

[MS-IMAGS]:

Imaging Service Protocol

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1 Introduction

The Imaging Service Protocol specifies a set of client-server interactions that allows a client to retrieve, upload, and organize images on a server.

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

1.1 Glossary

This document uses the following terms:

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

file: A single, discrete unit of content.

folder: A file system construct. File systems organize a volume's data by providing a hierarchy of objects, which are referred to as folders or directories, that contain files and can also contain other folders.

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

Hypertext Transfer Protocol (HTTP): An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext Transfer Protocol Secure (HTTPS): An extension of HTTP that securely encrypts and decrypts web page requests. In some older protocols, "Hypertext Transfer Protocol over Secure Sockets Layer" is still used (Secure Sockets Layer has been deprecated). For more information, see [\[SSL3\]](#) and [\[RFC5246\]](#).

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

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

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

picture library: A type of document library that is optimized for storing digital pictures or graphics.

site: A group of related pages and data within a SharePoint site collection. The structure and content of a site is based on a site definition. Also referred to as SharePoint site and web site.

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and

other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [\[SOAP1.2-1/2003\]](#).

SOAP action: The HTTP request header field used to indicate the intent of the **SOAP** request, using a URI value. See [\[SOAP1.1\]](#) section 6.1.1 for more information.

SOAP body: A container for the payload data being delivered by a SOAP message to its recipient. See [\[SOAP1.2-1/2007\]](#) section 5.3 for more information.

SOAP fault: A container for error and status information within a SOAP message. See [\[SOAP1.2-1/2007\]](#) section 5.4 for more information.

subsite: A complete website that is stored in a named subdirectory of another website. The parent website can be the top-level site of a site collection or another subsite. Also referred to as subweb.

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

URL encode: The process of encoding characters that have reserved meanings for a **Uniform Resource Locator (URL)**, as described in [\[RFC1738\]](#).

Web Services Description Language (WSDL): An XML format for describing network services as a set of endpoints that operate on messages that contain either document-oriented or procedure-oriented information. The operations and messages are described abstractly and are bound to a concrete network protocol and message format in order to define an endpoint. Related concrete endpoints are combined into abstract endpoints, which describe a network service. WSDL is extensible, which allows the description of endpoints and their messages regardless of the message formats or network protocols that are used.

WSDL message: An abstract, typed definition of the data that is communicated during a **WSDL operation** [\[WSDL\]](#). Also, an element that describes the data being exchanged between web service providers and clients.

WSDL operation: A single action or function of a web service. The execution of a WSDL operation typically requires the exchange of messages between the service requestor and the service provider.

XML namespace: A collection of names that is used to identify elements, types, and attributes in XML documents identified in a URI reference [\[RFC3986\]](#). A combination of XML namespace and local name allows XML documents to use elements, types, and attributes that have the same names but come from different sources. For more information, see [\[XMLNS-2ED\]](#).

XML namespace prefix: An abbreviated form of an **XML namespace**, as described in [\[XML\]](#).

XML schema: A description of a type of XML document that is typically expressed in terms of constraints on the structure and content of documents of that type, in addition to the basic syntax constraints that are imposed by XML itself. An XML schema provides a view of a document type at a relatively high level of abstraction.

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

1.2 References

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

1.2.1 Normative References

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

[MS-LISTSWS] Microsoft Corporation, "[Lists Web Service Protocol](#)".

[MS-PRSTFR] Microsoft Corporation, "[ADO XML Persistence Format](#)".

[MS-WSSF02] Microsoft Corporation, "[Windows SharePoint Services \(WSS\): File Operations Database Communications Version 2 Protocol](#)".

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.rfc-editor.org/rfc/rfc2119.txt>

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

[RFC4648] Josefsson, S., "The Base16, Base32, and Base64 Data Encodings", RFC 4648, October 2006, <http://www.rfc-editor.org/rfc/rfc4648.txt>

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", W3C Note, May 2000, <http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>

[SOAP1.2-1/2007] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 1: Messaging Framework (Second Edition)", W3C Recommendation, April 2007, <http://www.w3.org/TR/2007/REC-soap12-part1-20070427/>

[SOAP1.2-2/2007] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 2: Adjuncts (Second Edition)", W3C Recommendation, April 2007, <http://www.w3.org/TR/2007/REC-soap12-part2-20070427/>

[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/>

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, <http://www.w3.org/TR/2009/REC-xml-names-20091208/>

[XMLSCHEMA1/2] Thompson, H., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures Second Edition", W3C Recommendation, October 2004, <http://www.w3.org/TR/2004/REC-xmlschema-1-20041028/>

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

[XMLSCHEMA2/2] Biron, P., and Malhotra, A., Eds., "XML Schema Part 2: Datatypes Second Edition", W3C Recommendation, October 2004, <http://www.w3.org/TR/2004/REC-xmlschema-2-20041028/>

[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

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

1.3 Overview

This protocol is a **SOAP**-based protocol that uses HTTP/S as its transport. Protocol clients can perform the following actions:

- Attempt to have a specified **URL** resolved as a **subsite**, **list**, and **folder** for a **picture library**.
- Create a new folder in a picture library.
- Delete **list items** from a picture library.
- Download list items from a picture library.
- Provide identifiers and have the corresponding list items in a picture library returned.
- Provide names and have the corresponding metadata of the list items in a picture library returned.
- Obtain all list items in a specified folder in a picture library.
- List all picture library items on the **site**.
- Rename list items in a picture library.
- Upload an image to a folder in a picture library.

The following diagram shows the communication between the protocol client and the protocol server:

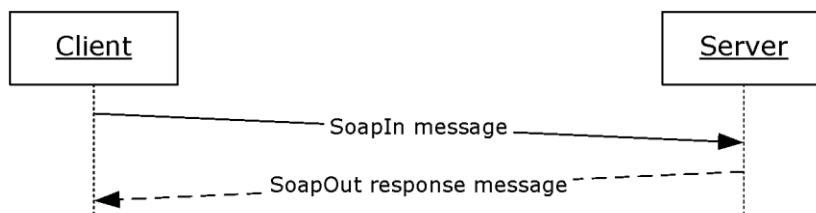


Figure 1: Sample WSDL operation sequence

The protocol client sends a request **WSDL message** to the protocol server.

The protocol server replies with a response WSDL message to the protocol client. If the **WSDL operation** succeeds, the response WSDL message of the WSDL operation is sent. If the WSDL operation fails, a **SOAP fault** WSDL message is sent with an error code.

1.4 Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [\[SOAP1.1\]](#), [\[SOAP1.2-1/2007\]](#) and [\[SOAP1.2-2/2007\]](#). It transmits those messages by using **HTTP**, as described in [\[RFC2616\]](#), or **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**, as described in [\[RFC2818\]](#).

The following diagram shows the underlying messaging and transport stack used by the protocol:

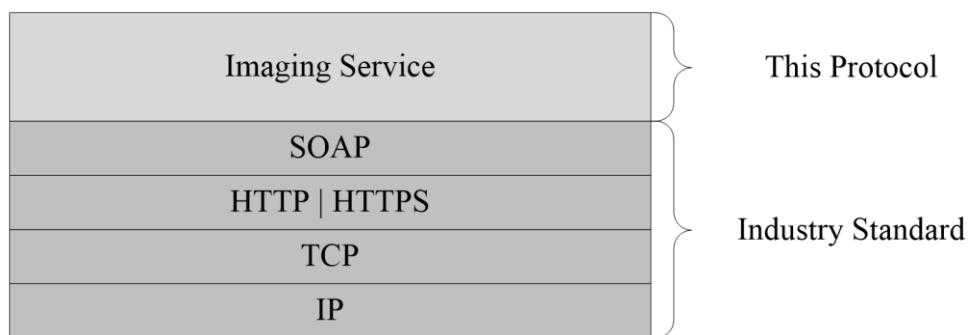


Figure 2: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a **site** that is identified by a URL that is known by protocol clients. The protocol server endpoint is formed by appending `"/_vti_bin/imaging.asmx"` to the URL of the site, for example `http://www.contoso.com/Repository/_vti_bin/Imaging.asmx`.

This protocol assumes that authentication has been performed by the underlying protocols.

1.6 Applicability Statement

None.

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 specified in section [2.1](#).

1.8 Vendor-Extensible Fields

None.

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 either in [\[SOAP1.1\]](#), section 4 or in [\[SOAP1.2-1/2007\]](#), section 5. Protocol server faults MUST be returned using either HTTP Status Codes as specified in [\[RFC2616\]](#), section 10 or SOAP faults, as specified in [\[SOAP1.1\]](#), section 4.4 or [\[SOAP1.2-1/2007\]](#), section 5.4.

2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as specified in [\[XMLSCHEMA1/2\]](#) and [\[XMLSCHEMA2/2\]](#), and **WSDL**, as specified in [\[WSDL\]](#).

2.2.1 Namespaces

This specification specifies and references various **XML namespaces**, using the mechanisms specified in [\[XMLNS\]](#). Although this specification associates a specific **XML namespace prefix** with 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/wsd/soap/	[SOAP1.1]
tns	http://schemas.microsoft.com/sharepoint/soap/ois/	
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
soap12	http://schemas.xmlsoap.org/wsd/soap12/	[SOAP1.2-1/2007] [SOAP1.2-2/2007]
(none)	http://schemas.microsoft.com/sharepoint/soap/ois/	
wSDL	http://schemas.xmlsoap.org/wsd/	[WSDL]
z	#RowsetSchema	[MS-PRSTFR]

2.2.2 Messages

This specification does not define any common **WSDL** message definitions.

2.2.3 Elements

This specification does not define any common **XML schema** element definitions.

2.2.4 Complex Types

The following table summarizes the set of common **XML schema** complex type definitions defined by this specification. XML schema complex type definitions that are specific to a particular WSDL operation are described with the WSDL operation.

Complex type	Description
ArrayOfString	An array of strings.
ArrayOfRows	An array of z:row objects.
SOAPFaultDetails	The details of a SOAP fault.

