:rs="urn:schemas-microsoft-com:rowset"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
   <wsdl:types>
      <s:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/workflow/">
      <s:import namespace="http://www.w3.org/2001/XMLSchema/"/>
      <s:import namespace="http://microsoft.com/wsdl/types/"/>
      <s:element name="GetToDosForItem">
         <s:complexType>
            <s:sequence>
               <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:element name="GetToDosForItemResponse">
         <s:complexType>
            <s:sequence>
               <s:element name="GetToDosForItemResult" minOccurs="0">
                  <s:complexType mixed="true">
                     <s:sequence>
                        <s:element name="ToDoData" >
                           <s:complexType>
                              <s:sequence>
                                 <s:element name="xml" type="rs:data" minOccurs="0"
maxOccurs="1" />
                              </s:sequence>
                           </s:complexType>
                        </s:element>
                     </s:sequence>
                  </s:complexType>
               </s:element>
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:element name="GetTemplatesForItem">
         <s:complexType>
            <s:sequence>
               <s:element name="item" type="s:string" minOccurs="1"/>
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:element name="GetTemplatesForItemResponse">
         <s:complexType>
            <s:sequence>
               <s:element name="GetTemplatesForItemResult" minOccurs="0">
                  <s:complexType mixed="true">
                     <s:sequence>
                        <s:element name="TemplateData" >
                           <s:complexType>
```

```
                              <s:sequence>
                                 <s:element name="Web" minOccurs="1" maxOccurs="1" >
                                    <s:complexType>
                                       <s:attribute name="Title" type="s:string"
use="required" />
                                       <s:attribute name="Url" type="s:string" use="required"
/>
                                    </s:complexType>
                                 </s:element>
                                 <s:element name="List" minOccurs="1" maxOccurs="1" >
                                    <s:complexType>
                                       <s:attribute name="Title" type="s:string"
use="required" />
                                       <s:attribute name="Url" type="s:string" use="required"
/>
                                    </s:complexType>
                                 </s:element>
                                 <s:element name="WorkflowTemplates" >
                                    <s:complexType>
                                       <s:sequence>
                                          <s:element name="WorkflowTemplate" minOccurs="0"
maxOccurs="unbounded">
                                             <s:complexType>
                                                <s:sequence>
                                                   <s:element name="WorkflowTemplateIdSet"
minOccurs="1" maxOccurs="1" >
                                                      <s:complexType>
                                                         <s:attribute name="TemplateId"
type="s1:guid" use="required" />
                                                         <s:attribute name="BaseId"
type="s1:guid" use="required" />
                                                      </s:complexType>
                                                   </s:element>
                                                   <s:element name="AssociationData"
minOccurs="0" maxOccurs="1" >
                                                      <s:complexType>
                                                         <s:sequence>
                                                            <s:any/>
                                                         </s:sequence>
                                                      </s:complexType>
                                                   </s:element>
                                                   <s:element name="Metadata" minOccurs="1"
maxOccurs="1">
                                                      <s:complexType>
                                                         <s:group>
                                                            <s:all>
                                                               <s:element
name="InitiationCategories" minOccurs="0" maxOccurs="1">
                                                                  <s:complexType>
                                                                   <s:sequence>
                                                                    <s:any/>
                                                                   </s:sequence>
                                                                  </s:complexType>
                                                               </s:element>
                                                               <s:element
name="Instantiation_FormURN" minOccurs="0" maxOccurs="1">
                                                                  <s:complexType>
                                                                   <s:sequence>
                                                                    <s:any/>
                                                                   </s:sequence>
```

