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## Revision Summary

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1 Introduction

The Deployment Package Format is used to serialize website content.

Sections 1.7 and 2 of this specification are normative. All other sections and examples in this specification are informative.

1.1 Glossary

This document uses the following terms:

**absolute URL**: The full Internet address of a page or other World Wide Web resource. The absolute URL includes a protocol, such as "http," a network location, and an optional path and file name — for example, http://www.treyresearch.net/.

**access control list (ACL)**: A list of access control entries (ACEs) that collectively describe the security rules for authorizing access to some resource; for example, an object or set of objects.

**alert**: An Internet message that is sent to subscribers automatically to notify them when user-defined criteria are met. Alerts are generated automatically when items such as documents, webpages, list items, sites, or other resources on a server are changed.

**alert subscription**: A request to receive an Internet message automatically when user-defined criteria are met. Such messages are generated automatically when items such as documents, webpages, list items, sites, or other resources on a server are changed.

**alert template**: An XML-based file that contains predefined formatting, including layout and text, for an alert.

**always notify alert**: An alert notification that is sent to a user at the requested time, regardless of whether the data is changed.

**app principal**: Designates an authenticated entity that is not a user.

**assembly**: A collection of one or more files that is versioned and deployed as a unit. An assembly is the primary building block of a .NET Framework application. All managed types and resources are contained within an assembly and are marked either as accessible only within the assembly or as accessible from code in other assemblies. Assemblies also play a key role in security. The code access security system uses information about an assembly to determine the set of permissions that is granted to code in the assembly.

**attachment**: An external file that is included with an Internet message or associated with an item in a SharePoint list.

**cabinet (.cab) file**: A single file that stores multiple compressed files to facilitate storage or transmission.

**cascading style sheet (CSS)**: An extension to HTML that enables authors and users of HTML documents to attach style sheets to those documents, as described in [CSS-LEVEL1] and [CSS-LEVEL2]. A style sheet includes typographical information about the appearance of a page, including the font for text on the page.

**class name**: The name that is used to refer to a class module that provides an implementation of a behavior.

**Collaborative Application Markup Language (CAML)**: An XML-based language that is used to describe various elements, such as queries and views, in sites that are based on SharePoint Products and Technologies.
**composite field index**: An index that uses more than one column in a table to index data.

**content database**: A database that is stored on a back-end database server and contains stored procedures, site collections, and the contents of those site collections.

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

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

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

**current user**: The user who is authenticated during processing operations on a front-end web server or a back-end database server.

**deployment package**: A collection of files that represent a serialized snapshot of data. A deployment package is stored as XML files that describe the deployment objects and their relationships, and a binary file for each object. Optionally, the resulting set of files can be compressed into one or more files in the compressed PRIME data format (CMP).

**deployment system object**: An object that is created as part of a site or site collection. Examples of deployment system objects are root folders, catalogs, default pages, and galleries that are created during site or site collection creation. A deployment system object is not part of a template.

**discussion board**: A list in which users can read, post, and reply to messages from other users who are members of the same discussion board.

**document library**: A type of list that is a container for documents and folders.

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

**empty string**: A non-initialized string object that has a null value.

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

**event host**: A site collection, site, list, list item, workflow (2), feature, or content type that hosts an event receiver.

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

**export operation**: An operation that exports information or objects from a site for reuse or backup purposes.

**external group**: A group whose membership is controlled by an external component, such as an Active Directory Domain Services (AD DS) domain group or a role that is managed by a role provider in ASP.NET.

**farm**: A group of computers that work together as a single system to help ensure that applications and resources are available. Also referred to as server farm.

**Farm Administrators group**: A group of users that has permission to manage all of the servers in a server farm. Members of the Farm Administrators group can perform command-line operations.
and all of the administrative tasks that are available in Central Administration for the server or server farm.

**feature**: A package of SharePoint elements that can be activated or deactivated for a specific feature scope.

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

**folder identifier**: A GUID that identifies a folder in a site collection.

**gallery**: A library that is used to store a collection of site resources, such as Web Parts, list templates, and site templates.

**generic list**: A SharePoint list whose base type value is "Generic List".

**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).

**index**: A data structure that is used to quickly locate data in a table. For more information, see [GRAY].

**Information Rights Management (IRM)**: A technology that provides persistent protection to digital data by using encryption, certificates, and authentication. Authorized recipients or users acquire a license to gain access to the protected files according to the rights or business rules that are set by the content owner.

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

**language code identifier (LCID)**: A 32-bit number that identifies the user interface human language dialect or variation that is supported by an application or a client computer.

**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 form**: A page that enables users to create, view, or edit an item in a list.

**List Form Web Part**: A type of Web Part that is used to display, edit, or view an item in a SharePoint list.

**list identifier**: A GUID that is used to identify a list in a site collection.

**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.

**list template**: An XML-based definition of list settings, including fields and views, and optionally list items. List templates are stored in .stp files in the content database.

**list view**: A named collection of settings for querying and displaying items in a SharePoint list. There are two types of views: Personal, which can be used only by the user who created the view; and Public, which can be used by all users who have permission to access to the site.

**List View Web Part**: A type of Web Part that generates HTML-based views of items in a SharePoint list.

**major version**: An iteration of a software component, document, or list item that is ready for a larger group to see, or has changed significantly from the previous major version. For an item on a SharePoint site, the **minor version** is always "0" (zero) for a major version.
**master page:** An ASP.NET file that has a predefined layout that can include static text, HTML elements, and server controls.

**minor version:** An iteration of a software component, document, or list item that is in progress or has changed only slightly from the previous version. For an item on a SharePoint site, the minor version number is never "0" (zero) and is incremented for each new version of an item, unless a **major version** is explicitly published. When minor versioning is disabled on a SharePoint site, only major version numbers are incremented, and the minor version is always "0" (zero).

**mobile device:** A small computing device that is easily portable and can be used in various environments.

**moderation status:** A content approval status that indicates whether a list item was approved by a moderator.

**multilingual user interface (MUI):** A technology that enables users to change the language of the user interface and Help according to their preferences, if the requisite language resource files are installed.

**navigation node:** An element in the navigational structure of a site. The element is a link or a series of links to a specific page in the site.

**OAuth:** The OAuth 2.0 authorization framework [RFC6749].

**offline:** The condition of not being connected to or not being on a network or the Internet. Offline can also refer to a device, such as a printer that is not connected to a computer, and files that are stored on a computer that is not connected to or not on a network or the Internet.

**personal site:** A type of SharePoint site that is used by an individual user for personal productivity. The site appears to the user as My Site.

**personal view:** A view of a list that is created by a user for personal use. The view is unavailable to other users.

**personalized Web Parts Page:** A Web Parts Page that has been modified by a user for personal use. The view of the Web Parts Page is unavailable to other users.

**ProgID:** An identifier that is used by the Windows registry to uniquely identify an object and is in the form OLEServerName.ObjectName, for example, "Excel.Sheet" or "PowerPoint.Slide."

**provision:** The process of creating and deploying an object, and in some cases, populating an object with default data and settings.

**provisioned:** A condition of an object that was created and deployed successfully.

**publishing level:** An integer that is assigned to a document to indicate the publishing status of that version of the document.

**Quick Launch:** A collection of links to lists and pages in a SharePoint site. By default, it appears on the side of all pages, except site administration pages, in the site.

**read-only mode:** An attribute that indicates that an object cannot be changed or deleted. The object can only be accessed or displayed.

**Really Simple Syndication (RSS):** An XML-based syndication format for content, as described in [RSS2.0].

**resource folder:** A folder that contains images, templates, and other resource files for a content type.
**resource identifier**: A string that refers to a localized resource that is stored as a record in a content database.

**resource token**: An encoded string that refers to an entry in a localized resource file.

**Restore**: The act of copying data (usually files) back to its original storage location from some other storage media after some form of data loss.

**role assignment**: An association between a principal or a site group and a role definition.

**role definition**: A named set of permissions for a SharePoint site. See also permission level.

**sealed field**: A named and uniquely identifiable field that cannot be changed. A seal can be removed only by a site collection administrator.

**securable object**: An object that can have unique security permissions associated with it.

**security group**: A named group of principals on a SharePoint site.

**security identifier (SID)**: An identifier for security principals that is used to identify an account or a group. Conceptually, the SID is composed of an account authority portion (typically a domain) and a smaller integer representing an identity relative to the account authority, termed the relative identifier (RID). The SID format is specified in [MS-DTYP] section 2.4.2; a string representation of SIDs is specified in [MS-DTYP] section 2.4.2 and [MS-AZOD] section 1.1.1.2.

**security principal**: (1) A unique entity that is identifiable through cryptographic means by at least one key. It frequently corresponds to a human user, but also can be a service that offers a resource to other security principals. Also referred to as principal.

(2) An identity that can be used to regulate access to resources. A security principal can be a user, a computer, or a group that represents a set of users.

**security provider**: A Component Object Model (COM) object that provides methods that return custom information about the security of a site.

**server-relative URL**: A relative URL that does not specify a scheme or host, and assumes a base URI of the root of the host, as described in [RFC3986].

**service**: A process or agent that is available on the network, offering resources or services for clients. Examples of services include file servers, web servers, and so on.

**setup path**: The location where supporting files for a product or technology are installed.

**Short Message Service (SMS)**: A communications protocol that is designed for sending text messages between mobile phones.

**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.

**site collection**: A set of websites that are in the same content database, have the same owner, and share administration settings. A site collection can be identified by a GUID or the URL of the top-level site for the site collection. Each site collection contains a top-level site, can contain one or more subsites, and can have a shared navigational structure.

**site collection administrator**: A user who has administrative permissions for a site collection.

**site definition**: A family of site definition configurations. Each site definition specifies a name and contains a list of associated site definition configurations.

**site identifier**: A GUID that is used to identify a site in a site collection.
site template: An XML-based definition of site settings, including formatting, lists, views, and elements such as text, graphics, page layout, and styles. Site templates are stored in .stp files in the content database.

site-relative URL: A URL that is relative to the site that contains a resource and does not begin with a leading slash (/).

store-relative form: See store-relative URL.

store-relative URL: A URL that consists only of a path segment and does not include the leading and trailing slash.

survey list: A list that is preconfigured and optimized for conducting surveys and compiling survey results into graphical views.

theme: A set of unified design elements, such as colors, fonts, graphics, and styles, that define the appearance of a website, document, or data visualization.

thicket folder: A hidden folder that contains a thicket manifest and a set of thicket supporting files that, together, store the referenced content of a complex HTML document.

time zone: A geographical area that observes the same local time. The local time has a positive, zero, or negative offset from Coordinated Universal Time (UTC). The offset can be different during standard time and daylight saving time.

top-level site: The first site in a site collection. All other sites within a site collection are child sites of the top-level site. The URL of the top-level site is also the URL of the site collection.

trigger: A change of state (for example, reaching a specific time of day) that signals when a task is to run. A task runs when any of its triggers and all of its conditions are satisfied.

uncustomized: A condition of a document whose content is stored in a location other than the content database. If a document is uncustomized, the front-end web server determines the location of the content by using the SetupPath value for the document. Also referred to as ghosted.

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].

user information list: A list that contains items, each of which represents a security principal in a site collection. Each site collection has only one such list and it resides in the top-level site of the site collection.

view flag: A 4-byte integer bit mask that corresponds to the properties of a view.

web discussion comment: An individual comment that is added to a web discussion.

Web Part: A reusable component that contains or generates web-based content such as XML, HTML, and scripting code. It has a standard property schema and displays that content in a cohesive unit on a webpage. See also Web Parts Page.

Web Part Page: An ASP.NET webpage that includes Web Part controls that enable users to customize the page, such as specifying which information to display. Referred to as Web Parts Page in Microsoft SharePoint Foundation 2010.

Web Part type identifier: A unique 16-byte value that is assigned to each Web Part type.

Welcome page: A page, such as default.aspx, that can be specified as the default redirect target when users browse to a URL without specifying a leaf name.
Windows Notification Service (WNS): A Microsoft-provided cloud service that is responsible for sending out notifications to targeted clients.

**workflow**: (1) An automation of business processes that passes business documents and tasks automatically from one user to another for action, according to a defined sequence.

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

**workflow template**: A definition of operations, the sequence of operations, constraints, and timing for a specific process.

**XML schema definition (XSD)**: The World Wide Web Consortium (W3C) standard language that is used in defining XML schemas. Schemas are useful for enforcing structure and constraining the types of data that can be used validly within other XML documents. XML schema definition refers to the fully specified and currently recommended standard for use in authoring XML schemas.

**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-NRTP] Microsoft Corporation, ".NET Remoting: Core Protocol".


[MS-WPPS] Microsoft Corporation, "Web Part Pages Web Service Protocol".

[MS-WSSCAML] Microsoft Corporation, "Collaborative Application Markup Language (CAML) Structure".


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

[MS-PRIMEPF] - v20181001
Deployment Package Format
Copyright © 2018 Microsoft Corporation
Release: October 1, 2018
1.2.2 Informative References


[MS-CDEPLOY] Microsoft Corporation, "Content Deployment Remote Import Web Service Protocol".


[MS-WSSO] Microsoft Corporation, "Windows SharePoint Services Overview".


1.3 Overview

A deployment package contains a set of XML files and binary files. The XML files describe the objects in a content management system, such as list items, and describe their relationships. The binary files contain object data.

This set of files can be compressed into one or more cabinet (.cab) files, as described in [MSDN-CAB].

Following are some common uses for deployment packages:

- Transporting content from one server to another. One server exports the deployment package; another server imports it to create a replica of the exported Web content.
- Extracting content from a content management system to provide data to a natural language translation process.
- Backing up data from a content management system.

### 1.4 Relationship to Protocols and Other Structures

This structure specifies serialization of the abstract data structure described in [MS-WSSTS].

This structure is used by the following Web services as a data format:

- [MS-CDEPLOY]: Content Deployment Remote Import Web Services Protocol
- [MS-PUBWS]: Publishing Service Web Services Protocol
- [MS-SITESS]: Sites Web Services Protocol

### 1.5 Applicability Statement

This file format can be used to transfer or store the structure and content of web sites from within a single site collection.

### 1.6 Versioning and Localization

The deployment package has a versioning element (see section 2.6.2.3) that a reader can use to verify the schema version of the package. There is no guaranteed cross-version compatibility.

The deployment package format has no generic localization mechanism. Individual structures within the deployment package can have attributes that are specific to localization.

### 1.7 Vendor-Extensible Fields

The deployment package consists of a collection of mandatory files in a fixed format. Vendors can add their own application-specific files to the deployment package. Those files MUST have unique names within the deployment package.
2 Structures

In the following sections, the schema definition might differ from the processing rules imposed by the protocol. The XSD in this specification provides a base description of the file format. The text that introduces the XSD specifies additional restrictions that reflect protocol behavior. For example, the schema definition might allow for an element to be empty, null, or not present but the behavior of the protocol as specified restricts the same elements to being non-empty, present, and not null.

A deployment package consists of several XML files that describe the objects as well as several binary content files that represent the file streams of those objects, and optionally vendor-added files of arbitrary format. From the stand point of this protocol, binary files are simply a pass through; they are just carried within the package. The mechanisms by which those files are created and their format are outside the scope of this protocol.

This set of files can optionally be compressed into one or more cabinet (.cab) files. If the compression option is not used, the deployment package consists of the entire set of XML and binary files.

The XML files MUST be named as follows:

- **Manifest.xml**: The XML representation of the packaged objects. In case a maximum file size is set, and the content size is larger than the file size, additional chunks of data are included in additional files called Manifest\(n\).xml, with \(n\) being an integer that starts at 1 and increments monotonically. Together this set of files are referred to as manifest files. This file MUST be present in the deployment package.

- **ExportSettings.xml**: A list of settings and objects selected during the export of the data. This file MUST be present in the deployment package.

- **LookupListMap.xml**: A list of links and lookups to other items that need to be processed when reading the package. If there are such links and lookups, this file MUST be present in the deployment package. Otherwise (if there are no such links and lookups) this file can be absent from the deployment package.

- **Requirements.xml**: A list of resources that are required to process the contents of the package. This file MUST be present in the deployment package.

- **RootObjectMap.xml**: A list of top-level objects in the package. This file MUST be present in the deployment package.

- **SystemData.xml**: Specifies version and structure of the package as well as the objects that are a part of the site collection and that are created by the system during the creation of a site collection and before a site template is applied, with the exception of the blank site template. This file MUST be present in the deployment package.

- **UserGroup.xml**: A list of all users and groups in the deployment package. This file MUST be present in the deployment package.

- **ViewFormsList.xml**: A list of all List View Web Parts and List Form Web Parts in the deployment package. If there are such List View Web Parts and List Form Web Parts, this file MUST be present in the deployment package. Otherwise (if there are no such List View Web Parts and List Form Web Parts) this file can be absent from the deployment package.

The binary content files are called `nnnnnnnn.dat`, where \(nnnnnnnn\) MUST be an 8-digit hexadecimal number starting with 00000000 and increase monotonically.

In the case a maximum file size is set and the exported data exceeds that file size, multiple files are created with a name `BaseFilePathn.cmp` with `BaseFilePath` being the name and path of the specified output file name and \(n\) being an integer starting with 1 and incrementing monotonically.
The following diagram shows a deployment package.

![Diagram of Deployment Package Chunking]

**Figure 1: Deployment package chunking**

### 2.1 Manifest.xml

This file (along with the other manifest files if they are present) lists all the Web site objects in the package. The root element is defined as follows:

```xml
<xs:element name="SPObjeccts" type="SPGenericObjectCollection" />
```

#### 2.1.1 Namespaces

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1] [XMLSCHEMA2]</td>
</tr>
<tr>
<td>(none)</td>
<td>urn:deployment-manifest-schema</td>
<td></td>
</tr>
<tr>
<td>core</td>
<td>urn:deployment-manifest-schema</td>
<td>This specification uses the XML Schemas defined in [MS-WSSCAML], but replaces the &quot;<a href="http://schemas.microsoft.com/sharepoint">http://schemas.microsoft.com/sharepoint</a> soap&quot; targetNamespace of the schema with &quot;urn:deployment-manifest-schema.&quot;</td>
</tr>
</tbody>
</table>

[XMLNS] [MS-WSSCAML]
2.1.2 Complex Types

2.1.2.1 DeletedContentType

Specifies the content type deleted from a list.<1>

```xml
<xs:complexType name="DeletedContentType">
  <xs:attribute name="ContentTypeId" type="core:ContentTypeId" use="required" />
</xs:complexType>
```

2.1.2.1.1 Attributes

**ContentTypeId**: The identifier of the content type as specified in [MS-WSSCAML] section 2.3.1.4.

2.1.2.2 DeletedField

Specifies a field that has been deleted from a list.

```xml
<xs:complexType name="DeletedField">
  <xs:attribute name="FieldId" type="core:UniqueIdentifierWithoutBraces" use="required" />
</xs:complexType>
```

2.1.2.2.1 Attributes

**FieldId**: The identifier of the field that has been deleted from the list. This is an object reference corresponding to the ID attribute of a field, as specified in [MS-WSSFO3] section 2.2.7.3.3.<2>

2.1.2.3 DeletedView

Specifies the view deleted from the list.<3>

```xml
<xs:complexType name="DeletedView">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
</xs:complexType>
```

2.1.2.3.1 Attributes

**Id**: unique identifier of the view.

2.1.2.4 DeploymentAssignment

Specifies an association of a security principal (2) with a role.

```xml
<xs:complexType name="DeploymentAssignment">
  <xs:attribute name="RoleId" type="xs:int" use="required" />
  <xs:attribute name="PrincipalId" type="xs:int" use="required" />
</xs:complexType>
```
2.1.2.4.1 Attributes

**RoleId:** The identifier of the role. This is an object reference corresponding to the RoleId of a Role element of type DeploymentRole as specified in section 2.1.2.7. The referenced element MUST be contained in the deployment package.

**PrincipalId:** The identifier of the security principal (1). This identifier MUST either be equal to 1073741823 (which is the Id of the built-in System Account) or be an object reference corresponding to either the Id of a Group element of type DeploymentGroup in the UserGroup.xml file as specified in section 2.7.2.5 or to the Id of a User element of type DeploymentUser in the UserGroup.xml file as specified in section 2.7.2.3. If PrincipalId is an object reference, the referenced element MUST be contained in the deployment package.

2.1.2.5 DeploymentFieldTemplate

Specifies a field object in a site.

```xml
<xs:complexType name="DeploymentFieldTemplate">
  <xs:sequence>
    <xs:element name="Field" type="core:FieldDefinition"
               minOccurs="1" maxOccurs="1" />
  </xs:sequence>
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
                use="required" />
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces"
                use="required" />
  <xs:attribute name="Scope" type="core:RelativeUrl" use="required" />
  <xs:attribute name="Description" type="xs:string" use="required" />
  <xs:attribute name="Group" type="xs:string" use="required" />
  <xs:attribute name="PushChangesToList" type="core:truefalse_Only_Lowercase"
               use="optional" />
</xs:complexType>
```

2.1.2.5.1 Attributes

**Id:** The identifier of the field in the site.

**Name:** The internal name of the field.

**ParentWebId:** The identifier of the site that contains the field. This is an object reference corresponding to the Id of a site as specified in section 2.1.2.61.

**Scope:** The server-relative URL of the site that contains the field.

**Description:** The description of the field.

**Group:** The name of the group of fields that contains the field.

**PushChangesToList:** Specifies whether to propagate changes to all lists that use the field.<4>

2.1.2.5.2 Child Elements

**Field:** The definition of the field as specified in [MS-WSSFO3] section 2.2.7.3.3.<5>
2.1.2.6 DeploymentGroupX

Specifies a modification to a security group.

```xml
<xs:complexType name="DeploymentGroupX">
  <xs:attribute name="Operation" use="required" >
    <xs:simpleType>
      <xs:restriction base="SecurityModificationType">
        <xs:enumeration value="Add" />
        <xs:enumeration value="Delete" />
        <xs:enumeration value="Update" />
        <xs:enumeration value="MemberAdd" />
        <xs:enumeration value="MemberDelete" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Id" type="xs:int" use="required" />
  <xs:attribute name="Name" type="String255NonEmpty" use="required" />
  <xs:attribute name="Description" type="String512" use="optional" />
  <xs:attribute name="OwnerLogin" type="String255" use="optional" />
  <xs:attribute name="OwnerIsUser" type="core:truefalse_Only_Lowercase" use="optional" default="true" />
  <xs:attribute name="UserId" type="xs:int" use="optional" />
  <xs:attribute name="UserLogin" type="String255" use="optional" />
  <xs:attribute name="RequestToJoinLeaveEmailSetting" type="String255" use="optional" />
  <xs:attribute name="OnlyAllowMembersViewMembership" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AllowMembersEditMembership" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AllowRequestToJoinLeave" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AutoAcceptRequestToJoinLeave" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
</xs:complexType>
```

2.1.2.6.1 Attributes

**Operation:** The type of the modification. This attribute MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td>Add a new security group.</td>
</tr>
<tr>
<td>Delete</td>
<td>Delete an existing security group.</td>
</tr>
<tr>
<td>Update</td>
<td>Modify an existing security group.</td>
</tr>
<tr>
<td>MemberAdd</td>
<td>Add a member to an existing security group.</td>
</tr>
<tr>
<td>MemberDelete</td>
<td>Delete a member from an existing security group.</td>
</tr>
</tbody>
</table>

**Id:** Reserved. This attribute MUST be ignored by the reader.

**Name:** The display name of the security group.
Description: The description of the security group.

OwnerLogin: The login name of the user who is the owner of the security group. This attribute MUST be present if Operation is either Add or Update and OwnerIsUser is true.

OwnerIsUser: Specifies whether the owner of the security group is a security principal. A value of true denotes that the owner is a security principal. A value of false denotes that the owner is a security group. This attribute MUST be present if Operation is Add or Update.

UserId: A user identifier. This attribute MUST be ignored by readers.

UserLogin: The login name of the security principal to be added or deleted from the security group. This attribute MUST be present if Operation is MemberAdd or MemberDelete.

RequestToJoinLeaveEmailSetting: The e-mail address to which requests to join or leave the security group will be sent.

OnlyAllowMembersViewMembership: Specifies whether only members of the security group can view the list of members. A value of true denotes that only members of the group can view the list of members. A value of false denotes that all users can view the list of members. If Operation has any value other than Add, readers MUST ignore this attribute.

AllowMembersEditMembership: Specifies whether all members of the security group can edit the list of members. A value of true denotes that all group members can edit the list of members. A value of false denotes that only the owner of the security group can edit the list of members.

AllowRequestToJoinLeave: Specifies whether to allow requests to join or leave the security group. If Operation has any value other than Add, readers MUST ignore this attribute.

AutoAcceptRequestToJoinLeave: Specifies whether to automatically accept requests to join or leave the security group. If Operation has any value other than Add, readers MUST ignore this attribute.

2.1.2.7 DeploymentRole

Specifies a role.

```xml
<xs:complexType name="DeploymentRole">
  <xs:attribute name="RoleId" type="xs:int" use="required" />
  <xs:attribute name="Title" type="StringNonEmpty" use="required" />
  <xs:attribute name="Description" type="String512" use="required" />
  <xs:attribute name="PermMask" type="xs:unsignedLong" use="required" />
  <xs:attribute name="Hidden" type="core:truefalse_Only_Lowercase" use="required" />
  <xs:attribute name="RoleOrder" use="optional" default="0">
    <xs:simpleType>
      <xs:restriction base='xs:int'>
        <xs:minInclusive value="0" />
      </xs:restriction>
    </xs:simpleType>
    <xs:attribute name="Type" type="SPRoleType" use="optional" default="0" />
  </xs:attribute>
</xs:complexType>
```

2.1.2.7.1 Attributes

RoleId: The identifier of the role.

Title: The display name of the role.
Description: The description of the role.

PermsMask: The permissions for the role. The meanings of the individual bits are specified in [MS-WSSFO3] section 2.2.2.15.<6>

Hidden: Specifies whether the role is hidden in the user interface.

RoleOrder: The display order value for this role. This attribute MUST be greater than or equal to 0. Roles are displayed in the user interface in ascending order of these values. Example: If the RoleOrder value of a role is 100, that role will be displayed after a role that has a RoleOrder value of 12.

Type: The SPRoleType of the role (see section 2.1.4.20).

2.1.2.8 DeploymentRoleAssignment

Specifies a set of role assignments for an object.

```xml
<xs:complexType name="DeploymentRoleAssignment">
  <xs:sequence>
    <xs:element name="Assignment" type="DeploymentAssignment" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="ScopeId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="RoleDefWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="RoleDefWebUrl" type="String255" use="required" />
  <xs:attribute name="ObjectId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ObjectType" type="ScopeObjectType" use="required" />
  <xs:attribute name="ObjectUrl" type="String255" use="required" />
  <xs:attribute name="AnonymousPermMask" type="xs:unsignedLong" use="required" />
</xs:complexType>
```

2.1.2.8.1 Attributes

ScopeId: Reserved. Readers MUST ignore this attribute.

RoleDefWebId: The identifier of the site containing the object. This is an object reference corresponding to the Id of an SPWeb element as specified in section 2.1.2.61. The referenced element MUST be in the deployment package.

RoleDefWebUrl: The store-relative URL of the site containing the object. Readers MUST ignore this attribute.

ObjectId: The identifier of the object. This is an object reference corresponding to the Id of an element of the type specified by ObjectType. The referenced element MUST be in the deployment package.

ObjectType: The scope of the object as specified by section 2.1.4.7.

ObjectUrl: The store-relative URL of the object.

AnonymousPermMask: The permissions to the object for anonymous access. The meanings of the individual bits are specified in [MS-WSSFO3] section 2.2.2.15.<7>

2.1.2.8.2 Child Elements
Assignment: An assignment of a security principal (2) to a Role as specified by section 2.1.2.4.

2.1.2.9 DeploymentRoleAssignments

Specifies a collection of role assignments.

```xml
<xs:complexType name="DeploymentRoleAssignments">
  <xs:sequence>
    <xs:element name="RoleAssignment" type="DeploymentRoleAssignment" minOccurs="0" maxOccurs="unbounded" />  
  </xs:sequence>
</xs:complexType>
```

2.1.2.9.1 Child Elements

RoleAssignment: An object of type DeploymentRoleAssignment as specified in section 2.1.2.8.

2.1.2.10 DeploymentRoleAssignmentX

Specifies a modification to an object of type DeploymentRoleAssignment as specified in section 2.1.2.8.

```xml
<xs:complexType name="DeploymentRoleAssignmentX">
  <xs:attribute name="Operation" use="required">
    <xs:simpleType>
      <xs:restriction base="SecurityModificationType">
        <xs:enumeration value="RoleAssignmentAdd" />
        <xs:enumeration value="RoleAssignmentDelete" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="OperationCode" type="SPRoleChangeType" use="required" />
  <xs:attribute name="ScopeId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="RoleDefWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="RoleDefWebUrl" type="String255" use="required" />
  <xs:attribute name="ObjectId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ObjectType" type="ScopeObjectType" use="required" />
  <xs:attribute name="ObjectUrl" type="String255" use="required" />
  <xs:attribute name="AnonymousPermMask" type="xs:unsignedLong" use="required" />
  <xs:attribute name="RoleName" type="String255" use="optional" />
  <xs:attribute name="GroupTitle" type="String255" use="optional" />
  <xs:attribute name="UserLogin" type="String255" use="optional" />
</xs:complexType>
```

2.1.2.10.1 Attributes

Operation: The type of the modification. This attribute MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoleAssignmentAdd</td>
<td>Add a user or group to the DeploymentRoleAssignment complex type (see section 2.1.2.8).</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>RoleAssignmentDelete</td>
<td>Delete a user or group from the DeploymentRoleAssignment complex type (see section 2.1.2.8).</td>
</tr>
</tbody>
</table>

**OperationCode:** The sub-type of the modification. The supported values depend on the value of **Operation**. The values described in the following table are supported for each value of **Operation**.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Supported Values for OperationCode</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoleAssignmentAdd</td>
<td>Normal, UniqueAssignment, UniqueAssignment + CopyAssignment</td>
</tr>
<tr>
<td>RoleAssignmentDelete</td>
<td>Normal</td>
</tr>
</tbody>
</table>

For the meaning of the supported values, see section 2.1.4.19.

**ScopeId:** Reserved. Readers MUST ignore this attribute.

**RoleDefWebId:** The identifier of the site containing the object. This is an object reference corresponding to the Id of a SPWeb element in the Manifest.xml file as specified in section 2.1.2.61. The referenced element MUST be in the deployment package.

**RoleDefWebUrl:** The store-relative URL of the site containing the object. Readers MUST ignore this attribute.

**ObjectId:** The identifier of the object. This is an object reference corresponding to the Id of an element of the type specified by **ObjectType** in the Manifest.xml file. The referenced element MUST be in the deployment package.

**ObjectType:** The scope of the object as specified in section 2.1.4.7.

**ObjectUrl:** The store-relative URL of the object.

**AnonymousPermMask:** The permissions to the object for anonymous access. The meanings of the individual bits are specified in [MS-WSSFO3] section 2.2.2.15.<8>

**RoleName:** The display name of the role. If present, this is an object reference corresponding to the **Title** attribute of either a Role element of type DeploymentRole (specified in section 2.1.2.7) or RoleX element of type DeploymentRoleX (specified in section 2.1.2.12).

**GroupTitle:** The display name of the group to add or remove from the DeploymentRoleAssignment complex type (section 2.1.2.8). This MUST NOT be present if the **UserLogin** attribute is present.

**UserLogin:** The login name of the user to add or remove from the DeploymentRoleAssignment complex type (section 2.1.2.8). This MUST NOT be present if the **GroupTitle** attribute is present.

If **OperationCode** is **Normal**, either **GroupTitle** or **UserLogin** MUST be present.

### 2.1.2.11 DeploymentRoles

Specifies a collection of roles.
2.1.2.11 Child Elements

Role: Specifies a role. The contents of this element MUST conform to the schema specified in section 2.1.2.7.

2.1.2.12 DeploymentRoleX

Specifies a modification to a role.

2.1.12.1 Attributes

Operation: The type of modification. MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoleAdd</td>
<td>Add a new role.</td>
</tr>
</tbody>
</table>
### Value | Description
--- | ---
RoleUpdate | Modify an existing role.
RoleDelete | Delete an existing role.

**OperationCode:** The sub-type of the modification. The supported values depend on the value of **Operation**. The flags described in the following table are supported for each value of **Operation**.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Supported values for OperationCode</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoleAdd</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>UniqueRoleDefinition</td>
</tr>
<tr>
<td></td>
<td>UniqueRoleDefinition + CopyRoleDefinition</td>
</tr>
<tr>
<td></td>
<td>UniqueRoleDefinition + CopyRoleDefinition + CopyAssignment</td>
</tr>
<tr>
<td>RoleUpdate</td>
<td>Normal</td>
</tr>
<tr>
<td>RoleDelete</td>
<td>Normal</td>
</tr>
</tbody>
</table>

For the meaning of the supported values, see section **2.1.4.19**.

**WebId:** The Web identifier of the site to which this modification is to be made.

**WebUrl:** The store-relative URL of the site where this modification is to be made. Readers MUST ignore this attribute.

**RoleId:** The identifier of the role. This attribute MUST be present if **Operation** is **RoleAdd** or **RoleUpdate**.

**Title:** The display name of the role. This attribute MUST be present if **Operation** is **RoleAdd** or **RoleUpdate**.

**Description:** The description of the role.

**PermMask:** The permissions for the role. The meanings of the individual bits are specified in [MS-WSSFO3] section 2.2.2.15. MUST be present if **Operation** is **RoleAdd** or **RoleUpdate**.

**Hidden:** Specifies whether the role is hidden in the user interface. This attribute MUST be present if **Operation** is **RoleAdd** or **RoleUpdate**.

**RoleOrder:** The display order value for this role. This attribute MUST be greater than or equal to 0. Roles are displayed in the user interface in ascending order of these values. Example: If the **RoleOrder** value of a role is 100, that role will be displayed after a role that has a **RoleOrder** value of 12.

**Type:** The type of the role (see section **2.1.4.20**).

**UserID:** Reserved. MUST be ignored by the reader.

**UserLogin:** Reserved. MUST be ignored by the reader.

#### 2.1.2.13 DeploymentUserX

Specifies a modification to a security principal (2) object.
2.1.2.13.1 Attributes

**Operation:** The type of modification MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td>Add a new security principal (2).</td>
</tr>
<tr>
<td>Update</td>
<td>Modify an existing security principal (2).</td>
</tr>
<tr>
<td>Delete</td>
<td>Delete an existing security principal (2).</td>
</tr>
</tbody>
</table>

**Id:** The identifier of the security principal (2).

**Name:** The display name of the security principal (2).

**Login:** The login name of the security principal (2).

**Email:** The e-mail address of the security principal (2).

**SystemId:** The **security identifier (SID)** of the security principal (2).

**IsDomainGroup:** Specifies whether the security principal (2) represents an **external group**.

**IsSiteAdmin:** Specifies whether the security principal (2) is a **site collection** administrator. This attribute MUST be ignored by readers.

**MobilePhone:** Specifies the mobile phone number of the security principal (2).<10>

**Flags:** Specifies the way the security principal (2) is authenticated, as defined in [MS-WSSFO3] section 2.2.2.12.<11>
2.1.2.14 DeploymentWebStructure

Specifies the navigation structure and navigation bars associated with a particular site. For further description of the abstract data model that the element content represents, see [MS-WSSTS] section 2.1.2.16.

```xml
<xs:complexType name="DeploymentWebStructure">
    <xs:sequence>
        <xs:element name="Data">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="Structure">
                        <xs:complexType>
                            <xs:sequence>
                                <xs:element name="Element" type="DeploymentWebStructureElement" minOccurs="0" maxOccurs="unbounded" />
                            </xs:sequence>
                        </xs:complexType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:attribute name="WebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
        <xs:attribute name="WebUrl" type="xs:string" use="required" />
        <xs:attribute name="UseSharedNavigation" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
    </xs:sequence>
</xs:complexType>
```

2.1.2.14.1 Attributes

WebId: The identifier of the site whose navigation structure is represented by the element.

WebUrl: The server-relative URL of the site whose navigation structure is represented by the element.

UseSharedNavigation: Specifies whether the site uses the navigation bars of its parent site.

2.1.2.14.2 Child Elements

Data: Wrapper for the Structure element.

Data.Structure: Container for zero or more Element elements that represent the nodes at the root of the navigation structure and navigation bars.

Data.Structure.Element: The node at the root of the navigation structure or a navigation bar.

2.1.2.15 DeploymentWebStructureElement

Specifies a single navigation node.

```xml
<xs:complexType name="DeploymentWebStructureElement">
    <xs:sequence>
        <xs:element name="MetaInfo" minOccurs="0" type="MetaDictionary" />
        <xs:element name="Element" type="DeploymentWebStructureElement" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
</xs:complexType>
```
2.1.2.15.1 Attributes

**Id**: The navigation node element identifier. The value MUST be greater than zero and MUST be unique amongst all other navigation nodes in the associated site.

**DateTimeParented**: The date and time at which the navigation node was last parented, that is, the last time at which the navigation node was made a child navigation node of a different navigation node, or the time at which it was first added beneath a particular navigation node. The value MUST be of the form "dd MMM yyyy hh:mm:ss ±tzos", where:

- "dd" is the two-digit date.
- "MMM" is the three-letter month abbreviation of the RFC 1123 date time format, specified in [RFC1123], section 5.2.14.
- "yyyy" is the four-digit year.
- "hh:mm:ss" specifies the two-digit hours, minutes, and seconds values.
- "±tzos" is the offset direction and four-digit time zone offset from GMT.

For example: 15 Jan 2008 12:32:30 -0800.

**Type**: Indicates whether the Url element points to a document within the site collection or to an arbitrary resource.

The following table defines the allowable string values for Type.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page</td>
<td>The navigation node is a link to a specific file or folder in the site collection, see Type 0 navigation node in [MS-WSSTS] section 2.1.2.16.1.</td>
</tr>
<tr>
<td>Link</td>
<td>The navigation node is an arbitrary URL-based link, see Type 1 navigation node in [MS-WSSTS] section 2.1.2.16.1.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DynamicPage</td>
<td>Deprecated; meaning is the same as that of Page.</td>
</tr>
</tbody>
</table>

**Name**: The display name of the navigation node.

**NameResource**: The display name of the navigation node used for a multilingual user interface (MUI). It MUST be a resource token or a resource identifier.<12>

**Url**: The Uniform Resource Locator (URL) to which the navigation node links. If the Type element is set to Page, the URL MUST be either a server-relative URL or a site-relative URL. If the Type element is set to Link, the URL MUST be either a server-relative URL, a site-relative URL, or an absolute URL which points to an arbitrary resource.

### 2.1.2.15.2 Child Elements

**MetaInfo**: A metadata dictionary associated with the navigation node.

**Element**: A child navigation node of this navigation node. This recursive definition allows the representation of arbitrary-depth hierarchical trees of navigation nodes.