2.2.4.1 ArrayOfString

An array of strings.

```
<s:complexType name="ArrayOfString">
  <s:sequence>
    <s:element name="string" type="s:string" maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>
```

string: MUST be **URL-encoded**. MUST be non-empty and less than 256 characters in length.

2.2.4.2 ArrayOfRows

An array of **z:row** elements. **z** is equal to #RowsetSchema as specified in [\[MS-PRSTFR\]](#). Each **z:row** element describes a single **list item**. The names of the attributes of this element correspond to the names of fields in the **list**. (For more details, see [\[MS-WSSFO2\]](#).) To get the schema of the list, protocol clients can make a **GetList** call as specified in [\[MS-LISTSWS\]](#) section 3.1.4.15.

```
<s:complexType name="ArrayOfRows" mixed="true">
  <s:sequence>
    <s:any minOccurs="0" maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>
```

2.2.4.3 SOAPFaultDetails

The details of a **SOAP fault**.

```
<s:schema xmlns:s="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://schemas.microsoft.com/sharepoint/soap">
  <s:complexType name="SOAPFaultDetails">
    <s:sequence>
      <s:element name="errorstring" type="s:string"/>
      <s:element name="errorcode" type="s:string" minOccurs="0"/>
    </s:sequence>
  </s:complexType>
</s:schema>
```

errorstring: A human-readable text explaining the application-level fault.

errorcode: The hexadecimal representation of a 4-byte result code.

Errorcode	Condition
0x00000001	ListNotFound: The requested list was not found.
0x00000002	IsNotLibrary: The requested list, although found, is not a picture library.
0x00000004	FolderNotFound: The requested folder was not found.
0x00000005	InvalidArgument: One or more arguments are not valid, specified as follows.
0x00000006	FileExists: The file already exists, and the user does not specify the overwrite option. IllegalFileName: The file name contains illegal character(s), specified as follows.
0x81020067	EmptyString: The file name is an empty string.

For the folder name in the request WSDL message, the server MUST respond with an **InvalidArgument** error code in the following conditions:

- The folder name contains illegal characters, specified as: \ : * ? " < > | # { } % and \t.
- The folder name contains a parent path directive—that is, "..".
- The relative path contains a folder named "forms".
- The relative path contains a folder named "_t" or "_w".

For the file name in the request WSDL message, the server MUST respond with an **InvalidArgument** error code if the file name contains any of the following characters:

/, \, \t

For the file name in the request WSDL message, the server MUST respond with an **IllegalFileName** error code if the file name contains any of the following characters:

:, *, ?, ", <, >, |, #, {, }, %

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.

Except where specified, protocol clients SHOULD interpret HTTP Status Codes returned by the protocol server as specified in [\[RFC2616\]](#), section 10.

This protocol enables protocol servers to notify protocol clients of application-level faults using **SOAP faults**. This protocol enables protocol servers to provide additional details for SOAP faults by including a detail element as specified in [\[SOAP1.1\]](#), section 4.4 that conforms to the **XML schema** of the **SOAPFaultDetails** complex type specified in **SOAPFaultDetails** (section [2.2.4.3](#)). Except where specified, these SOAP faults are not significant for interoperability, and protocol clients can interpret them in an implementation-specific manner.

This protocol enables protocol servers to perform implementation-specific authorization checks and to notify protocol clients of authorization faults either using HTTP Status Codes or using SOAP faults as specified previously in this section.

3.1 ImagingSoap Server Details

3.1.1 Abstract Data Model

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

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

The following table summarizes the list of **WSDL** operations as defined by this specification:

Operation	Description
CheckSubwebAndList	A WSDL operation that checks the specified URL and attempts to resolve it as a subsite , list , and folder .
CreateNewFolder	A WSDL operation that creates a new folder in the specified list and folder.
Delete	A WSDL operation that removes the specified list items from the specified list and folder.
Download	A WSDL operation that downloads the specified list items from the specified list and folder.

Operation	Description
Edit	A WSDL operation that edits an image in the specified list and folder. This WSDL operation is reserved.
GetItemsByIds	A WSDL operation that returns list items with the specified identifiers in the specified list.
GetItemsXMLData	A WSDL operation that returns metadata of specified list items in the specified list and folder.
GetListItems	A WSDL operation that returns list items in the specified list and folder.
ListPictureLibrary	A WSDL operation that returns all picture libraries on the current site .
Rename	A WSDL operation that renames items in a list and folder.
Upload	A WSDL operation that uploads a file to the specified list and folder.

3.1.4.1 CheckSubwebAndList

This **WSDL operation** checks the specified URL and attempts to resolve it as a **subsite**, **list**, and **folder**.

```
<wsdl:operation name="CheckSubwebAndList">
  <wsdl:input message="tns:CheckSubwebAndListSoapIn" />
  <wsdl:output message="tns:CheckSubwebAndListSoapOut" />
</wsdl:operation>
```

The client sends a **CheckSubwebAndListSoapIn** request **WSDL message**, and the server responds with a **CheckSubwebAndListSoapOut** response WSDL message, as follows:

- If the list contained in the **strUrl**, although found, is not a picture library, the server MUST return an **IsNotLibrary** SOAP fault.
- Otherwise, the server MUST send a **CheckSubwebAndListSoapOut** response WSDL message.

3.1.4.1.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
CheckSubwebAndListSoapIn	A request to initiate a CheckSubwebAndList operation on the protocol server.
CheckSubwebAndListSoapOut	A response from the protocol server at completion of the CheckSubwebAndList operation.

3.1.4.1.1.1 CheckSubwebAndListSoapIn

This **WSDL message** contains information required by the **CheckSubwebAndList WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/CheckSubwebAndList
```

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

3.1.4.1.1.2 CheckSubwebAndListSoapOut

This **WSDL message** contains results returned by the **CheckSubwebAndList WSDL operation**. This WSDL message is a response.

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

3.1.4.1.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CheckSubwebAndList	Body of the CheckSubwebAndListSoapIn message.
CheckSubwebAndListResponse	Body of the CheckSubwebAndListSoapOut message.

3.1.4.1.2.1 CheckSubwebAndList

Input data for a **CheckSubwebAndList WSDL operation**.

```
<s:element name="CheckSubwebAndList">
  <s:complexType>
    <s:sequence>
      <s:element name="strUrl" type="s:string"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strUrl: The URL to check. MUST contain a valid URL. MUST be **URL-encoded**.

3.1.4.1.2.2 CheckSubwebAndListResponse

Result data for a **CheckSubwebAndList WSDL operation**.

```
<s:element name="CheckSubwebAndListResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="CheckSubwebAndListResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="result">
              <s:complexType>
                <s:attribute name="url" type="s:string"/>
                <s:attribute name="subweb" type="s:string"/>
                <s:attribute name="list" type="s:string"/>
                <s:attribute name="listGuid" type="s:string"/>
                <s:attribute name="folder" type="s:string"/>
                <s:attribute name="rest" type="s:string"/>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

```
        <s:attribute name="found" type="s:boolean" use="optional" default="true"/>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>
```

CheckSubwebAndListResult: The element containing the result of the **CheckSubwebAndList** WSDL operation.

CheckSubwebAndListResult.result: The result of the **CheckSubwebAndList** WSDL operation.

CheckSubwebAndListResult.result.found: True if the subsite was found; otherwise, false.

CheckSubwebAndListResult.result.url: The original URL in the request WSDL message.

CheckSubwebAndListResult.result.subweb: The URL of the subsite.

CheckSubwebAndListResult.result.list: The name of the **list** in the requested URL, if the requested URL is part of a list.

CheckSubwebAndListResult.result.listGuid: The **GUID** of the list in the requested URL, if the requested URL is part of a list.

CheckSubwebAndListResult.result.folder: The name of the **folder** in the requested URL, if the requested URL includes a folder.

CheckSubwebAndListResult.result.rest: The remaining path of the requested URL after the **subweb**, list, or folder elements. The default is null if there is no remaining path after the **subweb**, list, or folder elements.

3.1.4.1.3 Complex Types

None.

3.1.4.1.4 Simple Types

None.

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

3.1.4.2 CreateNewFolder

This **WSDL operation** creates a new folder in the specified **list** and **folder**.

```

<wsdl:operation name="CreateNewFolder">
  <wsdl:input message="tns:CreateNewFolderSoapIn" />
  <wsdl:output message="tns:CreateNewFolderSoapOut" />
</wsdl:operation>

```

The client sends a **CreateNewFolderSoapIn** request **WSDL message**, and the server responds with a **CreateNewFolderSoapOut** response WSDL message, as follows:

- If the **strListName** does not exist or is empty, the server MUST return a **ListNotFound SOAP fault**.
- If the **strListName** is not a picture library, the server MUST return an **IsNotLibrary** SOAP fault.
- If the **strParentFolder** is not a legal folder path as specified in **SOAPFaultDetails**, the server MUST return an **InvalidArgument** SOAP fault.
- If the **strParentFolder** does not exist, the server MUST return a **FolderNotFound** SOAP fault.
- Otherwise, the server MUST send a **CreateNewFolderSoapOut** response and MUST create the new folder with an unused name, either "New folder" or "New folder (*n*)" if a folder with that name already exists, where *n* is a number greater than 0.

3.1.4.2.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
CreateNewFolderSoapIn	A request to initiate a CreateNewFolder operation on the protocol server.
CreateNewFolderSoapOut	A response from the protocol server at completion of the CreateNewFolder operation.

3.1.4.2.1.1 CreateNewFolderSoapIn

This **WSDL message** contains information required by the **CreateNewFolder WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/CreateNewFolder
```

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

3.1.4.2.1.2 CreateNewFolderSoapOut

This **WSDL message** contains results returned by the **CreateNewFolder WSDL operation**. This WSDL message is a response.

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

3.1.4.2.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
CreateNewFolder	Body of the CreateNewFolderSoapIn message.
CreateNewFolderResponse	Body of the CreateNewFolderSoapOut message.