```xml
                                                        </s:complexType>
                                                      </s:element>
                                                      <s:element
  name="Instantiation_FormURI" minOccurs="0" maxOccurs="1">
                                                        <s:complexType>
                                                         <s:sequence>
                                                          <s:any/>
                                                         </s:sequence>
                                                        </s:complexType>
                                                      </s:element>
                                                      <s:element
  name="AssignmentStagesName" minOccurs="0" maxOccurs="1">
                                                        <s:complexType>
                                                         <s:sequence>
                                                          <s:any/>
                                                         </s:sequence>
                                                        </s:complexType>
                                                      </s:element>
                                                      <s:element name="SigClientSettings"
  minOccurs="0" maxOccurs="1">
                                                        <s:complexType>
                                                         <s:sequence>
                                                          <s:any/>
                                                         </s:sequence>
                                                        </s:complexType>
                                                      </s:element>
                                                     </s:all>
                                                   </s:group>
                                                 </s:complexType>
                                               </s:element>
                                             </s:sequence>
                                             <s:attribute name="Name" type="s:string"
  use="required" />
                                             <s:attribute name="Description" type="s:string"
  use="required" />
                                             <s:attribute name="InstantiationUrl"
  type="s:string" />
                                           </s:complexType>
                                         </s:element>
                                       </s:sequence>
                                     </s:complexType>
                                   </s:element>
                                 </s:sequence>
                             </s:complexType>
                         </s:element>
                     </s:sequence>
                 </s:complexType>
             </s:element>
             <s:element name="StartWorkflow">
                 <s:complexType>
                     <s:sequence>
                         <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
                         <s:element name="templateId" type="s1:guid"/>
                         <s:element name="workflowParameters" minOccurs="0">
                             <s:complexType mixed="true">
                                 <s:sequence>
```

```
                        <s:any/>
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="StartWorkflowResponse">
    <s:complexType>
        <s:sequence>
            <s:element name="StartWorkflowResult" minOccurs="1"/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AlterToDo">
    <s:complexType>
        <s:sequence>
            <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1" />
            <s:element name="todoId" type="s:int" minOccurs="1" maxOccurs="1" />
            <s:element name="todoListId" type="s1:guid" minOccurs="1" maxOccurs="1" />
            <s:element name="taskData" minOccurs="0" maxOccurs="1" >
                <s:complexType>
                    <s:sequence>
                        <s:any/>
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AlterToDoResponse">
    <s:complexType>
        <s:sequence>
            <s:element name="AlterToDoResult" minOccurs="1" maxOccurs="1" >
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:element name="fSuccess" type="s:int" minOccurs="1" maxOccurs="1" />
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetWorkflowDataForItem">
    <s:complexType>
        <s:sequence>
            <s:element name="item" type="s:string" minOccurs="1"/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetWorkflowDataForItemResponse">
    <s:complexType>
        <s:sequence>
            <s:element name="GetWorkflowDataForItemResult" minOccurs="1" maxOccurs="1">
                <s:complexType>
                    <s:sequence>
                        <s:element name="WorkflowData" minOccurs="1" maxOccurs="1">
                            <s:complexType>
                                <s:sequence>
```

```xml
<s:element name="ToDoData" >
    <s:complexType>
        <s:sequence>
            <s:element name="xml" type="rs:data" minOccurs="0"
maxOccurs="1" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="TemplateData" >
    <s:complexType>
        <s:sequence>
            <s:element name="Web" minOccurs="1" maxOccurs="1" >
                <s:complexType>
                    <s:attribute name="Title" type="s:string"
use="required" />
                    <s:attribute name="Url" type="s:string"
use="required" />
                </s:complexType>
            </s:element>
            <s:element name="List" minOccurs="1" maxOccurs="1" >
                <s:complexType>
                    <s:attribute name="Title" type="s:string"
use="required" />
                    <s:attribute name="Url" type="s:string"
use="required" />
                </s:complexType>
            </s:element>
            <s:element name="WorkflowTemplates" >
                <s:complexType>
                    <s:sequence>
                        <s:element name="WorkflowTemplate"
minOccurs="0" maxOccurs="unbounded">
                            <s:complexType>
                                <s:sequence>
                                    <s:element
name="WorkflowTemplateIdSet" minOccurs="1" maxOccurs="1" >
                                        <s:complexType>
                                            <s:attribute name="TemplateId"
type="s1:guid" use="required" />
                                            <s:attribute name="BaseId"
type="s1:guid" use="required" />
                                        </s:complexType>
                                    </s:element>
                                    <s:element name="AssociationData"
minOccurs="0" maxOccurs="1" >
                                        <s:complexType>
                                            <s:sequence>
                                                <s:any/>
                                            </s:sequence>
                                        </s:complexType>
                                    </s:element>
                                    <s:element name="Metadata" minOccurs="1"
maxOccurs="1">
                                        <s:complexType>
                                            <s:group>
                                                <s:all>
                                                    <s:element
name="InitiationCategories" minOccurs="0" maxOccurs="1">
                                                        <s:complexType>
                                                            <s:sequence>
```