### 2.1.2.16 Dictionary

Specifies a dictionary containing named properties and their values.

```xml
<xs:complexType name="Dictionary">
  <xs:sequence>
    <xs:element name="Property" type="DictionaryEntry" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

### 2.1.2.16.1 Child Elements

**Property**: Specifies a property. Each Property.Name attribute value MUST be unique within the dictionary.

### 2.1.2.17 DictionaryEntry

Specifies a named property and its value within a dictionary.

```xml
<xs:complexType name="DictionaryEntry">
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Value" type="xs:string" use="optional" />
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="optional" />
  <xs:attribute name="Type" type="SPDictionaryEntryValueType" default="String" use="optional" />
  <xs:attribute name="Access" type="SPDictionaryEntryAccess" default="ReadWrite" use="optional" />
  <xs:attribute name="NoFixup" type="xs:boolean" use="optional" />
</xs:complexType>
```

```xml
<xs:simpleType name="SPDictionaryEntryValueType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="String" />
    <xs:enumeration value="Integer" />
    <xs:enumeration value="Time" />
    <xs:enumeration value="StringVector" />
  </xs:restriction>
</xs:simpleType>
```
2.1.2.17.1 Attributes

Name: The name of the property. Each name MUST be unique within a dictionary.

Value: The value of the property. The value MUST conform to the additional restrictions specified in the following table based on the value of the Type attribute.

<table>
<thead>
<tr>
<th>Value of Type attribute</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>String</td>
<td>MUST conform to the schema of the xs:string simple type.</td>
</tr>
<tr>
<td>Integer</td>
<td>MUST conform to either the schema of the xs:int simple type or to the INT format specified in [MS-FPSE], Section 2.2.2.1.2.</td>
</tr>
<tr>
<td>Time</td>
<td>MUST conform to either the schema of the xs:datetime simple type or to the Greenwich Mean Time (GMT) format specified in [RFC1123], Section 5.2.14</td>
</tr>
<tr>
<td>StringVector</td>
<td>MUST conform to the METADICT-STRING-VECTOR format specified in [MS-FPSE] section 2.2.2.2.11.</td>
</tr>
<tr>
<td>Boolean</td>
<td>MUST conform to the schema of the xs:boolean simple type.</td>
</tr>
<tr>
<td>FileSystemTime</td>
<td>MUST conform to either the schema of xs:datetime simple type, or to the Greenwich Mean Time (GMT) format specified in [RFC1123], Section 5.2.14</td>
</tr>
<tr>
<td>IntVector</td>
<td>MUST conform to the METADICT-INT-VECTOR format specified in [MS-FPSE] section 2.2.2.2.11.</td>
</tr>
<tr>
<td>Double</td>
<td>MUST conform to either the schema of the xs:double simple type or the DOUBLE format specified in [MS-FPSE] section 2.2.2.1.4.</td>
</tr>
<tr>
<td>LongText</td>
<td>MUST conform to the schema of the xs:string simple type.</td>
</tr>
<tr>
<td>Empty</td>
<td>MUST be ignored by readers, which MUST treat this value as an empty string.</td>
</tr>
</tbody>
</table>

Id: The identifier of the property.

Type: The type of the property. MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>String</td>
<td>String data type.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Integer</td>
<td>Integer data type.</td>
</tr>
<tr>
<td>Time</td>
<td>Datetime data type.</td>
</tr>
<tr>
<td>StringVector</td>
<td>An array of strings.</td>
</tr>
<tr>
<td>Boolean</td>
<td>Boolean data type.</td>
</tr>
<tr>
<td>FileSystemTime</td>
<td>Datetime data type.</td>
</tr>
<tr>
<td>IntVector</td>
<td>An array of integers.</td>
</tr>
<tr>
<td>Double</td>
<td>Double data type.</td>
</tr>
<tr>
<td>LongText</td>
<td>String data type.</td>
</tr>
<tr>
<td>Empty</td>
<td>Empty data type.</td>
</tr>
</tbody>
</table>

**Access:** Specifies the type of access that end users have for the property. MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReadOnly</td>
<td>This property can be read by end users, but end users cannot modify this property.</td>
</tr>
<tr>
<td>ReadWrite</td>
<td>This property can be read and modified by end users.</td>
</tr>
</tbody>
</table>

**NoFixup:** Indicates whether to change the value of the specific entry during import. "true" means "not to change", otherwise false.

### 2.1.2.18 FieldDataCollection

Specifies a collection of fields associated with a list items.

```xml
<xs:complexType name="FieldDataCollection">
  <xs:sequence>
    <xs:element name="Field" type="FieldDictionaryEntry" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

### 2.1.2.18.1 Child Elements
Field: The name and value of a field.

2.1.2.19 FieldDictionaryEntry

Specifies the name and value of a field.

```xml
<xs:complexType name="FieldDictionaryEntry">
  <xs:attribute name="FieldId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Value" type="xs:string" use="optional" />
  <xs:attribute name="Value2" type="xs:string" use="optional" />
</xs:complexType>
```

2.1.2.19.1 Attributes

FieldId: The identifier of the field. This is an object reference corresponding to the ID attribute of a field, as specified in [MS-WSSFO3] section 2.2.7.3.3.<13>

Name: The name of the field.

Value: The value of the field.

Value2: If Value is a URL, this is the display text for the URL. Otherwise, this attribute SHOULD NOT be present and MUST be ignored by readers.

2.1.2.20 FieldReferenceDefinitions

Specifies the field links associated with a content type.

```xml
<xs:complexType name="FieldReferenceDefinitions">
  <xs:sequence>
    <xs:element name="FieldRef" type="core:FieldRefDefinitionCT" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.1.2.20.1 Child Elements

FieldRef: A reference to a field ([MS-WSSCAML] section 2.4.3) associated with the content type.

2.1.2.21 ListDeletedContentTypes

Specifies a collection of content types that have been deleted from a list.<14>

```xml
<xs:complexType name="ListDeletedContentTypes">
  <xs:sequence>
    <xs:element name="DeletedContentType" type="DeletedContentType" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.1.2.21.1 Child Elements

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Deployment Package Format
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DeletedContentType: Specifies the content type deleted from the list.

2.1.2.22 ListDeletedFields

Specifies a collection of fields that have been deleted from a list.

```xml
<xs:complexType name="ListDeletedFields">
  <xs:sequence>
    <xs:element name="DeletedField" type="DeletedField" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.1.2.22.1 Child Elements

DeletedField: A field that has been deleted from a list.

2.1.2.23 ListDeletedViews

Specifies the views of the list which have been deleted.

```xml
<xs:complexType name="ListDeletedViews">
  <xs:sequence>
    <xs:element name="DeletedView" type="DeletedView" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.1.2.23.1 Child Elements

DeletedView: Specifies a view deleted from the list.

2.1.2.24 MetaDictionary

Specifies a dictionary with string keys and strongly-typed values. The values also have read/write constraints. Each entry in the dictionary is referred to as a key-value pair.

```xml
<xs:complexType name="MetaDictionary">
  <xs:sequence>
    <xs:element name="MetaKey" minOccurs="0" maxOccurs="unbounded">
      <xs:complexType>
        <xs:attribute name="Name" type="xs:string" />
        <xs:attribute name="Value" type="xs:string" />
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

2.1.2.24.1 Child Elements

MetaKey: A key-value pair in a metadata dictionary.

MetaKey.Name: The key of the key-value pair.
**MetaKey.Value:** The value of the key-value pair. Values are strongly typed and the following types (with corresponding type code in parentheses) are supported:

- Integer (I)
- Double (D)
- Boolean (B)
- String (S)
- Date-time (T)
- Integer array (U)
- String array (V)

Values also carry an access constraint. Constraints MUST be preserved by the consumer and are intended to be used to control subsequent access to the data by way of a protocol external to this specification. These constraints are described in the following table.

<table>
<thead>
<tr>
<th>Constraint (constraint code)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignore (X)</td>
<td>Reader is intended to ignore the value</td>
</tr>
<tr>
<td>Read (R)</td>
<td>Reader is intended to read the value but is not intended to write the value</td>
</tr>
<tr>
<td>Write (W)</td>
<td>Reader is intended to read and write the value</td>
</tr>
</tbody>
</table>

Note that this specification requires only that constraints are preserved along with their corresponding values; any requirement for enforcement of these constraints is specified by the protocol that provides access to the data. For an example of such a protocol, see [MS-FPSE].

Values are serialized as **XSD** strings and MUST be comprised of a type code, followed by a constraint code, followed by a vertical bar (|), followed by a value. The format of the value depends on the type code, the details of which are given in the following table.

<table>
<thead>
<tr>
<th>Permissible type (type code)</th>
<th>Value encoding constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integer (I)</td>
<td>MUST conform to <strong>INT</strong> primitive data type format, as specified in [MS-FPSE] section 2.2.2.1.2</td>
</tr>
<tr>
<td>Boolean (B)</td>
<td>MUST conform to <strong>BOOLEAN</strong> primitive data type format, as specified in [MS-FPSE] section 2.2.2.1.3</td>
</tr>
<tr>
<td>Double (D)</td>
<td>MUST conform to <strong>DOUBLE</strong> primitive data type format, as specified in [MS-FPSE] section 2.2.2.1.4</td>
</tr>
<tr>
<td>String (S)</td>
<td>MUST conform to <strong>STRING</strong> primitive data type format, as specified in [MS-FPSE] section 2.2.2.1.5</td>
</tr>
<tr>
<td>Date-time (T)</td>
<td>MUST conform to Greenwich Mean Time (GMT) format, as specified in [RFC1123] section 5.2.14.</td>
</tr>
<tr>
<td>Integer array (U)</td>
<td>MUST conform to <strong>METADICT-INT-VECTOR</strong> format, as specified in [MS-FPSE] section 2.2.2.2.11.</td>
</tr>
</tbody>
</table>

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2.1.2.25 SPAlert

Specifies an alert subscription to a list or a list item.

```xml
<xs:complexType name="SPAlert">
    <xs:sequence>
        <xs:element name="Filter" minOccurs="0" maxOccurs="1" />
        <xs:element name="Properties" type="Dictionary" minOccurs="0" maxOccurs="1" />
    </xs:sequence>
    <xs:attribute name="Id" type="Guid" use="required" />
    <xs:attribute name="AlertType" type="SPAlertType" use="required" />
    <xs:attribute name="EventType" type="SPAlertEventType" use="required" />
    <xs:attribute name="AlertTemplateName" type="xs:string" use="optional" />
    <xs:attribute name="UserId" type="xs:int" use="required" />
    <xs:attribute name="WebId" type="Guid" use="required" />
    <xs:attribute name="ListId" type="Guid" use="required" />
    <xs:attribute name="ParentId" type="Guid" use="required" />
    <xs:attribute name="ListItemIntId" type="xs:int" use="optional" />
    <xs:attribute name="DocId" type="Guid" use="optional" />
    <xs:attribute name="ListUrl" type="xs:string" use="required" />
    <xs:attribute name="ObjectUrl" type="xs:string" use="required" />
    <xs:attribute name="AlwaysNotify" type="xs:boolean" use="required" />
    <xs:attribute name="NotifyFrequency" type="SPAlertFrequency" use="required" />
    <xs:attribute name="DeliveryChannel" type="SPAlertDeliveryChannels" use="optional" />
    <xs:attribute name="Status" type="SPAlertStatus" use="required" />
</xs:complexType>
```

2.1.2.25.1 Attributes

**Id**: The unique identifier of the alert subscription.

**Title**: The title of the alert subscription.

**AlertType**: The SPAlertType for the alert subscription as specified in section 2.1.4.13.

**EventType**: The SPAlertEventType for the alert subscription as specified in section 2.1.4.10.

**AlertTemplateName**: The class name of the alert template that will be used to send an alert.

**UserId**: The user identifier of the user this alert subscription applies to and to whom alerts will be sent. This is an object reference corresponding to the Id attribute of a User element of type DeploymentUser in the UserGroup.xml file as specified in section 2.7.2.3. The referenced element MUST be in the deployment package.

**WebId**: The identifier of the site containing the list item. This is an object reference corresponding to the Id of a site as specified in section 2.1.2.61. The referenced element MUST be in the deployment package.

**ListId**: The identifier of the list containing the list item. This is an object reference corresponding to the Id of a list as specified in section 2.1.2.48. The referenced element MUST be in the deployment package.
**ParentId:** The folder identifier of the folder that contains this file. This is an object reference corresponding to the Id of a folder as specified in section 2.1.2.40. The referenced element MUST be in the deployment package.

**ListItemIntId:** This specifies the identifier of that list item within its containing list. This is an object reference corresponding to the IntId of a ListItem element of type SPListItem as specified in section 2.1.2.48. The referenced element MUST be in the deployment package. If the alert subscription does not have an associated list item, then this attribute MUST NOT be present.

**DocId:** An object reference corresponding to the DocId attribute of a list item as specified in section 2.1.2.48. The referenced element MUST be in the deployment package. If the alert subscription does not have an associated list item, then this attribute MUST NOT be present.

**ListUrl:** The store-relative URL of the list that contains the object the alert subscription is configured for.

**ObjectUrl:** The store-relative URL of the object the alert subscription is configured for.

**AlwaysNotify:** Indicates if the alert subscription is configured as an always notify alert.

**NotifyFrequency:** The SPAlertFrequency for the alert subscription as specified in section 2.1.4.11.

**NotifyTime:** This indicates which time in UTC the alert subscription SHOULD run. If the NotifyFrequency is Immediate, then this attribute MUST NOT be present.

**DeliveryChannel:** The SPAlertDeliveryChannels for the alert subscription as specified in section 2.1.4.9.

**Status:** The SPAlertStatus for the alert subscription as specified in section 2.1.4.12.

### 2.1.2.25.2 Child Elements

**Filter:** The Collaborative Application Markup Language (CAML) query value used to filter the alert subscription to specific event criteria or a reduced area.

**Properties:** The properties of the alert subscription.

### 2.1.2.26 SPAttachment

Specifies an attachment to a list item.

```xml
<xs:complexType name="SPAttachment">
  <xs:sequence>
    <xs:element name="Properties" type="Dictionary" minOccurs="0" />  
  </xs:sequence>

  <xs:attribute name="Name" type="String255NonEmpty" use="required" />  
  <xs:attribute name="Url" type="String256" use="required" />  
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="optional" />  
  <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces" use="optional" />  
  <xs:attribute name="FileValue" type="PackageFileName" use="required" />  
  <xs:attribute name="Author" type="xs:int" use="optional" />  
  <xs:attribute name="ModifiedBy" type="xs:int" use="optional" />  
  <xs:attribute name="TimeCreated" type="xs:dateTime" use="optional" />  
  <xs:attribute name="TimeLastModified" type="xs:dateTime" use="optional" />  
  <xs:attribute name="FailureMessage" type="xs:string" use="optional" />  
</xs:complexType>
```
2.1.2.26.1 Attributes

Name: The original file name of the attachment.

Url: The site-relative URL of the attachment.

Id: The identifier of the attachment.

ParentWebId: The identifier of the site containing the list item. This is an object reference corresponding to the Id of a site as specified in section 2.1.2.61. The referenced element MUST be in the deployment package.

FileValue: The name of the binary content file for the attachment.

Author: The user identifier of the author of the attachment.

ModifiedBy: The user identifier of the user who last modified the attachment.

TimeCreated: The creation time of the attachment in Coordinated Universal Time (UTC) format.

TimeLastModified: The last modification time of the attachment in UTC format.

FailureMessage: The failure message, if any, resulting from the attempt to add the attachment to the deployment package. If the attempt fails and if the creator of the package decides not to terminate the creation of the package in response to the error, this attribute MUST be present and the writer MUST set the value to the error message string that is generated by the failure. Otherwise, this attribute MUST NOT be present. Readers MUST ignore the entire SPAttachment element when this attribute is present.

2.1.2.26.2 Child Elements

Properties: The properties of the attachment.

2.1.2.27 SPAttachmentCollection

Specifies a collection of attachments.

```xml
<xs:complexType name="SPAttachmentCollection">
  <xs:sequence>
    <xs:element name="Attachment" type="SPAttachment" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.1.2.27.1 Child Elements

Attachment: An attachment. This element MUST conform to the XML Schema of the SPAttachment complex type specified in section 2.1.2.26.

2.1.2.28 SPContentType

Specifies a content type object.

```xml
<xs:complexType name="SPContentType">
  <xs:all>
    <xs:element name="Folder" type="core:FolderReference" minOccurs="0" maxOccurs="1" />
    <xs:element name="FieldRefs" type="FieldReferenceDefinitions" />
  </xs:all>
</xs:complexType>
```
2.1.28.1 Attributes

**ID:** Identifier for the content type.

**ParentWebId:** Identifier of the site containing the content type. This is an object reference corresponding to the Id of a site as specified in section 2.1.2.61.

**ListId:** The identifier of the list containing the content type. If the parent of the content type is a list, this is an object reference corresponding to the Id of a list as specified in section 2.1.2.47. Otherwise, this attribute MUST NOT be present.

**Name:** The name of the content type.

**Group:** The name of the content type group which contains the content type.

**Description:** The description of the content type.
NewDocumentControl: The programmatic identifier (ProgID) for the application that is launched when creating new documents of this content type.

RequireClientRenderingOnNew: Specifies whether the application specified by NewDocumentControl is launched when new items of this content type are created.

Scope: The server-relative URL of the parent site or list object that contains the content type.

NextChildByte: The next available byte an inherited content type changes. This value MUST be a number between 0 and 255.

ReadOnly: Specifies whether the content type can be edited. If the content type is not ReadOnly, the attribute MUST NOT be present.

Locs: Specifies whether the content type has any localizations.

Hidden: Specifies whether the content type appears in UI. If the content type is not Hidden, this attribute MUST NOT be present.

Sealed: Specifies whether other content types are prohibited from inheriting from this content type. If the content type is not sealed, the attribute MUST be absent.

Version: The version of the content type.

FeatureId: The identifier of the feature which this content type is associated with.

2.1.2.28.2 Child Elements

Folder: The resource folder used by this content type. This element is specified in [MS-WSSCAML] section 2.4.7.

FieldRefs: The references to the fields associated with this content type. This element is specified in section 2.1.2.20.

Fields: The fields associated with the parent list of this content type that correspond to the field links in the content type. If the parent object of the content type is not a list, this element MUST NOT be present. This element is specified in [MS-WSSCAML] section 2.3.2.9.

XmlDocuments: Specifies the XML documents present in this content type. This element is specified in [MS-WSSCAML] section 2.4.12.

DocumentTemplate: Specifies the document template of the content type used when creating a new instance of the content type. This element is specified in [MS-WSSCAML] section 2.4.4.

EventReceivers: The collection of event receivers that are registered for the content type. The value of the HostType attribute of all child elements within this collection MUST be "ContentType".

2.1.2.28.3 Structure Restrictions and Conditions

In addition to the restrictions and conditions specified in this document, the attributes of the SPContentType complex type have the same restrictions and conditions as specified in [MS-WSSCAML] section 2.4.1.2.

2.1.2.29 SPDocumentLibrary

 Specifies a document library.

```xml
<xs:complexType name="SPDocumentLibrary">
  <xs:complexContent>
    <xs:extension base="SPList">
      <xs:extension base="SPLibrary"/>
      <xs:attribute name="MaxDocumentSize" type="int"/>
      <xs:attribute name="MaxDocuments" type="int"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```
2.1.2.29.1 Attributes

The **SPDocumentLibrary** complex type extends the **SPList** complex type adding the following attributes. The **SPList.BaseType** attribute MUST be "DocumentLibrary".

**DocumentTemplateUrl**: A server-relative URL of the default template to use when a document is created in this document library. This attribute MUST begin with a slash (/).

**EmailInsertsFolder**: Reserved. SHOULD NOT be used. If present MUST be ignored.

**IsCatalog**: Specifies whether the document library is a gallery.

**ThumbnailSize**: Integer used by the document library to determine the rendering size of an image thumbnail.

**WebImageHeight**: Integer used by the document library to determine the rendering height of an image.

**WebImageWidth**: Integer used by the document library to determine the rendering width of an image.

2.1.2.30 **SPEventReceiverDefinition**

Specifies an event receiver.

```xml
<xs:complexType name="SPEventReceiverDefinition">
    <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="Name" type="String256" use="required" />
    <xs:attribute name="WebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="HostId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="HostType" type="SPEventHostType" use="required" />
    <xs:attribute name="Synchronization" type="SPEventReceiverSynchronization" use="optional" />
    <xs:attribute name="Type" type="SPEventReceiverType" use="required" />
    <xs:attribute name="SequenceNumber" type="xs:unsignedShort" use="required" />
    <xs:attribute name="Url" type="String256" use="optional" />
    <xs:attribute name="Assembly" type="String256" use="optional" />
    <xs:attribute name="SolutionId" type="core:UniqueIdentifierWithOrWithoutBraces" use="optional" />
    <xs:attribute name="Data" type="String256" use="optional" />
    <xs:attribute name="Filter" type="String256" use="optional" />
    <xs:attribute name="Credential" type="xs:int" use="required" />
    <xs:attribute name="ItemId" type="xs:int" use="optional" />
</xs:complexType>
```
<xs:simpleType name="SPEventHostType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="Site" />
        <xs:enumeration value="Web" />
        <xs:enumeration value="List" />
        <xs:enumeration value="ListItem" />
        <xs:enumeration value="ContentType" />
    </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPEventReceiverType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="ItemAdding" />
        <xs:enumeration value="ItemUpdating" />
        <xs:enumeration value="ItemDeleting" />
        <xs:enumeration value="ItemCheckingIn" />
        <xs:enumeration value="ItemCheckingOut" />
        <xs:enumeration value="ItemUncheckingOut" />
        <xs:enumeration value="ItemAttachmentAdding" />
        <xs:enumeration value="ItemAttachmentDeleting" />
        <xs:enumeration value="ItemFileMoving" />
        <xs:enumeration value="ItemAttachmentDeleting" />
        <xs:enumeration value="ItemVersionDeleting" />
        <xs:enumeration value="FieldAdding" />
        <xs:enumeration value="FieldUpdating" />
        <xs:enumeration value="FieldDeleting" />
        <xs:enumeration value="ListAdding" />
        <xs:enumeration value="ListDeleting" />
        <xs:enumeration value="SiteDeleting" />
        <xs:enumeration value="WebDeleting" />
        <xs:enumeration value="WebMoving" />
        <xs:enumeration value="WebAdding" />
        <xs:enumeration value="GroupAdding" />
        <xs:enumeration value="GroupDeleting" />
        <xs:enumeration value="GroupUserAdding" />
        <xs:enumeration value="GroupUserDeleting" />
        <xs:enumeration value="RoleDefinitionAdding" />
        <xs:enumeration value="RoleDefinitionDeleting" />
        <xs:enumeration value="RoleAssignmentAdding" />
        <xs:enumeration value="RoleAssignmentDeleting" />
        <xs:enumeration value="InheritanceBreaking" />
        <xs:enumeration value="InheritanceRestoring" />
        <xs:enumeration value="ItemAdded" />
        <xs:enumeration value="ItemDeleted" />
        <xs:enumeration value="ItemCheckedIn" />
        <xs:enumeration value="ItemCheckedOut" />
        <xs:enumeration value="ItemAttachmentAdded" />
        <xs:enumeration value="ItemAttachmentDeleted" />
        <xs:enumeration value="ItemFileMoved" />
        <xs:enumeration value="ItemFileConverted" />
        <xs:enumeration value="ItemVersionDeleted" />
        <xs:enumeration value="FieldAdded" />
        <xs:enumeration value="FieldUpdated" />
        <xs:enumeration value="FieldDeleted" />
        <xs:enumeration value="ListAdded" />
        <xs:enumeration value="ListDeleted" />
        <xs:enumeration value="SiteDeleted" />
        <xs:enumeration value="WebDeleted" />
        <xs:enumeration value="WebMoved" />
        <xs:enumeration value="WebProvisioned" />
        <xs:enumeration value="WebRestored" />
        <xs:enumeration value="GroupAdded" />
        <xs:enumeration value="GroupUpdated" />
        <xs:enumeration value="GroupDeleted" />
        <xs:enumeration value="GroupUserAdded" />
        <xs:enumeration value="GroupUserDeleted" />
    </xs:restriction>
</xs:simpleType>
<xs:enumeration value="RoleDefinitionAdded" />
<xs:enumeration value="RoleDefinitionUpdated" />
<xs:enumeration value="RoleDefinitionDeleted" />
<xs:enumeration value="RoleAssignmentAdded" />
<xs:enumeration value="RoleAssignmentDeleted" />
<xs:enumeration value="InheritanceBroken" />
<xs:enumeration value="InheritanceRestored" />
<xs:enumeration value="EmailReceived" />
<xs:enumeration value="ContextEvent" />
</xs:restriction>
</xs:simpleType>

2.1.2.30.1 Attributes

**Id**: Identifier of the **event receiver**.

**Name**: Name of the event receiver.

**WebId**: Identifier of the **site** that contains the **event hosts**.

**HostId**: Identifier of the event host with which the event receiver is associated.

**HostType**: Type of object used as an event host for the event receiver. This attribute MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>HostType value</th>
<th>Event Host is</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>Site collection</td>
</tr>
<tr>
<td>Web</td>
<td>Site</td>
</tr>
<tr>
<td>List</td>
<td>List</td>
</tr>
<tr>
<td>ListItem&lt;21&gt;</td>
<td>List item</td>
</tr>
<tr>
<td>ContentType</td>
<td>Content type</td>
</tr>
</tbody>
</table>

**Type**: Specifies when the handler for this event is invoked. SHOULD be one of the values described in the following table.<22>

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ItemAdding</td>
<td>The event receiver is invoked before a list item is added.</td>
</tr>
<tr>
<td>ItemUpdating</td>
<td>The event receiver is invoked before a list item is updated.</td>
</tr>
<tr>
<td>ItemDeleting</td>
<td>The event receiver is invoked before a list item is deleted.</td>
</tr>
<tr>
<td>ItemCheckingIn</td>
<td>The event receiver is invoked before a list item is checked in.</td>
</tr>
<tr>
<td>ItemCheckingOut</td>
<td>The event receiver is invoked before a list item is checked out.</td>
</tr>
<tr>
<td>ItemUncheckingOut</td>
<td>The event receiver is invoked before a list item checkout is reverted.</td>
</tr>
<tr>
<td>ItemAttachmentAdding</td>
<td>The event receiver is invoked before an attachment to a list item is added.</td>
</tr>
<tr>
<td>ItemAttachmentDeleting</td>
<td>The event receiver is invoked before an attachment to a list item is deleted.</td>
</tr>
<tr>
<td>ItemFileMoving</td>
<td>The event receiver is invoked before a document is moved.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ItemVersionDeleting</td>
<td>This event receiver is invoked before a version of a list item is deleted.</td>
</tr>
<tr>
<td>FieldAdding</td>
<td>The event receiver is invoked before a field is added to the list schema.</td>
</tr>
<tr>
<td>FieldUpdating</td>
<td>The event receiver is invoked before a field is updated in the list schema.</td>
</tr>
<tr>
<td>FieldDeleting</td>
<td>The event receiver is invoked before a field is deleted from the list schema.</td>
</tr>
<tr>
<td>ListAdding&lt;23&gt;</td>
<td>The event receiver is invoked before a list is added</td>
</tr>
<tr>
<td>ListDeleting&lt;24&gt;</td>
<td>The event receiver is invoked before a list is deleted</td>
</tr>
<tr>
<td>SiteDeleting</td>
<td>The event receiver is invoked before a site collection is deleted.</td>
</tr>
<tr>
<td>WebAdding&lt;25&gt;</td>
<td>The event receiver is invoked before a site is added</td>
</tr>
<tr>
<td>WebDeleting</td>
<td>The event receiver is invoked before a site is deleted.</td>
</tr>
<tr>
<td>WebMoving</td>
<td>The event receiver is invoked before a site is moved.</td>
</tr>
<tr>
<td>GroupAdding</td>
<td>This event receiver is invoked before a security group is added.</td>
</tr>
<tr>
<td>GroupUpdating</td>
<td>This event receiver is invoked before a security group is updated.</td>
</tr>
<tr>
<td>GroupDeleting</td>
<td>This event receiver is invoked before a security group is deleted.</td>
</tr>
<tr>
<td>GroupUserAdding</td>
<td>This event receiver is invoked before a user is added to a security group.</td>
</tr>
<tr>
<td>GroupUserDeleting</td>
<td>This event receiver is invoked before a user is removed from a security group</td>
</tr>
<tr>
<td>RoleDefinitionAdding</td>
<td>This event receiver is invoked before a role definition is added.</td>
</tr>
<tr>
<td>RoleDefinitionUpdating</td>
<td>This event receiver is invoked before a role definition is updated.</td>
</tr>
<tr>
<td>RoleDefinitionDeleting</td>
<td>This event receiver is invoked before a role definition is deleted.</td>
</tr>
<tr>
<td>RoleAssignmentAdding</td>
<td>This event receiver is invoked before a role assignment is added.</td>
</tr>
<tr>
<td>RoleAssignmentDeleting</td>
<td>This event receiver is invoked before a role assignment is deleted.</td>
</tr>
<tr>
<td>InheritanceBreaking</td>
<td>This event receiver is invoked before a securable object stops inheriting permissions from its parent or containing object.</td>
</tr>
<tr>
<td>InheritanceRestoring</td>
<td>This event receiver is invoked before a securable object starts inheriting permissions from its parent or containing object.</td>
</tr>
<tr>
<td>ItemAdded</td>
<td>The event receiver is invoked after a list item is added.</td>
</tr>
<tr>
<td>ItemUpdated</td>
<td>The event receiver is invoked after a list item is updated.</td>
</tr>
<tr>
<td>ItemDeleted</td>
<td>The event receiver is invoked after a list item is deleted.</td>
</tr>
<tr>
<td>ItemCheckedIn</td>
<td>The event receiver is invoked after a list item is checked in.</td>
</tr>
<tr>
<td>ItemCheckedOut</td>
<td>The event receiver is invoked after a list item is checked out.</td>
</tr>
<tr>
<td>ItemUncheckedOut</td>
<td>The event receiver is invoked after a list item check out is reverted.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ItemAttachmentAdded</td>
<td>The event receiver is invoked after an attachment is added to a list item.</td>
</tr>
<tr>
<td>ItemAttachmentDeleted</td>
<td>The event receiver is invoked after an attachment is deleted from a list item.</td>
</tr>
<tr>
<td>ItemFileMoved</td>
<td>The event receiver is invoked after a document is moved.</td>
</tr>
<tr>
<td>ItemFileConverted</td>
<td>The event receiver is invoked after a document is transformed by the document transformation feature.</td>
</tr>
<tr>
<td>ItemVersionDeleted</td>
<td>This event receiver is invoked after a version of a list item is deleted.</td>
</tr>
<tr>
<td>FieldAdded</td>
<td>The event receiver is invoked after a field is added to the list schema.</td>
</tr>
<tr>
<td>FieldUpdated</td>
<td>The event receiver is invoked after a field is updated in the list schema.</td>
</tr>
<tr>
<td>FieldDeleted</td>
<td>The event receiver is invoked after a field is deleted from the list schema.</td>
</tr>
<tr>
<td>ListAdded</td>
<td>The event receiver is invoked after a list is added.</td>
</tr>
<tr>
<td>ListDeleted</td>
<td>The event receiver is invoked after a list is deleted.</td>
</tr>
<tr>
<td>SiteDeleted</td>
<td>The event receiver is invoked after a site collection is deleted.</td>
</tr>
<tr>
<td>WebDeleted</td>
<td>The event receiver is invoked after a site is deleted.</td>
</tr>
<tr>
<td>WebMoved</td>
<td>The event receiver is invoked after a site is moved.</td>
</tr>
<tr>
<td>WebProvisioned</td>
<td>The event receiver is invoked after a site is provisioned.</td>
</tr>
<tr>
<td>WebRestored</td>
<td>The event receiver is invoked after a site is restore.</td>
</tr>
<tr>
<td>GroupAdded</td>
<td>This event receiver is invoked after a security group is added.</td>
</tr>
<tr>
<td>GroupUpdated</td>
<td>This event receiver is invoked after a security group is updated.</td>
</tr>
<tr>
<td>GroupDeleted</td>
<td>This event receiver is invoked after a security group is deleted.</td>
</tr>
<tr>
<td>GroupUserAdded</td>
<td>This event receiver is invoked after a user is added to a security group.</td>
</tr>
<tr>
<td>GroupUserDeleted</td>
<td>This event receiver is invoked after a user is removed from a security group.</td>
</tr>
<tr>
<td>RoleDefinitionAdded</td>
<td>This event receiver is invoked after a role definition is added.</td>
</tr>
<tr>
<td>RoleDefinitionUpdated</td>
<td>This event receiver is invoked after a role definition is updated.</td>
</tr>
<tr>
<td>RoleDefinitionDeleted</td>
<td>This event receiver is invoked after a role definition is deleted.</td>
</tr>
<tr>
<td>RoleAssignmentAdded</td>
<td>This event receiver is invoked after a role assignment is added.</td>
</tr>
<tr>
<td>RoleAssignmentDeleted</td>
<td>This event receiver is invoked after a role assignment is deleted.</td>
</tr>
<tr>
<td>InheritanceBroken</td>
<td>This event receiver is invoked after a securable object stops inheriting permissions from its parent or containing object.</td>
</tr>
<tr>
<td>InheritanceRestored</td>
<td>This event receiver is invoked after a securable object starts inheriting permissions from its parent or containing object.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>EmailReceived</td>
<td>The event receiver is invoked when an e-mail message is received by a list.</td>
</tr>
<tr>
<td>ContextEvent</td>
<td>The event receiver is context sensitive and inspects the ContextType value to perform a corresponding action.</td>
</tr>
</tbody>
</table>

When **HostType** is **ListItem**, **Type** MUST NOT be **ItemAdding** or **ItemAdded**.

**SequenceNumber:** The sequential number of this event receiver.

**Assembly:** Name of an assembly that contains the class implementing the event receiver. If present, then **Class** MUST also be present and **Url** MUST NOT be present. The format MUST be as defined by **AssemblyName**:

```
AssemblyName = LibraryIdentifier ',' VersionProperty ','
              CultureProperty ',' PublicKeyTokenProperty
```

where **LibraryIdentifier**, **VersionProperty**, **PublicKeyTokenProperty**, and **CultureProperty** are as defined in [MS-NRTP] section 2.2.1.3.

**Class:** Namespace-qualified name of the class that implements the event receiver. If present, then **Assembly** MUST also be present and **Url** MUST NOT be present. The format MUST be as defined by **ClassName**:

```
ClassName=NamespaceIdentifier '.' TypeIdentifier
0*1(TypeParameterList)
```

where **NamespaceIdentifier**, **TypeIdentifier**, and **TypeParameterList** are as defined in [MS-NRTP] section 2.2.1.2.

**Url:** An absolute URL that identifies the location of the service that implements the event receiver. If present, then **Assembly** and **Class** MUST NOT be present.<29>

**Data:** The value that was supplied by the user when registering the event receiver.

**Filter:** Reserved. If present, value MUST be an empty string.

**Credential:** Reserved. Value MUST be 0.

**ItemId:** Reserved. If present value MUST be 0.

**Synchronization:** Specifies how the event receiver is invoked (see section 2.1.4.16).<30>

**SolutionId:** Unique identifier of the solution this event receiver is part of.<31>

### 2.1.2.31 **SPEventReceiverDefinitionCollection**

Specifies a collection of event receivers.

```
<xs:complexType name="SPEventReceiverDefinitionCollection">
  <xs:sequence>
    <xs:element name="EventReceiver" type="SPEventReceiverDefinition"
                minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```
2.1.2.31.1 Child Elements

EventReceiver: An instance of an event receiver. The contents of this element MUST conform to the schema specified in section 2.1.2.30.

2.1.2.32 SPFeature

Specifies a feature.

```xml
<xs:complexType name="SPFeature">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required"/>
  <xs:attribute name="WebId" type="core:UniqueIdentifierWithoutBraces" use="optional"/>
  <xs:attribute name="Properties" type="xs:string" use="optional"/>
  <xs:attribute name="FeatureDefinitionName" type="xs:string" use="required"/>
  <xs:attribute name="Version" type="FeatureVersion" use="optional" default="0.0.0.0"/>
  <xs:attribute name="IsUserSolutionFeature" type="core:truefalse_Only_Lowercase" use="optional"/>
  <xs:attribute name="FeatureDefinitionScope" use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:int">
        <xs:minInclusive value="0"/>
        <xs:maxInclusive value="3"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```

2.1.2.32.1 Attributes

Id: The identifier of the feature.

WebId: The Web identifier of the site for a site-scoped feature. This is an object reference corresponding to the identifier of an SPWeb element in the Manifest.xml file as specified in section 2.1.2.61. If the feature is a site-scoped feature, this attribute MUST be present and the referenced element MUST be in the deployment package. Otherwise, this attribute MUST NOT be present.

Properties: The following XML schema definition (XSD) defines the Feature Property Definitions. The value of the attribute is an XML string without XML header and with special characters escaped as specified in [XML10], section 2.4.

```xml
<xs:element name="Properties" type="FeaturePropertyDefinitions" minOccurs="0" maxOccurs="1"/>
<xs:complexType name="FeaturePropertyDefinitions">
  <xs:sequence>
    <xs:element name="Property" type="FeaturePropertyDefinition" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="FeaturePropertyDefinition">
  <xs:attribute name="Key" type="xs:string"/>
  <xs:attribute name="Value" type="xs:string"/>
</xs:complexType>
```
The **Properties** element represents a collection of user-defined name/value pairs (represented by **Property** elements, with the **Key** attribute representing the name, and the **Value** attribute representing the value).

Example:

```xml
<Properties>
  <Property Key="Color" Value="Red" />
  <Property Key="HatSize" Value="13" />
</Properties>
```

**FeatureDefinitionName**: The name of the feature. MUST be unique across all installed features.

**FeatureDefinitionScope**: The scope at which this feature is installed. If present, the value MUST be one of the values described in the following table. If not present, act as if the scope of the feature was **farm**.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The feature is not associated with any scope.</td>
</tr>
<tr>
<td>1</td>
<td>The scope of the feature MUST be a farm.</td>
</tr>
<tr>
<td>2</td>
<td>The scope of the feature MUST be a <strong>site collection</strong>.</td>
</tr>
<tr>
<td>3</td>
<td>The scope of the feature MUST be a site.</td>
</tr>
</tbody>
</table>

**Version**: Version of the feature, as defined in section 2.1.4.3.<33>

**IsUserSolutionFeature**: True if the feature is part of a user solution.<34>

2.1.2.33 **SPFieldIndex**

Specifies the structure of a **composite field index** of the parent list.<35>

```xml
<xs:complexType name="SPFieldIndex">
  <xs:sequence>
    <xs:element name="FieldRef" type="SPFieldIndexColumn" minOccurs="2" maxOccurs="2" />
  </xs:sequence>
  <xs:attribute name="ID" type="core:UniqueIdentifierWithBraces" use="required" />
</xs:complexType>
```

This element MUST contain two elements of **SPFieldIndexColumn** type; the first one defines primary **field** of the index, and the second one defines the secondary field of the index. Composite field indices on three or more fields are not supported by this protocol.

2.1.2.33.1 **Attributes**

**ID**: Identifier of the **composite field index**.

2.1.2.33.2 **Child Elements**
FieldRef: Specifies a field that is part of a composite field index.

2.1.2.34 SPFieldIndexCollection

Specifies the collection of composite field indices of a list.<36>

```xml
<xs:complexType name="SPFieldIndexCollection">
  <xs:sequence>
    <xs:element name="Index" type="SPFieldIndex" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.1.2.34.1 Child Elements

Index: A composite field index as specified in section 2.1.2.33.