3.1.4.2.2.1 CreateNewFolder

Input data for a **CreateNewFolder WSDL operation**.

```
<s:element name="CreateNewFolder">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strParentFolder" type="s:string"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strListName: The name of the **list** on the current **site**. MUST be **URL-encoded**. MUST be non-empty.

strParentFolder: The relative path from the root of the list to the parent folder. MUST be URL-encoded.

3.1.4.2.2.2 CreateNewFolderResponse

Result data for a **CreateNewFolder WSDL operation**.

```
<s:element name="CreateNewFolderResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="CreateNewFolderResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="NewFolder">
              <s:complexType>
                <s:attribute name="title" type="s:string"/>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

CreateNewFolderResult: The result of the **CreateNewFolder** WSDL operation.

CreateNewFolderResult.NewFolder: The new folder that is created by the **CreateNewFolder** WSDL operation.

CreateNewFolderResult.NewFolder.title: The title of the new folder.

3.1.4.2.3 Complex Types

None.

3.1.4.2.4 Simple Types

None.

3.1.4.2.5 Attributes

None.

3.1.4.2.6 Groups

None.

3.1.4.2.7 Attribute Groups

None.

3.1.4.3 Delete

This **WSDL operation** removes the specified **list items** from the specified **list** and **folder**.

```
<wsdl:operation name="Delete">
  <wsdl:input message="tns:DeleteSoapIn" />
  <wsdl:output message="tns:DeleteSoapOut" />
</wsdl:operation>
```

The client sends a **DeleteSoapIn** request **WSDL message**, and the server responds with a **DeleteSoapOut** response WSDL message, as follows:

- If **strListName** or **itemFileNames** is empty, the server MUST return an **InvalidArgument SOAP fault**.
- If the **strListName** does not exist, the server MUST return a **ListNotFound** SOAP fault.
- If the **strListName** is not a picture library, the server MUST return an **IsNotLibrary** SOAP fault.
- If the **strFolder** is not a legal folder path as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the server MUST return an **InvalidArgument** SOAP fault.
- If the **strFolder** does not exist, the server MUST return a **FolderNotFound** SOAP fault.
- If **itemFileNames** contains any illegal character(s) as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the server MUST return an **IllegalFileName** SOAP fault.
- Otherwise, the server MUST send a **DeleteSoapOut** response WSDL message with the **deleted** flag set to specify WSDL operation status. The server MUST delete the specified list items.

3.1.4.3.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
---------	-------------

Message	Description
DeleteSoapIn	A request to initiate a Delete operation on the protocol server.
DeleteSoapOut	A response from the protocol server at completion of the Delete operation.

3.1.4.3.1.1 DeleteSoapIn

This **WSDL message** contains information required by the **Delete WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/Delete
```

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

3.1.4.3.1.2 DeleteSoapOut

This **WSDL message** contains results returned by the **Delete WSDL operation**. This WSDL message is a response.

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

3.1.4.3.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
Delete	Body of the DeleteSoapIn message.
DeleteResponse	Body of the DeleteSoapOut message.

3.1.4.3.2.1 Delete

Input data for a **Delete WSDL operation**.

```
<s:element name="Delete">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
      <s:element name="itemFileNames" type="tns:ArrayOfString"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strListName: The name of the **list** in the current **site**. MUST be **URL-encoded**. MUST NOT be empty.

strFolder: The relative path from the root of the list to the target folder. MUST be URL-encoded. An empty value indicates the root of the list (1).

itemFileNames: An array of the names of **list items** to be deleted from the list. MUST NOT be empty.

3.1.4.3.2.2 DeleteResponse

Result data for a **Delete WSDL operation**.

```
<s:element name="DeleteResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="DeleteResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="results" type="tns:ArrayOfDeleteResults"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

DeleteResult: The container element of **DeleteResult.results**.

DeleteResult.results: The result of the **Delete** WSDL operation.

3.1.4.3.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfDeleteResults	Results of the Delete operation.

3.1.4.3.3.1 ArrayOfDeleteResults

Array of **Delete WSDL operation** results.

```
<s:complexType name="ArrayOfDeleteResults">
  <s:sequence>
    <s:element name="result" minOccurs="0" maxOccurs="unbounded">
      <s:complexType>
        <s:attribute name="deleted" type="s:boolean"/>
        <s:attribute name="name" type="s:string"/>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
```

result: Contains the result of the WSDL operation.

result.deleted: True if the **list item** was successfully deleted; otherwise, false.

result.name: The name of the list item that was deleted.

3.1.4.3.4 Simple Types

None.

3.1.4.3.5 Attributes

None.

3.1.4.3.6 Groups

None.

3.1.4.3.7 Attribute Groups

None.

3.1.4.4 Download

This **WSDL operation** downloads the specified **list items** from the specified **list** and **folder**.

```
<wsdl:operation name="Download">
  <wsdl:input message="tns:DownloadSoapIn" />
  <wsdl:output message="tns:DownloadSoapOut" />
</wsdl:operation>
```

The client sends a **DownloadSoapIn** request **WSDL message**, and the server responds with a **DownloadSoapOut** response WSDL message, as follows:

- If **strListName** or **itemFileNames** is empty or the **type** is not an integer between 0 to 2 inclusive, the server MUST return an **InvalidArgument SOAP fault**.
- If the **strListName** does not exist, the server MUST return a **ListNotFound** SOAP fault.
- If the **strListName** is not a picture library, the server MUST return an **IsNotLibrary** SOAP fault.
- If the **strFolder** is not a legal folder path as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the server MUST return an **InvalidArgument** SOAP fault.
- If the **strFolder** does not exist, the server MUST return a **FolderNotFound** SOAP fault.
- If **itemFileNames** contains any illegal character(s) as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the server MUST return an **IllegalFileName** SOAP fault.
- Otherwise, the server MUST send a **DownloadSoapOut** response with the **found** flag set to specify WSDL operation status.

3.1.4.4.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
DownloadSoapIn	A request to initiate a Download operation on the protocol server.
DownloadSoapOut	A response from the protocol server at completion of the Download operation.

3.1.4.4.1.1 DownloadSoapIn

This **WSDL message** contains information required by the **Download WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/Download
```

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

3.1.4.4.1.2 DownloadSoapOut

This **WSDL message** contains results returned by the **Download WSDL operation**. This WSDL message is a response.

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

3.1.4.4.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
Download	Body of the DownloadSoapIn message.
DownloadResponse	Body of the DownloadSoapOut message.

3.1.4.4.2.1 Download

Input data for a **Download WSDL operation**.

```
<s:element name="Download">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
      <s:element name="itemFileNames" type="tns:ArrayOfString"/>
      <s:element name="type" type="s:unsignedInt"/>
      <s:element name="fFetchOriginalIfNotAvailable" type="s:boolean"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strListName: The name of the **list** on the current **site**. MUST be **URL-encoded**. MUST NOT be empty.

strFolder: The relative path from the root of the list to the target folder. MUST be URL-encoded. An empty value indicates the root of the list.

itemFileNames: An array of the names of **list items** to download. MUST NOT be empty.

type: The version of the **files** to download. The following table shows valid values.

Value	Version
0	The original image in the original file format when it was uploaded. The width and height of this image is the same as the original image uploaded to the server.
1	The thumbnail of the image in JPEG format. The width and height of this image are determined during the JPEG compression phase and are not fixed numbers.
2	The image optimized for use on the Web in JPEG format. The width and height of this image are determined during the JPEG compression phase and are not fixed numbers.

The image width and height for values 1 and 2 are calculated depending on the width and height of the original image during JPEG compression.

fFetchOriginalIfNotAvailable: A value that MUST be TRUE or FALSE. If this parameter is set to TRUE and the requested version is not available for any reason, the original version MUST be returned, and the **File** element will have an **originalDownloaded** attribute set to TRUE. If this parameter is set to FALSE and the requested version is not available, an error code of 0x81070211 will be returned, indicating that the file could not be opened.

3.1.4.4.2 DownloadResponse

Result data for a **Download WSDL operation**.

```
<s:element name="DownloadResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="DownloadResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="Files" type="tns:ArrayOfFiles"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

DownloadResult.Files: The result of the **Download** WSDL operation.

3.1.4.4.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfFiles	Encoded Base64 file objects.

3.1.4.4.3.1 ArrayOfFiles

Array of **file** objects. The content of the file MUST be encoded with Base64, as specified in [\[RFC4648\]](#).

```

<s:complexType name="ArrayOfFiles">
  <s:sequence>
    <s:element name="File" minOccurs="0" maxOccurs="unbounded">
      <s:complexType>
        <s:simpleContent>
          <s:extension base="s:base64Binary">
            <s:attribute name="name" type="s:string"/>
            <s:attribute name="lastmodified" type="s:dateTime"/>
            <s:attribute name="found" type="s:boolean" use="optional" default="true"/>
            <s:attribute name="originalDownloaded" type="s:boolean" use="optional"
default="true"/>
          </s:extension>
        </s:simpleContent>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>

```

File: Contains information about a file.

File.name: The name of the file. MUST NOT be the name of a folder.

File.found: True if the list item is found; otherwise, false.

File.lastmodified: The time stamp of the last modification. MUST be in **UTC** format.

File.originalDownloaded: True if the original version is returned. MUST be true if present.

3.1.4.4.4 Simple Types

None.

3.1.4.4.5 Attributes

None.

3.1.4.4.6 Groups

None.

3.1.4.4.7 Attribute Groups

None.

3.1.4.5 Edit

This **WSDL operation** edits an image in the specified **list** and **folder**. This WSDL operation is reserved for future use.

```

<wsdl:operation name="Edit">
  <wsdl:input message="tns:EditSoapIn" />
  <wsdl:output message="tns:EditSoapOut" />
</wsdl:operation>

```

The client sends an **EditSoapIn** request **WSDL message**, and the server MUST respond with an **EditSoapOut** response WSDL message.

3.1.4.5.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
EditSoapIn	A request to initiate a Edit operation on the protocol server.
EditSoapOut	A response from the protocol server at completion of the Edit operation.