```
                                                                          <s:any/>
                                                                        </s:sequence>
                                                                      </s:complexType>
                                                                    </s:element>
                                                                    <s:element
name="Instantiation_FormURN" minOccurs="0" maxOccurs="1">
                                                                      <s:complexType>
                                                                       <s:sequence>
                                                                        <s:any/>
                                                                       </s:sequence>
                                                                      </s:complexType>
                                                                    </s:element>
                                                                    <s:element
name="Instantiation_FormURI" minOccurs="0" maxOccurs="1">
                                                                      <s:complexType>
                                                                       <s:sequence>
                                                                        <s:any/>
                                                                       </s:sequence>
                                                                      </s:complexType>
                                                                    </s:element>
                                                                    <s:element
name="AssignmentStagesName" minOccurs="0" maxOccurs="1">
                                                                      <s:complexType>
                                                                       <s:sequence>
                                                                        <s:any/>
                                                                       </s:sequence>
                                                                      </s:complexType>
                                                                    </s:element>
                                                                    <s:element
name="SigClientSettings" minOccurs="0" maxOccurs="1">
                                                                      <s:complexType>
                                                                       <s:sequence>
                                                                        <s:any/>
                                                                       </s:sequence>
                                                                      </s:complexType>
                                                                    </s:element>
                                                                   </s:all>
                                                                 </s:group>
                                                               </s:complexType>
                                                             </s:element>
                                                            </s:sequence>
                                                           <s:attribute name="Name" type="s:string"
use="required" />
                                                           <s:attribute name="Description"
type="s:string" use="required" />
                                                           <s:attribute name=" InstantiationUrl"
type="s:string" />
                                                         </s:complexType>
                                                       </s:element>
                                                     </s:sequence>
                                                   </s:complexType>
                                                 </s:element>
                                               </s:sequence>
                                           </s:complexType>
                           </s:element>
                         <s:element name="ActiveWorkflowsData" minOccurs="1" maxOccurs="1" >
                          <s:complexType>
                            <s:sequence>
                              <s:element name="Workflows" minOccurs="1" maxOccurs="1" >
```