2.1.2.35 SPFieldIndexColumn

Specifies a field that is part of a composite field index.<37>

```xml
<xs:complexType name="SPFieldIndexColumn">
  <xs:attribute name="ID" type="core:UniqueIdentifierWithBraces" use="required" />
</xs:complexType>
```

2.1.2.35.1 Attributes

ID: Identifier of the field.

2.1.2.36 SPFile

Specifies a file.

```xml
<xs:complexType name="SPFile">
  <xs:sequence>
    <xs:element name="Properties" type="Dictionary" minOccurs="0" />
    <xs:element name="Versions" type="SPFileVersionCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="WebParts" type="SPWebPartCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Personalizations" type="SPPersonalizationCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Links" type="SPLinkCollection" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="Url" type="xs:string" use="required" />
  <xs:attribute name="ListItemIntId" type="xs:int" use="optional" />
  <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentWebUrl" type="xs:string" use="optional" />
  <xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
  <xs:attribute name="ListId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
</xs:complexType>
```
2.1.2.36.1 Attributes

**Id**: The document identifier of the file.

**Name**: The name of the file with extension, for example, "AllItems.aspx" or "template.doc".

**Url**: The site-relative URL for the file. MUST NOT be an empty string.

**ListItemIntId**: If the file does not have an associated list item, then this attribute MUST NOT be present. Otherwise, this specifies the identifier of that list item within its containing list. This is an object reference corresponding to the IntId of a ListItem element of type SPLListItem as specified in section 2.1.2.48. The referenced element MUST be in the deployment package.

**ParentWebId**: The site identifier of the site that contains the file. This is an object reference corresponding to the Id of a site as specified in section 2.1.2.61.

**ParentWebUrl**: The server-relative URL of the site that contains the file. If the complex type of the parent element is SPOObject, then this attribute MUST be present. Otherwise, this attribute MUST NOT be present.

**ParentId**: The folder identifier of the folder that contains this file. This is an object reference corresponding to the Id of a folder as specified in section 2.1.2.40. If the complex type of the parent element is SPOObject, this attribute MUST be present. Otherwise, this attribute MUST NOT be present.

**ListId**: The list identifier of the list that contains the file. This is an object reference corresponding to the Id of a list as specified in section 2.1.2.47. If ListItemIntId is present and the complex type of the parent element is SPOObject, this attribute MUST be present. Otherwise, this attribute MUST NOT be present.

**FileValue**: A path inside the deployment package to the binary content file that contains the raw data of the file. If the Versions element of this file is present, then this attribute MUST NOT be present. Otherwise, this attribute MUST be present.

**CheckinComment**: A human-readable text associated with the file when it was last checked in.

**Version**: The version of this file.

**Author**: The user identifier of the user who created this file.

**ModifiedBy**: The user identifier of the user who has most recently edited the file.

**TimeCreated**: The date and time when the file was created, which MUST be in UTC format.

**TimeLastModified**: The date and time when the file was last saved, which MUST be in UTC format.
**FailureMessage:** A failure message generated when the file was written to the deployment package with an error.

**IsGhosted:** Specifies whether the file is **uncustomized**. When this attribute is not present, the default value is true if **SetupPath** is present and not empty, and the default value is false if **SetupPath** is not present or has an empty value.

**SetupPath:** If the file is or initially has been uncustomized, this specifies the **setup path** fragment of the uncustomized file relative to the base setup path as specified by the **SetupPathVersion** attribute. Otherwise, this attribute MUST NOT be present.

**SetupPathUser:** If this file is or initially has been uncustomized, this specifies the user identifier of the user that created the uncustomized file. Otherwise, this attribute MUST NOT be present.

**SetupPathVersion:** If this file is or once was uncustomized, this specifies the setup path location with which the **SetupPath** fragment is relative. Otherwise, this attribute MUST NOT be present. When present, the value MUST be one of the following specified values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>The SetupPath is relative to the template location of WSSv2 on the front-end Web server.</td>
</tr>
<tr>
<td>3</td>
<td>The SetupPath is relative to the template location of WSSv3 on the front-end Web server.</td>
</tr>
<tr>
<td>4</td>
<td>The SetupPath is relative to the template location of WSSv4 on the front-end Web server.</td>
</tr>
<tr>
<td>15</td>
<td>The SetupPath is relative to the template location of WSSv15 on the front-end Web server.</td>
</tr>
</tbody>
</table>

2.1.2.36.2 **Child Elements**

**Properties:** The properties of the file, as defined in section 2.1.2.16.

**Versions:** The versions of the file, as defined in section 2.1.2.37. For SPFile elements representing versions, that is, child objects of **SPFileVersionCollection**, this element MUST NOT be present.

**WebParts:** For the files which are **Web Part Pages** with extension ".aspx" (see Name attribute), all **Web Parts** contained in this Web page, as defined in section 2.1.2.63. For the files which are not Web Part Pages this child element MUST NOT be present.

**Personalizations:** For the files which are Web Part Pages with extension ".aspx" (see Name attribute), all personalizations made to Web Parts contained in this Web page, as defined in section 2.1.2.52. For the files which are not Web Part Pages this child element MUST NOT be present.

**Links:** The links to or from the file, as defined in section 2.1.2.46.

2.1.2.37 **SPFileVersionCollection**

Specifies a collection of versions of a file.

```xml
<xs:complexType name="SPFileVersionCollection">
    <xs:sequence>
        <xs:element name="File" type="SPFile" minOccurs="1" maxOccurs="unbounded" />
    </xs:sequence>
</xs:complexType>
```
2.1.2.37.1 Child Elements

File: A version event of a file.

2.1.2.38 SPFileVersionEvent

Specifies a single SPFile version event.

```
<xs:complexType name="SPFileVersionEvent">
  <xs:attribute name="Id" type="xs:int" />
  <xs:attribute name="UIVersion" type="xs:int" />
  <xs:attribute name="Type" type="xs:int" />
  <xs:attribute name="Time" type="xs:dateTime" />
  <xs:attribute name="UserId" type="xs:int" />
</xs:complexType>
```

2.1.2.38.1 Attributes

Id: The identity of the version event.

UIVersion: Version Id of the file at the time this event happened.

Type: The version event type. It is a 16-bit signed value. When present, the value MUST be one of the following specified values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The file version has been shared.</td>
</tr>
<tr>
<td>2</td>
<td>The file version has been renamed.</td>
</tr>
<tr>
<td>3</td>
<td>The file version has been restored</td>
</tr>
<tr>
<td>28671</td>
<td>This is the maximum allowed server event type id.</td>
</tr>
<tr>
<td>28672</td>
<td>This ID is a reserved value for events initiated by the client.</td>
</tr>
</tbody>
</table>

Time: The UTC time of the version event.

UserId: The user who initiated the event.

2.1.2.39 SPFileVersionEventCollection

Specifies a collection of SPFileVersionEvent types.

```
<xs:complexType name="SPFileVersionEventCollection">
  <xs:sequence>
    <xs:element name="VersionEvent" type="SPFileVersionEvent"
                 minOccurs="1" maxOccurs="unbounded" />  
  </xs:sequence>
</xs:complexType>
```
2.1.2.39.1 Child Elements

**VersionEvent**: A version event.

2.1.2.40 SPFolder

Specifies a folder.

```xml
<xs:complexType name="SPFolder">  
  <xs:sequence>  
    <xs:element name="Properties" type="Dictionary" minOccurs="0" />  
  </xs:sequence>  
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />  
  <xs:attribute name="Name" type="xs:string" />  
  <xs:attribute name="Url" type="xs:string" use="required" />  
  <xs:attribute name="ParentFolderId" type="core:UniqueIdentifierWithoutBraces" use="required" />  
  <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />  
  <xs:attribute name="ParentWebUrl" type="xs:string" use="optional" />  
  <xs:attribute name="ContainingDocumentLibrary" type="core:UniqueIdentifierWithoutBraces" use="optional" />  
  <xs:attribute name="WelcomePageUrl" type="xs:string" use="optional" />  
  <xs:attribute name="ListItemIntId" type="xs:int" use="optional" />  
  <xs:attribute name="ModifiedBy" type="xs:string" use="optional" />  
  <xs:attribute name="TimeCreated" type="xs:dateTime" use="optional" />  
  <xs:attribute name="TimeLastModified" type="xs:dateTime" use="optional" />  
  <xs:attribute name="ProgId" type="xs:string" use="optional" />  
  <xs:attribute name="SortBehavior" use="optional">  
    <xs:simpleType>  
      <xs:restriction base="xs:int">  
        <xs:minInclusive value="0" />  
        <xs:maxInclusive value="2" />  
      </xs:restriction>  
    </xs:simpleType>  
  </xs:attribute>  
</xs:complexType>
```

2.1.2.40.1 Attributes

**Id**: The identifier of the folder.

**Name**: The name of the folder.

**Url**: The site-relative URL of the folder.

**ParentFolderId**: The identifier of the folder that contains the folder specified by this type. If the folder specified by this type is the root folder, then the value MUST be 00000000-0000-0000-0000-000000000000. Otherwise, this is an object reference corresponding to the **Id** of a folder as specified in section 2.1.2.40.

**ParentWebId**: The identifier of the site that contains the folder. This is an object reference corresponding to the **Id** of a site as specified in section 2.1.2.61.

**ParentWebUrl**: The server-relative URL of the site that contains the folder. This is an object reference corresponding to the server-relative URL of a site as specified in section 2.1.2.61.

**ContainingDocumentLibrary**: The identifier of the list that contains the folder. This is an object reference corresponding to the **Id** of a list as specified in section 2.1.2.47. If the folder is the root folder of a list, this attribute MUST be present. Otherwise, it MUST NOT be present.
**WelcomePageUrl**: The site-relative URL of the Welcome page for the folder.

**ListItemIntId**: If the folder does not have an associated list item, then this element MUST NOT be present. Otherwise, this specifies the identifier of that list item within its containing list. This is an object reference corresponding to the IntId of a ListItem element of type SPListItem as specified in section 2.1.2.48. The referenced element MUST be in the deployment package.

**ModifiedBy**: The identifier of the user who has most recently edited the folder.

**TimeCreated**: The date and time when the folder was created. MUST be in UTC format.

**TimeLastModified**: The date and time when the folder was last saved. MUST be in UTC format.

**ProgId**: Programmatic identifier (ProgID) of the application associated with the folder (if any).<39>

**SortBehavior**: An integer value specifying how the folder is sorted within a view. The value MUST be one of the values described in the following table.<40>

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The folder MUST be sorted like a file.</td>
</tr>
<tr>
<td>1</td>
<td>The folder MUST be sorted like a folder.</td>
</tr>
<tr>
<td>2</td>
<td>The folder MUST be for a site.</td>
</tr>
</tbody>
</table>

### 2.1.2.40.2 Child Elements

**Properties**: The properties of the folder.

### 2.1.2.41 SPForm

Specifies a List Form Web Part object for a list in a deployment package.

```xml
<xs:complexType name="SPForm">
    <xs:attribute name="Name" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="Type" use="required">
        <xs:simpleType>
            <xs:restriction base="core:FormType">
                <xs:enumeration value="DisplayForm" />
                <xs:enumeration value="EditForm" />
                <xs:enumeration value="NewForm" />
                <xs:enumeration value="" />
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="Url" type="core:RelativeUrl" use="required" />
    <xs:attribute name="FileId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="Flags" type="xs:unsignedInt" use="required" />
    <xs:attribute name="WebPartIdProperty" type="String255" />
    <xs:attribute name="JSLink" type="xs:string" use="optional" />
</xs:complexType>
```

### 2.1.2.41.1 Attributes
Name: The identifier for this **List Form Web Part**. This **Name** attribute is an object reference corresponding to the **Id** attribute of a **ViewForm** element of type **SPViewForm** in the ViewFormsList.xml file as specified in section 2.8.2.1. The referenced element MUST be in the **deployment package** and the **Type** attribute of the corresponding element MUST be "Forms." This **Name** attribute is also an object reference corresponding to the **Name** attribute of a **WebPart** element of type **SPWebPart** as specified in section 2.1.2.62. The referenced element MUST be in the deployment package.

Type: The type of this List Form Web Part. The meaning for each allowed value of this type is specified in [MS-WSSCAML] section 2.3.1.5.

Url: The server-relative URL to the **Web Part Page** that displays this List Form Web Part.

FileId: An identifier for the Web Part Page that displays this List Form Web Part. This **FileId** attribute is also an object reference corresponding to the **Id** attribute of a **File** element of type **SPFile** as specified in section 2.1.2.36. The referenced element MUST be in the deployment package.

Flags: A 4-byte unsigned integer representation of a bit mask corresponding to properties. The valid values of the **view flags** bits are as specified in [MS-WSSFO3] section 2.2.2.13.<41>

WebPartIdProperty: The optional identifier of the **Web Part</42>: If present, it MUST be unique for each page, not start with a number, and contain only a combination of alphanumeric characters and underscores.

JSLink: If present, an implementation-specific string that contains the location of script files to use when rendering items in this **list</43>**

2.1.2.42 **SPFormCollection**

Specifies a collection of **List Form Web Part** objects.

```
<xs:complexType name="SPFormCollection">
  <xs:sequence>
    <xs:element name="Form" type="SPForm" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

2.1.2.42.1 **Child Elements**

**Form**: A child element for each of the **List Form Web Part** objects contained by this collection element that conforms to the **SPForm** complex type (see section 2.1.2.41).

2.1.2.43 **SPGenericObject**

Specifies an implementation object.

```
<xs:complexType name="SPGenericObject">
  <xs:sequence>
    <xs:choice minOccurs="0" maxOccurs="1">
      <xs:element name="Site" type="SPSite"/>
      <xs:element name="Web" type="SPWeb"/>
      <xs:element name="List" type="SPList"/>
      <xs:element name="DocumentLibrary" type="SPDocumentLibrary"/>
      <xs:element name="ListItem" type="SPListItem"/>
      <xs:element name="Folder" type="SPFolder"/>
      <xs:element name="File" type="SPFile"/>
      <xs:element name="ContentType" type="SPContentType"/>
    </xs:choice>
  </xs:sequence>
</xs:complexType>
```
2.1.2.43.1 Attributes

**ObjectType**: the type of this object. MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPSite</td>
<td>The object is a site collection.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SPWeb</td>
<td>The object is a <em>site</em>.</td>
</tr>
<tr>
<td>SPList</td>
<td>The object is a <em>list</em>.</td>
</tr>
<tr>
<td>SPDocumentLibrary</td>
<td>The object is a <em>document library</em>.</td>
</tr>
<tr>
<td>SPLListItem</td>
<td>The object is a <em>list item</em>.</td>
</tr>
<tr>
<td>SPFolder</td>
<td>The object is a <em>Folder</em>.</td>
</tr>
<tr>
<td>SPFile</td>
<td>The object is a <em>document</em>.</td>
</tr>
<tr>
<td>SPCContentType</td>
<td>The object is a <em>content type</em>.</td>
</tr>
<tr>
<td>DeploymentWebStructure</td>
<td>The object is a Navigation Structure.</td>
</tr>
<tr>
<td>DeploymentUserX</td>
<td>The object specifies information about changes that have occurred to a <em>security principal</em> (2).</td>
</tr>
<tr>
<td>DeploymentGroupX</td>
<td>The object specifies information about changes that have occurred to a <em>security group</em>.</td>
</tr>
<tr>
<td>DeploymentRoles</td>
<td>The object is a collection of <em>role definitions</em>.</td>
</tr>
<tr>
<td>DeploymentRoleX</td>
<td>The object specifies information about changes that have occurred to a role definition.</td>
</tr>
<tr>
<td>DeploymentRoleAssignments</td>
<td>This object is a collection of <em>role assignments</em>.</td>
</tr>
<tr>
<td>DeploymentRoleAssignmentX</td>
<td>The object specifies information about changes that have occurred to a role assignment.</td>
</tr>
<tr>
<td>DeploymentFieldTemplate</td>
<td>The object is a <em>field</em>.</td>
</tr>
<tr>
<td>SPFeature</td>
<td>The object is a <em>feature</em>.</td>
</tr>
<tr>
<td>SPAalert</td>
<td>The object specifies settings for an <em>alert subscription</em></td>
</tr>
</tbody>
</table>

**Id:** The identifier of the deployment system object. This is an object reference corresponding to the Id of a RootObject element of type SPRootObject in the RootObjectMap.xml file as specified in section 2.5.2.1.

**ParentId:** The identifier of the parent deployment system object. If not an empty string, this attribute is an object reference corresponding to the Id of a deployment object, as specified in section 2.1.2.43.

**IsDeleted:** Specifies whether the object has been deleted.

**IsSiteRename:** Specifies whether the object was renamed. If ObjectType is not SPWeb IsSiteRename MUST NOT be present.

**ParentWebId:** If ObjectType is SPWeb, it specifies the identifier of this site, otherwise the identifier of the parent site. If ObjectType is SPWeb, the value of this attribute MUST be the same as the value of the Id attribute. Otherwise, if the value of this attribute is not an empty string, this attribute is an object reference corresponding to the Id of a site as specified in section 2.1.2.61.

**ParentWebUrl:** If ObjectType is SPWeb, it specifies the server-relative URL of this site, otherwise the server-relative URL of the parent site. If ObjectType is SPWeb, the value of this attribute MUST be the same as the value of Url.
**ContentTypeId**: The identifier of the object content type. MUST be a content type identifier as specified in [MS-WSSCAML] section 2.3.1.4. MUST be present if **IsDeleted** is true and **ObjectType** is **SPContentType** or **DeploymentFieldTemplate**. Otherwise MUST NOT be present.

**Url**: The server-relative URL to the object. MUST be present if **ObjectType** is one of the following: **SPWeb**, **SPList**, **SPDocumentLibrary**, **SPListItem**, **SPFolder**, **SPFile**, **SPContentType**, or **DeploymentFieldTemplate**. Otherwise MUST NOT be present.

### 2.1.2.43.2 Child Elements

If the value of either the **IsDeleted** or the **IsSiteRename** attribute is true, the **SPObjec** element MUST contain no child elements. Otherwise, the **SPObjec** element MUST either contain no child elements or contain one of the following child elements. For each particular value of the **ObjectType** attribute the single child element MUST be of the specific type described in the following table.

<table>
<thead>
<tr>
<th>ObjectType attribute value</th>
<th>Child element</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPSite</td>
<td><strong>Site</strong>: An instance of an <strong>SPSite</strong> complex type (see section 2.1.2.53) specifying a site collection object.</td>
</tr>
<tr>
<td>SPWeb</td>
<td><strong>Web</strong>: An instance of an <strong>SPWeb</strong> complex type (see section 2.1.2.61) specifying a site object.</td>
</tr>
<tr>
<td>SPList</td>
<td><strong>List</strong>: An instance of an <strong>SPList</strong> complex type (see section 2.1.2.47) specifying a list object.</td>
</tr>
<tr>
<td>SPDocumentLibrary</td>
<td><strong>DocumentLibrary</strong>: An instance of an <strong>SPDocumentLibrary</strong> complex type (see section 2.1.2.29) specifying a document library object.</td>
</tr>
<tr>
<td>SPListItem</td>
<td><strong>ListItem</strong>: An instance of an <strong>SPListItem</strong> complex type (see section 2.1.2.48) specifying a list item object.</td>
</tr>
<tr>
<td>SPFolder</td>
<td><strong>Folder</strong>: An instance of an <strong>SPFolder</strong> complex type (see section 2.1.2.40) specifying a folder object.</td>
</tr>
<tr>
<td>SPFile</td>
<td><strong>File</strong>: An instance of an <strong>SPFile</strong> complex type (see section 2.1.2.36) specifying a document object.</td>
</tr>
<tr>
<td>SPContentType</td>
<td><strong>ContentType</strong>: An instance of an <strong>SPContentType</strong> complex type (see section 2.1.2.28) specifying a content type object.</td>
</tr>
<tr>
<td>DeploymentWebStructure</td>
<td><strong>WebStructure</strong>: An instance of a <strong>DeploymentWebStructure</strong> complex type (see section 2.1.2.14) specifying a Navigation Structure object.</td>
</tr>
<tr>
<td>DeploymentUserX</td>
<td><strong>UserX</strong>: An instance of a <strong>DeploymentUserX</strong> complex type (see section 2.1.2.13) specifying information about changes that have occurred to a security principal (2).</td>
</tr>
<tr>
<td>DeploymentGroupX</td>
<td><strong>GroupX</strong>: An instance of a <strong>DeploymentGroupX</strong> complex type (see section 2.1.2.6) specifying information about changes that have occurred to a security group.</td>
</tr>
<tr>
<td>DeploymentRoles</td>
<td><strong>Roles</strong>: An instance of a <strong>DeploymentRoles</strong> complex type (see section 2.1.2.11) specifying a collection of role definitions.</td>
</tr>
</tbody>
</table>
| DeploymentRoleX            | **RoleX**: An instance of a **DeploymentRoleX** complex type (see section 2.1.2.12) specifying information about changes that have occurred to a role definition.
### ObjectType attribute value | Child element
--- | ---
DeploymentRoleAssignments | **RoleAssignments:** An instance of a DeploymentRoleAssignments complex type (see section 2.1.2.9) specifying a collection of role assignments.
DeploymentRoleAssignmentX | **RoleAssignmentX:** An instance of a DeploymentRoleAssignmentX complex type (see section 2.1.2.10) specifying information about changes that have occurred to a role assignment.
DeploymentFieldTemplate | **FieldTemplate:** An instance of a DeploymentFieldTemplate complex type (see section 2.1.2.5) specifying a field object.
SPFeature | **Feature:** An instance of an SPFeature complex type (see section 2.1.2.32) specifying a Feature object.
SPAlert | **Alert:** An instance of an SPAlert complex type (see section 2.1.2.25) specifying settings for an alert subscription object.

#### 2.1.2.44 SPGenericObjectCollection

Specifies a collection generic objects.

```xml
<xs:complexType name="SPGenericObjectCollection">
  <xs:sequence>
    <xs:element name="SPObject" type="SPGenericObject" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

#### 2.1.2.44.1 Child Elements

**SPObjec:** An instance of an implementation object. The contents of this element MUST conform to the schema specified in section 2.1.2.43.

The following specifies the relative order of objects within the collection:

1. Objects where **SPObjec.ObjectType** is "SPSite" (in any order).

2. Objects where either **SPObjec.ObjectType** is not "SPWeb" or **SPObjec.IsDeleted** is false, such that object referenced by **SPObjec.ParentWebId** does not belong to the collection, sorted in the following order:

   - Objects where **SPObjec.ObjectType** is "DeploymentUserX" (in any order).
   - Objects where **SPObjec.ObjectType** is "DeploymentGroupX" (in any order).
   - Objects where **SPObjec.ObjectType** is "SPWeb" and objects where **SPObjec.ObjectType** is "SPFolder" that do not belong to document library, ordered by **SPObjec.Url** ascending.
   - Objects where **SPObjec.ObjectType** is "SPFile" that do not belong to document library, ordered by **SPObjec.Url** ascending.
Objects where `SPObject.ObjectType` is "DeploymentFieldTemplate", ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPContentType", ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPList" or "SPDocumentLibrary", ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPFolder" that belong to document library, ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPFile" that belong to document library, ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPLISTITEM", ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "DeploymentRoles" (in any order).

Objects where `SPObject.ObjectType` is "DeploymentRoleAssignments" (in any order).

Objects where `SPObject.ObjectType` is "DeploymentRoleX" (in any order).

Objects where `SPObject.ObjectType` is "DeploymentRoleAssignmentX" (in any order).

Objects where `SPObject.ObjectType` is "SPAlert" (in any order).

3. Objects where `SPObject.ObjectType` is "SPWeb", and `SPObject.IsDeleted` is `false`, ordered by `SPObject.Url` ascending, each followed by objects where `SPObject.ParentWebId` is the current `SPWeb`'s `Id`, in the following order:

Objects where `SPObject.ObjectType` is "SPFolder" that do not belong to document library, ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPFile" that do not belong to document library, ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "DeploymentFieldTemplate", ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPContentType", ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPLIST" or "SPDocumentLibrary", ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPFolder" that belong to document library, ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPFile" that belong to document library, ordered by `SPObject.Url` ascending.

Objects where `SPObject.ObjectType` is "SPLISTITEM", ordered by `SPObject.Url` ascending.
- Objects where `SPObjecobject.ObjectType` is "DeploymentRoles" (in any order).
- Objects where `SPObjecobject.ObjectType` is "DeploymentRoleAssignments" (in any order).
- Objects where `SPObjecobject.ObjectType` is "DeploymentRoleX" (in any order).
- Objects where `SPObjecobject.ObjectType` is "DeploymentRoleAssignmentX" (in any order).
- Objects where `SPObjecobject.ObjectType` is "DeploymentWebStructure" (in any order).
- Objects where `SPObjecobject.ObjectType` is “SPAlert” (in any order).

4. Objects where `SPObjecobject.ObjectType` is "SPWeb" and `SPObjecobject.IsDeleted` is true or `SPObjecobject.IsSiteRename` is true, ordered by `SPObjecobject.Url` descending.

5. Objects where `SPObjecobject.ObjectType` is "SPFeature", ordered such that the Feature that is depended upon precedes the one that depends on it, and within that by the time when the Feature was activated, in ascending order.

2.1.2.45  **SPLink**

A link to or from a page, field, or Web Part.

```
<xs:complexType name="SPLink">
  <xs:sequence>
    <xs:attribute name="TargetId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="TargetUrl" type="xs:string" use="required" />
    <xs:attribute name="IsDirty" type="OnlyFalse" use="required" />
    <xs:attribute name="WebPartId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
    <xs:attribute name="LinkNumber" type="xs:int" use="optional" />
    <xs:attribute name="Type" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="Security" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="Dynamic" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="ServerRel" type="core:truefalse_Only_Lowercase" use="optional" />
    <xs:attribute name="Level" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="Search" type="xs:string" use="optional" />
  </xs:sequence>
</xs:complexType>
```

```
<xs:simpleType name="OnlyFalse">
  <xs:restriction base="xs:string">
    <xs:enumeration value="false" />
  </xs:restriction>
</xs:simpleType>
```

2.1.2.45.1  **Attributes**

**TargetId:** The identifier of the target object. If the target of this link is an object contained in the content database, then this MUST be an object reference corresponding to one of the following:

- The `Id` attribute of a `Folder` element of type `SPFolder` as specified in section 2.1.2.40.
- The `Id` attribute of a `File` element of type `SPFile` as specified in section 2.1.2.36.
Otherwise, if the target of this link is not an object contained in the content database, this identifier MUST be unique.

**TargetUrl:** The server-relative URL of the target object.

**IsDirty:** Reserved. MUST be false.

**WebPartId:** If the link is from a Web Part, then this attribute represents the identifier of that Web Part, which is an object reference corresponding to the Name attribute of a Web Part as specified in section 2.1.2.62. Otherwise, this attribute MUST NOT be present.

**LinkNumber:** If WebPartId is present, then this attribute represents the order where this link belongs in the order of all links within the same Web Part. Otherwise, this attribute MUST NOT be present.

**Type:** If WebPartId is present, then this attribute represents the type of link, which MUST be the decimal representation of one of the ASCII character values specified in [MS-WSSFO3] section 2.2.1.2.10. Otherwise, this attribute MUST NOT be present.

**Security:** If WebPartId is present, then this attribute represents the security protocol used for this link, which MUST be the decimal representation of one of the ASCII character values specified in [MS-WSSFO3] section 2.2.1.2.9. Otherwise, this attribute MUST NOT be present.

**Dynamic:** If WebPartId is present, then this attribute represents the form of the target URL, which MUST be the decimal representation of one of the ASCII character values specified in [MS-WSSFO3] section 2.2.1.2.8. Otherwise, this attribute MUST NOT be present.

**ServerRel:** If WebPartId is present, then this attribute specifies whether the target of the link is on the local server. Otherwise, this attribute MUST NOT be present.

**Level:** If WebPartId is present, then this attribute specifies whether the version of the object that contains this link is published or a draft, which MUST be one of the values described in the following table. Otherwise, this attribute MUST NOT be present.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Published</td>
</tr>
<tr>
<td>2</td>
<td>Draft</td>
</tr>
</tbody>
</table>

**Search:** If WebPartId is present, then this attribute represents the queries and fragment associated with the URL of the link, that is, it is the portion of the URI starting with the '?' character as specified in [RFC2396] (see "URI Syntactic Components"). Otherwise, this attribute MUST NOT be present.

For example, given the following URL:


The value for the Search attribute would be the following:

"?Param1=Value1&Param2=Value2#top".

### 2.1.2.46 SPLinkCollection

Specifies a collection of SPLink elements (section 2.1.2.45).

```xml
<xs:complexType name="SPLinkCollection">
```
2.1.2.46.1 Child Elements

Link: A link.

2.1.2.47 SPList

Specifies an instance of a list object.
<xs:attribute name="EventSinkAssembly" type="String255" use="optional" />
<xs:attribute name="SendToLocationName" type="xs:string" use="optional" />
<xs:attribute name="SendToLocationUrl" type="xs:string" use="optional" />
<xs:attribute name="EventSinkClass" type="String255" use="optional" />
<xs:attribute name="EventSinkData" type="String255" use="optional" />
<xs:attribute name="ImageUrl" type="String255" use="required" />
<xs:attribute name="Flags" type="xs:unsignedLong" use="required" />
<xs:attribute name="AllowDeletion" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="AllowMultiResponses" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableAttachments" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableModeration" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableVersioning" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableMinorVersions" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="RequestAccessEnabled" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="DraftVersionVisibility" type="DraftVisibilityType" />
<xs:attribute name="ForceCheckout" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="ExcludeFromTemplate" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="ExcludeFromOfflineClient" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="MultipleDataList" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="Ordered" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="ShowUser" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnablePeopleSelector" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableResourceSelector" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="NoThrottleListOperations" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="Author" type="xs:positiveInteger" use="optional" />
<xs:attribute name="Created" type="xs:dateTime" use="optional" />
<xs:attribute name="OnQuickLaunch" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="ReadSecurity" type="ReadSecurity" use="required" />
<xs:attribute name="WriteSecurity" type="WriteSecurity" use="required" />
<xs:attribute name="Version" type="xs:int" use="required" />
<xs:attribute name="MajorVersionLimit" type="xs:int" />
<xs:attribute name="MajorWithMinorVersionsLimit" type="xs:int" />
<xs:attribute name="EmailAlias" type="String128" use="optional" />
<xs:attribute name="EnableContentTypes" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="NavigateForFormsPages" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="NeedUpdateSiteClientTag" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableDeployWithDependentList" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableFolderCreation" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="DefaultItemOpen" type="DefaultItemOpen" />
<xs:attribute name="DefaultItemOpenUseListSetting" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableAssignToEmail" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableSyndication" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="IrmEnabled" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="IrmExpire" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="IrmReject" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="NoCrawl" type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnforceDataValidation" type="core:truefalse_Only_Lowercase" />
2.1.2.47.1 Attributes

**Id:** The identifier of the list.

**Title:** The title of the specified list.

**TitleResource:** The list title used for a multilingual user interface (MUI). The value MUST be a resource token or a resource identifier.

**RootFolderId:** The identifier of the root folder of the list. This attribute is an object reference corresponding to the Id of a folder as specified in section 2.1.2.40. The referenced element MUST be in the deployment package.

**RootFolderUrl:** The store-relative URL with a leading slash for the root folder of the list.

**ParentWebId:** The identifier of the parent site. This attribute is an object reference corresponding to the identifier of a web site as specified in section 2.1.2.61.

**ParentWebUrl:** The store-relative URL with a leading slash for the parent site.

**BaseType:** Reserved. Readers MUST ignore this value.

**BaseTemplate:** The identifier for the template included in the feature definition or site definition that defines the base structure of this list.

**TemplateFeatureId:** The identifier for the feature that defines the base schema of this list.

**Description:** The description of this list.

**DescriptionResource:** The list description used for a multilingual user interface (MUI). The value MUST be a resource token or a resource identifier.

**Direction:** The direction of text flow for user interface elements presented by this list. The value MUST be one of the following:
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>No explicit direction is specified.</td>
</tr>
<tr>
<td>ltr</td>
<td>Text flow MUST be left to right.</td>
</tr>
<tr>
<td>rtl</td>
<td>Text flow MUST be right to left.</td>
</tr>
</tbody>
</table>

**DocumentTemplateId**: The identifier of the default template to use when a document is created in this document library. MUST be NULL if this list is not a document library.

**EventSinkAssembly**: The name of the assembly for the implementation of the backwards compatible event receiver associated with this list.

**EventSinkClass**: The fully qualified class name of the implementation of the backwards-compatible event receiver associated with this list.

**EventSinkData**: Additional data persisted on behalf of the backwards compatible event receiver implementation to be passed to the backwards compatible event receiver associated with this list.

**SendToLocationName**: The title for the "Send To Location" configured on this list. The SendToLocation is an implementation specific feature that facilitates saving copies of list items and documents to the remote location at the request of the user. The string length of value for SendToLocationName plus the string length of value for SendToLocationUrl MUST be no more than 511 characters.

**SendToLocationUrl**: The URL for the "Send To Location" configured on this list. The SendToLocation is an implementation specific feature that facilitates saving copies of list items and documents to the remote location at the request of the user. The string length of value for SendToLocationName plus the string length of value for SendToLocationUrl MUST NOT be more than 511 characters.

**ImageUrl**: The server-relative URL of the image used to represent this list.

**Flags**: An 8-byte unsigned integer bit mask providing metadata about the list, which can have one or more flags set. The values of the list Flags bits are specified as follows. Additional constraints on the bits for this attribute value are specified by the other attributes of this complex type.