3.1.4.5.1.1 EditSoapIn

This **WSDL message** contains information required by the **Edit WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/Edit
```

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

3.1.4.5.1.2 EditSoapOut

This **WSDL message** contains results returned by the **Edit WSDL operation**. This WSDL message is a response.

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

3.1.4.5.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
Edit	Body of the EditSoapIn message.
EditResponse	Body of the EditSoapOut message.

3.1.4.5.2.1 Edit

Input data for an Edit WSDL operation.

```
<s:element name="Edit">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string" minOccurs="0"/>
      <s:element name="strFolder" type="s:string" minOccurs="0"/>
      <s:element name="itemFileName" type="s:string" minOccurs="0"/>
      <s:element name="recipe" minOccurs="0">
        <s:complexType>
          <s:sequence>
            <s:any/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

```

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

```

strListName: The name of the **list** on the current **site**.

strFolder: The relative path from the root of the list to the target folder.

itemFileName: The names of **list items** to edit.

recipe: The collection of edit commands.

3.1.4.5.2.2 EditResponse

Result data for an **Edit WSDL operation**.

```

<s:element name="EditResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="EditResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="notImplemented"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>

```

notImplemented: This element MUST be set to empty when sent by the server, and MUST be ignored when received by the client.

3.1.4.5.3 Complex Types

None.

3.1.4.5.4 Simple Types

None.

3.1.4.5.5 Attributes

None.

3.1.4.5.6 Groups

None.

3.1.4.5.7 Attribute Groups

None.

3.1.4.6 GetItemsByIds

This **WSDL operation** returns list items with the specified identifier in the specified **list**.

```
<wsdl:operation name="GetItemsByIds">
  <wsdl:input message="tns:GetItemsByIdsSoapIn" />
  <wsdl:output message="tns:GetItemsByIdsSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetItemsByIdsSoapIn** request **WSDL message**, and the protocol server responds with a **GetItemsByIdsSoapOut** response WSDL message, as follows:

- If **strListName** or **ids** is empty, the protocol server MUST return an **InvalidArgument SOAP fault**.
- If the **strListName** does not exist, the protocol server MUST return a **ListNotFound** SOAP fault.
- If the **strListName** is not a picture library, the protocol server MUST return an **IsNotLibrary** SOAP fault.
- Otherwise, the protocol server MUST send a **GetItemsByIdsSoapOut** response. If the specified identifiers are not found in the protocol server, the protocol server MUST ignore them and return the rest of the valid **list items**.

3.1.4.6.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
GetItemsByIdsSoapIn	A request to initiate a GetItemsByIds operation on the protocol server.
GetItemsByIdsSoapOut	A response from the protocol server at completion of the GetItemsByIds operation.

3.1.4.6.1.1 GetItemsByIdsSoapIn

This **WSDL message** contains information required by the **GetItemsByIds WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/GetItemsByIds
```

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

3.1.4.6.1.2 GetItemsByIdsSoapOut

This **WSDL message** contains results returned by the **GetItemsByIds WSDL operation**. This WSDL message is a response.

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

3.1.4.6.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetItemsByIds	Body of the GetItemsByIdsSoapIn message.
GetItemsByIdsResponse	Body of the GetItemsByIdsSoapOut message.

3.1.4.6.2.1 GetItemsByIds

Input data for a **GetItemsByIds WSDL operation**.

```
<s:element name="GetItemsByIds">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="ids" type="tns:ArrayOfUnsignedInt"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strListName: The name of the **list** on the current **site**. MUST be **URL-encoded**. MUST NOT be empty.

ids: An array of the identifiers of the **list items**. MUST NOT be empty.

3.1.4.6.2.2 GetItemsByIdsResponse

Result data for a **GetItemsByIds WSDL operation**.

```
<s:element name="GetItemsByIdsResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetItemsByIdsResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="results" type="tns:ArrayOfRows"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

GetItemsByIdsResult: The container element of the **GetItemsByIdsResult.results** element.

GetItemsByIdsResult.results: The array of results from the **GetItemsByIds** WSDL operation.

3.1.4.6.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
--------------	-------------

Complex type	Description
ArrayOfUnsignedInt	An array of list item identifiers.

3.1.4.6.3.1 ArrayOfUnsignedInt

Array of unsigned integers.

```
<s:complexType name="ArrayOfUnsignedInt">
  <s:sequence>
    <s:element name="unsignedInt" type="s:unsignedInt" maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>
```

unsignedInt: This element MUST be present.

3.1.4.6.4 Simple Types

None.

3.1.4.6.5 Attributes

None.

3.1.4.6.6 Groups

None.

3.1.4.6.7 Attribute Groups

None.

3.1.4.7 GetItemsXMLData

This **WSDL operation** returns metadata of specified **list items** in the specified **list** and **folder**.

```
<wsdl:operation name="GetItemsXMLData">
  <wsdl:input message="tns:GetItemsXMLDataSoapIn" />
  <wsdl:output message="tns:GetItemsXMLDataSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetItemsXMLDataSoapIn** request **WSDL message**, and the protocol server responds with a **GetItemsXMLDataSoapOut** response WSDL message, as follows:

- If **strListName** or **itemFileNames** is empty, the protocol server MUST return an **InvalidArgument SOAP fault**.
- If the **strListName** does not exist, the protocol server MUST return a **ListNotFound** SOAP fault.
- If the **strListName** is not a picture library, the protocol server MUST return an **IsNotLibrary** SOAP fault.
- If the **strFolder** is not a legal folder path as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the protocol server MUST return an **InvalidArgument** SOAP fault.

- If the **strFolder** does not exist, the protocol server MUST return a **FolderNotFound** SOAP fault.
- If **itemFileNames** contains any illegal character(s) as specified in **SOAPFaultDetails** (section 2.2.4.3), the protocol server MUST return an **IllegalFileName** SOAP fault.
- Otherwise, the protocol server MUST send a **GetItemsXMLDataSoapOut** response.

3.1.4.7.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
GetItemsXMLDataSoapIn	A request to initiate a GetItemsXMLData operation on the protocol server.
GetItemsXMLDataSoapOut	A response from the protocol server at completion of the GetItemsXMLData operation.

3.1.4.7.1.1 GetItemsXMLDataSoapIn

This **WSDL message** contains information required by the **GetItemsXMLData WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/GetItemsXMLData
```

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

3.1.4.7.1.2 GetItemsXMLDataSoapOut

This **WSDL message** contains results returned by the **GetItemsXMLData WSDL operation**. This WSDL message is a response.

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

3.1.4.7.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetItemsXMLData	Body of the GetItemsXMLDataSoapIn message.
GetItemsXMLDataResponse	Body of the GetItemsXMLDataSoapOut message.

3.1.4.7.2.1 GetItemsXMLData

Input data for a **GetItemsXMLData WSDL operation**.

```

<s:element name="GetItemsXMLData">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
      <s:element name="itemFileNames" type="tns:ArrayOfString"/>
    </s:sequence>
  </s:complexType>
</s:element>

```

strListName: The name of the **list** on the current **site**. MUST be **URL-encoded**. MUST be non-empty.

strFolder: The relative path from the root of the list to the target folder. MUST be URL-encoded. This specifies the root of the library if it is left empty.

itemFileNames: An array of the names of the **list items** queried for XML data.

3.1.4.7.2.2 GetItemsXMLDataResponse

Result data for a **GetItemsXMLData WSDL operation**.

```

<s:element name="GetItemsXMLDataResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetItemsXMLDataResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="results" type="tns:ArrayOfItems"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>

```

GetItemsXMLDataResult: The container element of the **GetItemsXMLDataResult.results** element.

GetItemsXMLDataResult.results: The result of the **GetItemsXMLData** WSDL operation.

3.1.4.7.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfItems	An array of list items.

3.1.4.7.3.1 ArrayOfItems

Array of **list items**.

```

<s:complexType name="ArrayOfItems">
  <s:sequence>
    <s:element name="item" minOccurs="0" maxOccurs="unbounded">

```

```

<s:complexType>
  <s:attribute name="name" type="s:string"/>
  <s:attribute name="ID" type="s:unsignedInt"/>
  <s:attribute name="Author" type="s:string"/>
  <s:attribute name="Editor" type="s:string"/>
  <s:attribute name="File x0020 Size" type="s:string"/>
  <s:attribute name="ImageWidth" type="s:unsignedInt"/>
  <s:attribute name="ImageHeight" type="s:unsignedInt"/>
  <s:attribute name="Description" type="s:string"/>
  <s:attribute name="Title" type="s:string"/>
  <s:attribute name="Keywords" type="s:string"/>
  <s:attribute name="ImageCreateDate" type="s:string"/>
  <s:attribute name="Created" type="s:dateTime"/>
  <s:attribute name="Modified" type="s:dateTime"/>
  <s:attribute name="found" type="s:boolean" use="optional" default="true"/>
</s:complexType>
</s:element>
</s:sequence>
</s:complexType>

```

item: Contains information about a list item.

item.name: The name of the list item.

item.ID: The identifier of the list item.

item.Author: The identifier of the user who created the list item.

item.Editor: The identifier of the user who edited the list item.

item.File_x0020_Size: The file size, in kilobytes, of the list item if that list item is an image.

item.ImageWidth: The width, in pixels, of the list item if that list item is an image.

item.ImageHeight: The height, in pixels, of the list item if that list item is an image.

item.Description: The alternative text of the list item, if the list item is an image.

item.Title: The title of the list item, if the list item is an image.

item.Keywords: The keywords of the list item, if the list item is an image.

item.ImageCreateDate: The date and time at which the picture was taken. This is applicable only if the list item is an image.

item.Created: The date and time at which the list item was created. MUST be in **UTC** format.

item.Modified: The date and time at which the list item was last modified. MUST be in UTC format.

item.found: True if the list item is found; otherwise, false.

3.1.4.7.4 Simple Types

None.

3.1.4.7.5 Attributes

None.

3.1.4.7.6 Groups

None.

3.1.4.7.7 Attribute Groups

None.