```
                              <s:complexType>
                                <s:sequence>
                                  <s:element name="Workflow" minOccurs="0">
                                    <s:complexType>
                                      <s:attribute name="StatusPageUrl" type="s:string"
use="required"/>
                                      <s:attribute name="Id" type="s1:guid" use="required" />
                                      <s:attribute name="TemplateId" type="s1:guid"
use="required" />
                                      <s:attribute name="ListId" type="s1:guid"
use="required"/>
                                      <s:attribute name="SiteId" type="s1:guid" use="required"
/>
                                      <s:attribute name="WebId" type="s1:guid" use="required"/>
                                      <s:attribute name="ItemId" type="s:int" use="required"/>
                                      <s:attribute name="ItemGUID" type="s1:guid"
use="required"/>
                                      <s:attribute name="TaskListId" type="s1:guid"
use="required"/>
                                      <s:attribute name="AdminTaskListId" type="s1:guid"
use="required"/>
                                      <s:attribute name="Author" type="s:int" use="required"/>
                                      <s:attribute name="Modified" type="s:date"
use="required"/>
                                      <s:attribute name="Created" type="s:date"
use="required"/>
                                      <s:attribute name="StatusVersion" type="s:int"
use="required"/>
                                      <s:attribute name="Status1" type="s:int" use="required"/>
                                      <s:attribute name="Status2" type="s:int" use="required"/>
                                      <s:attribute name="Status3" type="s:int" use="required"/>
                                      <s:attribute name="Status4" type="s:int" use="required"/>
                                      <s:attribute name="Status5" type="s:int" use="required"/>
                                      <s:attribute name="Status6" type="s:int" use="required"/>
                                      <s:attribute name="Status7" type="s:int" use="required"/>
                                      <s:attribute name="Status8" type="s:int" use="required"/>
                                      <s:attribute name="Status9" type="s:int" use="required"/>
                                      <s:attribute name="Status10" type="s:int"
use="required"/>
                                      <s:attribute name="TextStatus1" type="s:string"
use="required"/>
                                      <s:attribute name="TextStatus2" type="s:string"
use="required"/>
                                      <s:attribute name="TextStatus3" type="s:string"
use="required"/>
                                      <s:attribute name="TextStatus4" type="s:string"
use="required"/>
                                      <s:attribute name="TextStatus5" type="s:string"
use="required"/>
                                      <s:attribute name="Modifications" type="s:string"
use="required"/>
                                      <s:attribute name="ActivityDetails" type="s:string"
use="required" />
                                      <s:attribute name="InstanceData" type="s:string"
maxLength="0" use="required"/>
                                      <s:attribute name="InstanceDataSize" type="s:int"
use="required"/>
                                      <s:attribute name="InternalState" type="s:int"
use="required"/>
                                      <s:attribute name="ProcessingId" type="s1:guid"
use="required"/>
```

```xml
                              </s:complexType>
                            </s:element>
                          </s:sequence>
                        </s:complexType>
                      </s:element>
                    </s:sequence>
                  </s:complexType>
                </s:element>
                <s:element name="DefaultWorkflows" minOccurs="1" maxOccurs="1" >
                  <s:complexType>
                    <s:sequence>
                      <s:element name="DefaultWorkflow" minOccurs="0" maxOccurs="1" >
                        <s:complexType>
                            <s:attribute name="Event" type="s:string" use="required"/>
                            <s:attribute name="TemplateId" type="s1:guid" use="required"/>
                        </s:complexType>
                      </s:element>
                    </s:sequence>
                  </s:complexType>
                </s:element>
              </s:sequence>
            </s:complexType>
          </s:element>
        </s:sequence>
      </s:complexType>
    </s:element>
      <s:element name="ClaimReleaseTask">
   <s:complexType>
      <s:sequence>
         <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
         <s:element name="taskId" type="s:int" minOccurs="1" maxOccurs="1"/>
         <s:element name="listId" type="s1:guid" minOccurs="1" maxOccurs="1"/>
         <s:element name="fClaim" type="s:boolean" minOccurs="1" maxOccurs="1"/>
              </s:sequence>
            </s:complexType>
          </s:element>
          <s:element name="ClaimReleaseTaskResponse">
            <s:complexType>
              <s:sequence>
                <s:element name="ClaimReleaseTaskResult" minOccurs="1">
                  <s:complexType mixed="true">
                    <s:sequence>
                      <s:element name="TaskData" minOccurs="1" maxOccurs="1">
                        <s:complexType>
                              <s:attribute name="AssignedTo" type="s:string"
use="required"/>
                              <s:attribute name="TaskGroup" type="s:string"
use="required"/>
                              <s:attribute name="ItemId" type="s:int" use="required"/>
                              <s:attribute name="ListId" type="s1:guid"
use="required"/>
                        </s:complexType>
                      </s:element>
                    </s:sequence>
                  </s:complexType>
                </s:element>
```