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDEREDLIST</td>
<td>0x0000000000000001</td>
<td>This list is an ordered list (for example, a Links list), and supports ordering and reordering of its items.</td>
</tr>
<tr>
<td>PUBLICLIST</td>
<td>0x0000000000000002</td>
<td>This list is a &quot;public list&quot;. This bit is intended to be ignored.</td>
</tr>
<tr>
<td>UNDELETEABLELIST</td>
<td>0x0000000000000004</td>
<td>This list cannot be deleted (for example, it is crucial to the functioning of the containing site or site collection).</td>
</tr>
<tr>
<td>DISABLEATTACHMENTS</td>
<td>0x0000000000000008</td>
<td>Attachments on list items are disabled. This bit MUST be set if the list is a document library.</td>
</tr>
<tr>
<td>Name</td>
<td>Value</td>
<td>Meaning</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CATALOGLIST</td>
<td>0x0000000000000010</td>
<td>This list is a &quot;catalog&quot; (for example, a Web Part gallery, master page gallery and so on.</td>
</tr>
<tr>
<td>MULTIPLEMTGDATA</td>
<td>0x0000000000000020</td>
<td>This list is associated with a site using the meetings workspace site template, and contains data scoped to each instance of a recurring meeting.</td>
</tr>
<tr>
<td>ENABLEASSIGNTOEMAIL</td>
<td>0x0000000000000040</td>
<td>This list is intended to send alerts when a list item is assigned to a User.</td>
</tr>
<tr>
<td>VERSIONINGENABLED</td>
<td>0x0000000000000080</td>
<td>This list has versioning enabled, and supports creating historical versions of list items when changes occur.</td>
</tr>
<tr>
<td>HIDDENLIST</td>
<td>0x0000000000000100</td>
<td>This list is intended to be hidden from enumeration functions. This is intended for lists implementing infrastructure for an application.</td>
</tr>
<tr>
<td>REQUESTACCESSDENIED</td>
<td>0x0000000000000200</td>
<td>This list is configured to bring up a Page to fill out a form to request access from the owner when a user is denied access while browsing its list items.</td>
</tr>
<tr>
<td>MODERATEDLIST</td>
<td>0x0000000000000400</td>
<td>This list has moderation enabled, requiring an approval process when content is created or modified.</td>
</tr>
<tr>
<td>ALLOWMULTIVOTE</td>
<td>0x0000000000000800</td>
<td>If this list is a survey list, it specifies that multiple responses for a given User are allowed, rather than restricting users to a single response. This flag is ignored for lists that are not survey lists.</td>
</tr>
<tr>
<td>USEFORCEDDISPLAY</td>
<td>0x0000000000001000</td>
<td>This list is intended to use the value of each field's ForcedDisplay attribute (see [MS-WSSFO3] section 2.2.7.3.3&lt;48&gt;) when presenting data from that field.</td>
</tr>
<tr>
<td>DONTSAVEINTEMPLATE</td>
<td>0x0000000000002000</td>
<td>This list is not intended to be serialized as part of saving this site as a site template.</td>
</tr>
<tr>
<td>Name</td>
<td>Value</td>
<td>Meaning</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ROOTWEBONLY</td>
<td>0x0000000000004000</td>
<td>The list Server Template (see [MS-WSSFO3] section 2.2.1.2.12&lt;49&gt;) for this list are intended to be instantiated only in the top-level site of a given site collection.</td>
</tr>
<tr>
<td>MUSTSAVEROOTFILES</td>
<td>0x0000000000008000</td>
<td>When a list Server Template (see [MS-WSSFO3] section 2.2.1.2.12&lt;50&gt;) is being created for this list, documents in the root of the list are also intended to be serialized.</td>
</tr>
<tr>
<td>EMAILINSERTENABLED</td>
<td>0x0000000000010000</td>
<td>Insertion of list items via e-mail is enabled for this list.</td>
</tr>
<tr>
<td>PRIVATELIST</td>
<td>0x0000000000020000</td>
<td>This is a &quot;private&quot; list. When a list server template (see [MS-WSSFO3] section 2.2.1.2.12&lt;51&gt;) based on this list is created, the new list is intended to be given an access control list (ACL) so that only its owner and administrators can access the list.</td>
</tr>
<tr>
<td>FORCECHECKOUT</td>
<td>0x0000000000040000</td>
<td>This document library requires the user to check out documents before modifying them.</td>
</tr>
<tr>
<td>MINORVERSIONENABLED</td>
<td>0x0000000000080000</td>
<td>This list supports creation of minor versions on item revisions.</td>
</tr>
<tr>
<td>MINORAUTHOR</td>
<td>0x0000000000100000</td>
<td>This list requires users have the EditListItems right (as specified in [MS-WSSFO3] section 2.2.2.15) to see minor versions of documents.</td>
</tr>
<tr>
<td>MINORAPPROVER</td>
<td>0x0000000000200000</td>
<td>This list requires users have the ApproveItems permission (as specified in [MS-WSSFO3] section 2.2.2.15) to see minor versions of documents.</td>
</tr>
<tr>
<td>ENABLECONTENTTYPES</td>
<td>0x0000000000040000</td>
<td>The front-end Web server is intended to display a user interface for manipulating multiple content types (for example, a list that contains both announcements and tasks).</td>
</tr>
<tr>
<td>Name</td>
<td>Value</td>
<td>Meaning</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>FIELDSCHEMAMODIFIED</td>
<td>0x000000000008000000</td>
<td>This list has had its schema customized from the version that exists in the on-disk schema file that was used to create it.</td>
</tr>
<tr>
<td>ENABLETHUMBNAIILS</td>
<td>0x000000000010000000</td>
<td>Document parsers in this list are intended to generate thumbnail files corresponding to documents saved to this list. This bit MUST be ignored for lists that are not document libraries.</td>
</tr>
<tr>
<td>ALLOEVEYONEVIEWITEMS</td>
<td>0x000000000200000000</td>
<td>List items in this list are intended to be visible to anyone who has access to the list itself. This is useful for shared resources such as the master page gallery, where one page is used throughout a site collection in Scopes with varying permissions.</td>
</tr>
<tr>
<td>WORKFLOWSASSOCIATED</td>
<td>0x000000000400000000</td>
<td>This list currently has workflows (2) associated with it.</td>
</tr>
<tr>
<td>DISABLEDEPLOYWITHDEPENDENTLIST</td>
<td>0x000000000800000000</td>
<td>This list is not intended to be automatically exported when exporting a list that references it.</td>
</tr>
<tr>
<td>DEFAULTITEMOPEN</td>
<td>0x000000000100000000</td>
<td>Applications generating server transformations of list items in this list prefer to open the list item in a browser rather than in a separate client-side application. Server transformations are performed by server-side document viewers that can allow clients to view documents without additional client software. server transformations are an implementation-specific capability.</td>
</tr>
<tr>
<td>DISABLEFOLDERS</td>
<td>0x000000000200000000</td>
<td>Creation of folders will be blocked in this list.</td>
</tr>
<tr>
<td>RESTRICTEDTEMPLATELIST</td>
<td>0x000000000400000000</td>
<td>This list is intended to not allow advanced views functionality, such as the datasheet view and views involving Web Part to Web Part connections.</td>
</tr>
<tr>
<td>Name</td>
<td>Value</td>
<td>Meaning</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HASCONTENTTYPEORDER</td>
<td>0x0000000080000000</td>
<td>This list specifies custom sorting orders for the list of content types available on a per- folder basis.</td>
</tr>
<tr>
<td>FORCEDEFAULTCONTENTTYPE</td>
<td>0x0000000100000000</td>
<td>When set to 1, new items are assigned the default content type for the list. When set to 0, the content type of the new item is used. The default value is 0.</td>
</tr>
<tr>
<td>CACHESCHEMA</td>
<td>0x0000000200000000</td>
<td>This list is intended to have its schema cached in memory when possible, rather than retrieving the schema every time the list is accessed.</td>
</tr>
<tr>
<td>IGNORESEALEDATTR</td>
<td>0x0000000400000000</td>
<td>This bit MUST NOT be returned by the database. It is used internally when manipulating the schema of sealed fields (disallowing many classes of schema modifications).</td>
</tr>
<tr>
<td>NOCRAWL</td>
<td>0x0000000800000000</td>
<td>This list is intended to not be processed by a search crawler.</td>
</tr>
<tr>
<td>ALWAYSINCLUDECONTENT</td>
<td>0x0000001000000000</td>
<td>Data from this list is intended to be included when it is saved as a list Server Template (see [MS-WSSFO3] section 2.2.1.2.12&lt;52&gt;), even if not otherwise requested.</td>
</tr>
<tr>
<td>DISALLOWCONTENTTYPES</td>
<td>0x0000002000000000</td>
<td>Content type manipulation is disabled on this list.</td>
</tr>
<tr>
<td>SYNDICATIONDISABLED</td>
<td>0x0000004000000000</td>
<td>Really Simple Syndication (RSS) feed (see [RSS2.0]) is disabled for this list.</td>
</tr>
<tr>
<td>IRMENABLED</td>
<td>0x0000008000000000</td>
<td>Information Rights Management (IRM) (see [MS-RMSI] section 1) is enabled for this document library.</td>
</tr>
<tr>
<td>IRMEXPIRE</td>
<td>0x0000010000000000</td>
<td>Expiration of Information Rights Management (IRM) (see [MS-RMSI] section 1) rights is enabled for this document library. Setting this bit requires the IRM (see [MS-RMSI] section 1) enabled bit also be set.</td>
</tr>
<tr>
<td>Name</td>
<td>Value</td>
<td>Meaning</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>IRMREJECT</td>
<td>0x0000020000000000</td>
<td>Documents that do not have a registered Information Rights Management (IRM) (see [MS-RMSI] section 1) protector are blocked from this document library.</td>
</tr>
<tr>
<td>ENABLEPEOPLESELECTOR &lt;53&gt;</td>
<td>0x0000080000000000</td>
<td>Applicable to Calendar-type lists only. If ENABLEPEOPLESELECTOR is set, the People Picker is shown in the List View. For any other lists this flag MUST NOT be set.</td>
</tr>
<tr>
<td>HASVALIDATION &lt;54&gt;</td>
<td>0x0000100000000000</td>
<td>The list has a validation formula (see the ValidationFormula attribute).</td>
</tr>
<tr>
<td>ENABLERESOURCESELECTOR &lt;55&gt;</td>
<td>0x0000200000000000</td>
<td>Applicable to Calendar-type lists only. If ENABLERESOURCESELECTOR is set, the Resource Picker is shown in the List View. For any other lists this flag MUST NOT be set.</td>
</tr>
<tr>
<td>HASEXTERNALDATASOURCE &lt;56&gt;</td>
<td>0x0000400000000000</td>
<td>The list has an external data source (see the DataSource attribute).</td>
</tr>
<tr>
<td>PRESERVEEMPTYVALUES &lt;57&gt;</td>
<td>0x0000800000000000</td>
<td>This flag affects calculated column values. If the flag is set, the value of any formula containing the reference to undefined column will be #NULL; otherwise undefined columns are treated as having default values.</td>
</tr>
<tr>
<td>HASLISTSCOPEDUSERCUSTOMACTIONS &lt;58&gt;</td>
<td>0x0001000000000000</td>
<td>The list has custom actions (see UserCustomActions child element).</td>
</tr>
<tr>
<td>EXCLUDEFROMOFFLINECLIENT &lt;59&gt;</td>
<td>0x0002000000000000</td>
<td>The list is not available offline.</td>
</tr>
<tr>
<td>ENFORCEDATAVALIDATION &lt;60&gt;</td>
<td>0x0004000000000000</td>
<td>Data validation is enforced even for programmatically performed creations, updates of list items. If the flag is not set, validation only affects user interface actions.</td>
</tr>
<tr>
<td>Name</td>
<td>Value</td>
<td>Meaning</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DEFAULTITEMOPENUSELISTSETTING&lt;61&gt;</td>
<td>0x0008000000000000</td>
<td>The flag for this list with value 0x0000000001000000 MUST override any server-wide settings for server transformations. Server transformations are an implementation-specific feature.</td>
</tr>
<tr>
<td>ISAPPLICATIONLIST&lt;62&gt;</td>
<td>0x0010000000000000</td>
<td>This list is part of the infrastructure of the site that contains it and client applications treat it as a top level navigation object when displaying information about the site that contains it.</td>
</tr>
<tr>
<td>DISABLEGRIDEDITING&lt;63&gt;</td>
<td>0x0020000000000000</td>
<td>Views of this list do not display options to bulk edit data in a datasheet view.</td>
</tr>
<tr>
<td>BROWSERFILEHANDLINGSTRICT&lt;64&gt;</td>
<td>0x0040000000000000</td>
<td>Browser execution of active content from files in this library is not allowed.</td>
</tr>
<tr>
<td>NAVIGATEFORFORMSPAGES&lt;65&gt;</td>
<td>0x0080000000000000</td>
<td>The user interface for forms in this list navigates to form pages, instead of hosting the list form in a modal dialog.</td>
</tr>
<tr>
<td>STRICTTYPECOERCION&lt;66&gt;</td>
<td>0x0100000000000000</td>
<td>Calculated expressions in this list MUST return error values in the case of data type mismatch.</td>
</tr>
<tr>
<td>EVERENABLEDDRAFT&lt;67&gt;</td>
<td>0x0200000000000000</td>
<td>This list at one time supported creation of minor versions on item revisions, so minor versions can exist for items in this list.</td>
</tr>
<tr>
<td>NEEDUPDATESITECLIENTTAG&lt;68&gt;</td>
<td>0x0400000000000000</td>
<td>When an item in this list is modified, the application file cache version for the site that contains this list MUST be updated.</td>
</tr>
<tr>
<td>READONLYUI&lt;69&gt;</td>
<td>0x0800000000000000</td>
<td>This list is intended to be displayed in a <strong>read-only mode</strong>.</td>
</tr>
<tr>
<td></td>
<td>0xFC00000000000000</td>
<td>Unused.</td>
</tr>
</tbody>
</table>

**AllowDeletion:** Specifies whether the list can be deleted. If the value is false, the **UNDELETABLELIST** flag of the **Flags** attribute MUST be 1; otherwise, the flag MUST be 0.

**AllowMultiResponses:** Specifies whether multiple responses are allowed for a given user when the list is a survey list. The value MUST be ignored when the list is not a survey list. If the value is true, the **ALLOWMULTIVOTE** flag of the **Flags** attribute MUST be 1; otherwise, the flag MUST be 0.

**EnableAttachments:** Specifies whether **attachments** on items are enabled. If the value is false, the **DISABLEATTACHMENTS** flag of the **Flags** attribute MUST be 1; otherwise, the flag MUST be 0.
EnableModeration: Specifies whether the list has moderation enabled, requiring an approval process when content is created or modified. If the value is true, the MODERATEDLIST flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnableVersioning: Specifies whether the list has versioning enabled and supports creating historical versions of list items when changes occur. If the value is true, the VERSIONINGENABLED flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnableMinorVersions: Specifies whether the list supports creation of minor versions on item revisions. If the value is true, the MINORVERSIONENABLED flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

RequestAccessEnabled: Specifies whether the list is configured to bring up a page to fill out a form to request access from the owner when a user is denied access while browsing list items in the list. If the value is false, the REQUESTACCESSDENIED flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0. If the value of the IncludeSecurity attribute of type SPIncludeSecurity as specified in section 2.2.4.4 is none, this value MUST be ignored.

DraftVersionVisibility: The type of users who can view the minor version of the documents within the list. If the value is "Reader", the MINORAUTHOR flag of the Flags attribute MUST be 0, and the flag MINORAPPROVER of the Flags attribute MUST be 0. If the value is "Author", the MINORAUTHOR flag of the Flags attribute MUST be 1, and the flag MINORAPPROVER of the Flags attribute MUST be 0. If the value is "Approver", the MINORAUTHOR flag of the Flags attribute MUST be 0, and the MINORAPPROVER flag of the Flags attribute MUST be 1. If the value is "Author or Approver", at least one of EnableModeration or EnableMinorVersions MUST be true. The type of this attribute is specified in section 2.1.4.2.

ForceCheckout: Specifies whether the document library requires the user to check out documents before modifying them. If the value is true, the FORCECHECKOUT flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

ExcludeFromTemplate: Specifies whether the list is not serialized as part of saving this site as a site template. If the value is true, the DONTSAVEINTEMPLATE flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

ExcludeFromOfflineClient: Specifies whether the list is available to offline clients. If the value is true, the EXCLUDEFROMOFFLINECLIENT flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

Hidden: Specifies whether the list is hidden from enumeration functions. If the value is true, the HIDDENLIST flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

MultipleDataList: Specifies whether the list is associated with a site using the meetings workspace site template and contains data scoped to each instance of a recurring meeting. If the value is true, the MULTIPLEMTGDATALIST flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

Ordered: Specifies whether the list is an ordered list and supports ordering and reordering of its items. If the list is not a generic list, this attribute MUST be ignored. If the value is true, the ORDEREDLIST flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

ShowUser: Specifies whether the list uses the value of each field's ForcedDisplay attribute (see [MS-WSSFO3] section 2.2.7.3.3) when presenting data from that field. If the value is true, the USEFORCEDDISPLAY flag in the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnablePeopleSelector: Applicable to Calendar-type lists only. If EnablePeopleSelector is true, the People Picker is shown in the List View. For any other lists, this flag MUST NOT be set. If the value is true, the ENABLEPEOPLESELECTOR flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.
EnableResourceSelector: Applicable to Calendar-type lists only.<73> If EnableResourceSelector is true, the Resource Picker is shown in the List View. For any other lists, this flag MUST NOT be set. If the value is true, the ENABLERESOURCESELECTOR flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

NoThrottleListOperation: Specifies that the list is exempt from the throttling mechanism, which prevents monopolization of back-end database server processing by intensively used or very large lists.<74> This flag MUST be ignored unless import is performed by or on behalf of the user in the Farm Administrators group.

Author: The identifier of the user who created this list. If the value is 0 or less than 0, the current user is used as author. If the attribute is not present, the current user is used as author.

Created: The created time of the list.

OnQuickLaunch: Specifies whether the list is to be placed on Quick Launch navigation node. If the value is true, the value of Hidden MUST be false. If the value is true, the list MUST have a default view. If the value is true and the list template uses root folder for navigation, there MUST be a navigation node, under the Quick Launch navigation node pointing to the root folder of the list. If the value is true and there is no list template for the list or the list template does not use root folder for navigation, there MUST be a navigation node, under the Quick Launch navigation node pointing to the default View of the list. The navigation node is specified in section 2.1.2.14.

ReadSecurity: Special restrictions that MUST be placed on list item access. This attribute is specified in section 2.1.4.6.

WriteSecurity: Special restrictions that can be placed on list item update. This attribute is specified in section 2.1.4.31.

Version: A counter incremented every time a change is made to the list.

MajorVersionLimit: The number of major versions that are retained for this document. A value of null specifies that versions MUST NOT automatically be removed for this list. If this attribute is present, EnableVersioning MUST be true. The value MUST be at least 0 and MUST NOT be greater than 50,000.

MajorWithMinorVersionsLimit: The number of major versions that have their associated minor versions retained for this document. A value of null specifies that versions MUST NOT automatically be removed for this list. If the attribute is present, at least one of EnableMinorVersions and EnableModeration MUST be true. The value MUST be at least 0 and MUST NOT be greater than 50,000.

EmailAlias: The e-mail alias of the list. This alias is used to allow files to be sent directly to this list through an implementation-specific e-mail handling feature.

EnableContentTypes: Specifies whether the front-end Web servers display a user interface for manipulating multiple content types. If the value is true, the ENABLECONTENTTYPES flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

NavigateForFormsPages: Specifies how links to this list's list forms are handled.<75> If the value is true, links to list forms navigate the browser window to the list form. If the value is false, links to list forms open the list form in a modal dialog in the browser. If the value is true, the NAVIGATEFORFORMSPAGES flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

NeedUpdateSiteClientTag: Specifies whether the application file cache version for the site containing the list MUST be updated when an item in the list is updated.<76> If the value is true, the NEEDUPDATESITECLIENTTAG flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnableDeployWithDependentList: Specifies whether the list is automatically written to the deployment package when writing a list that references it. If the value is false, the
DISABLEDEPLOYWITHDEPENDENTLIST flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnableFolderCreation: Specifies whether creation of folders is allowed in the list. If the value is false, the DISABLEFOLDERS flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

DefaultItemOpen: Specifies whether applications generating server transformations of list items in this list prefer to open the list item in a browser, rather than in a separate client-side application. Server transformations are performed by server-side document viewers that can allow clients to view documents without additional client software. If the value is "PreferClient", the DEFAULTITEMOPEN flag of the Flags attribute MUST be 0. If the value is "Browser", the DEFAULTITEMOPEN flag of the Flags attribute MUST be 1. The value MUST be one of the values in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreferClient</td>
<td>A separate client-side application is preferred to open the list item.</td>
</tr>
<tr>
<td>Browser</td>
<td>A browser is preferred to open the list item.</td>
</tr>
</tbody>
</table>

DefaultItemOpenUseListSetting: If this attribute is omitted or is present and set to false, DefaultItemOpen attribute MUST be ignored; otherwise, the DefaultItemOpen attribute MUST be processed. If the value is true, the DEFAULTITEMOPENUSELISTSETTING flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnableAssignToEmail: Specifies whether the list sends alerts when a list item is assigned to a User. If the value is true, the ENABLEASSIGNTOEMAIL flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnableSyndication: Specifies whether RSS feed syndication is enabled for the list. If the value is false, the SYNDICATIONDISABLED flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

IrmEnabled: Specifies whether Information Rights Management (IRM) is enabled for this list. If the value is true, the IRMENABLED flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

IrmExpire: Specifies whether expiration of the IRM is enabled for this list. If the value is true, the IRMEXPIRE flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0. If this value is true, IrmEnabled MUST also be true.

IrmReject: Specifies whether documents that do not have a registered IRM protector are blocked from this list. If the value is true, the IRMREJECT flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0. If this value is true, IrmEnabled MUST also be true.

NoCrawl: Specifies whether the list is processed by a search crawler. If the value is true, the NOCRAWL flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

EnforceDataValidation: Specifies whether data validation is enforced for programmatically performed creations, updates of list items. If the value is false, validation only affects user interface actions. If the value is true, the ENFORCEDATAVALIDATION flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.

PreserveEmptyValues: Specifies the behavior of calculated column values. If the value is true, the value of any formula containing the reference to undefined column is #NULL; otherwise, undefined columns are treated as having default values. If the value is true, the PRESERVEEMPTYVALUES flag of the Flags attribute MUST be 1; otherwise, the flag MUST be 0.
**StrictTypeCoercion:** Specifies how calculated column formulas, validation formulas, and default value formulas are calculated for the list. If the value is true, no automatic coercion is performed between data types except between numbers and dates; instead, the error #VALUE! is returned if a type mismatch is detected. If the value is false, automatic type coercion takes place between all data types. If the value is true, the **StrictTypeCoercion** flag of the **Flags** attribute MUST be 1; otherwise, the flag MUST be 0.

**DataSource:** If **HASEXTERNALDATASOURCE** flag (see the preceding **Flag** attribute) is set, **DataSource** attribute MUST have a non-blank value defining an external data source. Format is implementation-specific.

**ValidationFormula:** The formula to verify whether the values of **ListItem** fields are acceptable and consistent. This formula MUST be non-blank if the **HASVALIDATION** flag (see the **Flags** attribute) is set. The syntax of the formula is specified in [MS-CSOMSPT] section 3.2.5.79.1.1.43.

**ValidationMessage:** The message to display to the user if the **ValidationFormula** fails.

**DisableGridEditing:** Specifies whether the protocol server offers an option for this list to be bulk edited by a spreadsheet application. If the value is true, the flag **DISABLEGRIDEDITING** of the **Flags** attribute MUST be 1; otherwise, the flag MUST be 0.

**BrowserFileHandling:** Specifies whether the file is allowed to be displayed in the web browser. If the value is **SPBrowserHandling.Strict**, the **BROWSERFILEHANDLINGSTRICT** flag of the **Flags** attribute MUST be 1; otherwise, the flag MUST be 0.

**HasUniqueRoleAssignments:** Specifies whether role assignments are uniquely defined for the list or inherited from parent site. MUST be true if role assignments are uniquely defined for the list. Refer [MS-WSSO] section 2.9.1.8 for more information about inheritance. If **IncludeSecurity** of an **ExportSettings** element in the ExportSettings.xml file is not "None", this attribute MUST be present. It MUST NOT be present otherwise.

**ReadOnlyUI:** Specifies whether this list is displayed in a read-only mode. If the value is true, the flag **READONLYUI** of the **Flags** attribute MUST be 1; otherwise, the flag MUST be 0.

**IncludedInMyFilesScope:** Specifies whether this list is accessible to an app principal that has been granted an OAuth scope that contains the string "myfiles" by a case-insensitive comparison when the current user is a site collection administrator of the personal site that contains the list.

**EnableManagedIndexes:** Specifies whether the list can have an index automatically added when the list is large enough, preventing issues with large list views.

### 2.1.2.47.2 Child Elements

**Fields:** A collection of **field** objects contained by this list. This child element is specified in [MS-WSSCAML] section 2.3.2.9.

**ContentTypes:** A collection of **content type** objects contained by this list. This child element is specified in [MS-WSSCAML] section 2.4.8.

**Views:** A collection of **View** objects contained by this list. This child element is specified in section 2.1.2.59. The files associated with the specified **View** objects MUST be in the deployment package.

**Forms:** A collection of **List Form Web Part** objects contained by this list. This child element is specified in section 2.1.2.42. The files associated with the specified List Form Web Part objects MUST be in the deployment package.

**EventReceivers:** A collection of **event receivers** that are registered for the list. The content of this element MUST conform to the schema of the **SPEventReceiverDefinitionCollection** complex type (see section 2.1.2.31). The value of the **EventReceiver.HostType** attribute of all event receivers within this collection MUST be list. The value of the **EventReceiver.HostId** attribute of all event receivers...
receivers within this collection MUST be the value of this element's Id attribute. The value of the EventReceiver.WebId attribute of all event receivers within this collection MUST be the value of this element's ParentWebId.

**DeletedFields:** A collection of DeletedField objects contained by this element. This child element is specified in section 2.1.2.22.

**DeletedViews:** A collection of DeletedView elements denoting views which existed yet have been deleted for that list, as defined in section 2.1.2.23.20.<90>

**DeletedContentTypes:** A collection of DeletedContentType elements denoting content types which existed yet have been deleted for that list, as defined in section.91>

**UserCustomActions:** Extensions of standard user interface for pages displaying this list, as defined in section 2.1.2.54.<92>

**Resources:** Collection of resources in the languages the site supports, as defined in section 2.1.2.56.<93>

**FieldIndexes:** A collection of composite field indices to accelerate sorting and queries for large lists, as defined in section 2.1.2.34.<94>

2.1.2.48 SPLListItem

Specifies a list item.

```xml
<xs:complexType name="SPLListItem">
  <xs:sequence>
    <xs:element name="Fields" type="FieldDataCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Versions" type="SPListItemVersionCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Attachments" type="SPAttachmentCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Links" type="SPLinkCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="EventReceivers" type="SPEventReceiverDefinitionCollection" minOccurs="0" maxOccurs="1" />
  </xs:sequence>

  <xs:attribute name="FileUrl" type="xs:string" use="required" />
  <xs:attribute name="DocId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentFolderId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ProgId" type="xs:string" use="optional" />
  <xs:attribute name="Order" type="xs:float" use="optional" />
  <xs:attribute name="UserSolutionActivated" use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:short">
        <xs:enumeration value="0" /><xs:enumeration value="1" /><xs:enumeration value="2" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>

  <xs:attributeGroup ref="SPLListItemBaseAttributeGroup"/>
</xs:complexType>
```
2.1.2.48.1 Attributes

The attributes in the `SPListItemBaseAttributeGroup` attribute group are specified in section 2.1.3.1. They also include the following:

**DocId:** The identifier of the file or folder associated with this list item. If the value of the `DocType` attribute is "file", this is an object reference corresponding to the `Id` of a `File` element of type `SPFile` as specified in section 2.1.2.36. The referenced element MUST be in the deployment package. If, the value of the `DocType` attribute is "Folder", this is an object reference corresponding to the `Id` of a `Folder` element of type `SPFolder` as specified in section 2.1.2.40. The referenced element MUST be in the deployment package. Otherwise, this attribute is reserved and MUST be a unique identifier.

**FileUrl:** The URL of the list item. If the value of the `DocType` attribute is `folder`, then this is the site-relative URL of the folder associated with this list item. If the value of the `DocType` attribute is `file` and this list item has a file associated with it, then this is the site-relative URL of the file associated with this list item. Otherwise, this is the site-relative URL of the list item itself.

**ParentFolderId:** The folder identifier of the folder that contains the list item. This is an object reference corresponding to the `Id` of a folder as specified in section 2.1.2.40.

**ProgId:** Programmatic identifier (ProgID) of the application associated with `ListItem` (if any).<95>

**Order:** Prescribes the display order of the `ListItems`. `ListItems` are shown in the ascending order of `Order` field value.<96>

**UserSolutionActivated:** A sandboxed solution status value.<97> Applies only to the `ListItems` that belong to Solution Catalog document libraries. When set to 1, the solution MUST be activated once imported. For all `ListItems` which are not Solution Catalog document library items this field has no meaning and MUST be omitted or set to 0.

The value MUST be one of the values in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The sandboxed solution has not been activated.</td>
</tr>
<tr>
<td>1</td>
<td>The sandboxed solution has been activated.</td>
</tr>
<tr>
<td>2</td>
<td>The sandboxed solution has been temporarily disabled because it exceeded its resource quota.</td>
</tr>
</tbody>
</table>

2.1.2.48.2 Child Elements

**Versions:** The versions of the list item.

**Fields:** The fields of the list item.

**Attachments:** The attachments of the list item.

**Links:** The links to or from the list item.

**EventReceivers:** Handlers of the events related to `ListItem`, such as `ItemAdding`, `ItemUpdated` and so on, as defined in section 2.1.2.31.<98>

2.1.2.49 SPLListItemVersion

Specifies a version of a list item.
2.1.2.49.1 Attributes

The attributes in the **SPListItemBaseAttributeGroup** attribute group are specified in section 2.1.3.1.

2.1.2.49.2 Child Elements

**Fields:** The fields of the list item.

**Attachments:** The attachments of the list item.

**Links:** The links to or from the list item.

2.1.2.50 **SPListItemVersionCollection**

 Specifies a collection of versions of a list item.

```
<xs:complexType name="SPListItemVersionCollection">
  <xs:sequence>
    <xs:element name="ListItem" type="SPListItemVersion"
      minOccurs="1" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

2.1.2.50.1 Child Elements

**ListItem:** A version of a list item.

2.1.2.51 **SPPersonalization**

Specifies per-user personalization of a Web Part.

```
<xs:complexType name="SPPersonalization">
  <xs:attribute name="UserId" type="xs:int" use="required"/>
  <xs:attribute name="WebPartId" type="core:UniqueIdentifierWithoutBraces"
    use="required"/>
  <xs:attribute name="WebPartOrder" type="xs:int" use="optional"/>
  <xs:attribute name="WebPartZoneId" type="String64" use="optional"/>
  <xs:attribute name="IsIncluded" type="core:TRUEFALSE" use="required"/>
  <xs:simpleType>
    <xs:restriction base="xs:unsignedByte">
      <xs:enumeration value="0"/>
      <xs:enumeration value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:complexType>
```
2.1.2.51.1 Attributes

UserId: The user identifier of the user this personalization applies to. This is an object reference corresponding to the Id attribute of a User element of type DeploymentUser in the UserGroup.xml file as specified in section 2.7.2.3. The referenced element MUST be in the deployment package.

WebPartId: The identifier of the Web Part. This is an object reference corresponding to the Name attribute of a WebPart element of type SPWebPart in the Manifest.xml file as specified in section 2.1.2.62. The referenced element MUST be in the deployment package.

WebPartOrder: The relative position of the Web Part in the Web Part zone for the user this personalization applies to. MUST be a non-negative integer. Web Parts with lower values of the WebPartOrder parameter will be rendered first.

WebPartZoneId: Identifies the Web Part zone this Web Part belongs to for the user this personalization applies to.

IsIncluded: Specifies whether the Web Part is rendered for the user this personalization applies to.

FrameState: The Web Part frame state for the user this personalization applies to. MUST be 0 or 1. 0 specifies Normal, 1 specifies Minimized.

UserProperties: A serialized representation of zero or more personalizable properties on the Web Part. If this value is NULL, then default values will be used for all of the Personalizable Properties on the Web Part.

2.1.2.52 SPPersonalizationCollection

Specifies a collection of personalization object instances.

2.1.2.52.1 Child Elements

Personalization: An instance of a personalization object. The contents of this element MUST conform to the schema of SPPersonalization complex type (section 2.1.2.51).

2.1.2.53 SPSite

Specifies a site collection.
2.1.2.53 Attributes

Id: The identifier of the site collection.

2.1.2.53.2 Child Elements

UserCustomActions: Custom actions extending the site user interface, as defined in section 2.1.2.54.<99>

2.1.2.54 SPUUserCustomActionCollection

Specifies custom actions, extending standard user interface for site, web, or list pages.<100>

For example, custom actions might define buttons, combo boxes, menu items and other visual elements along with their appearance and behavior. The syntax of custom actions is implementation specific.

```xml
<xs:complexType name="SPUserCustomActionCollection">
  <xs:sequence>
    <xs:element name="UserCustomAction"
      type="SPUserCustomActionDefinition"
      minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.1.2.54.1 Child Elements

UserCustomAction: A custom action user interface element as specified in section 2.1.2.55.

2.1.2.55 SPUUserCustomActionDefinition

Specifies a custom action user interface element (its type, appearance and behavior).<101> The syntax of custom actions is implementation specific.

```xml
<xs:complexType name="SPUserCustomActionDefinition">
  <xs:sequence>
    <xs:any minOccurs="1" maxOccurs="2"
      namespace="##any" processContents="skip" />
  </xs:sequence>
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
    use="required" />
  <xs:attribute name="Version" type="xs:string" use="required" />
</xs:complexType>
```

2.1.2.55.1 Attributes

Id: The identifier of custom action.

Version: An implementation specific version identifier.
2.1.2.56  **SPUserResourceCollection**

Specifies the set of localized resources related to a particular deployment system object. For example, a list called "Movies" in English might be shown as "Películas" in Spanish and so on, if the site is designed as multilingual.

```xml
<xs:complexType name="SPUserResourceCollection">
  <xs:sequence>
    <xs:element name="Resource" type="SPUserResourceDefinition" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

### 2.1.2.56.1  Child Elements

**Resource**: A localized resource. This element MUST conform to the XML Schema of the SPUserResourceDefinition complex type specified in section 2.1.2.57.

### 2.1.2.57  **SPUserResourceDefinition**

Specifies a localized resource for a deployment system object.

```xml
<xs:complexType name="SPUserResourceDefinition">
  <xs:sequence>
    <xs:element name="Data" type="SPUserResourceValues" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Type" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:short">
        <xs:enumeration value="0" />  
        <xs:enumeration value="1" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```

#### 2.1.2.57.1  Attributes

**Name**: Unique name of the resource.

**Type**: Specifies whether the resource string in the child SPUserResourceValues elements can span multiple lines. If Type is set to 0, the resource string is a single line and MUST be up to 256 characters long. If Type is set to 1, the resource string is a multi-line string and of unlimited length.

#### 2.1.2.57.2  Child Elements

**Data**: A resource value as specified in section 2.1.2.58.

### 2.1.2.58  **SPUserResourceValues**

Specifies a resource value in one of the languages supported by the site.
<xs:simpleType>
    <xs:restriction base="xs:boolean">
        <xs:pattern value="0|1"/>
    </xs:restriction>
</xs:simpleType>

<x:attribute name="Value" type="xs:string" use="required"/>
</xs:complexType>

### Attributes

**Language**: An language code identifier (LCID) of the language.

**Dirty**: A flag set to true if the value of the language-specific resource is not up-to-date, that is, the default language value has been updated recently, but the value for this particular language has not been updated to reflect the change. When the site is multilingual, one of the supported languages is set as the default. It is assumed that the authoring (for example, creating, updating) of the content is first done in the default language, and then from the default language translated into all non-default languages.

**Value**: Language-specific value for the resource.

### SPView

Specifies a List View Web Part from a list in a deployment package.

```xml
<xs:complexType name="SPView">
    <xs:group ref="core:ViewDefinitionChildElementGroup"/>
    <xs:attributeGroup ref="SPViewBaseAttributeGroup"/>
    <xs:attribute name="Name" type="core:UniqueIdentifierWithoutBraces" use="required"/>
    <xs:attribute name="DefaultView" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="Type" type="core:ViewType" use="optional"/>
    <xs:attribute name="MobileView" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="MobileDefaultView" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="DefaultViewForContentType" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="HackLockWeb" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="FailIfEmpty" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="FreeForm" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="FileDialog" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="AggregateView" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="IncludeRootFolder" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="IncludeVersions" type="core:truefalse_Only_Lowercase" use="required"/>
    <xs:attribute name="ContentTypeID" type="core:ContentTypeId" use="optional"/>
    <xs:attribute name="Url" type="core:RelativeUrl" use="required"/>
    <xs:attribute name="FileId" type="core:UniqueIdentifierWithoutBraces" use="required"/>
    <xs:attribute name="TabularView" type="FALSE_Case_Insensitive_Else_Anything" use="optional"/>
</xs:complexType
### 2.1.2.59.1 Attributes

**Name:** The identifier for this **List View Web Part.** This is an object reference corresponding to the **Id** attribute of a **ViewForm** element of type **SPViewForm** in the **ViewFormsList.xml** file as specified in section 2.8.2.1. The referenced element MUST be in the **deployment package** and the **Type** attribute of the corresponding element MUST be "View". This **Name** attribute is also an object reference corresponding to the **Name** attribute of a **WebPart** element of type **SPWebPart** as specified in section 2.1.2.62. The referenced element MUST be in the deployment package.

**DefaultView:** Specifies whether this **Web Part** displays a List View Web Part which is the default for the containing **list**.

**Type:** The type of this List View Web Part. The value MUST be one of the values in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML</td>
<td>HTML-based view. The VIEWFLAG_HTML bit (0x00000001) of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 1 and the VIEWFLAG_GRID bit (0x00000800), VIEWFLAG_CHART bit (0x00020000), VIEWFLAGCALENDAR bit (0x00080000), VIEWFLAG_GANTT bit (0x04000000) and VIEWFLAG_RECURRANCE_RS bit (0x00002000) bits of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 0. [105]</td>
</tr>
<tr>
<td>GRID</td>
<td>Presents a datasheet view to a rich client application. The VIEWFLAG_GRID bit (0x00000800) of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 1.</td>
</tr>
<tr>
<td>CALENDAR</td>
<td>Displays data on a calendar based on date/time properties of the <strong>list items</strong>. The VIEWFLAGCALENDAR bit (0x00080000) of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 1 and the VIEWFLAG_GRID bit (0x00000800) and VIEWFLAG_CHART bit (0x00020000) bits of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 0.</td>
</tr>
<tr>
<td>RECURRENCE</td>
<td>Requires that the List View Web Part data be expanded based on a calendar recurrence. For example, having a view of list item data for the first Thursday of every month. The <strong>RecurrenceRowset</strong> attribute (specified in section 2.1.3.2) MUST be true and the VIEWFLAG_RECURRANCE_RS bit (0x00002000) of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 1 and the VIEWFLAG_GRID bit (0x00000800), VIEWFLAG_CHART bit (0x00020000), VIEWFLAGCALENDAR bit (0x00080000) and VIEWFLAG_GANTT bit (0x04000000) bits of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 0. [106]</td>
</tr>
<tr>
<td>CHART</td>
<td>Displays HTML-based graphical charts of list item data. The VIEWFLAG_CHART bit (0x00020000) of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 1 and the VIEWFLAG_GRID bit (0x00000800) of the <strong>Flags</strong> attribute (specified in section 2.1.3.2) MUST be 0.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>GANTT</td>
<td>Displays list item data in a Gantt chart. The VIEWFLAG_GANTT bit (0x04000000) of the Flags attribute (specified in section 2.1.3.2) MUST be 1 and the VIEWFLAG_GRID bit (0x00000800), VIEWFLAG_CHART bit (0x00020000) and VIEWFLAGCALENDAR bit (0x00080000) bits of the Flags attribute (specified in section 2.1.3.2) MUST be 0.</td>
</tr>
</tbody>
</table>

**MobileView:** Specifies whether this Web Part displays a List View Web Part which is intended for display on mobile devices. If the value is true then the VIEWFLAG_MOBILE bit (0x00800000) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**MobileDefaultView:** Specifies whether this Web Part displays a List View Web Part, which is the default used when this list is requested from a mobile device. If the value is true then the VIEWFLAG_MOBILEDEFAULT bit (0x00800000) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**DefaultViewForContentType:** Specifies whether this Web Part displays a List View Web Part which is the default for a particular content type. If the value is true then the VIEWFLAG_CONTENTTYPEDEFAULT bit (0x10000000) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**HackLockWeb:** Value is unused and MUST be ignored. If the value is true then the VIEWFLAG_LOCKWEB bit (0x00000010) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**FailIfEmpty:** Specifies whether this Web Part displays a List View Web Part for which, if the query returns no list items, implementations of the front-end Web server returns an HTTP 410 "Gone" error status when displaying as part of an HTTP request, instead of displaying normally. If the value is true then the VIEWFLAG_FAILIFEMPTY bit (0x00000040) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**FreeForm:** Specifies whether this Web Part displays a List View Web Part which presents data in a nontabular fashion. Implementations can format results in a manner compatible with free-form presentation. If the value is true then the VIEWFLAG_FREEFORM bit (0x00000080) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**FileDialog:** Specifies whether this Web Part displays a List View Web Part which is suitable for displaying in an HTML-based file navigation dialog to client applications. If the value is true then the VIEWFLAG_FILEDIALOG bit (0x00000100) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**AggregateView:** Specifies whether this Web Part displays a List View Web Part which has functionality for aggregating data across multiple XML documents within an XML form library. If the value is true then the VIEWFLAG_AGGREGATIONVIEW bit (0x00000400) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**IncludeRootFolder:** Specifies whether this Web Part displays a List View Web Part which fetches the list item for the root folder of the List View Web Part, in addition to the standard behavior of fetching list items contained within it. If the value is true then the VIEWFLAG_INCLUDEROOTFOLDER bit (0x08000000) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.

**IncludeVersions:** Specifies whether this Web Part displays a List View Web Part which displays Historical Versions of list items. If the value is true then the VIEWFLAG_HISTORY bit (0x02000000) of the Flags attribute MUST be 1; otherwise, the bit MUST be 0.
**ContentTypeID:** If this attribute is present then this List View Web Part applies only to Folder content types for this content type identifier.

**Url:** The server-relative URL to Web Part Page that displays this List View Web Part.

**FileId:** An identifier for the Web Part Page that displays this List View Web Part. This FileId attribute is also an object reference corresponding to the Id attribute of a File element of type SPFile in the Manifest.xml file as specified in section 2.1.2.36. The referenced element MUST be in the deployment package.

**TabularView:** Specifies whether the view presents data in a tabular fashion, including check boxes for manipulating list items in the view.<107>

**SPView** also has other attributes as defined in section 2.1.3.2.

### 2.1.2.59.2 Child Elements

All of the child elements from the core:ViewDefinitionChildElementGroup of the ViewDefinition type as specified in [MS-WSSCAML] section 2.3.2.17 are allowed in this type.

#### 2.1.2.60 SPViewCollection

Specifies a collection of List View Web Part objects.