3.1.4.8 GetListItems

This **WSDL operation** enumerates **list items** in the folder in the **list**.

```
<wsdl:operation name="GetListItems">
  <wsdl:input message="tns:GetListItemsSoapIn" />
  <wsdl:output message="tns:GetListItemsSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetListItemsSoapIn** request **WSDL message**, and the protocol server responds with a **GetListItemsSoapOut** response WSDL message as follows:

- If the **strListName** is an empty string or does not exist, the protocol server MUST return a **ListNotFound SOAP fault**.
- If the **strListName** is not a picture library, the protocol server MUST return an **IsNotLibrary** SOAP fault.
- If the **strFolder** is not a legal folder path as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the protocol server MUST return an **InvalidArgument** SOAP fault.
- If the **strFolder** does not exist, the protocol server MUST return a **FolderNotFound** SOAP fault.
- Otherwise, the protocol server MUST send a **GetListItemsSoapOut** response.

3.1.4.8.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
GetListItemsSoapIn	A request to initiate a GetListItems operation on the protocol server.
GetListItemsSoapOut	A response from the protocol server at completion of the GetListItems operation.

3.1.4.8.1.1 GetListItemsSoapIn

This **WSDL message** contains information required by the **GetListItems WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/GetListItems
```

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

3.1.4.8.1.2 GetListItemsSoapOut

This **WSDL message** contains results returned by the **GetListItems WSDL operation**. This WSDL message is a response.

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

3.1.4.8.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetListItems	Body of the GetListItemsSoapIn message.
GetListItemsResponse	Body of the GetListItemsSoapOut message.

3.1.4.8.2.1 GetListItems

Input data for a **GetListItems WSDL operation**.

```
<s:element name="GetListItems">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strListName: The name of the **list** on the current **site**. MUST be **URL-encoded**. MUST be non-empty.

strFolder: The relative path from the root of the list to the target folder. MUST be URL-encoded.

3.1.4.8.2.2 GetListItemsResponse

Result data for a **GetListItems WSDL operation**.

```
<s:element name="GetListItemsResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetListItemsResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="Library">
              <s:complexType mixed="true">
                <s:complexContent>
                  <s:extension base="tns:ArrayOfRows" >
                    <s:attribute name="name" type="s:string"/>
                  </s:extension>
                </s:complexContent>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

</s:element>

GetListItemsResult: Contains the result of the **GetListItems** WSDL operation.

GetListItemsResult.Library: The array of **list items** in the folder that is specified by the **strFolder** parameter.

GetListItemsResult.Library.Name: The names of the attributes containing the list item data in this response correspond to the **Name** attribute in the **Field** elements of **GetList** and are prefixed by "ows_". Note that the set of fields returned by the method is restricted by the **viewField** or **viewName** parameter. The response includes the **ows_ServerRedirected** attribute to indicate whether protocol server rendering is available for the item. A value of 0 indicates that no rendering mechanism is available for this item on the protocol server. A value of 1 indicates that a rendering mechanism is available for this item on the protocol server. If a rendering mechanism is available, the response MUST include the **ows_ServerRedirectedUrl** attribute. The value of this attribute MUST specify the link used to render the item on the protocol server.

3.1.4.8.3 Complex Types

None.

3.1.4.8.4 Simple Types

None.

3.1.4.8.5 Attributes

None.

3.1.4.8.6 Groups

None.

3.1.4.8.7 Attribute Groups

None.

3.1.4.9 ListPictureLibrary

This **WSDL operation** lists all picture libraries on the current **site**.

```
<wsdl:operation name="ListPictureLibrary">
  <wsdl:input message="tns:ListPictureLibrarySoapIn" />
  <wsdl:output message="tns:ListPictureLibrarySoapOut" />
</wsdl:operation>
```

The protocol client sends a **ListPictureLibrarySoapIn** request **WSDL message**, and the protocol server MUST respond with a **ListPictureLibrarySoapOut** response WSDL message.

3.1.4.9.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
---------	-------------

Message	Description
ListPictureLibrarySoapIn	A request to initiate a ListPictureLibrary operation on the protocol server.
ListPictureLibrarySoapOut	A response from the protocol server at completion of the ListPictureLibrary operation.

3.1.4.9.1.1 ListPictureLibrarySoapIn

This **WSDL message** contains information required by the **ListPictureLibrary WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/ListPictureLibrary
```

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

3.1.4.9.1.2 ListPictureLibrarySoapOut

This **WSDL message** contains results returned by the **ListPictureLibrary WSDL operation**. This WSDL message is a response.

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

3.1.4.9.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
ListPictureLibrary	Body of the ListPictureLibrarySoapIn message.
ListPictureLibraryResponse	Body of the ListPictureLibrarySoapOut message.

3.1.4.9.2.1 ListPictureLibrary

Input data for a **ListPictureLibrary WSDL operation**.

```
<s:element name="ListPictureLibrary">
  <s:complexType/>
</s:element>
```

3.1.4.9.2.2 ListPictureLibraryResponse

Result data for a **ListPictureLibrary WSDL operation**.

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

```

    <s:element name="ListPictureLibraryResult">
      <s:complexType mixed="true">
        <s:sequence>
          <s:element name="PictLib" type="tns:ArrayOfLibraries"/>
        </s:sequence>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
</s:element>

```

ListPictureLibraryResult: Contains the result of the **ListPictureLibrary** WSDL operation.

ListPictureLibraryResult.PictLib: The array of picture libraries.

3.1.4.9.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfLibraries	An array of picture libraries.

3.1.4.9.3.1 ArrayOfLibraries

Array of libraries.

```

<s:complexType name="ArrayOfLibraries">
  <s:sequence>
    <s:element name="Library" minOccurs="0" maxOccurs="unbounded">
      <s:complexType>
        <s:attribute name="guid" type="s:string"/>
        <s:attribute name="name" type="s:string"/>
        <s:attribute name="title" type="s:string"/>
        <s:attribute name="url" type="s:string"/>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>

```

Library: Contains information about a picture library.

Library.guid: The **GUID** of the picture library.

Library.name: The name of the picture library. Its value is equal to the value of **Library.guid** enclosed in braces.

Library.title: The title of the picture library.

Library.url: The **URL** of the picture library.

3.1.4.9.4 Simple Types

None.

3.1.4.9.5 Attributes

None.

3.1.4.9.6 Groups

None.

3.1.4.9.7 Attribute Groups

None.

3.1.4.10 Rename

This **WSDL operation** renames **list items** in a **list** and **folder**.

```
<wsdl:operation name="Rename">
  <wsdl:input message="tns:RenameSoapIn" />
  <wsdl:output message="tns:RenameSoapOut" />
</wsdl:operation>
```

The protocol client sends a **RenameSoapIn** request **WSDL message**, and the protocol server responds with a **RenameSoapOut** response WSDL message, as follows:

- If **strListName** is empty, the protocol server MUST return an **InvalidArgument SOAP fault**.
- If the **strListName** does not exist, the protocol server MUST return a **ListNotFound** SOAP fault.
- If the **strListName** is not a picture library, the protocol server MUST return an **IsNotLibrary** SOAP fault.
- If the **strFolder** is not a legal folder path as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the protocol server MUST return an **InvalidArgument** SOAP fault.
- If the **strFolder** does not exist, the protocol server MUST return a **FolderNotFound** SOAP fault.
- Otherwise, the protocol server MUST send a **RenameSoapOut** response as follows: for the list items that were both found and successfully renamed, the **renamed** flag is set; for any other list items, the **renamed** flag is not set.

3.1.4.10.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
RenameSoapIn	A request to initiate a Rename operation on the protocol server.
RenameSoapOut	A response from the protocol server at completion of the Rename operation.

3.1.4.10.1.1 RenameSoapIn

This **WSDL message** contains information required by the **Rename WSDL operation**. This WSDL message is a request.

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

```
http://schemas.microsoft.com/sharepoint/soap/ois/Rename
```

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

3.1.4.10.1.2 RenameSoapOut

This **WSDL message** contains results returned by the **Rename WSDL operation**. This WSDL message is a response.

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

3.1.4.10.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
Rename	Body of the RenameSoapIn message.
RenameResponse	Body of the RenameSoapOut message.

3.1.4.10.2.1 Rename

Input data for a **Rename WSDL operation**.

```
<s:element name="Rename">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
      <s:element name="request">
        <s:complexType>
          <s:sequence>
            <s:element name="files" type="tns:ArrayOfRenameFiles"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

strListName: The name of the **list** on the current **site**. MUST be **URL-encoded**. MUST be non-empty.

strFolder: The relative path from the root of the list to the target folder. MUST be URL-encoded.

Request.files: The array of files to rename.

3.1.4.10.2.2 RenameResponse

Result data for a **Rename WSDL operation**.

```

<s:element name="RenameResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="RenameResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="results" type="tns:ArrayOfRenameResults"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>

```

RenameResult.results: The results of the **Rename** WSDL operation.

3.1.4.10.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
ArrayOfRenameFiles	An array of file names: current and new.
ArrayOfRenameResults	Array of Rename operation results.

3.1.4.10.3.1 ArrayOfRenameFiles

Array of current file names and new names, without paths.

```

<s:complexType name="ArrayOfRenameFiles">
  <s:sequence>
    <s:element name="file" maxOccurs="unbounded">
      <s:complexType>
        <s:attribute name="filename" type="s:string"/>
        <s:attribute name="newbasename" type="s:string"/>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>

```

file: Contains information about the file.

file.filename: The name of the list item, including the extension.

file.newbasename: The new name of the list item, without a path or extension.

3.1.4.10.3.2 ArrayOfRenameResults

Array of results of a **Rename** **WSDL operation**.

```

<s:complexType name="ArrayOfRenameResults">
  <s:sequence>
    <s:element name="result" minOccurs="0" maxOccurs="unbounded">
      <s:complexType>
        <s:attribute name="name" type="s:string"/>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>

```

```

        <s:attribute name="renamed" type="s:boolean" use="optional" default="true"/>
        <s:attribute name="lastmodified" type="s:dateTime"/>
        <s:attribute name="newbasename" type="s:string"/>
    </s:complexType>
</s:element>
</s:sequence>
</s:complexType>

```

result: Contains the result of the **Rename** WSDL operation.

result.name: The name of the **list item** before it was renamed.

result.newbasename: The new name of the list item, without a path.

result.lastmodified: The time stamp of the last modification. MUST be in **UTC** format.

result.renamed: True if the **Rename** operation succeeds; otherwise, false.