```
                    </s:sequence>
                </s:complexType>
            </s:element>
            <s:element name="GetWorkflowTaskData">
                <s:complexType>
                    <s:sequence>
                        <s:element name="item" type="s:string" minOccurs="1"/>
                        <s:element name="taskId" type="s:int"/>
                        <s:element name="listId" type="s1:guid"/>
                    </s:sequence>
                </s:complexType>
            </s:element>
            <s:element name="GetWorkflowTaskDataResponse">
                <s:complexType>
                    <s:sequence>
                        <s:element name="GetWorkflowTaskDataResult" type="z:rowset" >
                        </s:element>
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:schema>
        <s:schema elementFormDefault="qualified"
 targetNamespace="http://microsoft.com/wsdl/types/">
            <s:simpleType name="guid">
                <s:restriction base="s:string">
                    <s:pattern value="[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-
[0-9a-fA-F]{12}" />
                </s:restriction>
            </s:simpleType>
        </s:schema>
    </wsdl:types>
    <wsdl:message name="GetToDosForItemSoapIn">
        <wsdl:part name="parameters" element="tns:GetToDosForItem" />
    </wsdl:message>
    <wsdl:message name="GetToDosForItemSoapOut">
        <wsdl:part name="parameters" element="tns:GetToDosForItemResponse" />
    </wsdl:message>
    <wsdl:message name="GetTemplatesForItemSoapIn">
        <wsdl:part name="parameters" element="tns:GetTemplatesForItem" />
    </wsdl:message>
    <wsdl:message name="GetTemplatesForItemSoapOut">
        <wsdl:part name="parameters" element="tns:GetTemplatesForItemResponse" />
    </wsdl:message>
    <wsdl:message name="StartWorkflowSoapIn">
        <wsdl:part name="parameters" element="tns:StartWorkflow" />
    </wsdl:message>
    <wsdl:message name="StartWorkflowSoapOut">
        <wsdl:part name="parameters" element="tns:StartWorkflowResponse" />
    </wsdl:message>
    <wsdl:message name="AlterToDoSoapIn">
        <wsdl:part name="parameters" element="tns:AlterToDo" />
    </wsdl:message>
    <wsdl:message name="AlterToDoSoapOut">
        <wsdl:part name="parameters" element="tns:AlterToDoResponse" />
    </wsdl:message>
    <wsdl:message name="GetWorkflowDataForItemSoapIn">
        <wsdl:part name="parameters" element="tns:GetWorkflowDataForItem" />
    </wsdl:message>
    <wsdl:message name="GetWorkflowDataForItemSoapOut">
```

```
              <wsdl:part name="parameters" element="tns:GetWorkflowDataForItemResponse" />
   </wsdl:message>
   <wsdl:message name="ClaimReleaseTaskSoapIn">
      <wsdl:part name="parameters" element="tns:ClaimReleaseTask" />
   </wsdl:message>
   <wsdl:message name="ClaimReleaseTaskSoapOut">
      <wsdl:part name="parameters" element="tns:ClaimReleaseTaskResponse" />
   </wsdl:message>
   <wsdl:message name="GetWorkflowTaskDataSoapIn">
      <wsdl:part name="parameters" element="tns:GetWorkflowTaskData" />
   </wsdl:message>
   <wsdl:message name="GetWorkflowTaskDataSoapOut">
      <wsdl:part name="parameters" element="tns:GetWorkflowTaskDataResponse" />
   </wsdl:message>
   <wsdl:portType name="WorkflowSoap">
      <wsdl:operation name="GetToDosForItem">
         <wsdl:input message="tns:GetToDosForItemSoapIn" />
         <wsdl:output message="tns:GetToDosForItemSoapOut" />
      </wsdl:operation>
      <wsdl:operation name="GetTemplatesForItem">
         <wsdl:input message="tns:GetTemplatesForItemSoapIn" />
         <wsdl:output message="tns:GetTemplatesForItemSoapOut" />
      </wsdl:operation>
      <wsdl:operation name="StartWorkflow">
         <wsdl:input message="tns:StartWorkflowSoapIn" />
         <wsdl:output message="tns:StartWorkflowSoapOut" />
      </wsdl:operation>
      <wsdl:operation name="AlterToDo">
         <wsdl:input message="tns:AlterToDoSoapIn" />
         <wsdl:output message="tns:AlterToDoSoapOut" />
      </wsdl:operation>
      <wsdl:operation name="GetWorkflowDataForItem">
         <wsdl:input message="tns:GetWorkflowDataForItemSoapIn" />
         <wsdl:output message="tns:GetWorkflowDataForItemSoapOut" />
      </wsdl:operation>
      <wsdl:operation name="ClaimReleaseTask">
         <wsdl:input message="tns:ClaimReleaseTaskSoapIn" />
         <wsdl:output message="tns:ClaimReleaseTaskSoapOut" />
      </wsdl:operation>
      <wsdl:operation name="GetWorkflowTaskData">
         <wsdl:input message="tns:GetWorkflowTaskDataSoapIn" />
         <wsdl:output message="tns:GetWorkflowTaskDataSoapOut" />
      </wsdl:operation>
   </wsdl:portType>
   <wsdl:binding name="WorkflowSoap" type="tns:WorkflowSoap">
      <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
      <wsdl:operation name="GetToDosForItem">
         <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetToDosForItem"
style="document" />
         <wsdl:input>
            <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="GetTemplatesForItem">
```