```xml
<xs:complexType name="SPViewCollection">
  <xs:sequence>
    <xs:element name="View" type="SPView" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

#### 2.1.2.60.1 Child Elements

**View:** A child element for each of the List View Web Part objects contained in this collection element.

#### 2.1.2.61 SPWeb

Specifies a site.

```xml
<xs:complexType name="SPWeb">
  <xs:sequence>
    <xs:element name="Properties" type="Dictionary" minOccurs="1" maxOccurs="1"/>
    <xs:element name="SiteEventReceivers" type="SPEventReceiverDefinitionCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="EventReceivers" type="SPEventReceiverDefinitionCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="UserCustomActions" type="SPUserCustomActionCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Resources" type="SPUserResourceCollection" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces" />
</xs:complexType>
```
2.1.2.61.1 Attributes

**Id:** The identifier of the site.

**ParentId:** The identifier of the parent Deployment Object for this site. MUST be an empty GUID if the IsRootWeb attribute is true, otherwise MUST be the same as the ParentId of the SObject element which is the parent element of this Web element.

**Name:** The name of the site. The name MUST be an empty string if the IsRootWeb attribute is true.

**Title:** The title of the site.

**Locale:** The display name of the current culture for regional language-specific data formatting such as currency or date/time settings that are associated with the site. If present MUST be ignored.

**Language:** The LCID associated with the site which is used to control the language resources to be used to display messages on the front-end Web server. This is an object reference corresponding to
the `Id` of a Requirement element of type `SPRequirement` in the `Requirements.xml` file as specified in section 2.4.2.2. The referenced element MUST be in the deployment package.

**IsRootWeb:** Specifies whether the site is the top-level site.

**ServerRelativeUrl:** The server-relative URL of the site. MUST begin with a slash.

**CurrencyLocaleId:** Reserved. If present MUST be ignored.

**RegionalSettingsLocaleId:** The LCID associated with the site which is used to control the current culture for regional language specific data formatting such as currency or date/time settings.

**RequestAccessEmail:** The e-mail address to which requests for access to the site are sent. If **IncludeSecurity** of an ExportSettings element in the ExportSettings.xml file is not "None", this attribute MUST be present. It MUST NOT be present otherwise.

**TimeZoneId:** The time zone identifier for the time zone to be used when displaying time values.\(^<108>\)

**Time24:** Specifies whether to use a 24-hour clock notation when displaying time values for this site. When true, a 24-hour clock notation is used, otherwise a 12-hour clock notation is used.

**CalendarType:** The date display format used by the site. MUST be one of the Calendar Types as specified in `[MS-WSSFO3]` section 2.2.1.2.3.\(^<109>\)

**AdjustHijriDays:** The number of days to extend or reduce the current month in Hijri calendars.

**Collation:** The collation order as specified in [MS-WSSFO3] section 2.2.1.2.4\(^<110>\) used on the site.

**AlternateCalendarType:** The alternative date display format used by the site. The value SHOULD be either 0 (meaning None) or one of the Calendar Types as specified in [MS-WSSFO3] section 2.2.1.2.3.\(^<111>\)

**ShowWeeks:** Specifies whether to show week numbers in the user interface when displaying calendars on the site.

**FirstWeekOfYear:** Specifies how the first week of the year is handled by the calendars on the server. The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The year starts on January 1.</td>
</tr>
<tr>
<td>1</td>
<td>The year starts with the first complete week.</td>
</tr>
<tr>
<td>2</td>
<td>The year starts with the first week of at least four days.</td>
</tr>
</tbody>
</table>

**WorkDays:** Specifies the workdays in a week for this site. The value SHOULD be as specified in [MS-WSSFO3] section 2.2.2.14.\(^<112>\)

**WorkDayStartHour:** The time, in minutes after midnight, at which the work day starts on the calendar in use on the server.

**WorkDayEndHour:** The time, in minutes after midnight, at which the work day ends on the calendar in use on the server.

**FirstDayOfWeek:** The first day of the week used in the calendars on the server. The value MUST be one of the values described in the following table.
<table>
<thead>
<tr>
<th>Value</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Sunday</td>
</tr>
<tr>
<td>1</td>
<td>Monday</td>
</tr>
<tr>
<td>2</td>
<td>Tuesday</td>
</tr>
<tr>
<td>3</td>
<td>Wednesday</td>
</tr>
<tr>
<td>4</td>
<td>Thursday</td>
</tr>
<tr>
<td>5</td>
<td>Friday</td>
</tr>
<tr>
<td>6</td>
<td>Saturday</td>
</tr>
</tbody>
</table>

**Value**

**Day**

---

**Description:** The description of the site.

**AlternateHeader:** The **store-relative form** of the **URL** for a custom header HTML page used in pages of the site.

**Author:** A user identifier of the User who created the site. MUST either be equal to 1073741823 (which is the **Id** of the built-in System Account) or be an object reference corresponding to the **Id** of a User element of type **DeploymentUser** in the UserGroup.xml file as specified in section 2.7.2.3. If Author is an object reference, the referenced element MUST be in the deployment package.

**Configuration:** The identifier of the **site template** configuration that is used to provision this site.

**HasUniqueRoleAssignments:** Specifies whether **role assignments** are uniquely defined for the site or inherited from a parent site. MUST be true if role assignments are uniquely defined for the site. Refer to [MS-WSSO] section 2.9.1.8 for more information about inheritance. If **IncludeSecurity** of an **ExportSettings** element in the ExportSettings.xml file is not "None" this attribute MUST be present. It MUST NOT be present otherwise. If present MUST be **true** if **IsRootWeb** is **true**.

**HasUniqueRoleDefinitions:** Specifies whether Role Definitions are uniquely defined for this site or inherited from a parent site. **true** if Role Definitions are uniquely defined for this site. See [MS-WSSO] section 2.9.1.8 for more information about inheritance. If **IncludeSecurity** of an **ExportSettings** element in the ExportSettings.xml file is not "None" this attribute MUST be present. It MUST NOT be present otherwise. If present, MUST be **true** if **IsRootWeb** is **true**.

**Created:** The date and time in **UTC** format when the site was created.

**ThemeComposite:** The **theme** that is applied to the site. MUST be an empty string or a Theme-Specification as defined in [MC-FPSEWM] section 2.2.2.24.

**ThemedCssFolderUrl:** For the Webs which have the theme, contains server-relative URL pointing to the folder with the web’s themed **cascading style sheet (CSS)**. <113>

**WebTemplate:** The name of the site template used to provision this site. This is an object reference corresponding to the template name in the **Id** attribute of a **Requirement** element of type **SPRequirement** in the Requirements.xml file as specified in section 2.4.2.2. The referenced element MUST be in the deployment package.

**RootFolderId:** The identifier of the root folder for the site. This is an object reference corresponding to the **Id** of a Folder element of type **SPFolder** as specified in section 2.1.2.40. The referenced element MUST be in the deployment package.

**SystemCatalogsIncluded:** Reserved. MUST be **true**.

**AlternateCssUrl:** The store-relative form of the URL for a custom cascading style sheet (CSS) files used by pages of the site.
CustomizedCssFiles: A list of custom cascading style sheet (CSS) files associated with this site. Consists of lowercase CSS file names (without extension) as specified by CSSLIST using the Augmented Backus-Naur Form (ABNF) syntax, as specified in [RFC5234]:

\[
\text{CSSLIST} = '' / \text{SEP} 1^*\text{FILE SEP} \\
\text{SEP} = ';#'
\]

Where FILE is the lowercase name of the CSS file (without extension).

The following are examples: ";#file1;#file2;#file3;#"

CustomJSUrl: The store-relative form of the URL to custom JavaScript files used by Pages of the site.

IncludeSupportingFolders: Specifies whether thicket folders and their content are included in enumerations of files or folders in the site.

SecurityProvider: The identifier of the security provider.

MasterUrl: The store-relative form of the URL for the master page used by the Pages of the site.

CustomMasterUrl: The store-relative form of the URL for the custom master page file used by the pages of the site.

SiteLogoUrl: The server-relative URL of the site logo.

SiteLogoDescription: The description of the site logo.

ClientTag: An integer value that represents the application file cache version for files in the site. <114>

UseSharedNavigation: Specifies whether this site uses the navigation bars of its parent site. <115>

UIVersion: Specifies the version of User Interface the site is using. <116> MUST be 3, 4, or 15.

IsMultilingual: Specifies whether the site supports multiple languages. <117>

AlternateUICultures: In case the site is indeed multilingual, this string MUST contain semicolon-delimited list of LCID identifiers of all supported languages. <118> For example, "1035;1053" means "Finnish and Swedish languages are supported". If IsMultilingual is true, this attribute MUST be present, otherwise MUST NOT be present.

OverwriteTranslationsOnChange: A flag which defines a mechanism for updating multilingual content (if indeed the site is multilingual). <119> One language among supported ones is assigned as default, or master language. Depending on this flag, once the master language content is updated, non-default language content is overwritten with default language value (if this flag is true), or retains its non-default language value, though it becomes out of date (if this flag is false). If IsMultilingual is true, this attribute MUST be present, otherwise MUST NOT be present.

AppInstanceId: If present and not an empty GUID, the app instance identifier for the application associated with this site. <120>

NoCrawl: Specifies whether crawling is enabled for the site.

AllowAutomaticASPXPagination: Specifies whether the ASPX pages within the site are allowed to be indexed by search crawler if the ASPXPagination attribute is set to "Automatic". If IncludeSecurity of an ExportSettings element in the ExportSettings.xml file (as specified in section 2.2.2.3.1) is not None this attribute MUST be present. This attribute MUST NOT be present otherwise.

PresenceEnabled: Specifies whether this site allows display of implementation-specific user presence information in the user interface.
SyndicationEnabled: Specifies whether this site has enabled syndication of list items using RSS.

TreeViewEnabled: Specifies whether the user interface for this site displays a hierarchical Navigation.

QuickLaunchEnabled: Specifies whether the user interface for this site displays the Quick Launch navigational element.

ParserEnabled: Specifies whether document parsing is enabled for the site.

Provisioned: Specifies whether the site has been provisioned.

CacheAllSchema: Specifies whether caching of all schemas on the site is enabled.

ASPXPageIndexMode: Specifies whether the .aspx pages of the site are automatically indexed. The value MUST be one of the values in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic</td>
<td>The search crawler MUST index the page if SPWeb.AllowAutomaticASPXPageIndexing is true; otherwise, MUST NOT index.</td>
</tr>
<tr>
<td>Always</td>
<td>The search crawler MUST index all .aspx files in the web site.</td>
</tr>
<tr>
<td>Never</td>
<td>The search crawler MUST never index .aspx files in this web site.</td>
</tr>
</tbody>
</table>

UVersonConfigurationEnabled: If true, the site administrator can configure the version of the user interface (see the UVersion attribute).

ExcludeFromOfflineClient: Specifies whether this site is visible to offline clients.

EnableMinimalDownload: Specifies whether the site will use the minimal download strategy by default.

The minimal download strategy will use a single .aspx file (start.aspx) for your pages, with the actual URL encoded in the text following the hashmark ('#'). When navigating from page to page, only the changes between two compatible pages will be downloaded. Fewer bytes will be downloaded and the page will appear more quickly.

2.1.2.61.2 Child Elements

Properties: The site properties. The contents of this element MUST conform to the schema of Dictionary complex type (section 2.1.2.16).

SiteEventReceivers: A collection of event receivers that are registered for the site collection this site belongs to. The contents of this element MUST conform to the schema of SPEventReceiverDefinitionCollection complex type (section 2.1.2.31). The value of the EventReceiver.HostType attribute of all event receivers within this collection MUST be "Site". The value of the EventReceiver.HostId attribute of all event receivers within this collection MUST be the Id of the site collection this site belongs to (see section 2.1.2.53). The value of the EventReceiver.WebId attribute of all event receivers within this collection MUST be the value of this element's Id.

EventReceivers: A collection of event receivers that are registered for the site. The contents of this element MUST conform to the schema of SPEventReceiverDefinitionCollection complex type (section 2.1.2.31). The value of the EventReceiver.HostType attribute of all event receivers within this collection MUST be "Web". The value of the EventReceiver.HostId attribute of all event receivers
within this collection MUST be the value of this element's Id attribute. The value of the EventReceiver.WebId attribute of all event receivers within this collection MUST be the value of this element's Id.

UserCustomActions: Extensions of standard user interface for pages displaying this site, as defined in section 2.1.2.54.<125>

Resources: Collection of site resources in the languages the site supports, as defined in section 2.1.2.56.<126>

2.1.2.62 SPWebPart

Specifies a Web Part object instance appearing in one of the Web Part Page documents in this deployment package.

```xml
<xs:complexType name="SPWebPart">
  <xs:group ref="core:ViewDefinitionChildElementGroup"/>
  <xs:attributeGroup ref="SPViewBaseAttributeGroup"/>
  <xs:attribute name="Name" type="core:UniqueIdentifierWithoutBraces" use="required"/>
  <xs:attribute name="UserId" type="xs:int" use="optional"/>
  <xs:attribute name="ListId" type="core:UniqueIdentifierWithoutBraces" use="optional"/>
  <xs:attribute name="ListRootFolderUrl" type="core:RelativeUrl" use="optional"/>
  <xs:attribute name="Version" type="xs:int" use="optional"/>
  <xs:attribute name="AllUsersProperties" type="xs:base64Binary" use="optional"/>
  <xs:attribute name="PerUserProperties" type="xs:base64Binary" use="optional"/>
  <xs:attribute name="Source" type="xs:string" use="optional"/>
  <xs:attribute name="ContentTypeId" type="core:ContentTypeId" use="optional"/>
  <xs:attribute name="Assembly" type="xs:string" use="optional"/>
  <xs:attribute name="Class" type="xs:string" use="optional"/>
  <xs:attribute name="SolutionId" type="core:UniqueIdentifierWithoutBraces" use="optional"/>
  <xs:attribute name="Type" use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:int">
        <xs:minInclusive value="-1"/>
        <xs:maxInclusive value="10"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Level" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="major"/>
        <xs:enumeration value="minor"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```

2.1.2.62.1 Attributes

SPWebPart can have any attribute defined in the SPViewBaseAttributeGroup attribute group as specified in section 2.1.3.2. In addition, it has the following attributes:

Name: The identifier for this Web Part instance.
**UserId:** The *security principal* (2) identifier of the user who created the Web Part on a **personalized Web Parts Pages**. If **Personal** is false, this attribute MUST NOT be present. This **UserId** attribute is an object reference corresponding to the **Id** attribute of a **User** element of type **DeploymentUser** in the **UserGroup.xml** file as specified in section 2.7.2.3.

**ListId:** If this Web Part is a **List View Web Part** or **List Form Web Part**, this is the identifier for the target **list**. Otherwise MUST NOT be present.

**ListRootFolderUrl:** If this Web Part is a List View Web Part or List Form Web Part, this is a **Server**-relative **URL** to the root folder of the target list. Otherwise MUST NOT be present.

**Version:** The version of the Web Part.

**AllUsersProperties:** A serialized representation of zero or more customizable properties on the Web Part. If this value is NULL, default values are used for all of the customizable properties on the Web Part.

**PerUserProperties:** A serialized representation of zero or more personalizable properties on the Web Part. If this value is NULL, default values will be used for all of the personalizable properties on the Web Part.

**Source:** A collection of Web Part properties in a string format as specified in [MS-WPPS] section 2.2.4.4.<127>

**ContentTypeId:** If this attribute is present, this Web Part displays a List View Web Part to be shown to users, only when in the context of the **Folder** content types for this **content type identifier**.

**Type:** The **Page Type** of this Web Part as specified in [MS-WSSFO3] section 2.2.1.2.14.<128>

**Level:** A value specifying the **publishing level** of the Web Part. The value MUST be one of the values in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>major</td>
<td>A Web Part in a <strong>Published</strong> state shown to all users who have access to it.</td>
</tr>
<tr>
<td>minor</td>
<td>A Web Part in a <strong>Draft</strong> state shown to only to users who have permissions to see Web Parts in a draft state.</td>
</tr>
</tbody>
</table>

**Assembly:** Fully qualified **assembly** name of the assembly that contains this Web Part (for Web Parts deployed as part of the solution).<129>

**Class:** Name of the class defining this Web Part is (for Web Parts deployed as part of the solution).<130>

**SolutionId:** The identifier of the solution this Web Part belongs to (for Web Parts deployed as part of the solution).<131>

### 2.1.2.62.2 Child Elements

All of the child elements of the core:ViewDefinitionChildElementGroup of the ViewDefinition type as specified in [MS-WSSCAML] section 2.3.2.17 are allowed in this type.

### 2.1.2.63 SPWebPartCollection

Specifies a collection of **Web Part** objects.

```xml
<xs:complexType name="SPWebPartCollection">
  <xs:sequence>
    <xs:element name="WebPart" type="SPWebPart" />
  </xs:sequence>
</xs:complexType>
```
2.1.2.63.1 Child Elements

WebPart: A Web Part object contained in this collection.

2.1.3 Attribute Groups

2.1.3.1 SPListItemBaseAttributeGroup

This group specifies the base attributes for a list item or for a version of a list item.

```xml
<xs:attributeGroup name="SPListItemBaseAttributeGroup">
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="DirName" type="xs:string" use="optional" />
    <xs:attribute name="Version" type="VersionString" use="optional" default="1.0" />
    <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="IntId" type="xs:int" use="required" />
    <xs:attribute name="Author" type="xs:int" use="optional" />
    <xs:attribute name="ModifiedBy" type="xs:int" use="optional" />
    <xs:attribute name="TimeCreated" type="xs:dateTime" use="optional" />
    <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="ParentListId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="ModerationStatus" type="SPModerationStatusType" use="optional" />
    <xs:attribute name="ContentTypeId" type="xs:string" use="optional" />
    <xs:attribute name="ThreadIndex" type="xs:string" use="optional" />
    <xs:attribute name="DocType" type="ListItemDocType" default="File" />
    <xs:attribute name="UserLoginName" type="xs:string" use="optional" />
    <xs:attribute name="GroupName" type="xs:string" use="optional" />
    <xs:attribute name="FailureMessage" type="xs:string" use="optional" />
</xs:attributeGroup>
```

2.1.3.1.1 Attributes

Name: The name of the list item.

DirName: The directory name of the list item.

Version: The version of the list item.

Id: The identifier of the list item.

IntId: The identifier of the list item within its containing list.

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

ModifiedBy: The identifier of the user who most recently edited the list item.

TimeCreated: The date and time when the list item was created, which MUST be in UTC format.
**TimeLastModified:** The date and time when the list item was last modified, which MUST be in UTC format.

**ParentWebId:** The site identifier of the site that contains the list item. This is an object reference corresponding to the Id of a site as specified in section 2.1.2.61.

**ParentListId:** The list identifier of the list that contains the list item. This is an object reference corresponding to the Id attribute of a list as specified in section 2.1.2.47.

**ModerationStatus:** The current moderation status of this list item MUST be one of the values from the SPModerationStatusType simple type as specified in section 2.1.4.18.

**ContentTypeId:** The content type identifier of the content type of the list item. This is an object reference corresponding to the Id of a ContentType element of type SPContentType as specified in section 2.1.2.28. The referenced element MUST be in the deployment package.

**ThreadIndex:** If the value of the BaseType attribute of the parent list is "DiscussionBoard", this is the position of the list item within the list that contains the list item. Otherwise, this attribute MUST NOT be present.

**DocType:** The document type of the list item. MUST be one of the values from the ListItemDocType simple type as specified in section 2.1.4.4.

**UserLoginName:** If the list that contains the list item is a user information list and the list item represents a user, then this is the login name of that user. Otherwise, this attribute MUST NOT be present.

**GroupName:** If the list that contains the list item is a user information list and the list item represents a user group, this is the name of that user group. Otherwise, this attribute MUST NOT be present.

**FailureMessage:** An implementation-specific failure message generated when the list item was written to the deployment package.

2.1.3.2 **SPViewBaseAttributeGroup**

Attributes in this group specify details about a List View Web Part. They are used by View elements of type SPView, as specified in section 2.1.2.59. They are also used by WebPart elements of type SPWebPart, as specified in section 2.1.2.62, if those Web Parts are List View Web Parts.

```xml
<xs:attributeGroup name="SPViewBaseAttributeGroup">
  <xs:attribute name="Flags" type="xs:unsignedInt" use="optional" />
  <xs:attribute name="Personal" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="Hidden" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="Threaded" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="FPModified" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="ReadOnly" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="RecurrenceRowset" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="ModerationType" use="optional">
    <xs:simpleType>
      <xs:restriction base="core:ViewModerationType">
        <xs:enumeration value="Moderator" />  
        <xs:enumeration value="Contributor" />  
        <xs:enumeration value="" />  
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:attributeGroup>
```
2.1.3.2.1 Attributes

**Flags**: A 4-byte unsigned integer representation of a bit mask corresponding to view flag properties. The valid values of the view flag bits are specified in [MS-WSSFO3] section 2.2.2.13.<132> Additional constraints on the bits for this attribute value are specified by the other attributes of this complex type.

**Personal**: Specifies whether this Web Part displays a personal view. If the value is true then the VIEWFLAG_PERSONAL bit (0x00040000) of the Flags attribute MUST be 1, otherwise the bit MUST be 0.

**Hidden**: Specifies whether this Web Part displays a List View Web Part which is not displayed in enumerations of the List View Web Parts of this list. If the value is true then the VIEWFLAG_HIDDEN bit (0x00000008) of the Flags attribute MUST be 1, otherwise the bit MUST be 0.

**Threaded**: Specifies whether this Web Part displays a threaded view for discussion boards. If the value is true then the VIEWFLAG_THREADING bit (0x00010000) of the Flags attribute MUST be 1, otherwise the bit MUST be 0.

**FPModified**: Specifies whether this Web Part has been modified by a client application such that it is not compatible with the Web interface for List View Web Part modification. If the value is true then the VIEWFLAG_FPMODIFIED bit (0x00000020) of the Flags attribute MUST be 1, otherwise the bit MUST be 0.

**ReadOnly**: Specifies whether this Web Part is read-only. If the value is true then the VIEWFLAG_READONLY bit (0x00000020) of the Flags attribute MUST be 1, otherwise the bit MUST be 0.

**RecurrenceRowset**: Specifies whether this Web Part displays a List View Web Part which expands data based on a calendar recurrence. If the value is true then the VIEWFLAG_RECURRENCE_RS bit (0x00002000) of the Flags attribute MUST be 1, otherwise the bit MUST be 0.

**ModerationType**: The moderation type of the List View Web Part displayed by this Web Part. This value MUST be one of the values described in the following table.
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderator</td>
<td>This Web Part displays a List View Web Part of a moderated list showing list items for all Users which have a pending or rejected Moderation Status. The VIEWFLAG_MODTYPEMODERATOR bit (0x00008000) of the Flags attribute MUST be 1 and the VIEWFLAG_MODTYPECONTRIBUTOR bit (0x00004000) of the Flags attribute MUST be 0.</td>
</tr>
<tr>
<td>Contributor</td>
<td>This Web Part displays a List View Web Part of a Moderated Lists showing list items for the current User which have a pending or rejected Moderation Status. The VIEWFLAG_MODTYPECONTRIBUTOR bit (0x00004000) of the Flags attribute MUST be 1.</td>
</tr>
<tr>
<td>(empty)</td>
<td>If the value is an empty string, the Web Part displays a List View Web Part without additional Moderation Status criteria. The VIEWFLAG_MODTYPEMODERATOR bit (0x00008000) and VIEWFLAG_MODTYPECONTRIBUTOR bit (0x00004000) bits of the Flags attribute MUST be 0.</td>
</tr>
</tbody>
</table>

**OrderedView:** Specifies whether this Web Part displays a List View Web Part with ordering based on the explicit item order of the list. If the value is true then the VIEWFLAG_ORDERED bit (0x00400000) of the Flags attribute MUST be 1, otherwise the bit MUST be 0.

**Scope:** The recursive scope of the List View Web Part displayed by this Web Part. The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FilesOnly</td>
<td>This Web Part displays a List View Web Part which displays immediate child list items of the specified folder, not including subfolders. The VIEWFLAG_FILESONLY bit (0x00200000) of the Flags attribute MUST be 1 and the VIEWFLAG_RECURSIVE bit (0x00001000) of the Flags attribute MUST be 0.</td>
</tr>
<tr>
<td>Recursive</td>
<td>This Web Part displays a List View Web Part which displays all child list items recursively from the specified folder, not including subfolders. The VIEWFLAG_FILESONLY bit (0x00200000) of the Flags attribute MUST be 1 and the VIEWFLAG_RECURSIVE bit (0x00001000) of the Flags attribute MUST be 1.</td>
</tr>
<tr>
<td>RecursiveAll</td>
<td>This Web Part displays a List View Web Part which displays all child list items recursively from the specified folder, including subfolders. The VIEWFLAG_FILESONLY bit (0x00200000) of the Flags attribute MUST be 0 and the VIEWFLAG_RECURSIVE bit (0x00001000) of the Flags attribute MUST be 1.</td>
</tr>
<tr>
<td>(empty)</td>
<td>If the value is an empty string, this Web Part displays a List View Web Part which displays immediate child list items of the specified folder, including subfolders. The VIEWFLAG_FILESONLY bit (0x00200000) of the Flags attribute MUST be 0 and the VIEWFLAG_RECURSIVE bit (0x00001000) of the Flags attribute MUST be 0.</td>
</tr>
</tbody>
</table>

**DisplayName:** The Display Name for this List View Web Part.

**BaseViewID:** The identifier for the base view for the Web Part.

**WebPartZoneID:** The name identifier of the Web Part zone containing this Web Part.

**WebPartTypeId:** The Web Part type identifier for this Web Part.
**IsIncluded**: Specifies whether this Web Part is visible when displaying the Web Part Page.

**WebPartOrder**: Ordinal number indicating the location of the Web Part in relation to other Web Parts in the same Web Part zone.

**FrameState**: The frame state of the Web Part. The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td><strong>Normal</strong>: The Web Part is displayed in its normal state, with title, content, and placement within the page.</td>
</tr>
<tr>
<td>1</td>
<td><strong>Minimized</strong>: The Web Part is collapsed so that only the title portion of the frame appears.</td>
</tr>
</tbody>
</table>

**WebPartIdProperty**: The optional identifier of the Web Part. If present, it MUST be unique per page, not start with a number, and contain only a combination of alphanumeric characters and underscores.<133>

### 2.1.4 Simple Types

#### 2.1.4.1 Direction

Specifies the direction of text flow for user interface elements presented by a list.

```xml
<xs:simpleType name="Direction">
  <xs:restriction base="xs:string">
    <xs:enumeration value="none" />  <!-- none: No explicit direction is specified. -->
    <xs:enumeration value="ltr" />    <!-- ltr: Text flow is left to right. -->
    <xs:enumeration value="rtl" />    <!-- rtl: Text flow is right to left. -->
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>No explicit direction is specified.</td>
</tr>
<tr>
<td>ltr</td>
<td>Text flow is left to right.</td>
</tr>
<tr>
<td>rtl</td>
<td>Text flow is right to left.</td>
</tr>
</tbody>
</table>

#### 2.1.4.2 DraftVisibilityType

Specifies which users can view the drafts within a list.

```xml
<xs:simpleType name="DraftVisibilityType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Reader" />  <!-- Reader: User can view the drafts. -->
    <xs:enumeration value="Author" />   <!-- Author: User can edit the drafts. -->
    <xs:enumeration value="Approver" /> <!-- Approver: User can approve the drafts. -->
  </xs:restriction>
</xs:simpleType>
```
The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reader</td>
<td>Users who can read list items can view the drafts.</td>
</tr>
<tr>
<td>Author</td>
<td>Users who can edit list items can view the drafts.</td>
</tr>
<tr>
<td>Approver</td>
<td>Users who can approve list items can view the drafts. Authors of a list item can also view drafts of that list item.</td>
</tr>
</tbody>
</table>

2.1.4.3 FeatureVersion

Specifies the version of a feature in a pattern of digits and dots (such as "14.0.1.2"), to keep track of upgrades.

```xml
<xs:simpleType name="FeatureVersion">
    <xs:restriction base="xs:string">
        <xs:pattern value="\d+\.|\d+\.|\d+\." />
    </xs:restriction>
</xs:simpleType>
```

2.1.4.4 ListItemDocType

Specifies the values for the document type of a list item.

```xml
<xs:simpleType name="ListItemDocType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="File" />  
        <xs:enumeration value="Folder" />  
    </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>The list item is a file.</td>
</tr>
<tr>
<td>Folder</td>
<td>The list item is a folder.</td>
</tr>
</tbody>
</table>

2.1.4.5 PackageFileName

Specifies a name of a binary file contained in a deployment package.
2.1.4.6 ReadSecurity

Specifies the restriction on read access to the list items in a list.

```
<xs:simpleType name="ReadSecurity">
  <xs:restriction base="xs:int">
    <xs:enumeration value="1" />
    <xs:enumeration value="2" />
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No special restrictions.</td>
</tr>
<tr>
<td>2</td>
<td>Users see only their own list items. The front-end Web server MUST NOT display list items to users without the ManageLists right unless the list item was created by that user. The ManageLists right is specified in [MS-WSSFO3] section 2.2.2.1.</td>
</tr>
</tbody>
</table>

2.1.4.7 ScopeObjectType

Specifies the type of an object.

```
<xs:simpleType name="ScopeObjectType">
  <xs:restriction base="xs:int">
    <xs:minInclusive value="0"/>
    <xs:maxInclusive value="2"/>
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The object is a site.</td>
</tr>
<tr>
<td>1</td>
<td>The object is a list.</td>
</tr>
<tr>
<td>2</td>
<td>The object is a document or list item</td>
</tr>
</tbody>
</table>
2.1.4.8 SecurityModificationType

Specifies the operation performed by an element that specifies a modification to a deployment system object.

```xml
<xs:simpleType name="SecurityModificationType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Add"/>
    <xs:enumeration value="Delete"/>
    <xs:enumeration value="Update"/>
    <xs:enumeration value="MemberAdd"/>
    <xs:enumeration value="MemberDelete"/>
    <xs:enumeration value="RoleAdd"/>
    <xs:enumeration value="RoleDelete"/>
    <xs:enumeration value="RoleUpdate"/>
    <xs:enumeration value="RoleAssignmentAdd"/>
    <xs:enumeration value="RoleAssignmentDelete"/>
    <xs:enumeration value="ScopeAdd"/>
    <xs:enumeration value="ScopeDelete"/>
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td>Add a new deployment system object.</td>
</tr>
<tr>
<td>Delete</td>
<td>Delete an existing deployment system object.</td>
</tr>
<tr>
<td>Update</td>
<td>Modify an existing deployment system object.</td>
</tr>
<tr>
<td>MemberAdd</td>
<td>Add a member to an existing security group.</td>
</tr>
<tr>
<td>MemberDelete</td>
<td>Delete a member from an existing security group.</td>
</tr>
<tr>
<td>RoleAdd</td>
<td>Add a new role.</td>
</tr>
<tr>
<td>RoleDelete</td>
<td>Delete an existing role.</td>
</tr>
<tr>
<td>RoleUpdate</td>
<td>Update an existing role.</td>
</tr>
<tr>
<td>RoleAssignmentAdd</td>
<td>Add a new role assignment.</td>
</tr>
<tr>
<td>RoleAssignmentDelete</td>
<td>Delete an existing role assignment.</td>
</tr>
<tr>
<td>ScopeAdd&lt;136&gt;</td>
<td>Add new security scope.</td>
</tr>
<tr>
<td>ScopeDelete&lt;137&gt;</td>
<td>Delete a security scope.</td>
</tr>
</tbody>
</table>

2.1.4.9 SPAAlertDeliveryChannels

Specifies the method the alert subscription is configured to use for sending an alert.
This value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>Send using email.</td>
</tr>
<tr>
<td>Sms</td>
<td>Send using <strong>Short Message Service (SMS)</strong>.</td>
</tr>
<tr>
<td>Wns</td>
<td>Send using <strong>Windows Notification Service (WNS)</strong>.</td>
</tr>
</tbody>
</table>

### 2.1.4.10 SPAlertEventType

Specifies the type of **events** that trigger creation of an **alert** by the **alert subscription**.

This value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td>The alert subscription is configured to generate an alert when a new list item is added within the area monitored by the alert subscription.</td>
</tr>
<tr>
<td>Modify</td>
<td>The alert subscription is configured to generate an alert when a new list item is modified within the area monitored by the alert subscription.</td>
</tr>
<tr>
<td>Delete</td>
<td>The alert subscription is configured to generate an alert when a new list item is deleted within the area monitored by the alert subscription.</td>
</tr>
<tr>
<td>Discussion</td>
<td>The alert subscription is configured to generate an alert when a new list item has <strong>Web discussion comments</strong> within the area monitored by the alert subscription.</td>
</tr>
<tr>
<td>All</td>
<td>The alert subscription is configured to generate an alert when any of the above changes occur within the area monitored by the alert subscription.</td>
</tr>
</tbody>
</table>
2.1.4.11 SPAlertFrequency

Specifies the frequency the alert subscription is configured to generate an alert, and the number of changes to include within the individual alert.

```xml
<xs:simpleType name="SPAlertFrequency">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Immediate" />
    <xs:enumeration value="Daily" />
    <xs:enumeration value="Weekly" />
  </xs:restriction>
</xs:simpleType>
```

This value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate</td>
<td>The alert subscription SHOULD send an alert immediately after the configured event occurs.</td>
</tr>
<tr>
<td>Daily</td>
<td>The alert subscription SHOULD send an alert daily with a list of all occurrences of the configured event since the last alert was sent.</td>
</tr>
<tr>
<td>Weekly</td>
<td>The alert subscription SHOULD send an alert weekly with a list of all occurrences of the configured event since the last alert was sent.</td>
</tr>
</tbody>
</table>

2.1.4.12 SPAlertStatus

Specifies the status of the alert subscription.

```xml
<xs:simpleType name="SPAlertStatus">
  <xs:restriction base="xs:string">
    <xs:enumeration value="On" />
    <xs:enumeration value="Off" />
    <xs:enumeration value="Error" />
  </xs:restriction>
</xs:simpleType>
```

This value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>The alert subscription can be triggered to generate new alerts.</td>
</tr>
<tr>
<td>Off</td>
<td>The alert subscription cannot be triggered to generate new alerts.</td>
</tr>
<tr>
<td>Error</td>
<td>An error occurred with the alert subscription and it cannot be triggered to generate new alerts.</td>
</tr>
</tbody>
</table>
2.1.4.13  **SPAlertType**

Specifies the type of alert subscription which describes the area that will be monitored for events.

```xml
<xs:simpleType name="SPAlertType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="List" />  // List
    <xs:enumeration value="Item" />  // Item
    <xs:enumeration value="Custom" /> // Custom
  </xs:restriction>
</xs:simpleType>
```

This value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>List</td>
<td>The alert subscription monitors changes within a specified list.</td>
</tr>
<tr>
<td>Item</td>
<td>The alert subscription monitors changes on a specified list item.</td>
</tr>
<tr>
<td>Custom</td>
<td>The alert subscription monitors changes within a custom scope. This value is reserved and MUST NOT be used.</td>
</tr>
</tbody>
</table>

2.1.4.14  **SPBaseType**

Specifies the underlying type of a list.

```xml
<xs:simpleType name="SPBaseType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="GenericList" />  // GenericList
    <xs:enumeration value="DocumentLibrary" />  // DocumentLibrary
    <xs:enumeration value="DiscussionBoard" /> // DiscussionBoard
    <xs:enumeration value="Survey" />         // Survey
    <xs:enumeration value="Issue" />          // Issue
  </xs:restriction>
</xs:simpleType>
```

This value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GenericList</td>
<td>A generic list.</td>
</tr>
<tr>
<td>DiscussionBoard</td>
<td>A discussion board list.</td>
</tr>
</tbody>
</table>
2.1.4.15  SPBrowserFileHandling

Specifies whether the file is allowed to be displayed in the web browser.\(^{138}\)

```
<xs:simpleType name="SPBrowserFileHandling">
    <xs:restriction base="xs:string">
        <xs:enumeration value="Permissive" />
        <xs:enumeration value="Strict" />
    </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permissive</td>
<td>Specifies that content-types that allow script are allowed to be displayed in the Web browser.</td>
</tr>
<tr>
<td>Strict</td>
<td>Specifies that content-types that allow script MUST be forced to download.</td>
</tr>
</tbody>
</table>

2.1.4.16  SPEventReceiverSynchronization

Specifies the manner the Event Receiver is invoked.\(^{139}\)

```
<xs:simpleType name="SPEventReceiverSynchronization">
    <xs:restriction base="xs:string">
        <xs:enumeration value="Default" />
        <xs:enumeration value="Synchronous" />
        <xs:enumeration value="Asynchronous" />
    </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asynchronous</td>
<td>Event receiver is invoked after (but not necessary immediately after) the event occurs.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Default</td>
<td>By default, &quot;before&quot; events, for example ListAdding, are Synchronous, while &quot;after&quot; events, for example ListAdded, are Asynchronous. See section 2.1.2.30.1, Type attribute for the list of all event types.</td>
</tr>
<tr>
<td>Synchronous</td>
<td>Event receiver is invoked right before or after the related deployment object is imported, and the import process waits for the Event Receiver to complete its action.</td>
</tr>
</tbody>
</table>