3.1.4.10.4 Simple Types

None.

3.1.4.10.5 Attributes

None.

3.1.4.10.6 Groups

None.

3.1.4.10.7 Attribute Groups

None.

3.1.4.11 Upload

This **WSDL operation** uploads a file to the specified **list** and **folder**.

```

<wsdl:operation name="Upload">
  <wsdl:input message="tns:UploadSoapIn" />
  <wsdl:output message="tns:UploadSoapOut" />
</wsdl:operation>

```

The protocol client sends an **UploadSoapIn** request **WSDL message**, and the protocol server responds with an **UploadSoapOut** response WSDL message, as follows:

- If **strListName**, **bytes**, or **fileName** is omitted, the protocol server MUST return an **InvalidArgument SOAP fault**.
- If **fileName** contains any illegal character(s) as specified in **SOAPFaultDetails** (section [2.2.4.3](#)), the protocol server MUST return an **IllegalFileName** SOAP fault.
- If the **strListName** does not exist, the protocol server MUST return a **ListNotFound** SOAP fault.
- If the **strListName** is not a picture library, the protocol server MUST return an **IsNotLibrary** SOAP fault.

- If the **strFolder** is not a legal folder path as specified in **SOAPFaultDetails** (section 2.2.4.3), the protocol server MUST return an **InvalidArgument** SOAP fault.
- If the **strFolder** does not exist, the protocol server MUST return a **FolderNotFound** SOAP fault.
- If **fileName** already exists on the protocol server and **fOverWriteIfExist** is set to FALSE, the protocol server MUST return a **FileExists** SOAP fault.
- Otherwise, the protocol server MUST send an **UploadSoapOut** response with the time stamp and upload the file as specified.

3.1.4.11.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
UploadSoapIn	A request to initiate a Upload operation on the protocol server.
UploadSoapOut	A response from the protocol server at completion of the Upload operation.

3.1.4.11.1.1 UploadSoapIn

This **WSDL message** contains information required by the Upload **WSDL operation**. This WSDL message is a request.

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

`http://schemas.microsoft.com/sharepoint/soap/ois/Upload`

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

3.1.4.11.1.2 UploadSoapOut

This **WSDL message** contains results returned by the **Upload WSDL operation**. This WSDL message is a response.

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

3.1.4.11.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
Upload	Body of the UploadSoapIn message.
UploadResponse	Body of the UploadSoapOut message.

3.1.4.11.2.1 Upload

Input data for an **Upload WSDL operation**.

```
<s:element name="Upload">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
      <s:element name="bytes" type="s:base64Binary"/>
      <s:element name="fileName" type="s:string"/>
      <s:element name="fOverWriteIfExist" type="s:boolean"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strListName: The name of the **list** on the current **site**. MUST be **URL-encoded**. MUST NOT be empty.

strFolder: The relative path from the root of the list to the target folder. MUST be URL-encoded. An empty value indicates the root folder of the list (1).

bytes: The binary content of the file to upload. MUST be encoded in Base64, as specified in [\[RFC4648\]](#). MUST NOT be empty.

fileName: The file name to use as the **list item** name in the list. MUST be URL-encoded.

fOverWriteIfExist: Specifies whether to overwrite a file with the same name. This element MUST be present.

3.1.4.11.2.2 UploadResponse

Result data for an **Upload WSDL operation**.

```
<s:element name="UploadResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="UploadResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="Upload">
              <s:complexType>
                <s:attribute name="lastmodified" type="s:dateTime"/>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

UploadResult: The elements containing the result of the **Upload** WSDL operation.

UploadResult.Upload: The result of the **Upload** WSDL operation.

UploadResult.Upload.lastmodified: The time stamp, which MUST be in **UTC** format, of the last modification.

3.1.4.11.3 Complex Types

None.

3.1.4.11.4 Simple Types

None.

3.1.4.11.5 Attributes

None.

3.1.4.11.6 Groups

None.

3.1.4.11.7 Attribute Groups

None.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

The following examples demonstrate the interactions between the protocol client and the protocol server. Only the **SOAP body** is listed for the sake of brevity.

4.1 Create New Folder

To create a new folder named Zoo, the protocol client sends a **CreateNewFolderSoapIn** request to the protocol server:

```
<CreateNewFolder xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <strListName>
    Shared Pictures
  </strListName>
  <strParentFolder />
</CreateNewFolder>
```

The protocol server confirms the **WSDL operation** in **CreateNewFolderSoapOut** as follows:

```
<CreateNewFolderResponse
  xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <CreateNewFolderResult>
    <NewFolder
      xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/"
      title="New folder (1)"/>
    </CreateNewFolderResult>
  </CreateNewFolderResponse>
```

4.2 Rename Folder

The protocol client needs to explicitly rename New folder(1) to Zoo, sending **RenameSoapIn** to the server:

```
<Rename xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <strListName>
    Shared Pictures
  </strListName>
  <strFolder />
  <request>
    <files xmlns="">
      <file filename="New folder(1)" newbasename="Zoo" />
    </files>
  </request>
</Rename>
```

The protocol server responds with **RenameSoapOut** as follows:

```
<RenameResponse xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <RenameResult>
    <results xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
      <result name="New folder (1)" renamed="true"
        newbasename="Zoo"/>
    </results>
  </RenameResult>
</RenameResponse>
```

4.3 Upload Image

Then, the protocol client proceeds to upload a picture to the Zoo folder, sending **UploadSoapIn** to the protocol server:

```
<Upload xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <strListName>
    Shared Pictures
  </strListName>
  <strFolder>
    Zoo
  </strFolder>
  <bytes>
    // base64 encoded image content ...
  </bytes>
  <fileName>
    panda.jpg
  </fileName>
  <fOverWriteIfExist>
    True
  </fOverWriteIfExist>
</Upload>
```

The protocol server confirms the upload WSDL operation in **UploadSoapOut**, as follows:

```
<UploadResponse xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <UploadResult>
    <Upload xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/"
      lastmodified="2008-01-18T23:44:34Z"/>
  </UploadResult>
</UploadResponse>
```

The protocol client checks the validity of the URL by sending **CheckSubwebAndListSoapIn**, as follows:

```
<CheckSubwebAndList
  xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <strUrl>
    http://site/Shared Pictures/Zoo/panda.jpg
  </strUrl>
</CheckSubwebAndList>
```

The protocol server tries to resolve the URL and responds with **CheckSubwebAndListSoapOut**, as follows:

```
<CheckSubwebAndListResponse
  xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <CheckSubwebAndListResult>
    <result xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/"
      url="http://site/Shared Pictures/Zoo/panda.jpg"
      subweb="http://site" list="Shared Pictures"
      listGuid="502939ee-8e57-43d3-a5d8-e19fe90313ce" folder="Zoo"
      rest="/panda.jpg" />
  </CheckSubwebAndListResult>
</CheckSubwebAndListResponse>
```

4.4 Get Data on All Images

Then, the protocol client requests data on all the pictures in the Zoo folder, using **GetListItemsSoapIn**, as follows:

```
<GetListItems xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <strListName>
    Shared Pictures
  </strListName>
  <strFolder>
    Zoo
  </strFolder>
</GetListItems>
```

The following is the **GetListItemsSoapOut** response from the protocol server:

```
<GetListItemsResponse
  xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/"
  <GetListItemsResult>
    <Library xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/"
      name="Shared Pictures">
      <z:row xmlns:z='#RowsetSchema' ows_ID='75' ows_Author='1;#Ye
        Xu' ows_Editor='1;#Ye Xu' ows_Created='2008-01-18T23:44:34Z'
        ows_Modified='2008-01-18T23:44:34Z'
        ows_File_x0020_Size='75;#1000' ows_FSObjType='75;#0'
        ows_FileLeafRef='75;#panda.jpg'
        ows_EncodedAbsUrl='http://site/Shared%20Pictures/Zoo/panda.jpg'
        ows_ImageWidth='15' ows_ImageHeight='20'
        ows_ModerationStatus='0' ows_Level='1'
        ows_UniqueId='75;#{B7AE51A7-9503-40E7-9B82-F830DEC2CB6B}'
        ows_Created_x0020_Date='75;#2008-01-18T23:44:34Z'
        ows_ProgId='75;#' ows_FileRef='75;#sites/Shared
        Pictures/Zoo/panda.jpg' ows_DocIcon='jpg'

        ows_MetaInfo='75;#vti_parserversion:SR|14.0.0.4730..vti_modifiedby:SR|CONTOSO\yexu..vti_lasth
        eight:IX|20..ContentTypeId:SW|0x01010200BC73A9F9558BC445A09D0F26FB930A03..vti_lastwidth:IX|15
        ..vti_author:SR| CONTOSO\yexu..'
        ows_Last_x0020_Modified='75;#2008-01-18T23:44:34Z'
        ows_owshiddenversion='1' ows_ServerRedirected='0'/>
      <z:row xmlns:z='#RowsetSchema' ows_ID='76' ows_Author='1;#Ye
        Xu' ows_Editor='1;#Ye Xu' ows_Created='2009-01-18T23:44:35Z'
        ows_Modified='2009-01-18T23:44:35Z'
        ows_File_x0020_Size='76;#1000' ows_FSObjType='76;#0'
        ows_FileLeafRef='76;#dinosaur.jpg'
        ows_EncodedAbsUrl='http://site/Shared%20Pictures/Zoo/dinosaur.jpg'
        ows_ImageWidth='15' ows_ImageHeight='20'
        ows_ModerationStatus='0' ows_Level='1'
        ows_UniqueId='76;#{4691F195-1513-477F-9EB4-AABD2C328259}'
        ows_Created_x0020_Date='76;#2009-01-18T23:44:35Z'
        ows_ProgId='76;#' ows_FileRef='76;#sites/Shared
        Pictures/Zoo/dinosaur.jpg' ows_DocIcon='jpg'

        ows_MetaInfo='76;#vti_parserversion:SR|14.0.0.4730..vti_modifiedby:SR|CONTOSO\yexu..vti_lasth
        eight:IX|20..ContentTypeId:SW|0x01010200BC73A9F9558BC445A09D0F26FB930A03..vti_lastwidth:IX|15
        ..vti_author:SR| CONTOSO\yexu..'
        ows_Last_x0020_Modified='76;#2009-01-18T23:44:35Z'
        ows_owshiddenversion='1' ows_ServerRedirected='0'/>
    </Library>
  </GetListItemsResult>
</GetListItemsResponse>
```