```
            <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetTemplatesForItem"
style="document" />
         <wsdl:input>
             <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
             <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="StartWorkflow">
         <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/StartWorkflow"
style="document" />
         <wsdl:input>
             <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
             <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="AlterToDo">
         <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/AlterToDo" style="document"
/>
         <wsdl:input>
             <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
             <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="GetWorkflowDataForItem">
         <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowDataForItem"
style="document" />
         <wsdl:input>
             <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
             <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ClaimReleaseTask">
         <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/ClaimReleaseTask"
style="document" />
         <wsdl:input>
             <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
             <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="GetWorkflowTaskData">
         <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowTaskData"
style="document" />
         <wsdl:input>
             <soap:body use="literal" />
```

```
            </wsdl:input>
            <wsdl:output>
               <soap:body use="literal" />
            </wsdl:output>
         </wsdl:operation>
      </wsdl:binding>
      <wsdl:binding name="WorkflowSoap12" type="tns:WorkflowSoap">
         <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
         <wsdl:operation name="GetToDosForItem">
            <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetToDosForItem"
style="document" />
            <wsdl:input>
               <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
               <soap12:body use="literal" />
            </wsdl:output>
         </wsdl:operation>
         <wsdl:operation name="GetTemplatesForItem">
            <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetTemplatesForItem"
style="document" />
            <wsdl:input>
               <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
               <soap12:body use="literal" />
            </wsdl:output>
         </wsdl:operation>
         <wsdl:operation name="StartWorkflow">
            <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/StartWorkflow"
style="document" />
            <wsdl:input>
               <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
               <soap12:body use="literal" />
            </wsdl:output>
         </wsdl:operation>
         <wsdl:operation name="AlterToDo">
            <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/AlterToDo" style="document"
/>
            <wsdl:input>
               <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
               <soap12:body use="literal" />
            </wsdl:output>
         </wsdl:operation>
         <wsdl:operation name="GetWorkflowDataForItem">
            <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowDataForItem"
style="document" />
            <wsdl:input>
               <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
```

```
            <soap12:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ClaimReleaseTask">
         <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/ClaimReleaseTask"
style="document" />
         <wsdl:input>
            <soap12:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap12:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="GetWorkflowTaskData">
         <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowTaskData"
style="document" />
         <wsdl:input>
            <soap12:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap12:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
   </wsdl:binding>
   </wsdl:definitions>
```

7 Appendix B: 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® Foundation 2010

- Windows® SharePoint® Services 3.0

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.

<1> Section 1.5: In Office SharePoint Server 2007 and SharePoint Server 2010, the protocol server endpoint URL is formed by appending "/_vti_bin/workflow.asmx" to the URL of the site, for example: http://www.contoso.com/PurchaseOrders/_vti_bin/workflow.asmx.

<2> Section 2.2.3.1: Office SharePoint Server 2007 does not support this element.

<3> Section 3.1.4.5.2.2: Office SharePoint Server 2007 does not include this attribute.

8   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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Release: Sunday, December 19, 2010

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