### 2.1.4.17 SPListTemplateType

Specifies a list template of a list object.

```xml
<xs:simpleType name="SPListTemplateType">
  <xs:union>
    <xs:simpleType>
      <xs:restriction base='xs:positiveInteger'/>
    </xs:simpleType>
    <xs:simpleType>
      <xs:restriction base='xs:string'>
        <xs:enumeration value="GenericList" />
        <xs:enumeration value="DocumentLibrary" />  
        <xs:enumeration value="Survey" />
        <xs:enumeration value="Links" />
        <xs:enumeration value="Announcements" />
        <xs:enumeration value="Contacts" />
        <xs:enumeration value="Events" />
        <xs:enumeration value="Tasks" />
        <xs:enumeration value="DiscussionBoard" />
        <xs:enumeration value="PictureLibrary" />
        <xs:enumeration value="DataSources" />
        <xs:enumeration value="WebTemplateCatalog" />
        <xs:enumeration value="UserInformation" />
        <xs:enumeration value="WebPartCatalog" />
        <xs:enumeration value="ListTemplateCatalog" />
        <xs:enumeration value="SolutionCatalog" />
        <xs:enumeration value="XMLForm" />
        <xs:enumeration value="MasterPageCatalog" />
        <xs:enumeration value="NoCodeWorkflows" />
        <xs:enumeration value="WorkflowProcess" />
        <xs:enumeration value="WebPageLibrary" />
        <xs:enumeration value="CustomGrid" />
        <xs:enumeration value="DataConnectionLibrary" />
        <xs:enumeration value="GanttTasks" />
        <xs:enumeration value="Meetings" />
        <xs:enumeration value="Agenda" />
        <xs:enumeration value="MeetingUser" />
        <xs:enumeration value="Decision" />
        <xs:enumeration value="MeetingObjective" />
        <xs:enumeration value="TextBox" />
        <xs:enumeration value="ThingsToBring" />
        <xs:enumeration value="HomePageLibrary" />
        <xs:enumeration value="Posts" />
        <xs:enumeration value="Comments" />
        <xs:enumeration value="Categories" />
        <xs:enumeration value="IssueTracking" />
        <xs:enumeration value="AdminTasks" />
        <xs:enumeration value="ThemeCatalog" />
        <xs:enumeration value="NoCodePublic" />
      </xs:restriction>
    </xs:simpleType>
  </xs:union>
</xs:simpleType>
```
The value MUST be one of the values in the following table or any integer that has been defined as a list Template type, as specified in [MS-WSSFO3] section 2.2.1.2.12.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GenericList</td>
<td><strong>Generic list</strong> template.</td>
</tr>
<tr>
<td>DocumentLibrary</td>
<td><strong>Document library</strong> template.</td>
</tr>
<tr>
<td>Survey</td>
<td>Survey template.</td>
</tr>
<tr>
<td>Links</td>
<td>Links template.</td>
</tr>
<tr>
<td>Announcements</td>
<td>Announcements template.</td>
</tr>
<tr>
<td>Contacts</td>
<td>Contacts template.</td>
</tr>
<tr>
<td>Events</td>
<td>Events template.</td>
</tr>
<tr>
<td>Tasks</td>
<td>Tasks template.</td>
</tr>
<tr>
<td>DiscussionBoard</td>
<td>Discussion template.</td>
</tr>
<tr>
<td>PictureLibrary</td>
<td>Image library template.</td>
</tr>
<tr>
<td>DataSources</td>
<td>Data sources template.</td>
</tr>
<tr>
<td>WebTemplateCatalog</td>
<td>Web template catalog template.</td>
</tr>
<tr>
<td>UserInformation</td>
<td>User information catalog template.</td>
</tr>
<tr>
<td>WebPartCatalog</td>
<td><strong>Web Part gallery</strong> template.</td>
</tr>
<tr>
<td>ListTemplateCatalog</td>
<td>List template catalog template.</td>
</tr>
<tr>
<td>SolutionCatalog</td>
<td>Solution catalog template.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>XMLForm</td>
<td>XML form template.</td>
</tr>
<tr>
<td>MasterPageCatalog</td>
<td>Master page catalog template.</td>
</tr>
<tr>
<td>NoCodeWorkflows</td>
<td>No code workflow template.</td>
</tr>
<tr>
<td>WorkflowProcess</td>
<td>Workflow process template.</td>
</tr>
<tr>
<td>WebPageLibrary</td>
<td>Webpage library template.</td>
</tr>
<tr>
<td>CustomGrid</td>
<td>Custom grid template.</td>
</tr>
<tr>
<td>DataConnectionLibrary</td>
<td>Data connection library template.</td>
</tr>
<tr>
<td>WorkflowHistory</td>
<td>Workflow history template.</td>
</tr>
<tr>
<td>GanttTasks</td>
<td>Gantt tasks template.</td>
</tr>
<tr>
<td>Meetings</td>
<td>Meetings template.</td>
</tr>
<tr>
<td>Agenda</td>
<td>Agenda template.</td>
</tr>
<tr>
<td>MeetingUser</td>
<td>Meeting user template.</td>
</tr>
<tr>
<td>Decision</td>
<td>Decision (meeting) template.</td>
</tr>
<tr>
<td>MeetingObjective</td>
<td>Meeting objectives template.</td>
</tr>
<tr>
<td>TextBox</td>
<td>Textbox template.</td>
</tr>
<tr>
<td>ThingsToBring</td>
<td>Things to bring (meeting) template.</td>
</tr>
<tr>
<td>HomePageLibrary</td>
<td>Homepage library template.</td>
</tr>
<tr>
<td>Posts</td>
<td>Posts (blog) template.</td>
</tr>
<tr>
<td>Comments</td>
<td>Comments (blog) template.</td>
</tr>
<tr>
<td>Categories</td>
<td>Categories (blog) template.</td>
</tr>
<tr>
<td>IssueTracking</td>
<td>Issue tracking template.</td>
</tr>
</tbody>
</table>
2.1.4.18 **SPModerationStatusType**

Specifies the *moderation status* of a *list item*.

```xml
<xs:simpleType name="SPModerationStatusType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Approved" />
    <xs:enumeration value="Denied" />
    <xs:enumeration value="Pending" />
    <xs:enumeration value="Draft" />
    <xs:enumeration value="Scheduled" />
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>The list item is approved.</td>
</tr>
<tr>
<td>Denied</td>
<td>The list item has been denied approval.</td>
</tr>
<tr>
<td>Pending</td>
<td>The list item is pending approval.</td>
</tr>
<tr>
<td>Scheduled</td>
<td>The list item has been scheduled for automatic approval at a future date.</td>
</tr>
<tr>
<td>Draft</td>
<td>The list item is a draft. That is, it has not been approved or denied approval or scheduled for automatic approval and it is not pending approval.</td>
</tr>
</tbody>
</table>

2.1.4.19 **SPRoleChangeType**

Specifies the type of a role or *role assignments* change.

```xml
<xs:simpleType name="SPRoleChangeType">
  <xs:restriction base="xs:int">
    <xs:enumeration value="0"/>  
    <xs:enumeration value="1"/>  
    <xs:enumeration value="2"/>  
  </xs:restriction>
</xs:simpleType>
```
This is a set of bit flags. The flag values described in the following table are defined.

<table>
<thead>
<tr>
<th>Value (decimal)</th>
<th>Value (hexadecimal)</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0x0</td>
<td>Normal</td>
<td>This is not an actual flag, but represents the case where none of the flags is set.</td>
</tr>
<tr>
<td>1</td>
<td>0x1</td>
<td>Reinherit</td>
<td>If this flag is set, the inheritance of role definitions and role assignments from the parent site will be re-established.</td>
</tr>
<tr>
<td>2</td>
<td>0x2</td>
<td>UniqueRoleDefinition</td>
<td>If this flag is set, the inheritance of role definitions from the parent site will be broken.</td>
</tr>
<tr>
<td>4</td>
<td>0x4</td>
<td>UniqueAssignment</td>
<td>If this flag is set, the inheritance of role assignments from the parent object will be broken.</td>
</tr>
<tr>
<td>8</td>
<td>0x8</td>
<td>CopyRoleDefinition</td>
<td>If this flag is set, the role definitions are copied from the parent object to the child before breaking the inheritance. If UniqueRoleDefinition is set but this flag is not set, default role definitions will be assigned to the child.</td>
</tr>
<tr>
<td>16</td>
<td>0x10</td>
<td>CopyAssignment</td>
<td>If this flag is set, the role assignments are copied from the parent object to the child before breaking the inheritance. If UniqueRoleDefinition or UniqueAssignment is set but this flag is not set, the role assignments for the child will be empty except for a default role assignment that will be created for the security principal (2) that performed the operation.</td>
</tr>
</tbody>
</table>

Valid flag combinations are described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Combination of flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal</td>
</tr>
<tr>
<td>1</td>
<td>Reinherit</td>
</tr>
<tr>
<td>2</td>
<td>UniqueRoleDefinition</td>
</tr>
<tr>
<td>4</td>
<td>UniqueAssignment</td>
</tr>
<tr>
<td>10</td>
<td>UniqueRoleDefinition + CopyRoleDefinition</td>
</tr>
<tr>
<td>20</td>
<td>UniqueAssignment + CopyAssignment</td>
</tr>
<tr>
<td>26</td>
<td>UniqueRoleDefinition + CopyRoleDefinition + CopyAssignment</td>
</tr>
</tbody>
</table>

All combinations NOT explicitly mentioned in the table are invalid and MUST NOT be used.
2.1.4.20  **SPRoleType**

Specifies a role type.

```xml
<xs:simpleType name="SPRoleType">
  <xs:restriction base="xs:int">
    <xs:minInclusive value="0"/>
    <xs:maxInclusive value="5"/>
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Role Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Custom</td>
</tr>
<tr>
<td>1</td>
<td>Browser</td>
</tr>
<tr>
<td>2</td>
<td>Reader</td>
</tr>
<tr>
<td>3</td>
<td>Contributor</td>
</tr>
<tr>
<td>4</td>
<td>Author</td>
</tr>
<tr>
<td>5</td>
<td>Administrator</td>
</tr>
</tbody>
</table>

2.1.4.21  **String128**

Specifies a string containing less than or equal to 128 characters.

```xml
<xs:simpleType name="String128">
  <xs:restriction base="xs:string">
    <xs:maxLength value="128"/>
  </xs:restriction>
</xs:simpleType>
```

2.1.4.22  **String255**

Specifies a string containing less than or equal to 255 characters.

```xml
<xs:simpleType name="String255">
  <xs:restriction base="xs:string">
    <xs:maxLength value="255"/>
  </xs:restriction>
</xs:simpleType>
```

2.1.4.23  **String255NonEmpty**

Specifies a string containing greater than or equal to 1 and less than or equal to 255 characters.

```xml
<xs:simpleType name="String255NonEmpty">
</xs:simpleType>
```
<xs:restriction base="xs:string">
  <xs:minLength value="1"/>
  <xs:maxLength value="255"/>
</xs:restriction>
</xs:simpleType>

### 2.1.4.24 String256
Specifies a string containing less than or equal to 256 characters.

```xml
<xs:simpleType name="String256">
  <xs:restriction base="xs:string">
    <xs:maxLength value="256"/>
  </xs:restriction>
</xs:simpleType>
```

### 2.1.4.25 String260
Specifies a string containing less than or equal to 260 characters.

```xml
<xs:simpleType name="String260">
  <xs:restriction base="xs:string">
    <xs:maxLength value="260"/>
  </xs:restriction>
</xs:simpleType>
```

### 2.1.4.26 String261
Specifies a string containing less than or equal to 261 characters.

```xml
<xs:simpleType name="String261">
  <xs:restriction base="xs:string">
    <xs:maxLength value="261"/>
  </xs:restriction>
</xs:simpleType>
```

### 2.1.4.27 String512
Specifies a string containing less than or equal to 512 characters.

```xml
<xs:simpleType name="String512">
  <xs:restriction base="xs:string">
    <xs:maxLength value="512"/>
  </xs:restriction>
</xs:simpleType>
```

### 2.1.4.28 String64
Specifies a string containing less than or equal to 64 characters.
2.1.4.29 **StringNonEmpty**

Specifies a string containing greater than or equal to 1 characters.

```
<xs:simpleType name="StringNonEmpty">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
```

2.1.4.30 **WorkDayHour**

Specifies the time of the day in minutes after midnight. For example: 0 means 00:00, 600 means 10:00, 720 means 12:00, 1320 means 22:00, and so on.

```
<xs:simpleType name="WorkDayHour">
  <xs:restriction base="xs:short">
    <xs:minInclusive value="0" />
    <xs:maxInclusive value="1439" />
  </xs:restriction>
</xs:simpleType>
```

2.1.4.31 **WriteSecurity**

Specifies the restriction on write access to the list items in a list.

```
<xs:simpleType name="WriteSecurity">
  <xs:restriction base="xs:int">
    <xs:enumeration value="1" />  <!-- No special restrictions. -->
    <xs:enumeration value="2" />  <!-- Users can modify only their own list items. The front-end Web server MUST NOT allow a user without the ManageLists right to modify a list item unless the list item was created by that user. The ManageLists right is specified in [MS-WSSFO3] section 2.2.2.15. -->
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No special restrictions.</td>
</tr>
<tr>
<td>2</td>
<td>Users can modify only their own list items. The front-end Web server MUST NOT allow a user without the ManageLists right to modify a list item unless the list item was created by that user. The ManageLists right is specified in [MS-WSSFO3] section 2.2.2.15.</td>
</tr>
</tbody>
</table>

[MS-PRIMEPF] - v20181001
Deployment Package Format
Copyright © 2018 Microsoft Corporation
Release: October 1, 2018
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Users cannot modify any list items in the list. The front-end Web server MUST NOT allow users without the ManageLists right to add or modify list items in the list.</td>
</tr>
</tbody>
</table>

2.2 **ExportSettings.xml**

This part of the package contains information about the settings that were in place when the package was produced. The root element is defined as follows:

```xml
<xs:element name="ExportSettings" type="SPExportSettings" /> 
```

2.2.1 **Namespaces**

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1], [XMLSCHEMA2]</td>
</tr>
<tr>
<td>(none)</td>
<td>urn:deployment-exportsettings-schema</td>
<td></td>
</tr>
<tr>
<td>core</td>
<td>urn:deployment-exportsettings-schema</td>
<td>This specification is using the XML schema defined in [MS-WSSCAML], but replacing the &quot;<a href="http://schemas.microsoft.com/sharepoint/soap">http://schemas.microsoft.com/sharepoint/soap</a>&quot; targetNamespace of the schema with &quot;urn:deployment-exportsettings-schema&quot;.</td>
</tr>
</tbody>
</table>

2.2.2 **Complex Types**

2.2.2.1 **SPExportObject**

Specifies a **site collection**, **site**, or **list item** from which the **deployment package** was generated.

```xml
<xs:complexType name="SPExportObject">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="Type" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Site"/>
        <xs:enumeration value="Web"/>
        <xs:enumeration value="ListItem"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```
<xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces"
    use="required" />
<xs:attribute name="Url" type="xs:string"
    use="optional" />
<xs:attribute name="ExcludeChildren" type="core:truefalse_Only_Lowercase"
    use="required" />
<xs:attribute name="IncludeDescendants" type="SPIncludeDescendants"
    use="required" />
<xs:attribute name="ExportChangeToken" type="SPExportChangeToken"
    use="optional" />
</xs:complexType>

### 2.2.2.1 Attributes

**Id**: Either an empty GUID or the identifier of the deployment system object. When not an empty GUID, this is an object reference corresponding to the Id attribute of a deployment system object as specified in section 2.1.2.43. If the value is an empty GUID, the Url attribute MUST specify a URL of a deployment system object.

**Type**: The type of deployment system object. This MUST be one of the values in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>The deployment system object is a site collection.</td>
</tr>
<tr>
<td>Web</td>
<td>The deployment system object is a site.</td>
</tr>
<tr>
<td>ListItem</td>
<td>The deployment system object is a list item.</td>
</tr>
</tbody>
</table>

**ParentId**: Reserved. This value SHOULD be 00000000-0000-0000-0000-000000000000. The value MAY be an object reference to the Id attribute of the parent deployment system object as specified in section 2.1.2.43.

**Url**: The URL of the deployment system object. If this attribute is absent, the Id attribute MUST specify the identifier of a deployment system object. The value of this attribute MUST conform to the restrictions described in the following table, based on the value of the Type attribute.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>The value MUST be set to a slash (/).</td>
</tr>
<tr>
<td>Web</td>
<td>The value MUST be the server-relative URL of the site.</td>
</tr>
<tr>
<td>ListItem</td>
<td>The value MUST be the server-relative URL of the list item.</td>
</tr>
</tbody>
</table>

**ExcludeChildren**: Reserved. Readers MUST ignore this attribute.

**IncludeDescendants**: Reserved. Readers MUST ignore this attribute.

**ExportChangeToken**: Reserved. Readers MUST ignore this attribute. This attribute MUST NOT be present if the ExportMethod attribute of the ExportSettings element of type SPExportSettings as specified in section 2.2.2.3 is ExportAll.

### 2.2.2.2 SPExportObjectCollection

Specifies the site collection or sites or list items from which this deployment package was generated.
2.2.2.2.1 Child Elements

**DeploymentObject**: A site collection, site, or list item from which this deployment package was generated. If any DeploymentObject element has the Type attribute set to site, then that element MUST be the only child element in the collection.

2.2.2.3 SPExportSettings

Specifies the settings that were used when generating the deployment package.

```xml
<xs:complexType name="SPExportSettings">
  <xs:sequence>
    <xs:element name="ExportObjects" type="SPExportObjectCollection" />
  </xs:sequence>
  <xs:attribute name="SiteUrl" type="xs:string" use="required" />  
  <xs:attribute name="FileLocation" type="xs:string" use="required" />
  <xs:attribute name="BaseFileName" type="xs:string" use="required" />
  <xs:attribute name="IncludeSecurity" type="SPIncludeSecurity" use="required" />
  <xs:attribute name="IncludeAlerts" type="core:truefalse_Only_Lowercase" default="false" use="required" />
  <xs:attribute name="IncludeVersions" type="SPIncludeVersions" use="required" />
  <xs:attribute name="ExportMethod" type="SPExportMethodType" use="required" />
  <xs:attribute name="ExportPublicSchema" fixed="true" use="required" />
  <xs:attribute name="ExcludeDependencies" type="core:truefalse_Only_Lowercase" default="true" use="required" />
  <xs:attribute name="ExportFrontEndFileStreams" type="core:truefalse_Only_Lowercase" default="true" use="required" />
  <xs:anyAttribute namespace="##any" processContents="skip" />
</xs:complexType>
```

2.2.2.3.1 Attributes

**SiteUrl**: The absolute URL of the site collection from which this deployment package was generated.

**FileLocation**: An implementation-specific file path. Readers MUST ignore this attribute.

**BaseFileName**: An implementation-specific file name. Readers MUST ignore this attribute.

**IncludeSecurity**: Specifies the user and group information included in the deployment package.

**IncludeAlerts**: Specifies whether the deployment package contains alert subscription deployment system objects. Readers MUST ignore this attribute.

**IncludeVersions**: Specifies which versions of deployment system objects are included in the deployment package.
**ExportMethod**: This protocol allows writers to make an implementation-specific choice of one of the values specified in section 2.2.4.2. Readers MUST ignore this attribute.

**ExportPublicSchema**: This protocol allows writers to make an implementation specific choice of one of the values specified in [MS-WSSCAML] section 2.1.13. Readers MUST ignore this attribute.

**ExcludeDependencies**: Specifies whether the deployment package contains deployment system objects which are not descendants of one of the deployment system objects in the **ExportObjects** element. Readers MUST ignore this value.

**ExportFrontEndFileStreams**: Specifies whether the deployment package contains uncustomized files. Readers MUST ignore this value.<150>

**AnyAttribute**: This protocol allows writers to make implementation specific record keeping attributes during export. Readers MUST ignore these values.

### 2.2.2.3.2 Child Elements

**ExportObjects**: The site collection, sites, or list items from which this deployment package was generated.

### 2.2.3 Attribute Groups

None.

### 2.2.4 Simple Types

#### 2.2.4.1 SPExportChangeToken

Specifies an implementation-specific token string.

```xml
<xs:simpleType name="SPExportChangeToken">
  <xs:restriction base="xs:string">
    <xs:pattern value="[^\d\.\d+;\d+;\d+;\d+;][0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12};[0-9a-fA-F]+;[0-9a-fA-F]+;[0-9a-fA-F]+;[0-9a-fA-F]+;"/>
    <xs:maxLength value="120"/>
  </xs:restriction>
</xs:simpleType>
```

#### 2.2.4.2 SPExportMethodType

Specifies whether the deployment package contains all content from the source or only incremental changes since a particular timestamp.

```xml
<xs:simpleType name="SPExportMethodType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="ExportAll"/>
    <xs:enumeration value="ExportChanges"/>
  </xs:restriction>
</xs:simpleType>
```

This type MUST be one of the values described in the following table.
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExportAll</td>
<td>The deployment package contains all content from the source.</td>
</tr>
<tr>
<td>ExportChanges</td>
<td>The deployment package only contains incremental changes since a particular timestamp.</td>
</tr>
</tbody>
</table>

**2.2.4.3 SPIncludeDescendants**

Specifies whether descendants of a deployment system object are included in the deployment system object.

```xml
<xs:simpleType name="SPIncludeDescendants">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Content" />
    <xs:enumeration value="All" />
  </xs:restriction>
</xs:simpleType>
```

This type MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Descendants of the deployment system object are not included.</td>
</tr>
<tr>
<td>All</td>
<td>Descendants of the deployment system object are included.</td>
</tr>
</tbody>
</table>

**2.2.4.4 SPIncludeSecurity**

Specifies the user and group information included in the deployment package.

```xml
<xs:simpleType name="SPIncludeSecurity">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None" />
    <xs:enumeration value="WssOnly" />
    <xs:enumeration value="All" />
  </xs:restriction>
</xs:simpleType>
```

This type MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No user or group information.</td>
</tr>
<tr>
<td>WssOnly</td>
<td>Only user and group information for users and groups referenced by other deployment system objects within the deployment package.</td>
</tr>
<tr>
<td>All</td>
<td>All user and group information.</td>
</tr>
</tbody>
</table>
### 2.2.4.5 SPIncludeVersions

Specifies which versions of deployment system objects are included in the deployment package.

```xml
<xs:simpleType name="SPIncludeVersions">
  <xs:restriction base="xs:string">
    <xs:enumeration value="LastMajor" />
    <xs:enumeration value="CurrentVersion" />
    <xs:enumeration value="LastMajorAndMinor" />
    <xs:enumeration value="All" />
  </xs:restriction>
</xs:simpleType>
```

This type MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LastMajor</td>
<td>The most recent major version of list items and documents.</td>
</tr>
<tr>
<td>CurrentVersion</td>
<td>The most recent version of list items and documents.</td>
</tr>
<tr>
<td>LastMajorAndMinor</td>
<td>The most recent major version and the most recent minor version of list items and documents.</td>
</tr>
<tr>
<td>All</td>
<td>All versions of list items and documents.</td>
</tr>
</tbody>
</table>

### 2.3 LookupListMap.xml

This file lists links and lookups to other items that need to be processed when reading the package. The root element is defined as follows:

```xml
<xs:element name="LookupLists" type="SPLookupLists" />
```

The LookupListMap.xml document contains all lists which are referenced by a lookup field definitions of a list and all list items which are referenced by a lookup fields of another list item in the deployment package.

The schema is described in detail in the following sections, but at a high level is structured as follows:

```xml
<SPLookupLists>
  <SPLookupList>
    <SPLookupItems>
      <SPLookupItem/>
      <SPLookupItem/>
    </SPLookupItems>
  </SPLookupList>
  <SPLookupList>
    <SPLookupItems>
      <SPLookupItem/>
      <SPLookupItem/>
    </SPLookupItems>
  </SPLookupList>
</SPLookupLists>
```

Consider this example:
Your deployment package contains two lists: Conferences, which has a lookup field definitions: Location which references list HostCities and Keynotes, which has a lookup field definitions: Speaker which references list ConferenceAttendees. Conferences contains a list item for which the field relating to Location, references list item Seattle in HostCities. The LookupListMap.xml from a deployment package which contained all of these deployment system objects would look like this:

```xml
<SPLookupLists>
  <SPLookupList ID="ID of list HostCities" Url="URL of list HostCities" Included="true">
    <SPLookupItems>
      <SPLookupItem ID="ID of list item Seattle" DocId="DocId of list item Seattle" Url="URL of list item Seattle" Included="true" />
    </SPLookupItems>
  </SPLookupList>
  <SPLookupList ID="ID of list ConferenceAttendees" Url="URL of ConferenceAttendees" Included="true">
    <SPLookupItems />
  </SPLookupList>
</SPLookupLists>
```

Because the Included attribute is set to true on all of these elements, it means that the both the HostCities and ConferenceAttendees lists and the Seattle list item are included in the deployment package.

### 2.3.1 Namespaces

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1] [XMLSCHEMA2]</td>
</tr>
<tr>
<td>(none)</td>
<td>urn:deployment-look uplistmap-schema</td>
<td></td>
</tr>
<tr>
<td>core</td>
<td>urn:deployment-look uplistmap-schema</td>
<td>This specification is using the XML schema defined in [MS-WSSCAML], but replacing the &quot;<a href="http://schemas.microsoft.com/sharepointsoap">http://schemas.microsoft.com/sharepointsoap</a>&quot; targetNamespace of the schema with &quot;urn:deployment-look uplistmap-schema&quot;.</td>
</tr>
</tbody>
</table>

### 2.3.2 Complex Types

#### 2.3.2.1 SPLookupItem Type

Specifies a lookup item which is referenced by a lookup field on a list item in the deployment package. Both the Id attribute of an element of this type and the Id of the containing SPLookupList element (section 2.3.2.3) are required to identify the lookup item.

```xml
<xs:complexType name="SPLookupItem">
</xs:complexType>
```
<xs:attribute name="Id" type="xs:int" use="required"/>
<xs:attribute name="DocId" type="core:UniqueIdentifierWithoutBraces" use="required"/>
<xs:attribute name="Url" type="xs:string" use="required"/>
<xs:attribute name="Included" type="core:truefalse_Only_Lowercase" use="required"/>
</xs:complexType>

2.3.2.1.1 Attributes

**Id**: This is an object reference corresponding to the **IntId** of a list item in the Manifest.xml file as specified in section 2.1.3.1 where the **ParentListId** attribute of the list item is equal to the **Id** attribute of this element's parent **SPLookupList** element (section 2.3.2.3).

**DocId**: An object reference corresponding to the **DocId** attribute of a list item as specified in section 2.1.2.48. If the list item referenced by the **Id** attribute of this element still exists, then the value MUST be the list item identifier of that list item, otherwise this value MUST be 00000000-0000-0000-0000-000000000000.

**Url**: The **URL** of the referenced lookup item. If the list item referenced by the **Id** attribute of this element still exists, this value MUST be the server-relative URL of that list item. Otherwise, this value MUST be empty.

**Included**: Specifies whether or not the referenced lookup item is contained in the deployment package. MUST be **true** if the list item referenced by the **Id** attribute is contained in the deployment package. Otherwise, MUST be **false**.

2.3.2.2 SPLookupItems Type

Specifies a collection of **SPLookupItem** elements (section 2.3.2.1) within the deployment manifest.

```xml
<xs:complexType name="SPLookupItems">
  <xs:sequence>
    <xs:element name="LookupItem" type="SPLookupItem" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

2.3.2.2.1 Child Elements

**LookupItem**: An **SPLookupItem** element.

2.3.2.3 SPLookupList Type

Specifies a list which is referenced by at least one lookup field definition of another list or is the parent list of at least one lookup item which is referenced by at least one lookup field of a list item in the deployment package.

```xml
<xs:complexType name="SPLookupList">
  <xs:sequence>
    <xs:element name="LookupItems" type="SPLookupItems" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required"/>
  <xs:attribute name="Url" type="xs:string" use="required"/>
</xs:complexType>
```
2.3.2.3.1 Attributes

**Id:** The identifier of the associated list. This is an object reference corresponding to the Id of a list as specified in section 2.1.2.47).

**Url:** The server-relative URL of the associated list as specified in the documentation for the Id attribute of this element. If the list no longer exists, this value MUST be empty.

**Included:** Specifies whether or not the referenced list is contained in the deployment package. MUST be true if the list referenced by the Id attribute is contained in the deployment package. Otherwise, MUST be false.

2.3.2.3.2 Child Elements

**LookupItems:** A collection of SPLookupItem elements. MUST contain exactly one element for each list item in the list defined by the Id attribute which is referenced by a lookup field of another list item contained in the deployment package.

2.3.2.4 SPLookupLists Type

Specifies the collection of SPLookupList elements in the deployment package.

```xml
<xs:complexType name="SPLookupLists">
    <xs:sequence>
        <xs:element name="LookupList" type="SPLookupList" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
</xs:complexType>
```

2.3.2.4.1 Child Elements

**LookupList:** A collection of SPLookupList elements. MUST contain exactly one element for each lookup list which is referenced by a lookup field definition of another list that is either in the deployment package or which has at least one child list item in the deployment package which references a list item in the lookup list.

2.3.3 Attribute Groups

None.

2.3.4 Simple Types

None.

2.4 Requirements.xml

This file lists resources that need to be present to process the contents of the package. The root element is defined as follows:
2.4.1 Namespaces

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1] [XMLSCHEMA2]</td>
</tr>
<tr>
<td>(none)</td>
<td>urn:deployment-requirements-schema</td>
<td></td>
</tr>
<tr>
<td>core</td>
<td>urn:deployment-requirements-schema</td>
<td>This specification is using the XML schema defined in [MS-WSSCAML], but replacing the &quot;<a href="http://schemas.microsoft.com/sharepoint/soap">http://schemas.microsoft.com/sharepoint/soap</a>&quot; targetNamespace of the schema with &quot;urn:deployment-requirements-schema&quot;.</td>
</tr>
</tbody>
</table>

2.4.2 Complex Types

2.4.2.1 SPImportRequirements

Specifies the required objects that MUST already be installed on any content management system to which the deployment package can successfully be imported.

```xml
<xs:complexType name="SPImportRequirements">
  <xs:sequence>
    <xs:element name="Requirement" type="SPRequirement" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.4.2.1.1 Child Elements

Requirement: A required object.

2.4.2.2 SPRequirement

Specifies a required object for a deployment package.

```xml
<xs:complexType name="SPRequirement">
  <xs:attribute name="Type" type="SPRequirementObjectType" />
  <xs:attribute name="Id" type="xs:string" use="required" />
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Data" type="xs:string" use="optional" />
</xs:complexType>
```
2.4.2.2.1 Attributes

Type: The type of the object.

Id: The identifier of the object. The exact content and form of this identifier depends on the value of Type as described in the following table.

<table>
<thead>
<tr>
<th>Value of Type</th>
<th>Meaning of Id</th>
</tr>
</thead>
<tbody>
<tr>
<td>FeatureDefinition</td>
<td>MUST be the GUID of the required feature in the UniqueIdentifierWithoutBraces format as defined in [MS-WSSCAML] section 2.1.15.</td>
</tr>
</tbody>
</table>
| WebTemplate       | MUST be the site template identifier of the required site template in the following format:  
|                   | <template name>#<id>  
|                   | where <template name> is the name of the site template, # is a literal number sign, and <id> is the instance number of the site template. The instance number of the site template MUST be ignored by readers. |
| WebPart           | MUST be the string identifier of the assembly that defines the Web Part in the following format:  
|                   | <Name of the Web Part assembly>.dll <.NET Framework version>  
|                   | Example: Microsoft.Sharepoint.dll v2.0.50727 |
| Language          | MUST be the LCID of the required installed language. |

Name: The name or additional identifying information of the object. The content of this attribute depends on the value of Type as follows:

<table>
<thead>
<tr>
<th>Value of Type</th>
<th>Contents of Name Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>FeatureDefinition</td>
<td>MUST be the name of the required feature.</td>
</tr>
<tr>
<td>WebTemplate</td>
<td>MUST be the LCID of the required installed language for the site template.</td>
</tr>
<tr>
<td>WebPart</td>
<td>MUST be the Web Part type identifier in the UniqueIdentifierWithoutBraces format as defined in [MS-WSSCAML] section 2.1.15. This attribute is an object reference corresponding to the WebPartTypeId attribute of a WebPart element in the Manifest.xml file as specified in section 2.1.3.2. The referenced element MUST be in the deployment package.</td>
</tr>
<tr>
<td>Language</td>
<td>MUST be the display name of the required installed language. The name MUST be in the language of the server that created the package.</td>
</tr>
</tbody>
</table>

Data: Additional data for this requirement. If the Type attribute has the "WebTemplate" value, this attribute MUST be present and MUST contain the display name of the required installed language for the site template. This display name MUST appear in the language of the server that created the deployment package. If the Type attribute has some value other than "WebTemplate", this attribute MUST NOT be present.

2.4.3 Attribute Groups

None.
2.4.4 Simple Types

2.4.4.1 SP Requirement ObjectType

Specifies the type of the object that is required.

```xml
<xs:simpleType name="SPRequirementObjectType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="FeatureDefinition" />
    <xs:enumeration value="WebTemplate" />
    <xs:enumeration value="WebPart" />
    <xs:enumeration value="Language" />
  </xs:restriction>
</xs:simpleType>
```

The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FeatureDefinition</td>
<td>The required object is a feature.</td>
</tr>
<tr>
<td>WebTemplate</td>
<td>The required object is a site template.</td>
</tr>
<tr>
<td>WebPart</td>
<td>The required object is a Web Part.</td>
</tr>
<tr>
<td>Language</td>
<td>The required object is an installed language.</td>
</tr>
</tbody>
</table>

2.5 RootObjectMap.xml

This file lists the top level objects in the package. The root element is defined as follows:

```xml
<xs:element name="RootObjects" type="SPRootObjects" />
```

2.5.1 Namespaces

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1] [XMLSCHEMA2]</td>
</tr>
<tr>
<td>(none)</td>
<td>urn:deployment-rootobjectmap-schema</td>
<td></td>
</tr>
</tbody>
</table>
### 2.5.2 Complex Types

#### 2.5.2.1 SPRootObject

Specifies a root deployment object contained in the deployment package.

```xml
<xs:complexType name="SPRootObject">
    <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="Type" type="SPDeploymentObjectType" use="required" />
    <xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="WebUrl" type="xs:string" use="required" />
    <xs:attribute name="Url" type="xs:string" use="required" />
    <xs:attribute name="IsDependency" type="core:truefalse_Only_Lowercase" use="required" />
</xs:complexType>
```

#### 2.5.2.1.1 Attributes

**Id**: An object reference corresponding to the `Id` attribute of the deployment system object, as specified in section 2.1.2.43. If the `IsDependency` attribute is false, exactly one deployment system object MUST exist in the deployment package with an `Id` attribute equal to this value and with ObjectType attribute equal to one of the values in the following table based on the `Type` attribute of this element:

<table>
<thead>
<tr>
<th>SPRootObject.Type attribute value</th>
<th>SPGenericObject.ObjectType attribute value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web</td>
<td>SPWeb</td>
</tr>
<tr>
<td>ListItem</td>
<td>SPLListItem</td>
</tr>
<tr>
<td>File</td>
<td>SPFile</td>
</tr>
</tbody>
</table>

**Type**: The type of the deployment system object.

**ParentId**: This is an object reference corresponding to the `Id` attribute of the parent of the deployment system object. This value depends on the `Type` attribute as shown in the following table.

<table>
<thead>
<tr>
<th>SPRootObject.Type attribute value</th>
<th>ParentId attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web</td>
<td>If the deployment system object to which this element refers is a top-level site, this MUST be an empty GUID. Otherwise this is an object reference corresponding to the <code>Id</code> attribute of a site as specified in section 2.1.2.61. The referenced element MUST NOT be in the deployment package.</td>
</tr>
<tr>
<td>SPRootObject.Type attribute value</td>
<td>ParentId attribute</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>ListItem</td>
<td>An object reference corresponding to the Id of a list as specified in section 2.1.2.47. The referenced element MUST NOT be in the deployment package.</td>
</tr>
<tr>
<td>File</td>
<td>An object reference corresponding to the Id of a folder as specified in section 2.1.2.40. The referenced element MUST NOT be in the deployment package.</td>
</tr>
</tbody>
</table>

**WebUrl**: If the Type attribute is "Web" then this MUST be the server-relative URL of the site to which this element refers. Otherwise, this MUST be the server-relative URL of the site which contains this deployment system object.

**Url**: The server-relative URL of the deployment system object to which this element refers.

**IsDependency**: MUST be false if any of the following are true:

- The parent site of the deployment system object to which this element refers is referenced by a SPExportObject (section 2.2.2.1) element in ExportSettings.xml file.
- Any ancestor site of the deployment system object to which this element refers is referenced by a SPExportObject (section 2.2.2.1) element in ExportSettings.xml file and has IncludeDescendants attribute value "All".

Otherwise, the value MUST be true.

### 2.5.2.2 SPRootObjects

Specifies the collection of SPRootObject (section 2.5.2.1) elements contained in the deployment package.

```xml
<xs:complexType name="SPRootObjects">
  <xs:sequence>
    <xs:element name="RootObject" type="SPRootObject" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

#### 2.5.2.2.1 Child Elements

**RootObject**: An SPRootObject contained in the deployment package.

### 2.5.3 Attribute Groups

None.

### 2.5.4 Simple Types

#### 2.5.4.1 SPDeploymentObjectType

Specifies the type of a root deployment system object.
The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web</td>
<td>A site object.</td>
</tr>
<tr>
<td>ListItem</td>
<td>A list item object.</td>
</tr>
<tr>
<td>File</td>
<td>A document object.</td>
</tr>
</tbody>
</table>

### 2.6 SystemData.xml

This part of the package specifies version and structure of the package as well as the objects that are a part of the site collection and that are created by the system during the creation of a site collection and before a site template is applied, with the exception of the blank site template.

The root element is defined as follows:

```xml
<xs:element name="SystemData" type="SPSystemData"/>
```

### 2.6.1 Namespaces

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1] [XMLSCHEMA2]</td>
</tr>
<tr>
<td>(none)</td>
<td>urn:deployment-systemdata-schema</td>
<td></td>
</tr>
<tr>
<td>core</td>
<td>urn:deployment-systemdata-schema</td>
<td>This specification is using the XML schema defined in [MS-WSSCAML], but replacing the &quot;<a href="http://schemas.microsoft.com/sharepointsoap">http://schemas.microsoft.com/sharepointsoap</a>&quot; targetNamespace of the schema with &quot;urn:deployment-systemdata-schema&quot;.</td>
</tr>
</tbody>
</table>
2.6.2 Complex Types

2.6.2.1 SPManifestFile

Specifies the name of a single manifest file in the deployment package.

```xml
<xs:complexType name="SPManifestFile">
  <xs:attribute name="Name" type="xs:string" use="required" />
</xs:complexType>
```

2.6.2.1.1 Attributes

**Name:** The name of the manifest file. The manifest file MUST be present in the deployment package.

2.6.2.2 SPManifestFiles

Specifies the manifest files in the deployment package.

```xml
<xs:complexType name="SPManifestFiles">
  <xs:sequence>
    <xs:element name="ManifestFile" type="SPManifestFile" minOccurs="1" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.6.2.2.1 Child Elements

**ManifestFile:** A manifest file created during the export operation that lists the contents of the export package. The export operation creates multiple files in case a single manifest file would exceed the implementation-specific maximum size for a single file.