4.5 Download Image

Later, to build an encyclopedia, the protocol client downloads some images from the protocol as illustrations, sending **DownloadSoapIn** to the protocol server, as follows:

```
<Download xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <strListName>
    Shared Pictures
  </strListName>
  <strFolder>
    Zoo
  </strFolder>
  <itemFileNames>
    <string>
      panda.jpg
    </string>
    <string>
      dinosaur.jpg
    </string>
  </itemFileNames>
  <type>
    0
  </type>
  <fFetchOriginalIfNotAvailable>
    true
  </fFetchOriginalIfNotAvailable>
</Download>
```

Dinosaur is not found in the Zoo folder, so the protocol server responds with **DownloadSoapOut**, as follows:

```
<DownloadResponse
  xmlns="http://schemas.microsoft.com/sharepoint/soap/ois/"
  <DownloadResult>
    <Files>
      <File name="panda.jpg" lastmodified="2008-01-16T23:12:57Z">
        ... ..
      </File>
      <File name="dinosaur.jpg" found="false"/>
    </Files>
  </DownloadResult>
</DownloadResponse>
```

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

For ease of implementation, the full WSDL and schema are provided in this appendix.

```
<?xml version="1.0" encoding="UTF-8" ?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/ois/"
xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/ois/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/ois/">
      <s:import namespace="http://www.w3.org/2001/XMLSchema"/>
      <s:element name="ListPictureLibrary">
        <s:complexType/>
      </s:element>
      <s:element name="ListPictureLibraryResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="ListPictureLibraryResult">
              <s:complexType mixed="true">
                <s:sequence>
                  <s:element name="PictLib" type="tns:ArrayOfLibraries"/>
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name="ArrayOfLibraries">
        <s:sequence>
          <s:element name="Library" minOccurs="0" maxOccurs="unbounded">
            <s:complexType>
              <s:attribute name="guid" type="s:string"/>
              <s:attribute name="name" type="s:string"/>
              <s:attribute name="title" type="s:string"/>
              <s:attribute name="url" type="s:string"/>
            </s:complexType>
          </s:element>
        </s:sequence>
      </s:complexType>
      <s:element name="Upload">
        <s:complexType>
          <s:sequence>
            <s:element name="strListName" type="s:string"/>
            <s:element name="strFolder" type="s:string"/>
            <s:element name="bytes" type="s:base64Binary"/>
            <s:element name="fileName" type="s:string"/>
            <s:element name="fOverWriteIfExist" type="s:boolean"/>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="UploadResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="UploadResult">
              <s:complexType mixed="true">
                <s:sequence>
                  <s:element name="Upload">
                    <s:complexType>
                      <s:attribute name="lastmodified" type="s:dateTime"/>
                    </s:complexType>
                  </s:element>
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </wsdl:types>

```

```

        </s:element>
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="GetItemsXMLData">
    <s:complexType>
        <s:sequence>
            <s:element name="strListName" type="s:string"/>
            <s:element name="strFolder" type="s:string"/>
            <s:element name="itemFileNames" type="tns:ArrayOfString"/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:complexType name="ArrayOfString">
    <s:sequence>
        <s:element name="string" type="s:string" maxOccurs="unbounded"/>
    </s:sequence>
</s:complexType>
<s:element name="GetItemsXMLDataResponse">
    <s:complexType>
        <s:sequence>
            <s:element name="GetItemsXMLDataResult">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:element name="results" type="tns:ArrayOfItems"/>
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:complexType name="ArrayOfItems">
    <s:sequence>
        <s:element name="item" minOccurs="0" maxOccurs="unbounded">
            <s:complexType>
                <s:attribute name="name" type="s:string"/>
                <s:attribute name="ID" type="s:unsignedInt"/>
                <s:attribute name="Author" type="s:string"/>
                <s:attribute name="Editor" type="s:string"/>
                <s:attribute name="File x0020 Size" type="s:string"/>
                <s:attribute name="ImageWidth" type="s:unsignedInt"/>
                <s:attribute name="ImageHeight" type="s:unsignedInt"/>
                <s:attribute name="Description" type="s:string"/>
                <s:attribute name="Title" type="s:string"/>
                <s:attribute name="Keywords" type="s:string"/>
                <s:attribute name="ImageCreateDate" type="s:string"/>
                <s:attribute name="Created" type="s:dateTime"/>
                <s:attribute name="Modified" type="s:dateTime"/>
                <s:attribute name="found" type="s:boolean" use="optional" default="true"/>
            </s:complexType>
        </s:element>
    </s:sequence>
</s:complexType>
<s:element name="GetItemsByIds">
    <s:complexType>
        <s:sequence>
            <s:element name="strListName" type="s:string"/>
            <s:element name="ids" type="tns:ArrayOfUnsignedInt"/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:complexType name="ArrayOfUnsignedInt">
    <s:sequence>
        <s:element name="unsignedInt" type="s:unsignedInt" maxOccurs="unbounded"/>
    </s:sequence>
</s:complexType>
<s:element name="GetItemsByIdsResponse">
    <s:complexType>
        <s:sequence>

```



```

    <s:element name="GetItemsByIdsResult">
      <s:complexType mixed="true">
        <s:sequence>
          <s:element name="results" type="tns:ArrayOfRows"/>
        </s:sequence>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
</s:element>
<s:complexType name="ArrayOfRows" mixed="true">
  <s:sequence>
    <s:any minOccurs="0" maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>
<s:element name="Delete">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
      <s:element name="itemFileNames" type="tns:ArrayOfString"/>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="DeleteResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="results" type="tns:ArrayOfDeleteResults"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:complexType name="ArrayOfDeleteResults">
  <s:sequence>
    <s:element name="result" minOccurs="0" maxOccurs="unbounded">
      <s:complexType>
        <s:attribute name="deleted" type="s:boolean"/>
        <s:attribute name="name" type="s:string"/>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
<s:element name="Download">
  <s:complexType>
    <s:sequence>
      <s:element name="strListName" type="s:string"/>
      <s:element name="strFolder" type="s:string"/>
      <s:element name="itemFileNames" type="tns:ArrayOfString"/>
      <s:element name="type" type="s:unsignedInt"/>
      <s:element name="fFetchOriginalIfNotAvailable" type="s:boolean"/>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DownloadResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="DownloadResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="Files" type="tns:ArrayOfFiles"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>

```

```

    </s:complexType>
  </s:element>
  <s:complexType name="ArrayOfFiles">
    <s:sequence>
      <s:element name="File" minOccurs="0" maxOccurs="unbounded">
        <s:complexType>
          <s:simpleContent>
            <s:extension base="s:base64Binary">
              <s:attribute name="name" type="s:string"/>
              <s:attribute name="lastmodified" type="s:dateTime"/>
              <s:attribute name="found" type="s:boolean" use="optional" default="true"/>
              <s:attribute name="originalDownloaded" type="s:boolean" use="optional"
default="true"/>
            </s:extension>
          </s:simpleContent>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
  <s:element name="Edit">
    <s:complexType>
      <s:sequence>
        <s:element name="strListName" type="s:string" minOccurs="0"/>
        <s:element name="strFolder" type="s:string" minOccurs="0"/>
        <s:element name="itemFileName" type="s:string" minOccurs="0"/>
        <s:element name="recipe" minOccurs="0">
          <s:complexType>
            <s:sequence>
              <s:any/>
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="EditResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="EditResult">
          <s:complexType mixed="true">
            <s:sequence>
              <s:element name="notImplemented"/>
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetListItems">
    <s:complexType>
      <s:sequence>
        <s:element name="strListName" type="s:string"/>
        <s:element name="strFolder" type="s:string"/>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetListItemsResponse">
    <s:complexType>
      <s:sequence>
        <s:element name="GetListItemsResult">
          <s:complexType mixed="true">
            <s:sequence>
              <s:element name="Library">
                <s:complexType mixed="true">
                  <s:complexContent>
                    <s:extension base="tns:ArrayOfRows">
                      <s:attribute name="name" type="s:string"/>
                    </s:extension>
                  </s:complexContent>
                </s:complexType>
              </s:element>
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>

```

```

        </s:complexContent>
        </s:complexType>
    </s:element>
</s:sequence>
</s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>
<s:element name="CheckSubwebAndList">
    <s:complexType>
        <s:sequence>
            <s:element name="strUrl" type="s:string"/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="CheckSubwebAndListResponse">
    <s:complexType>
        <s:sequence>
            <s:element name="CheckSubwebAndListResult">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:element name="result">
                            <s:complexType>
                                <s:attribute name="url" type="s:string"/>
                                <s:attribute name="subweb" type="s:string"/>
                                <s:attribute name="list" type="s:string"/>
                                <s:attribute name="listGuid" type="s:string"/>
                                <s:attribute name="folder" type="s:string"/>
                                <s:attribute name="rest" type="s:string"/>
                                <s:attribute name="found" type="s:boolean" use="optional"
default="true"/>
                            </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>
<s:element name="Rename">
    <s:complexType>
        <s:sequence>
            <s:element name="strListName" type="s:string"/>
            <s:element name="strFolder" type="s:string"/>
            <s:element name="request">
                <s:complexType>
                    <s:sequence>
                        <s:element name="files" type="tns:ArrayOfRenameFiles"/>
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:complexType name="ArrayOfRenameFiles">
    <s:sequence>
        <s:element name="file" maxOccurs="unbounded">
            <s:complexType>
                <s:attribute name="filename" type="s:string"/>
                <s:attribute name="newbasename" type="s:string"/>
            </s:complexType>
        </s:element>
    </s:sequence>
</s:complexType>
<s:element name="RenameResponse">
    <s:complexType>
        <s:sequence>
            <s:element name="RenameResult">

```

```

        <s:complexType mixed="true">
            <s:sequence>
                <s:element name="results" type="tns:ArrayOfRenameResults"/>
            </s:sequence>
        </s:complexType>
    </s:element>
</s:sequence>
</s:complexType>
</s:element>
<s:complexType name="ArrayOfRenameResults">
    <s:sequence>
        <s:element name="result" minOccurs="0" maxOccurs="unbounded">
            <s:complexType>
                <s:attribute name="name" type="s:string"/>
                <s:attribute name="renamed" type="s:boolean" use="optional" default="true"/>
                <s:attribute name="lastmodified" type="s:dateTime"/>
                <s:attribute name="newbasename" type="s:string"/>
            </s:complexType>
        </s:element>
    </s:sequence>
</s:complexType>
<s:element name="CreateNewFolder">
    <s:complexType>
        <s:sequence>
            <s:element name="strListName" type="s:string"/>
            <s:element name="strParentFolder" type="s:string"/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="CreateNewFolderResponse">
    <s:complexType>
        <s:sequence>
            <s:element name="CreateNewFolderResult">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:element name="NewFolder">
                            <s:complexType>
                                <s:attribute name="title" type="s:string"/>
                            </s:complexType>
                        </s:element>
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
</s:schema>
</wsdl:types>
<wsdl:message name="ListPictureLibrarySoapIn">
    <wsdl:part name="parameters" element="tns:ListPictureLibrary"/>
</wsdl:message>
<wsdl:message name="ListPictureLibrarySoapOut">
    <wsdl:part name="parameters" element="tns:ListPictureLibraryResponse"/>
</wsdl:message>
<wsdl:message name="UploadSoapIn">
    <wsdl:part name="parameters" element="tns:Upload"/>
</wsdl:message>
<wsdl:message name="UploadSoapOut">
    <wsdl:part name="parameters" element="tns:UploadResponse"/>
</wsdl:message>
<wsdl:message name="GetItemsXMLDataSoapIn">
    <wsdl:part name="parameters" element="tns:GetItemsXMLData"/>
</wsdl:message>
<wsdl:message name="GetItemsXMLDataSoapOut">
    <wsdl:part name="parameters" element="tns:GetItemsXMLDataResponse"/>
</wsdl:message>
<wsdl:message name="GetItemsByIdsSoapIn">
    <wsdl:part name="parameters" element="tns:GetItemsByIds"/>
</wsdl:message>

```

```

<wsdl:message name="GetItemsByIdsSoapOut">
  <wsdl:part name="parameters" element="tns:GetItemsByIdsResponse"/>
</wsdl:message>
<wsdl:message name="DeleteSoapIn">
  <wsdl:part name="parameters" element="tns:Delete"/>
</wsdl:message>
<wsdl:message name="DeleteSoapOut">
  <wsdl:part name="parameters" element="tns:DeleteResponse"/>
</wsdl:message>
<wsdl:message name="DownloadSoapIn">
  <wsdl:part name="parameters" element="tns:Download"/>
</wsdl:message>
<wsdl:message name="DownloadSoapOut">
  <wsdl:part name="parameters" element="tns:DownloadResponse"/>
</wsdl:message>
<wsdl:message name="EditSoapIn">
  <wsdl:part name="parameters" element="tns:Edit"/>
</wsdl:message>
<wsdl:message name="EditSoapOut">
  <wsdl:part name="parameters" element="tns:EditResponse"/>
</wsdl:message>
<wsdl:message name="GetListItemsSoapIn">
  <wsdl:part name="parameters" element="tns:GetListItems"/>
</wsdl:message>
<wsdl:message name="GetListItemsSoapOut">
  <wsdl:part name="parameters" element="tns:GetListItemsResponse"/>
</wsdl:message>
<wsdl:message name="CheckSubwebAndListSoapIn">
  <wsdl:part name="parameters" element="tns:CheckSubwebAndList"/>
</wsdl:message>
<wsdl:message name="CheckSubwebAndListSoapOut">
  <wsdl:part name="parameters" element="tns:CheckSubwebAndListResponse"/>
</wsdl:message>
<wsdl:message name="RenameSoapIn">
  <wsdl:part name="parameters" element="tns:Rename"/>
</wsdl:message>
<wsdl:message name="RenameSoapOut">
  <wsdl:part name="parameters" element="tns:RenameResponse"/>
</wsdl:message>
<wsdl:message name="CreateNewFolderSoapIn">
  <wsdl:part name="parameters" element="tns:CreateNewFolder"/>
</wsdl:message>
<wsdl:message name="CreateNewFolderSoapOut">
  <wsdl:part name="parameters" element="tns:CreateNewFolderResponse"/>
</wsdl:message>
<wsdl:portType name="ImagingSoap">
  <wsdl:operation name="ListPictureLibrary">
    <wsdl:input message="tns:ListPictureLibrarySoapIn"/>
    <wsdl:output message="tns:ListPictureLibrarySoapOut"/>
  </wsdl:operation>
  <wsdl:operation name="Upload">
    <wsdl:input message="tns:UploadSoapIn"/>
    <wsdl:output message="tns:UploadSoapOut"/>
  </wsdl:operation>
  <wsdl:operation name="GetItemsXMLData">
    <wsdl:input message="tns:GetItemsXMLDataSoapIn"/>
    <wsdl:output message="tns:GetItemsXMLDataSoapOut"/>
  </wsdl:operation>
  <wsdl:operation name="GetItemsByIds">
    <wsdl:input message="tns:GetItemsByIdsSoapIn"/>
    <wsdl:output message="tns:GetItemsByIdsSoapOut"/>
  </wsdl:operation>
  <wsdl:operation name="Delete">
    <wsdl:input message="tns:DeleteSoapIn"/>
    <wsdl:output message="tns:DeleteSoapOut"/>
  </wsdl:operation>
  <wsdl:operation name="Download">
    <wsdl:input message="tns:DownloadSoapIn"/>
    <wsdl:output message="tns:DownloadSoapOut"/>
  </wsdl:operation>
</wsdl:portType>

```

```

</wsdl:operation>
<wsdl:operation name="Edit">
  <wsdl:input message="tns:EditSoapIn"/>
  <wsdl:output message="tns:EditSoapOut"/>
</wsdl:operation>
<wsdl:operation name="GetListItems">
  <wsdl:input message="tns:GetListItemsSoapIn"/>
  <wsdl:output message="tns:GetListItemsSoapOut"/>
</wsdl:operation>
<wsdl:operation name="CheckSubwebAndList">
  <wsdl:input message="tns:CheckSubwebAndListSoapIn"/>
  <wsdl:output message="tns:CheckSubwebAndListSoapOut"/>
</wsdl:operation>
<wsdl:operation name="Rename">
  <wsdl:input message="tns:RenameSoapIn"/>
  <wsdl:output message="tns:RenameSoapOut"/>
</wsdl:operation>
<wsdl:operation name="CreateNewFolder">
  <wsdl:input message="tns:CreateNewFolderSoapIn"/>
  <wsdl:output message="tns:CreateNewFolderSoapOut"/>
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="ImagingSoap" type="tns:ImagingSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name="ListPictureLibrary">
    <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/ListPictureLibrary"
style="document"/>
    <wsdl:input>
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal"/>
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="Upload">
    <soap:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Upload"
style="document"/>
    <wsdl:input>
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal"/>
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetItemsXMLData">
    <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/GetItemsXMLData"
style="document"/>
    <wsdl:input>
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal"/>
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetItemsByIds">
    <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/GetItemsByIds"
style="document"/>
    <wsdl:input>
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal"/>
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="Delete">

```

```

        <soap:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Delete"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Download">
        <soap:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Download"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Edit">
        <soap:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Edit"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetListItems">
        <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/GetListItems" style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CheckSubwebAndList">
        <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/CheckSubwebAndList"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Rename">
        <soap:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Rename"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateNewFolder">
        <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/CreateNewFolder"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>

```

```

        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="ImagingSoap12" type="tns:ImagingSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="ListPictureLibrary">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/ListPictureLibrary"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Upload">
        <soap12:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Upload"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetItemsXMLData">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/GetItemsXMLData"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetItemsByIds">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/GetItemsByIds"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Delete">
        <soap12:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Delete"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Download">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Download" style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Edit">

```



```

        <soap12:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Edit"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetListItems">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/GetListItems" style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CheckSubwebAndList">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/CheckSubwebAndList"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="Rename">
        <soap12:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/Rename"
style="document"/>
        <wsdl:input>
            <soap12:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateNewFolder">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/ois/CreateNewFolder"
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 updates to those products.

- Microsoft Office 2003
- The 2007 Microsoft Office system
- Microsoft Office 2010 suites
- Microsoft Office 2013
- Windows SharePoint Services 3.0
- Microsoft SharePoint Foundation 2010
- Microsoft SharePoint Foundation 2013
- Microsoft Office 2016
- Microsoft SharePoint Server 2016
- Microsoft Office 2019
- Microsoft SharePoint Server 2019
- Microsoft Office 2021
- Microsoft SharePoint Server Subscription Edition Preview

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

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

8 Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

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

- A document revision that incorporates changes to interoperability requirements.
- A document revision that captures changes to protocol functionality.

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

The revision class **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

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

Section	Description	Revision class
Z Appendix B: Product Behavior	Updated list of supported products.	major
7 Appendix B: Product Behavior	Updated list of supported products.	Major
7 Appendix B: Product Behavior	Updated list of supported products.	Major

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