2.6.2.3 SPSchemaVersion

Specifies the schema version of the deployment package.

```xml
<xs:complexType name="SPSchemaVersion">
  <xs:attribute name="Version" type="xs:string" use="required" />
  <xs:attribute name="Build" type="BuildVersion" use="required" />
  <xs:attribute name="DatabaseVersion" type="xs:nonNegativeInteger" use="required" />
  <xs:attribute name="ObjectsProcessed" type="xs:int" />
</xs:complexType>
```

2.6.2.3.1 Attributes

**Version:** The version of the deployment package.<151>

**Build:** The implementation-specific version of the writer.<152>

**DatabaseVersion:** The implementation-specific version of the source of the content from which the export operation was performed.<153> Readers MUST ignore this value.
**SiteVersion:** Reserved. MUST be 0.

**ObjectsProcessed:** Total number of all deployment objects across all manifests.

### 2.6.2.4 SPSystemData

Specifies the version and structure of the package as well as the objects that are a part of the site collection and that are created by the system during the creation of a site collection and before a site template is applied, with the exception of the blank site template.

```xml
<xs:complexType name="SPSystemData">
  <xs:sequence>
    <xs:element name="SchemaVersion" type="SPSchemaVersion" minOccurs="1" maxOccurs="1" />
    <xs:element name="ManifestFiles" type="SPManifestFiles" minOccurs="1" maxOccurs="1" />
    <xs:element name="SystemObjects" type="SPSystemObjects" minOccurs="1" maxOccurs="1" />
    <xs:element name="RootWebOnlyLists" type="SPRootWebOnlyLists" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>
```

#### 2.6.2.4.1 Child Elements

- **SchemaVersion:** The schema version of the deployment package.
- **ManifestFiles:** The manifest files in the deployment package.
- **SystemObjects:** The deployment system objects in the deployment package.
- **RootWebOnlyLists:** The exported lists which belong to top-level site, whether this exported site is top-level or not (for example, Web Part Gallery, Solution Gallery).

### 2.6.2.5 SPSystemObjects

Specifies the deployment system objects in the deployment package.

```xml
<xs:complexType name="SPSystemObjects">
  <xs:sequence>
    <xs:element name="SystemObject" type="SPSystemObject" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

#### 2.6.2.5.1 Child Elements

- **SystemObject:** A deployment system object.

### 2.6.2.6 SPSystemObject

Specifies a deployment system object.

```xml
<xs:complexType name="SPSystemObject">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
</xs:complexType>
```
<xs:attribute name="Type" use="required" >
<xs:simpleType>
<xs:restriction base="xs:string">
<xs:enumeration value="Web"/>
<xs:enumeration value="Folder"/>
<xs:enumeration value="List"/>
<xs:enumeration value="ListItem"/>
<xs:enumeration value="File"/>
</xs:restriction>
</xs:restriction>
</xs:simpleType>
</xs:attribute>
<xs:attribute name="Url" type="xs:string" use="required" />
</xs:complexType>

2.6.2.6.1 Attributes

**Id:** The identifier of the deployment system object. This is an object reference corresponding to an object specified by the value of the Type attribute.

**Type:** The type of deployment system object. MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web</td>
<td>The deployment system object is a site. The Id attribute is an object reference corresponding to the Id of a site as specified in section 2.1.2.61.</td>
</tr>
<tr>
<td>Folder</td>
<td>The deployment system object is a folder. The Id attribute is an object reference corresponding to the Id of a folder as specified in section 2.1.2.40.</td>
</tr>
<tr>
<td>List</td>
<td>The deployment system object is a list. The Id attribute is an object reference corresponding to the Id of a list as specified in section 2.1.2.47.</td>
</tr>
<tr>
<td>ListItem</td>
<td>The deployment system object is a list item. The Id attribute is an object reference corresponding to the Id of a list item as specified in section 2.1.3.1.</td>
</tr>
<tr>
<td>File</td>
<td>The deployment system object is a file. The Id attribute is an object reference corresponding to the Id of a file as specified in section 2.1.2.36.</td>
</tr>
</tbody>
</table>

**Url:** The server-relative URL of the deployment system object.

2.6.2.7 SPRootWebOnlyLists

Specifies all lists which belong only to the top-level site, for example, User Information List.<156>
2.6.2.7.1 Child Elements

**List**: Element containing identifier of the list which belongs to the top-level site only.

2.6.2.8 SPRootWebOnlyList

Specifies the identifier of the list which belongs to the top-level site:

```xml
<xs:complexType name="SPRootWebOnlyList">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
</xs:complexType>
```

2.6.2.8.1 Attributes

**Id**: An object reference corresponding to the Id of a list as specified in section 2.1.2.47.

2.6.3 Attribute Groups

None.

2.6.4 Simple Types

2.6.4.1 BuildVersion

Specifies the version of Microsoft.SharePoint.dll in a pattern of digits and dots (such as "14.0.4730.1000"), to keep track of upgrades.

```xml
<xs:simpleType name="BuildVersion">
  <xs:restriction base="xs:string">
    <xs:pattern value="\d+\.\d+\.\d+" />
  </xs:restriction>
</xs:simpleType>
```

2.7 UserGroup.xml

This file lists all users and groups in the package. The root element is defined as follows:

```xml
<xs:element name="UserGroupMap" type="DeploymentUserGroupMap" />
```

2.7.1 Namespaces

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

2.7.2.1 DeploymentUserGroupMap

Specifies all security principals (2) and security groups in the deployment package.

```xml
<xs:complexType name="DeploymentUserGroupMap">
  <xs:sequence>
    <xs:element name="Users" type="DeploymentUsers" minOccurs="0" maxOccurs="1" />
    <xs:element name="Groups" type="DeploymentGroups" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>
```

2.7.2.1.1 Child Elements

Users: The security principals (2).

Groups: The security groups.

2.7.2.2 DeploymentUsers

Specifies a collection of security principals (2).

```xml
<xs:complexType name="DeploymentUsers">
  <xs:sequence>
    <xs:element name="User" type="DeploymentUser" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

2.7.2.2.1 Child Elements

User: A single security principal (2).

2.7.2.3 DeploymentUser

Specifies a security principal (2).
2.7.2.3.1 Attributes

Id: The identifier of the security principal (2). This value MUST be unique among the Id values of all DeploymentGroup and DeploymentUser elements within the containing DeploymentUserGroupMap element.

Name: The display name of the security principal (2).

Login: The login name of the security principal (2).

Email: The e-mail address of the security principal (2).

IsDomainGroup: Specifies whether the security principal (2) represents an external group.

IsSiteAdmin: Specifies whether the security principal (2) is a site collection administrator. MUST be ignored by readers.

SystemId: The SID of the security principal (2).

IsDeleted: Specifies whether the security principal (2) is marked as deleted.

MobilePhone: Mobile phone number of the security principal (2).

Flags: Authentication-related flags of the security principal (2), as defined in [MS-WSSFO3] section 2.2.2.12.

2.7.2.4 DeploymentGroups

Specifies a collection of security groups.

2.7.2.4.1 Child Elements

Group: A single security group.
2.7.2.5 DeploymentGroup

Specifies a security group.

```xml
<xs:complexType name="DeploymentGroup">
  <xs:sequence>
    <xs:element name="Member" type="DeploymentGroupMember"
                 minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="Id" type="xs:int" use="required" />
  <xs:attribute name="Name" type="String255NonEmpty" use="required" />
  <xs:attribute name="Owner" type="xs:int" use="required" />
  <xs:attribute name="OwnerIsUser" type="core:truefalse_Only_Lowercase"
                 use="required" />
  <xs:attribute name="Description" type="String512" use="optional" />
  <xs:attribute name="OnlyAllowMembersViewMembership"
                 type="core:truefalse_Only_Lowercase"
                 use="optional" default="false" />
  <xs:attribute name="AllowMembersEditMembership"
                 type="core:truefalse_Only_Lowercase"
                 use="optional" default="false" />
  <xs:attribute name="AllowRequestToJoinLeave"
                 type="core:truefalse_Only_Lowercase"
                 use="optional" default="false" />
  <xs:attribute name="RequestToJoinLeaveEmailSetting"
                 type="String255" use="optional" />
</xs:complexType>
```

2.7.2.5.1 Attributes

**Id:** The identifier of the security group. This value MUST be unique among the Id values of all DeploymentGroup and DeploymentUser elements within the containing DeploymentUserGroupMap element.

**Name:** The name of the security group.

**Owner:** The identifier of the security group or security principal (1) that is of the owner of the security group. MUST either be equal to 1073741823 (the Id of the built-in System Account) or match the Id value of exactly one element of type DeploymentGroup or DeploymentUser within the containing DeploymentUserGroupMap element.

**OwnerIsUser:** Specifies whether the owner of the security group is a security principal (1). A value of true denotes that the owner is a security principal (1). A value of false denotes that the owner is a security group.

**Description:** The description of the security group.

**OnlyAllowMembersViewMembership:** Specifies whether only members of the security group can view the list of members. A value of true denotes that only members of the group can view the list of members. A value of false denotes that all users can view the list of members.

**AllowMembersEditMembership:** Specifies whether all members of the security group can edit the list of members. A value of true denotes that all group members can edit the list of members. A value of false denotes that only the owner of the security group can edit the list of members.

**AllowRequestToJoinLeave:** Specifies whether to allow requests to join or leave the security group.

**AutoAcceptRequestToJoinLeave:** Specifies whether to automatically accept requests to join or leave the security group.
RequestToJoinLeaveEmailSetting: The e-mail address to which requests to join or leave the security group will be sent.

2.7.2.5.2 Child Elements

Member: A single member of the security group.

2.7.2.6 DeploymentGroupMember

Specifies a security principal (1) who is a member of a security group.

```xml
<xs:complexType name="DeploymentGroupMember">
  <xs:attribute name="UserId" type="xs:int" use="required" />
</xs:complexType>
```

2.7.2.6.1 Attributes

UserId: The identifier of the security principal (1). MUST either be equal to 1073741823 (the Id of the built-in System Account) or match the Id value of exactly one element of type DeploymentUser within the containing DeploymentUserGroupMap element.

2.7.3 Attribute Groups

None.

2.7.4 Simple Types

None.

2.8 ViewFormsList.xml

This file lists all List View Web Parts and List Form Web Parts in the deployment package. The root element is defined as follows:

```xml
<xs:element name="ViewFormsList" type="SPViewFormsList" />
```

2.8.1 Namespaces

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[XMLSCHEMA2]</td>
</tr>
<tr>
<td>(none)</td>
<td>urn:deployment-viewformlist-schema</td>
<td></td>
</tr>
</tbody>
</table>
### 2.8.2 Complex Types

#### 2.8.2.1 SPViewForm

Specifies the identifier of a List View Web Part or List Form Web Part in the deployment package.

```xml
<xs:complexType name="SPViewForm">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required"/>
  <xs:attribute name="Type" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="View"/>
        <xs:enumeration value="Forms"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```

#### 2.8.2.1.1 Attributes

**Id**: The identifier of the List View Web Part or List Form Web Part. This is an object reference corresponding to the Name attribute of either a View element of type SPView (specified in section 2.1.2.59) or Form element of type SPForm (specified in section 2.1.2.41) in the Manifest.xml file. The value of the Type attribute determines whether this is a reference to a View or Form element. The referenced element MUST be in the deployment package.

**Type**: The type of object being specified. The value MUST be one of the values described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>The Id attribute identifies a View element.</td>
</tr>
<tr>
<td>Forms</td>
<td>The Id attribute identifies a Form element.</td>
</tr>
</tbody>
</table>

#### 2.8.2.2 SPViewFormsList

Specifies the identifiers of a collection of List View Web Parts and List Form Web Parts in the deployment package.

```xml
<xs:complexType name="SPViewFormsList">
  <xs:sequence>
    <!-- Element definitions here -->
  </xs:sequence>
</xs:complexType>
```
2.8.2.2.1 Child Elements

**ViewForm:** The identifier of a single List View Web Part or List Form Web Part.

2.8.3 Attribute Groups

None.

2.8.4 Simple Types

None.
3 Structure Examples

In the following sections, the schema definition might differ from the processing rules imposed by the protocol. The XSD in this specification provides a base description of the file format. The text that introduces the XSD specifies additional restrictions that reflect protocol behavior. For example, the schema definition might allow for an element to be empty, null, or not present but the behavior of the protocol as specified restricts the same elements to being non-empty, present, and not null.

3.1 Manifest.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<SPObjects xmlns="urn:deployment-manifest-schema">
  <SPObject Id="b265b6e5-4436-4bb4-84af-660ef972e60" ObjectType="SPSite" ParentId="" ParentWebId="">
    <Site Id="b265b6e5-4436-4bb4-84af-660ef972e60">
      <UserCustomActions />
    </Site>
  </SPObject>
  <SPObject Id="ac060abb-87cd-4221-af1f-060af4076f2c" ObjectType="SPWeb" ParentId="1f86dbc9-a913-419e-a505-341908d6a00c" ParentWebId="ac060abb-87cd-4221-af1f-060af4076f2c" ParentWebUrl="/Example" Name="/Example">
    <Web Id="ac060abb-87cd-4221-af1f-060af4076f2c" Name="Example" Description="" Locale="English (United States)" CurrencyLocaleId="1033" Language="1033" TimeZoneId="13" Time24="false" CalendarType="1" AdjustHijriDays="0" Collation="25" RegionalSettings LocaleId="1033" AlternateCalendarType="0" ShowWeeks="false" FirstWeekOfYear="0" WorkDays="62" WorkDayStartHour="480" WorkDayEndHour="1020" FirstDayOfWeek="0" Configuration="1" AllowAutomaticASPSXPageIndexing="true" ASPXPageIndexMode="Automatic" NoCrawl="false" PresenceEnabled="true" SyndicationEnabled="true" QuickLaunchEnabled="true" TreeViewEnabled="false" ParserEnabled="true" Provisioned="true" CacheAllSchema="false" UIVersionConfigurationEnabled="false" ExcludeFromOfflineClient="false" ParentId="1f86dbc9-a913-419e-a505-341908d6a00c" IsRootWeb="false" Title="Example" ServerRelativeUrl="/Example" WebTemplate="STS" AlternateCssUrl="" CustomizedCssFiles="" CustomJSUrl="" MasterUrl="/Example/_catalogs/masterpage/v4.master" CustomMasterUrl="/Example/_catalogs/masterpage/v4.master" SystemCatalogsIncluded="true" ThemeComposite="" UIVersion="4" ClientTag="0" SecurityProvider="00000000-0000-0000-0000-000000000000" MasterUrl="/Example/_catalogs/masterpage/v4.master" Created="2014-03-27T04:07:08Z" Author="1" SiteLogoDescription="" HasUniqueRoleDefinitions="false" HasUniqueRoleAssignments="true" RequestAccessEmail="administrator@contoso.com">
      <Properties>
        <Property Name="vti_associatemembergroup" Type="String" Access="ReadWrite" Value="5" />
        <Property Name="vti_extenderversion" Type="String" Access="ReadWrite" Value="14.0.0.6029" />
        <Property Name="vti_associatevisitorgroup" Type="String" Access="ReadWrite" Value="4" />
        <Property Name="vti_associategroups" Type="String" Access="ReadWrite" Value="5;3;4" />
        <Property Name="vti_createdassociategroups" Type="String" Access="ReadWrite" Value="" />
        <Property Name="vti_approvallevels" Type="String" Access="ReadWrite" Value="Approved Rejected Pending Review" />
        <Property Name="vti_categories" Type="String" Access="ReadWrite" Value="Travel Expense\Report Business Competition Goals/Objectives Ideas Miscellaneous Waiting VIP In\Process Planning Schedule" />
        <Property Name="vti_associateownergroup" Type="String" Access="ReadWrite" Value="3" />
        <Property Name="vti_defaultlanguage" Type="String" Access="ReadWrite" Value="en-us" />
      </Properties>
      <EventReceivers />
      <UserCustomActions />
      <Resources />
    </Web>
  </SPObject>
</SPObjects>
```
Deployment Package Format

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3.2 ExportSettings.xml

<?xml version="1.0" encoding="utf-8"?>
<ExportSettings xmlns:sxi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    SiteUrl="http://www.contoso.com/"
    FileLocation="D:\WINDOWS\TEMP\ContentDeployment\d2c97251-b8b8-47ef-9ec-fb5bc76704a2"/>
3.3 LookupListMap.xml

```xml
<LookupLists xmlns="urn:deployment-lookuplistmap-schema">

<LookupList Id="90a502ed-96b3-4454-961a-b367a489ffe2" Url="/Example/Document Library" Included="true">
  <LookupItems />
</LookupList>

</LookupLists>
```

3.4 Requirements.xml

```xml
<Requirements xmlns="urn:deployment-requirements-schema">

<Requirement Type="Language" Id="1033" Name="English" />
<Requirement Type="WebTemplate" Id="STS#1" Name="English" />
<Requirement Type="WebPart" Id="Microsoft.SharePoint.dll v2.0.50727" Name="8c52ae05-6d4a-dbb0-dc10-df589f7a6bb0" Data="/Example/_catalogs/masterpage/Forms/AllItems.aspx" />
<Requirement Type="FeatureDefinition" Id="00bfea71-f381-423d-b9d1-da7a54c50110" Name="DataSourceLibrary" Data="0.0.0.0"/>
<Requirement Type="FeatureDefinition" Id="00bfea71-de22-43fa-b535-d15c05500104" Name="DiscussionsList" Data="1.0.0.0"/>
<Requirement Type="FeatureDefinition" Id="00bfea71-ec85-4903-972d-ebe475780106" Name="EventsList" Data="3.0.0.0"/>
<Requirement Type="FeatureDefinition" Id="00bfea71-5932-4f9c-ad71-1557e5410600" Name="ExternalList" Data="1.0.0.0"/>
<Requirement Type="FeatureDefinition" Id="00bfea71-9549-43f8-b978-e47e54a10600" Name="ExternalList" Data="1.0.0.0"/>
<Requirement Type="FeatureDefinition" Id="00bfea71-7e6d-4186-9b8e-c047ac750105" Name="EventsList" Data="1.0.0.0"/>
<Requirement Type="FeatureDefinition" Id="00bfea71-6a49-43fa-b535-d15c05500108" Name="IssuesList" Data="0.0.0.0"/>
<Requirement Type="FeatureDefinition" Id="00bfea71-ec85-4903-972d-ebe475780106" Name="NoCodeWorkflowLibrary" Data="0.0.0.0"/>
</Requirements>
```
3.5 RootObjectMap.xml

<?xml version="1.0" encoding="utf-8"?>
<RootObjects xmlns="urn:deployment-rootobjectmap-schema">
  <RootObject Id="ac060abb-87cd-4221-af1f-060af4076f2c" Type="Web" ParentId="1f86dbc9-a913-419e-a505-34198d6a00c" WebUrl="/Example" Url="/Example" IsDependency="false" />
</RootObjects>

3.6 SystemData.xml

<?xml version="1.0" encoding="utf-8"?>
<SystemData xmlns="urn:deployment-systemdata-schema">
  <SystemObject Id="375eea98-195d-4832-88bc-01624ab6af4" Type="List" Url="/_catalogs/users" />
  <SystemObject Id="1f86dbc9-a913-419e-a505-34198d6a00c" Type="Folder" Url="/" />
  <SystemObject Id="d6e72d51-53f8-479a-b9aa-6e40f4984638" Type="Web" Url="/" />
  <SystemObject Id="725e139d-8d2e-46e1-80cb-81aff74205f1" Type="Folder" Url="/Example/images" />
  <SystemObject Id="a67d9e23-54f6-46b4-854f-d4d828b26544" Type="Folder" Url="/Example/_private" />
</SystemObjects>
</SystemData>

3.7 UserGroup.xml

<?xml version="1.0" encoding="utf-8"?>
<UserGroupMap xmlns="urn:deployment-usergroupmap-schema">
  <Users>
    <User Id="1" Name="CONTOSO\administrator" Login="CONTOSO\administrator" />
  </Users>
</UserGroupMap>
Email="administrator@contoso.com" IsDomainGroup="false" IsSiteAdmin="true" SystemId="AQUAAAAAAAUVAAAAAPhqAS/9L3Z13c9M9AAAAA=" IsDeleted="false" Flags="0" />
</User>

<User Id="7" Name="NT AUTHORITY\Authenticated Users" Login="NT AUTHORITY\Authenticated users" Email="" IsDomainGroup="true" IsSiteAdmin="false" SystemId="AQEAAAAAAAULAAAA" IsDeleted="false" MobilePhone="" Flags="0" />
</User>
</Users>

<Group Id="3" Name="Home Owners" Description="Use this group to grant people full control permissions to the SharePoint site: Home" Owner="3" OwnerIsUser="false" RequestToJoinLeaveEmailSetting="administrator@contoso.com" OnlyAllowMembersViewMembership="true">
<Member UserId="1" />
</Group>

<Group Id="4" Name="Home Visitors" Description="Use this group to grant people read permissions to the SharePoint site: Home" Owner="3" OwnerIsUser="false" RequestToJoinLeaveEmailSetting="administrator@contoso.com" OnlyAllowMembersViewMembership="true" />
</Group>

<Group Id="5" Name="Home Members" Description="Use this group to grant people contribute permissions to the SharePoint site: Home" Owner="3" OwnerIsUser="false" RequestToJoinLeaveEmailSetting="administrator@contoso.com" />
</Groups>
</UserGroupMap>

## 3.8 ViewFormsList.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<ViewFormsList xmlns="urn:deployment:viewformlist-schema">
    <ViewForm Id="82ae7dd1-ea76-4553-be6b-42487f1e85f9" Type="View" />
    <ViewForm Id="7919c1fe-cdb9-447e-a9c9-f15db6ed4299c" Type="Forms" />
    <ViewForm Id="ed012102-d71a-471d-958b-cb120d45789" Type="Forms" />
    <ViewForm Id="001984b9-41cd-448f-91b0-0c902eb3b2b4" Type="Forms" />
    <ViewForm Id="a69a1201-189e-4963-8a31-b35e375e8c4" Type="View" />
    <ViewForm Id="b976366e-4c6b-4d6c-a7e8-fae912a1e4e" Type="View" />
    <ViewForm Id="b6e658e7-d695-4b62-b07c-2d5de13f307" Type="View" />
    <ViewForm Id="40d9831b-2d2e-4293-8267-20ed4fccc6bfe" Type="Forms" />
    <ViewForm Id="bc7736b5-c212-44c4-98d4-fb99b2113c4b" Type="Forms" />
    <ViewForm Id="a0766b4-d779-4a5a-8093-203abe0375f3" Type="Forms" />
    <ViewForm Id="f6eb7f72-917f-4265-90c5-1631ed410ca7" Type="Forms" />
    <ViewForm Id="eaf73f3e-f752-48a3-8118-183a05890138" Type="View" />
    <ViewForm Id="3a8e818f3-8170-423f-adbc-363e1d2a70b" Type="Forms" />
    <ViewForm Id="f601ddee-3340-49dc-a2d4-84e332d6a295" Type="Forms" />
    <ViewForm Id="aaad72f4-1504-4567-ba27-58ffec63c047" Type="Forms" />
</ViewFormsList>
```
4 Security

4.1 Security Considerations for Implementers

This format simply represents a set of XML documents. Implementations that process XML documents contained in this format needs to guard against the same kinds of threats that occur when processing other XML documents. If the compressed option is used, processing the cabinet (.cab) file needs to guard against the same kinds of threats that apply to those, notably through files that expand to many times their original size.

4.2 Index of Security Fields

None.
5 Appendix A: Full XML Schema Files

5.1 Manifest.xml Schema

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint soap namespace in the schema with urn:deployment-manifest-schema.

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema
    id="DeploymentManifest"
    targetNamespace="urn:deployment-manifest-schema"
    elementFormDefault="qualified"
    xmlns="urn:deployment-manifest-schema"
    xmlns:mstns="urn:deployment-manifest-schema"
    xmlns:xs="http://www.w3.org/2001/XMLSchema"
    xmlns:core="urn:deployment-manifest-schema">
    <xs:include
        id="WSS"
        schemaLocation="wsswire_DeploymentManifest.xsd" />
    <xs:complexType name="SPGenericObjectCollection">
        <xs:sequence>
            <xs:element name="SPObject"
                type="SPGenericObject"
                minOccurs="0" maxOccurs="unbounded" />
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="SPGenericObject">
        <xs:sequence>
            <xs:choice minOccurs="0" maxOccurs="1">
                <xs:element name="Site" type="SPSite" />
                <xs:element name="Web" type="SPWeb" />
                <xs:element name="List" type="SPList" />
                <xs:element name="DocumentLibrary" type="SPDocumentLibrary" />
                <xs:element name="ListItem" type="SPListItem" />
                <xs:element name="Folder" type="SPFolder" />
                <xs:element name="File" type="SPFile" />
                <xs:element name="ContentType" type="SPContentType" />
                <xs:element name="FieldTemplate" type="DeploymentFieldTemplate" />
                <xs:element name="WebStructure" type="DeploymentWebStructure" />
                <xs:element name="UserX" type="DeploymentUserX" />
                <xs:element name="GroupX" type="DeploymentGroupX" />
                <xs:element name="Roles" type="DeploymentRoles" />
                <xs:element name="RoleX" type="DeploymentRoleX" />
                <xs:element name="RoleAssignments" type="DeploymentRoleAssignments" />
                <xs:element name="RoleAssignmentX" type="DeploymentRoleAssignmentX" />
                <xs:element name="Feature" type="SPFeature" />
                <xs:element name="Alert" type="SPAlert" />
            </xs:choice>
            <xs:attribute name="ObjectType" type="SPObjectType" use="required"/>
            <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required"/>
            <xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBracesOrEmpty" use="required"/>
            <xs:attribute name="IsDeleted" type="core:truefalse_only_lowercase"/>
        </xs:sequence>
    </xs:complexType>
</xs:schema>
```
<xs:simpleType name="SPDictionaryEntryValueType">
   <xs:restriction base="xs:string">
      <xs:enumeration value="String" />
      <xs:enumeration value="Integer" />
      <xs:enumeration value="Time" />
      <xs:enumeration value="StringVector" />
      <xs:enumeration value="Boolean" />
      <xs:enumeration value="FileSystemTime" />
      <xs:enumeration value="IntVector" />
      <xs:enumeration value="Double" />
      <xs:enumeration value="LongText" />
      <xs:enumeration value="Empty" />
   </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPDictionaryEntryAccess">
   <xs:restriction base="xs:string">
      <xs:enumeration value="ReadOnly" />
      <xs:enumeration value="ReadWrite" />
   </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPObjectType">
   <xs:restriction base="xs:string">
      <xs:enumeration value="SPSite" />
      <xs:enumeration value="SPWeb" />
      <xs:enumeration value="SPList" />
      <xs:enumeration value="SPDocumentLibrary" />
      <xs:enumeration value="SPListItem" />
      <xs:enumeration value="SFFolder" />
      <xs:enumeration value="SPContentType" />
      <xs:enumeration value="DeploymentWebStructure" />
      <xs:enumeration value="DeploymentUserX" />
      <xs:enumeration value="DeploymentRoles" />
      <xs:enumeration value="DeploymentRoleX" />
      <xs:enumeration value="DeploymentRoleAssignments" />
      <xs:enumeration value="DeploymentRoleAssignmentX" />
      <xs:enumeration value="DeploymentFieldTemplate" />
      <xs:enumeration value="SPFeature" />
      <xs:enumeration value="SPAlert" />
   </xs:restriction>
</xs:simpleType>

<xs:simpleType name="OtherObjectType">
   <xs:restriction base="xs:string">
      <xs:enumeration value="SPDocTemplate" />
      <xs:enumeration value="SPDataRetrievalSettings" />
      <xs:enumeration value="SDDocDiscussion" />
      <xs:enumeration value="SPFileVersion" />
      <xs:enumeration value="SPForm" />
      <xs:enumeration value="SPLanguage" />
      <xs:enumeration value="SPListItemVersion" />
      <xs:enumeration value="SPListTemplate" />
   </xs:restriction>
</xs:simpleType>
<xs:enumeration value="SPLocales"/>
<xs:enumeration value="SPModerationInfo"/>
<xs:enumeration value="SPQuery"/>
<xs:enumeration value="SPRegionalSetting"/>
<xs:enumeration value="SPTimeZone"/>
<xs:enumeration value="SPUserStorage"/>
<xs:enumeration value="SPView"/>
</xs:restriction>
</xs:simpleType>

<xs:complexType name="DeploymentUserX">
  <xs:attribute name="Operation" use="required">
    <xs:simpleType>
      <xs:restriction base="SecurityModificationType">
        <xs:enumeration value="Add"/>
        <xs:enumeration value="Delete"/>
        <xs:enumeration value="Update"/>
        <xs:enumeration value="MemberAdd"/>
        <xs:enumeration value="MemberDelete"/>
        <xs:enumeration value="RoleAdd"/>
        <xs:enumeration value="RoleDelete"/>
        <xs:enumeration value="RoleUpdate"/>
        <xs:enumeration value="RoleAssignmentAdd"/>
        <xs:enumeration value="RoleAssignmentDelete"/>
        <xs:enumeration value="ScopeAdd"/>
        <xs:enumeration value="ScopeDelete"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Id" type="xs:int" use="required"/>
  <xs:attribute name="Name" type="String255NonEmpty" use="required"/>
  <xs:attribute name="Login" type="String255NonEmpty" use="required"/>
  <xs:attribute name="Email" type="String255" use="optional"/>
  <xs:attribute name="SystemId" type="xs:base64Binary" use="required"/>
</xs:complexType>
<xs:complexType name="DeploymentGroupX">
  <xs:attribute name="Operation" use="required">
    <xs:simpleType>
      <xs:restriction base="SecurityModificationType">
        <xs:enumeration value="Add" />
        <xs:enumeration value="Delete" />
        <xs:enumeration value="Update" />
        <xs:enumeration value="MemberAdd" />
        <xs:enumeration value="MemberDelete" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Id" type="xs:int" use="required" />
  <xs:attribute name="Name" type="String255NonEmpty" use="required" />
  <xs:attribute name="Description" type="String512" use="optional" />
  <xs:attribute name="OwnerLogin" type="String255" use="optional" />
  <xs:attribute name="OwnerIsUser" type="core:truefalse_Only_Lowercase" use="optional" default="true" />
  <xs:attribute name="UserId" type="xs:int" use="optional" />
  <xs:attribute name="UserLogin" type="String255" use="optional" />
  <xs:attribute name="RequestToJoinLeaveEmailSetting" type="String255" use="optional" />
  <xs:attribute name="OnlyAllowMembersViewMembership" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AllowMembersEditMembership" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AllowRequestToJoinLeave" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AutoAcceptRequestToJoinLeave" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
</xs:complexType>

<xs:complexType name="DeploymentRoleX">
  <xs:attribute name="Operation" use="required">
    <xs:simpleType>
      <xs:restriction base="SecurityModificationType">
        <xs:enumeration value="RoleAdd" />
        <xs:enumeration value="RoleDelete" />
        <xs:enumeration value="RoleUpdate" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="OperationCode" type="SPRoleChangeType" use="required" />
  <xs:attribute name="WebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="WebUrl" type="String255" use="required" />
  <xs:attribute name="RoleId" type="xs:int" use="optional" />
  <xs:attribute name="Title" type="String255NonEmpty" use="optional" />
  <xs:attribute name="Description" type="String512" use="optional" />
  <xs:attribute name="PermMask" type="xs:unsignedLong" use="optional" />
  <xs:attribute name="Hidden" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="RoleOrder" use="optional" default="0" />
</xs:complexType>
<xs:complexType name="DeploymentRole">
  <xs:attribute name="RoleId" type="xs:int" use="required" />
  <xs:attribute name="Title" type="StringNonEmpty" use="required" />
  <xs:attribute name="Description" type="String512" use="required" />
  <xs:attribute name="PermMask" type="xs:unsignedLong" use="required" />
  <xs:attribute name="Hidden" type="core:truelfalseOnlyLowercase" use="required" />
  <xs:attribute name="RoleOrder" use="optional" default="0">
    <xs:simpleType>
      <xs:restriction base='xs:int'>
        <xs:minInclusive value="0" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Type" type="SPRoleType" use="optional" default="0" />
</xs:complexType>

<xs:complexType name="DeploymentRoles">
  <xs:sequence>
    <xs:element name="Role" type="DeploymentRole" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="DeploymentAssignment">
  <xs:attribute name="RoleId" type="xs:int" use="required" />
  <xs:attribute name="PrincipalId" type="xs:int" use="required" />
</xs:complexType>

<xs:complexType name="DeploymentRoleAssignmentX">
  <xs:attribute name="Operation" use="required">
    <xs:simpleType>
      <xs:restriction base="SecurityModificationType">
        <xs:enumeration value="RoleAssignmentAdd" />
        <xs:enumeration value="RoleAssignmentDelete" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="OperationCode" type="SPRoleChangeType" use="required" />
  <xs:attribute name="ScopeId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="RoleDefWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="RoleDefWebUrl" type="String255" use="required" />
  <xs:attribute name="ObjectId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ObjectType" type="ScopeObjectType" use="required" />
  <xs:attribute name="ObjectUrl" type="String255" use="required" />
  <xs:attribute name="AnonymousPermMask" type="xs:unsignedLong" use="required" />
  <xs:attribute name="RoleName" type="String255" use="optional" />
  <xs:attribute name="GroupTitle" type="String255" use="optional" />
  <xs:attribute name="UserLogin" type="String255" use="optional" />
</xs:complexType>

<xs:complexType name="DeploymentRoleAssignment">
  <xs:sequence>
</xs:sequence>
</xs:complexType>
<xs:element name="Assignment" type="DeploymentAssignment"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>

<xs:attribute name="ScopeId" type="core:UniqueIdentifierWithoutBraces"
use="required" />
<xs:attribute name="RoleDefWebId" type="core:UniqueIdentifierWithoutBraces"
use="required" />
<xs:attribute name="RoleDefWebUrl" type="String255" use="required" />
<xs:attribute name="ObjectId" type="core:UniqueIdentifierWithoutBraces"
use="required" />
<xs:attribute name="ObjectType" type="ScopeObjectType" use="required" />
<xs:attribute name="ObjectUrl" type="String255" use="required" />
<xs:attribute name="AnonymousPermMask" type="xs:unsignedLong"
use="required" />
</xs:complexType>

<xs:complexType name="DeploymentRoleAssignments">
<xs:sequence>
  <xs:element name="RoleAssignment" type="DeploymentRoleAssignment"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="DictionaryEntry">
<xs:attribute name="Name" type="xs:string" use="required" />
<xs:attribute name="Value" type="xs:string" use="optional" />
<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
use="optional" />
<xs:attribute name="Type" type="SPDictionaryEntryValueType"
default="String" use="optional" />
<xs:attribute name="Access" type="SPDictionaryEntryAccess"
default="ReadWrite" use="optional" />
<xs:attribute name="NoFixup" type="xs:boolean" use="optional" />
</xs:complexType>

<xs:complexType name="Dictionary">
<xs:sequence>
  <xs:element name="Property" type="DictionaryEntry"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="SPAttachment">
<xs:sequence>
  <xs:element name="Properties" type="Dictionary" minOccurs="0" />
</xs:sequence>

<xs:attribute name="Name" type="String255NonEmpty" use="required" />
<xs:attribute name="Url" type="String256" use="required" />
<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
use="optional" />
<xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces"
use="optional" />
<xs:attribute name="FileVersion" type="PackageFileName" use="required" />
<xs:attribute name="Author" type="xs:int" use="optional" />
<xs:attribute name="ModifiedBy" type="xs:int" use="optional" />
<xs:attribute name="TimeCreated" type="xs:dateTime" use="optional" />
<xs:attribute name="TimeLastModified" type="xs:dateTime" use="optional" />
<xs:attribute name="FailureMessage" type="xs:string" use="optional" />
</xs:complexType>

<xs:complexType name="SPAttachmentCollection">
<xs:sequence>
  <xs:element name="Attachment" type="SPAttachment"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>
<xs:complexType name="SPLink">
  <xs:sequence>
    <xs:attribute name="TargetId" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="TargetUrl" type="xs:string" use="required" />
    <xs:attribute name="IsDirty" type="OnlyFalse" use="required" />
    <xs:attribute name="WebPartId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
    <xs:attribute name="LinkNumber" type="xs:int" use="optional" />
    <xs:attribute name="Type" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="Security" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="Dynamic" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="ServerRel" type="core:truefalse_Only_Lowercase" use="optional" />
    <xs:attribute name="Level" type="xs:unsignedByte" use="optional" />
    <xs:attribute name="Search" type="xs:string" use="optional" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPLinkCollection">
  <xs:sequence>
    <xs:element name="Link" type="SPLink" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:simpleType name="SPModerationStatusType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Approved" />
    <xs:enumeration value="Denied" />
    <xs:enumeration value="Pending" />
    <xs:enumeration value="Draft" />
    <xs:enumeration value="Scheduled" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPBaseType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="GenericList" />
    <xs:enumeration value="DocumentLibrary" />
    <xs:enumeration value="DiscussionBoard" />
    <xs:enumeration value="Survey" />
    <xs:enumeration value="Issue" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPListTemplateType">
  <xs:union>
    <xs:simpleType>
      <xs:restriction base='xs:positiveInteger'/>
    </xs:simpleType>
    <xs:simpleType>
      <xs:restriction base='xs:string'>
        <xs:enumeration value="GenericList" />
        <xs:enumeration value="DocumentLibrary" />
        <xs:enumeration value="Survey" />
        <xs:enumeration value="Links" />
        <xs:enumeration value="Announcements" />
        <xs:enumeration value="Contacts" />
        <xs:enumeration value="Events" />
        <xs:enumeration value="Tasks" />
        <xs:enumeration value="DiscussionBoard" />
        <xs:enumeration value="PictureLibrary" />
        <xs:enumeration value="DataSources" />
        <xs:enumeration value="WebTemplateCatalog" />
        <xs:enumeration value="UserInformation" />
        <xs:enumeration value="WebPartCatalog" />
        <xs:enumeration value="ListTemplateCatalog" />
        <xs:enumeration value="SolutionCatalog" />
        <xs:enumeration value="XMLForm" />
      </xs:restriction>
    </xs:simpleType>
  </xs:union>
</xs:simpleType>
<xs:enumeration value="MasterPageCatalog"/>
<xs:enumeration value="NoCodeWorkflows"/>
<xs:enumeration value="WorkflowProcess"/>
<xs:enumeration value="WebPageLibrary"/>
<xs:enumeration value="CustomGrid"/>
<xs:enumeration value="DataConnectionLibrary"/>
<xs:enumeration value="WorkflowHistory"/>
<xs:enumeration value="GanttTasks"/>
<xs:enumeration value="Meetings"/>
<xs:enumeration value="Agenda"/>
<xs:enumeration value="MeetingUser"/>
<xs:enumeration value="Decision"/>
<xs:enumeration value="MeetingObjective"/>
<xs:enumeration value="TextBox"/>
<xs:enumeration value="ThingsToBring"/>
<xs:enumeration value="HomePageLibrary"/>
<xs:enumeration value="Posts"/>
<xs:enumeration value="Comments"/>
<xs:enumeration value="Categories"/>
<xs:enumeration value="IssueTracking"/>
<xs:enumeration value="AdminTasks"/>
<xs:enumeration value="ThemeCatalog"/>
<xs:enumeration value="NoCodePublic"/>
<xs:enumeration value="AssetLibrary"/>
</xs:restriction>
</xs:simpleType>
</xs:union>

<xs:simpleType name="DraftVisibilityType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Reader"/>
    <xs:enumeration value="Author"/>
    <xs:enumeration value="Approver"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPEventHostType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Site"/>
    <xs:enumeration value="Web"/>
    <xs:enumeration value="List"/>
    <xs:enumeration value="ListItem"/>
    <xs:enumeration value="ContentType"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPEventReceiverType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="ItemAdding"/>
    <xs:enumeration value="ItemUpdating"/>
    <xs:enumeration value="ItemDeleting"/>
    <xs:enumeration value="ItemCheckingIn"/>
    <xs:enumeration value="ItemCheckingOut"/>
    <xs:enumeration value="ItemUncheckingOut"/>
    <xs:enumeration value="ItemAttachmentAdding"/>
    <xs:enumeration value="ItemAttachmentDeleting"/>
    <xs:enumeration value="ItemFileMoving"/>
    <xs:enumeration value="ItemVersionDeleting"/>
    <xs:enumeration value="FieldAdding"/>
    <xs:enumeration value="FieldUpdating"/>
    <xs:enumeration value="FieldDeleting"/>
    <xs:enumeration value="ListAdding"/>
    <xs:enumeration value="ListDeleting"/>
    <xs:enumeration value="SiteDeleting"/>
    <xs:enumeration value="WebDeleting"/>
    <xs:enumeration value="WebMoving"/>
    <xs:enumeration value="WebAdding"/>
    <xs:enumeration value="GroupAdding"/>
  </xs:restriction>
</xs:simpleType>
<xs:enumeration value="GroupUpdating" />
<xs:enumeration value="GroupDeleting" />
<xs:enumeration value="GroupUserAdding" />
<xs:enumeration value="GroupUserDeleting"/>
<xs:enumeration value="RoleDefinitionAdding"/>
<xs:enumeration value="RoleDefinitionUpdating"/>
<xs:enumeration value="RoleDefinitionDeleting"/>
<xs:enumeration value="RoleAssignmentAdding"/>
<xs:enumeration value="RoleAssignmentDeleting"/>
<xs:enumeration value="InheritanceBreaking"/>
<xs:enumeration value="InheritanceRestoring"/>
<xs:enumeration value="ItemAdded" />
<xs:enumeration value="ItemUpdated" />
<xs:enumeration value="ItemDeleted" />
<xs:enumeration value="ItemCheckedIn" />
<xs:enumeration value="ItemUncheckedOut" />
<xs:enumeration value="ItemAttachmentAdded" />
<xs:enumeration value="ItemAttachmentDeleted" />
<xs:enumeration value="ItemFileMoved" />
<xs:enumeration value="ItemFileConverted" />
<xs:enumeration value="ItemVersionDeleted" />
<xs:enumeration value="FieldAdded" />
<xs:enumeration value="FieldUpdated" />
<xs:enumeration value="FieldDeleted" />
<xs:enumeration value="ListAdded" />
<xs:enumeration value="ListDeleted" />
<xs:enumeration value="SiteDeleted" />
<xs:enumeration value="WebDeleted" />
<xs:enumeration value="WebMoved" />
<xs:enumeration value="WebProvisioned" />
<xs:enumeration value="GroupAdded" />
<xs:enumeration value="GroupUpdated" />
<xs:enumeration value="GroupDeleted" />
<xs:enumeration value="GroupUserAdded" />
<xs:enumeration value="GroupUserDeleted" />
<xs:enumeration value="RoleDefinitionAdded" />
<xs:enumeration value="RoleDefinitionUpdated" />
<xs:enumeration value="RoleDefinitionDeleted" />
<xs:enumeration value="RoleAssignmentAdded" />
<xs:enumeration value="RoleAssignmentDeleted" />
<xs:enumeration value="InheritanceBroken" />
<xs:enumeration value="InheritanceRestored" />
<xs:enumeration value="EmailReceived" />
<xs:enumeration value="ContextEvent" />
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="DefaultItemOpen">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Browser" />
    <xs:enumeration value="PreferClient" />
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="SPSite">
  <xs:sequence>
    <xs:element name="UserCustomActions" type="SPUserCustomActionCollection" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" />
</xs:complexType>

<xs:simpleType name="CalendarType">
  <xs:restriction base="xs:short">
    <xs:enumeration value="1" />
    <xs:enumeration value="3" />
    <xs:enumeration value="4" />
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="SPWeb">
  <xs:sequence>
    <xs:element name="Properties" type="Dictionary" minOccurs="1" maxOccurs="1"/>
    <xs:element name="SiteEventReceivers" type="SiteEventReceiverDefinitionCollection"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="EventReceivers" type="SPEventReceiverDefinitionCollection" minOccurs="0" maxOccurs="1" />
<xs:element name="UserCustomActions" type="SPUserCustomActionCollection" minOccurs="0" maxOccurs="1" />
<xs:element name="Resources" type="SPUserResourceCollection" minOccurs="0" maxOccurs="1" />

<x:sequence>
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="Name" type="String128" use="optional" />
  <xs:attribute name="Locale" type="xs:string" use="optional" />
  <xs:attribute name="Language" type="xs:unsignedInt" use="optional" />
  <xs:attribute name="IsRootWeb" type="core:truefalse_Only_Lowercase" use="required" />
  <xs:attribute name="ServerRelativeUrl" type="String261" use="required" />
  <xs:attribute name="CurrencyLocaleId" type="xs:int" use="optional" />
  <xs:attribute name="RegionalSettingsLocaleId" type="xs:unsignedInt" use="required" />
  <xs:attribute name="RequestAccessEmail" type="String255" use="optional" />
  <xs:attribute name="TimeZoneId" type="xs:short" use="required" />
  <xs:attribute name="Time24" type="core:truefalse_Only_Lowercase" use="required" />
  <xs:attribute name="CalendarType" type="CalendarType" use="required" />
  <xs:attribute name="AdjustHijriDays" type="xs:short" use="required" />
  <xs:attribute name="Collation" type="Collation" use="required" />
  <xs:attribute name="AlternateCalendarType" type="AltCalendarType" use="required" />
  <xs:attribute name="ShowWeeks" type="core:truefalse_Only_Lowercase" use="required" />
  <xs:attribute name="FirstWeekOfYear" type="FirstWeekOfYear" use="required" />
  <xs:attribute name="WorkDays" type="xs:short" use="required" />
  <xs:attribute name="WorkDayStartHour" type="WorkDayHour" use="required" />
  <xs:attribute name="WorkDayEndHour" type="WorkDayHour" use="required" />
  <xs:attribute name="FirstDayOfWeek" type="FirstDayOfWeek" use="required" />
  <xs:attribute name="Description" type="xs:string" use="required" />
  <xs:attribute name="AlternateHeader" type="String260" use="optional" />
  <xs:attribute name="Author" type="xs:int" use="required" />
  <xs:attribute name="Configuration" type="xs:short" use="required" />
  <xs:attribute name="HasUniqueRoleAssignments" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="HasUniqueRoleDefinitions" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="Created" type="xs:dateTime" use="required" />
  <xs:attribute name="ThemeComposite" type="String64" use="required" />
  <xs:attribute name="ThemedCssFolderUrl" type="xs:string" use="optional" />
  <xs:attribute name="WebTemplate" type="xs:string" use="required" />
  <xs:attribute name="RootFolderId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="SystemCatalogsIncluded" type="core:truefalse_Only_Lowercase" use="required" />
  <xs:attribute name="AlternateCssUrl" type="String260" use="required" />
  <xs:attribute name="CustomizedCssFiles" type="String260" use="required" />
</xs:sequence>
<xs:attribute name="CustomJSUrl" type="String260" use="required" />
<xs:attribute name="IncludeSupportingFolders" type="core:truefalse_Only_Lowercase" use="required" />
<xs:attribute name="SecurityProvider" type="core:UniqueIdentifierWithoutBraces" use="required" />
<xs:attribute name="MasterUrl" type="String260" use="required" />
<xs:attribute name="CustomMasterUrl" type="String260" use="required" />
<xs:attribute name="SiteLogoUrl" type="String261" use="optional" />
<xs:attribute name="SiteLogoDescription" type="String255" use="required" />
<xs:attribute name="UseSharedNavigation" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="UIVersion" type="xs:int" use="optional" />
<xs:attribute name="ClientTag" type="xs:short" use="optional" />
<xs:attribute name="IsMultilingual" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="AlternateUICultures" type="xs:string" use="optional" />
<xs:attribute name="OverwriteTranslationsOnChange" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="AppInstanceId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
<xs:attribute name="NoCrawl" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="AllowAutomaticASPXPageIndexing" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="PresenceEnabled" type="core:truefalse_Only_Lowercase" use="required" />
<xs:attribute name="SyndicationEnabled" type="core:truefalse_Only_Lowercase" use="required" />
<xs:attribute name="QuickLaunchEnabled" type="core:truefalse_Only_Lowercase" use="required" />
<xs:attribute name="TreeViewEnabled" type="core:truefalse_Only_Lowercase" use="required" />
<xs:attribute name="ParserEnabled" type="core:truefalse_Only_Lowercase" use="required" />
<xs:attribute name="Provisioned" type="core:truefalse_Only_Lowercase" use="required" />
<xs:attribute name="CacheAllSchema" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="UIVersionConfigurationEnabled" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="ExcludeFromOfflineClient" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="EnableMinimalDownload" type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="ASPXPageIndexMode" type="core:truefalse_Only_Lowercase" use="optional" />
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  <xs:restriction base="xs:string">
    <xs:enumeration value="Automatic"/>
    <xs:enumeration value="Always"/>
    <xs:enumeration value="Never"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType>
  <xs:choice minOccurs="0" maxOccurs="11">
    <xs:sequence>
      <xs:all/>
    </xs:sequence>
  </xs:choice>
</xs:complexType>
<xs:element name="Fields" type="core:FieldDefinitions"
    minOccurs="0" maxOccurs="1" />
<xs:element name="ContentTypes" type="core:ContentTypeDatabase"
    minOccurs="0" maxOccurs="1" />
<xs:element name="Views" type="SPViewCollection"
    minOccurs="0" maxOccurs="1" />
<xs:element name="Forms" type="SPFormCollection"
    minOccurs="0" maxOccurs="1" />
<xs:element name="EventReceivers"
    type="SPEventReceiverDefinitionCollection"
    minOccurs="0" maxOccurs="1" />
<xs:element name="DeletedFields" type="ListDeletedFields"
    minOccurs="0" maxOccurs="1" />
<xs:element name="DeletedViews" type="ListDeletedViews"
    minOccurs="0" maxOccurs="1" />
<xs:element name="DeletedContentTypes"
    type="ListDeletedContentTypes"
    minOccurs="0" maxOccurs="1" />
<xs:element name="UserCustomActions"
    type="SPUserCustomActionCollection"
    minOccurs="0" maxOccurs="1" />
<xs:element name="Resources" type="SPUserResourceCollection"
    minOccurs="0" maxOccurs="1" />
<xs:element name="FieldIndexes" type="SPFieldIndexCollection"
    minOccurs="0" maxOccurs="1" />
</xs:choice>
</xs:sequence>
<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
    use="required" />
<xs:attribute name="Title" type="String255" use="required" />
<xs:attribute name="RootFolderId"
    type="core:UniqueIdentifierWithoutBraces" />
<xs:attribute name="RootFolderUrl" type="xs:string" use="required" />
<xs:attribute name="ParentWebId"
    type="core:UniqueIdentifierWithoutBraces" use="required" />
<xs:attribute name="ParentWebUrl" type="xs:string" use="optional" />
<xs:attribute name="BaseType" type="SPBaseType" />
<xs:attribute name="TemplateFeatureId"
    type="core:UniqueIdentifierWithoutBraces" />
<xs:attribute name="Description" type="xs:string" use="optional" />
<xs:attribute name="Direction" type="Direction" use="optional" />
<xs:attribute name="DocumentTemplateId"
    type="core:UniqueIdentifierWithoutBraces" use="optional" />
<xs:attribute name="EventSinkAssembly" type="String255" use="optional" />
<xs:attribute name="SendToLocationName" type="xs:string" use="optional" />
<xs:attribute name="SendToLocationUrl" type="xs:string" use="optional" />
<xs:attribute name="EventSinkClass" type="String255" use="optional" />
<xs:attribute name="EventSinkData" type="String255" use="optional" />
<xs:attribute name="ImageUrl" type="String255" use="required" />
<xs:attribute name="Flags" type="xs:unsignedLong" use="required" />
<xs:attribute name="AllowDeletion"
    type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="EnableAttachments"
    type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableModeration"
    type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableVersioning"
    type="core:truefalse_Only_Lowercase" />
<xs:attribute name="EnableMinorVersions"
    type="core:truefalse_Only_Lowercase" />
<xs:attribute name="RequestAccessEnabled"
    type="core:truefalse_Only_Lowercase" use="optional" />
<xs:attribute name="DraftVersionVisibility"
    type="DraftVisibilityType" />
<xs:attribute name="ForceCheckout"
    type="core:truefalse_Only_Lowercase" />
<xs:attribute name="ExcludeFromTemplate"
<xs:element name="View" type="SPView"
minOccurs="0" maxOccurs="unbounded"/>
</xs:complexType>

<xs:attributeGroup name="SPViewBaseAttributeGroup">
<xs:attribute name="Flags" type="xs:unsignedInt" use="optional"/>
<xs:attribute name="Personal" type="core:Truefalse_Only_Lowercase" use="optional"/>
<xs:attribute name="Hidden" type="core:Truefalse_Only_Lowercase" use="optional"/>
<xs:attribute name="Threaded" type="core:Truefalse_Only_Lowercase" use="optional"/>
<xs:attribute name="FPModified" type="core:Truefalse_Only_Lowercase" use="optional"/>
<xs:attribute name="ReadOnly" type="core:Truefalse_Only_Lowercase" use="optional"/>
<xs:attribute name="RecurrenceRowset" type="core:Truefalse_Only_Lowercase" use="optional"/>
<xs:attribute name="ModerationType" use="optional">
<xs:simpleType>
<xs:restriction base="core:ViewModerationType">
<xs:enumeration value="Moderator"/>
<xs:enumeration value="Contributor"/>
<xs:enumeration value=""/>
</xs:restriction>
</xs:simpleType>
</xs:attribute>
<xs:attribute name="OrderedView" type="core:Truefalse_Only_Lowercase" use="optional"/>
<xs:attribute name="Scope" type="core:ViewScope" use="optional" default=""/>
<xs:attribute name="DisplayName" type="String255" use="optional"/>
<xs:attribute name="BaseViewID" type="xs:int" use="optional"/>
<xs:attribute name="WebPartZoneID" type="String64" use="optional"/>
<xs:attribute name="IsIncluded" type="core:Truefalse_Only_Lowercase" use="optional" default="true"/>
<xs:attribute name="WebPartOrder" type="xs:int" use="optional"/>
<xs:attribute name="FrameState" use="optional">
<xs:simpleType>
<xs:restriction base="xs:unsignedInt">
<xs:enumeration value="0"/>
<xs:enumeration value="1"/>
</xs:restriction>
</xs:simpleType>
</xs:attribute>
<xs:attribute name="WebPartIdProperty" type="String255"/>
</xs:attributeGroup>

<xs:complexType name="SPView">
<xs:group ref="core:ViewDefinitionChildElementGroup"/>
<xs:attributeGroup ref="SPViewBaseAttributeGroup"/>
<xs:attribute name="Name" type="core:UniqueIdentifierWithoutBraces" use="required"/>
<xs:attribute name="DefaultView" type="core:Truefalse_Only_Lowercase" use="required"/>
<xs:attribute name="Type" type="core:ViewType" use="optional"/>
<xs:attribute name="MobileView" type="core:Truefalse_Only_Lowercase" use="required"/>
<xs:attribute name="MobileDefaultView" type="core:Truefalse_Only_Lowercase" use="required"/>
<xs:attribute name="DefaultViewForContentType" type="core:Truefalse_Only_Lowercase" use="required"/>
<xs:attribute name="HackLockWeb" type="core:Truefalse_Only_Lowercase" use="required"/>
<xs:attribute name="FailIfEmpty" type="core:Truefalse_Only_Lowercase"/>
<?xml version="1.0" encoding="utf-8"?>
<xs:complexType name="SPEventReceiverDefinition">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required"/>
  <xs:attribute name="Name" type="String256" use="required"/>
  <xs:attribute name="WebId" type="core:UniqueIdentifierWithoutBraces" use="required"/>
  <xs:attribute name="HostId" type="core:UniqueIdentifierWithoutBraces" use="required"/>
  <xs:attribute name="HostType" type="SPEventHostType" use="required"/>
  <xs:attribute name="Synchronization" type="SPEventReceiverSynchronization" use="optional"/>
  <xs:attribute name="Type" type="SPEventReceiverType" use="required"/>
  <xs:attribute name="SequenceNumber" type="xs:unsignedShort" use="required"/>
  <xs:attribute name="Url" type="String256" use="optional"/>
  <xs:attribute name="Assembly" type="String256" use="optional"/>
  <xs:attribute name="Class" type="String256" use="optional"/>
  <xs:attribute name="SolutionId" type="core:UniqueIdentifierWithOrWithoutBraces" use="optional"/>
  <xs:attribute name="Data" type="String256" use="optional"/>
  <xs:attribute name="Filter" type="String256" use="optional"/>
  <xs:attribute name="Credential" type="xs:int" use="required"/>
  <xs:attribute name="ItemId" type="xs:int" use="optional"/>
</xs:complexType>

<xs:complexType name="ListDeletedContentTypes">
  <xs:sequence>
    <xs:element name="DeletedContentType" type="DeletedContentType" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="DeletedContentType">
  <xs:attribute name="ContentTypeId" type="core:ContentTypeId" use="required"/>
</xs:complexType>

<xs:complexType name="DeletedField">
  <xs:attribute name="FieldId" type="core:UniqueIdentifierWithoutBraces" use="required"/>
</xs:complexType>

<xs:complexType name="ListDeletedFields">
  <xs:sequence>
    <xs:element name="DeletedField" type="DeletedField" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPDocumentLibrary">
  <xs:complexContent>
    <xs:extension base="SPList">
      <xs:attribute name="DocumentTemplateUrl" type="String261"/>
      <xs:attribute name="EmailInsertsFolder" type="String255"/>
      <xs:attribute name="IsCatalog" type="core:truefalse_Only_Lowercase"/>
      <xs:attribute name="ThumbnailSize" type="xs:int"/>
      <xs:attribute name="WebImageHeight" type="xs:int"/>
      <xs:attribute name="WebImageWidth" type="xs:int"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:complexType name="SPFolder">
  <xs:sequence>
    <xs:element name="Properties" type="Dictionary" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
<xs:attribute name="Name" type="xs:string" />
<xs:attribute name="Url" type="xs:string" use="required" />
<xs:attribute name="ParentFolderId" type="core:UniqueIdentifierWithoutBraces" use="required" />
<xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
<xs:attribute name="ParentWebUrl" type="xs:string" use="optional" />
<xs:attribute name="ContainingDocumentLibrary" type="core:UniqueIdentifierWithoutBraces" use="optional" />
<xs:attribute name="WelcomePageUrl" type="xs:string" use="optional" />
<xs:attribute name="ListItemIntId" type="xs:int" use="optional" />
<xs:attribute name="ModifiedBy" type="xs:string" use="optional" />
<xs:attribute name="TimeCreated" type="xs:dateTime" use="optional" />
<xs:attribute name="TimeLastModified" type="xs:dateTime" use="optional" />
<xs:attribute name="ProgId" type="xs:string" use="optional" />
<xs:attribute name="SortBehavior" use="optional">
  <xs:simpleType>
    <xs:restriction base="xs:int">
      <xs:minInclusive value="0" />
      <xs:maxInclusive value="2" />
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
</xs:complexType>

<xs:complexType name="SPWebPartCollection">
  <xs:sequence>
    <xs:element name="WebPart" type="SPWebPart" minOccurs="1" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPWebPart">
  <xs:group ref="core:ViewDefinitionChildElementGroup" />
  <xs:attributeGroup ref="SPViewBaseAttributeGroup" />
  <xs:attribute name="Name" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="UserId" type="xs:int" use="optional" />
  <xs:attribute name="ListId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
  <xs:attribute name="ListRootFolderUrl" type="core:RelativeUrl" use="optional" />
  <xs:attribute name="Version" type="xs:int" use="optional" />
  <xs:attribute name="AllUsersProperties" type="xs:base64Binary" use="optional" />
  <xs:attribute name="PerUserProperties" type="xs:base64Binary" use="optional" />
  <xs:attribute name="Source" type="xs:string" use="optional" />
  <xs:attribute name="ContentTypeId" type="core:ContentTypeId" use="optional" />
  <xs:attribute name="Assembly" type="xs:string" use="optional" />
  <xs:attribute name="Class" type="xs:string" use="optional" />
  <xs:attribute name="SolutionId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
  <xs:attribute name="Type" use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:int">
        <xs:minInclusive value="-1" />
        <xs:maxInclusive value="10" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Level" use="required" type="xs:string"/>
  <xs:restriction base="xs:string">
    <xs:minInclusive value="-1" />
    <xs:maxInclusive value="10" />
  </xs:restriction>
</xs:complexType>
<xs:complexType name="SPListItem">
  <xs:sequence>
    <xs:element name="ListItem" type="SPListItemVersion" minOccurs="1" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPFile">
  <xs:sequence>
    <xs:element name="Properties" type="Dictionary" minOccurs="0" />
    <xs:element name="Versions" type="SPFileVersionCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="WebParts" type="SPWebPartCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Personalizations" type="SPPersonalizationCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Links" type="SPLinkCollection" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="Url" type="xs:string" use="required" />
  <xs:attribute name="ListItemIntId" type="xs:int" use="optional" />
  <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentWebUrl" type="xs:string" use="optional" />
  <xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
  <xs:attribute name="ListId" type="core:UniqueIdentifierWithoutBraces" use="optional" />
  <xs:attribute name="FileValue" type="PackageFileName" use="optional" />
  <xs:attribute name="CheckinComment" type="xs:string" use="optional" />
  <xs:attribute name="Version" type="VersionString" use="optional" default="1.0" />
  <xs:attribute name="Author" type="xs:int" use="optional" />
  <xs:attribute name="ModifiedBy" type="xs:int" use="optional" />
  <xs:attribute name="TimeCreated" type="xs:dateTime" use="optional" />
  <xs:attribute name="TimeLastModified" type="xs:dateTime" use="optional" />
  <xs:attribute name="FailureMessage" type="xs:string" use="optional" />
  <xs:attribute name="IsGhosted" type="core:truefalse_Only_Lowercase" use="optional" />
  <xs:attribute name="SetupPath" type="core:RelativeFilePath" use="optional" />
  <xs:attribute name="SetupPathUser" type="xs:int" use="optional" />
  <xs:attribute name="SetupPathVersion" type="xs:byte" default="15" />
</xs:complexType>

<xs:simpleType name="ListItemDocType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="File" />
    <xs:enumeration value="Folder" />
  </xs:restriction>
</xs:simpleType>

<xs:attributeGroup name="SPListItemBaseAttributeGroup">
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="DirName" type="xs:string" use="optional" />
  <xs:attribute name="Version" type="VersionString" use="optional" default="1.0" />
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="IntId" type="xs:int" use="required" />
  <xs:attribute name="Author" type="xs:int" use="optional" />
  <xs:attribute name="ModifiedBy" type="xs:int" use="optional" />
  <xs:attribute name="TimeCreated" type="xs:dateTime" use="optional" />
  <xs:attribute name="TimeLastModified" type="xs:dateTime" use="optional" />
  <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentListId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentWebUrl" type="xs:string" use="optional" />
</xs:attributeGroup>
<xs:complexType name="SPListItem">
  <xs:sequence>
    <xs:element name="Fields" type="FieldDataCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Versions" type="SPListItemVersionCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Attachments" type="SPAttachmentCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Links" type="SPLinkCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="EventReceivers" type="SPEventReceiverDefinitionCollection" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
  <xs:attribute name="FileUrl" type="xs:string" use="required" />
  <xs:attribute name="DocId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ParentFolderId" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="ProgId" type="xs:string" use="optional" />
  <xs:attribute name="Order" type="xs:float" use="optional" />
  <xs:attribute name="UserSolutionActivated" use="optional">
    <xs:simpleType>
      <xs:restriction base="xs:short">
        <xs:enumeration value="0" />
        <xs:enumeration value="1" />
        <xs:enumeration value="2" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attributeGroup ref="SPListItemBaseAttributeGroup" />
</xs:complexType>

<xs:complexType name="SPListItemVersion">
  <xs:sequence>
    <xs:element name="Fields" type="FieldDataCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Attachments" type="SPAttachmentCollection" minOccurs="0" maxOccurs="1" />
    <xs:element name="Links" type="SPLinkCollection" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
  <xs:attributeGroup ref="SPListItemBaseAttributeGroup" />
</xs:complexType>

<xs:complexType name="SPContentType">
  <xs:all>
    <xs:element name="Folder" type="core:FolderReference" minOccurs="0" maxOccurs="1" />
    <xs:element name="FieldRefs" type="FieldReferenceDefinitions" minOccurs="0" maxOccurs="1" />
    <xs:element name="Fields" type="core:FieldDefinitions" minOccurs="0" maxOccurs="1" />
    <xs:element name="XmlDocuments" type="core:XmlDocumentDefinitionCollection" />
  </xs:all>
</xs:complexType>
<xs:attribute name="UseSharedNavigation"
    type="core:truefalse_Only_Lowercase"
    use="optional" default="false" />
</xs:complexType>

<xs:complexType name="DeploymentWebStructureElement">
    <xs:sequence>
        <xs:element name="MetaInfo" minOccurs="0" type="MetaDictionary" />
        <xs:element name="Element" type="DeploymentWebStructureElement"
            minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
    <xs:attribute name="Id" type="xs:int"
        use="required" />
    <xs:attribute name="DateTimeParented" type="xs:string"
        use="required" />
    <xs:attribute name="Type" use="required">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:enumeration value="Page" />
                <xs:enumeration value="Link" />
                <xs:enumeration value="DynamicPage" />
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="Name" type="String256"
        use="required" />
    <xs:attribute name="NameResource" use="required">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="520"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="Url" type="xs:string"
        use="required" />
</xs:complexType>

<xs:complexType name="MetaDictionary">
    <xs:sequence>
        <xs:element name="MetaKey" minOccurs="0" maxOccurs="unbounded">
            <xs:complexType>
                <xs:attribute name="Name" type="xs:string" />
                <xs:attribute name="Value" type="xs:string" />
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>

<xs:complexType name="DeploymentFieldTemplate">
    <xs:sequence>
        <xs:element name="Field" type="core:FieldDefinition"
            minOccurs="1" maxOccurs="1" />
    </xs:sequence>
    <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
        use="required" />
    <xs:attribute name="Name" type="xs:string" use="required" />
    <xs:attribute name="ParentWebId" type="core:UniqueIdentifierWithoutBraces"
        use="required" />
    <xs:attribute name="Scope" type="core:RelativeUrl" use="required" />
    <xs:attribute name="Description" type="xs:string" use="required" />
    <xs:attribute name="Group" type="xs:string" use="required" />
    <xs:attribute name="PushChangesToList" type="core:truefalse_Only_Lowercase"
        use="optional" />
</xs:complexType>

<xs:simpleType name="StringNonEmpty">
    <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="ReadSecurity">
  <xs:restriction base="xs:int">
    <xs:enumeration value="1" />
    <xs:enumeration value="2" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="WriteSecurity">
  <xs:restriction base="xs:int">
    <xs:enumeration value="1" />
    <xs:enumeration value="2" />
    <xs:enumeration value="4" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="PackageFileName">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="255"/>
    <xs:pattern value="[a-zA-F\d]{8}.dat"/>
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="FieldReferenceDefinitions">
  <xs:sequence>
    <xs:element name="FieldRef" type="core:FieldRefDefinitionCT" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPFieldIndexCollection">
  <xs:sequence>
    <xs:element name="Index" type="SPFieldIndex" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPFieldIndexColumn">
  <xs:attribute name="ID" type="core:UniqueIdentifierWithBraces" use="required" />
</xs:complexType>

<xs:complexType name="SPFieldIndex">
  <xs:sequence>
    <xs:element name="FieldRef" type="SPFieldIndexColumn" minOccurs="2" maxOccurs="2" />
  </xs:sequence>
  <xs:attribute name="ID" type="core:UniqueIdentifierWithBraces" use="required" />
</xs:complexType>

<xs:complexType name="SPUserResourceValues">
  <xs:attribute name="Language" type="xs:int" use="required" />
  <xs:attribute name="Dirty" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:boolean">
        <xs:pattern value="0|1"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Value" type="xs:string" use="required" />
</xs:complexType>

<xs:complexType name="SPUserResourceDefinition">
  <xs:sequence>
    <xs:element name="Data" type="SPUserResourceValues" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
<xs:sequence>
  <xs:attribute name="Name" type="xs:string" use="required" />
  <xs:attribute name="Type" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:short">
        <xs:enumeration value="0" />
        <xs:enumeration value="1" />
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>

<xs:complexType name="SPUserResourceCollection">
  <xs:sequence>
    <xs:element name="Resource" type="SPUserResourceDefinition" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPUserCustomActionCollection">
  <xs:sequence>
    <xs:element name="UserCustomAction" type="SPUserCustomActionDefinition" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPUserCustomActionDefinition">
  <xs:sequence>
    <xs:any minOccurs="1" maxOccurs="2" namespace="##any" processContents="skip" />
  </xs:sequence>
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
  <xs:attribute name="Version" type="xs:string" use="required" />
</xs:complexType>

<xs:simpleType name="SPBrowserFileHandling">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Permissive" />
    <xs:enumeration value="Strict" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPEventReceiverSynchronization">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Default" />
    <xs:enumeration value="Synchronous" />
    <xs:enumeration value="Asynchronous" />
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="ListDeletedViews">
  <xs:sequence>
    <xs:element name="DeletedView" type="DeletedView" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="DeletedView">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
</xs:complexType>

<xs:simpleType name="SPAalertType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="List" />  
    <xs:enumeration value="Item" />
</xs:simpleType>
<xs:enumeration value="Custom" />  
</xs:simpleType>

<xs:simpleType name="SPAlertFrequency">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Immediate" />  
    <xs:enumeration value="Daily" />  
    <xs:enumeration value="Weekly" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPAlertStatus">
  <xs:restriction base="xs:string">
    <xs:enumeration value="On" />  
    <xs:enumeration value="Off" />  
    <xs:enumeration value="Error" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPAlertEventType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Add" />  
    <xs:enumeration value="Modify" />  
    <xs:enumeration value="Delete" />  
    <xs:enumeration value="Discussion" />  
    <xs:enumeration value="All" />
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="SPAlertDeliveryChannels">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Email" />  
    <xs:enumeration value="Sms" />  
    <xs:enumeration value="Wns" />
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="SPAlert">
  <xs:sequence>
    <xs:element name="Filter" minOccurs="0" maxOccurs="1" />
    <xs:element name="Properties" type="Dictionary" minOccurs="0" maxOccurs="1" />
  </xs:sequence>
  <xs:attribute name="Id" type="Guid" use="required" />
  <xs:attribute name="Title" type="xs:string" use="required" />
  <xs:attribute name="AlertType" type="SPAlertType" use="required" />
  <xs:attribute name="EventType" type="SPAlertEventType" use="required" />
  <xs:attribute name="AlertTemplateName" type="xs:string" use="optional" />
  <xs:attribute name="UserId" type="xs:int" use="required" />
  <xs:attribute name="WebId" type="Guid" use="required" />
  <xs:attribute name="ListId" type="Guid" use="required" />
  <xs:attribute name="ParentId" type="Guid" use="required" />
  <xs:attribute name="ListItemIntId" type="xs:int" use="optional" />
  <xs:attribute name="DocId" type="Guid" use="optional" />
  <xs:attribute name="ListUrl" type="xs:string" use="required" />
  <xs:attribute name="ObjectUrl" type="xs:string" use="required" />
  <xs:attribute name="AlwaysNotify" type="xs:boolean" use="required" />
  <xs:attribute name="NotifyFrequency" type="SPAlertFrequency" use="required" />
  <xs:attribute name="NotifyTime" type="xs:dateTime" use="optional" />
  <xs:attribute name="DeliveryChannel" type="SPAlertDeliveryChannels" use="optional" />
  <xs:attribute name="Status" type="SPAlertStatus" use="required" />
</xs:complexType>

<xs:element name="SPObjects" type="SPGenericObjectCollection" />

</xs:schema>
5.2 ExportSettings.xml Schema

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint/soap namespace in the schema with urn:deployment-exportsettings-schema.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<xs:schema
    targetNamespace="urn:deployment-exportsettings-schema"
    elementFormDefault="qualified"
    xmlns="urn:deployment-exportsettings-schema"
    xmlns:mstns="urn:deployment-exportsettings-schema"
    xmlns:xs="http://www.w3.org/2001/XMLSchema"
    xmlns:core="urn:deployment-exportsettings-schema">
    <xs:include
        id="WSS"
        schemaLocation="wsswire_DeploymentExportSettings.xsd" />
    <xs:simpleType name="SPIncludeDescendants">
        <xs:restriction base="xs:string">
            <xs:enumeration value="Content" />
            <xs:enumeration value="All" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="SPIncludeSecurity">
        <xs:restriction base="xs:string">
            <xs:enumeration value="None" />
            <xs:enumeration value="WssOnly" />
            <xs:enumeration value="All" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="SPIncludeVersions">
        <xs:restriction base="xs:string">
            <xs:enumeration value="LastMajor" />
            <xs:enumeration value="CurrentVersion" />
            <xs:enumeration value="LastMajorAndMinor" />
            <xs:enumeration value="All" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="SPExportMethodType">
        <xs:restriction base="xs:string">
            <xs:enumeration value="ExportAll" />
            <xs:enumeration value="ExportChanges" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="SPExportChangeToken">
        <xs:restriction base="xs:string">
            <xs:pattern value="d+;[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12};d+;d+"/>
            <xs:maxLength value="120"/>
        </xs:restriction>
    </xs:simpleType>
    <xs:complexType name="SPExportObjectCollection">
        <xs:sequence>
            <xs:element
                name="DeploymentObject" type="SPExportObject"
                minOccurs="0" maxOccurs="unbounded" />
        </xs:sequence>
    </xs:complexType>
</xs:schema>
```
<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required"/>
<xs:attribute name="Type" use="required">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:enumeration value="Site"/>
            <xs:enumeration value="Web"/>
            <xs:enumeration value="ListItem"/>
        </xs:restriction>
    </xs:simpleType>
</xs:attribute>
<xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces" use="required"/>
<xs:attribute name="Url" type="xs:string" use="optional"/>
<xs:attribute name="ExcludeChildren" type="core:truefalse_Only_Lowercase" use="required"/>
<xs:attribute name="IncludeDescendants" type="SPIncludeDescendants" use="required"/>
<xs:attribute name="ExportChangeToken" type="SPExportChangeToken" use="optional"/>
</xs:complexType>

<xs:complexType name="SPExportSettings">
    <xs:sequence>
        <xs:element name="ExportObjects" type="SPExportObjectCollection"/>
    </xs:sequence>
    <xs:attribute name="SiteUrl" type="xs:string" use="required"/>
    <xs:attribute name="FileLocation" type="xs:string" use="required"/>
    <xs:attribute name="BaseFileName" type="xs:string" use="required"/>
    <xs:attribute name="IncludeSecurity" type="SPIncludeSecurity" use="required"/>
    <xs:attribute name="IncludeAlerts" type="core:truefalse_Only_Lowercase" default="false"/>
    <xs:attribute name="IncludeVersions" type="SPIncludeVersions" use="required"/>
    <xs:attribute name="ExportMethod" type="SPExportMethodType" use="required"/>
    <xs:attribute name="ExportPublicSchema" fixed="true" use="required"/>
    <xs:attribute name="ExcludeDependencies" type="core:truefalse_Only_Lowercase" default="true"/>
    <xs:attribute name="ExportFrontEndFileStreams" type="core:truefalse_Only_Lowercase" default="true"/>
    <xs:anyAttribute namespace="##any" processContents="skip"/>
</xs:complexType>

<xs:element name="ExportSettings" type="SPExportSettings"/>
</xs:schema>

5.3 LookupListMap.xml Schema

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint/soap namespace in the schema with urn:deployment-lookuplistmap-schema.

<xml version="1.0" encoding="utf-8" ?>
<xs:schema
    targetNamespace="urn:deployment-lookuplistmap-schema"
    elementFormDefault="qualified"
    xmlns="urn:deployment-lookuplistmap-schema"
    xmlns:mstns="urn:deployment-lookuplistmap-schema"
    xmlns:xs="http://www.w3.org/2001/XMLSchema"
    xmlns:core="urn:deployment-lookuplistmap-schema">\n
[MS-PRIMEPF] - v20181001
Deployment Package Format
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Release: October 1, 2018
<xs:include
id="WSS"
schemaLocation="wsswire_DeploymentLookupListMap.xsd" />

<xs:complexType name="SPLookupItem">
<xs:attribute name="Id" type="xs:int" use="required" />
<xs:attribute name="DocId" type="core:UniqueIdentifierWithoutBraces"
use="required" />
<xs:attribute name="Url" type="xs:string" use="required" />
<xs:attribute name="Included" type="core:truefalse_Only_Lowercase"
use="required" />
</xs:complexType>

</xs:complexType>
<xs:complexType name="SPLookupItems">
<xs:sequence>
<xs:element name="LookupItem" type="SPLookupItem"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="SPLookupList">
<xs:sequence>
<xs:element name="LookupItems" type="SPLookupItems"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
use="required" />
<xs:attribute name="Url" type="xs:string" use="required" />
<xs:attribute name="Included" type="core:truefalse_Only_Lowercase"
use="required" />
</xs:complexType>

</xs:complexType>
<xs:complexType name="SPLookupLists">
<xs:sequence>
<xs:element name="LookupList" type="SPLookupList"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:element name="LookupLists" type="SPLookupLists" />
</xs:schema>

5.4 Requirements.xml Schema

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint soap namespace in the schema with urn:deployment-requirements-schema.

<?xml version="1.0" encoding="utf-8" ?>

<xs:schema
targetNamespace="urn:deployment-requirements-schema"
xmlns="urn:deployment-requirements-schema"
xmlns:mstns="urn:deployment-requirements-schema"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:core="urn:deployment-requirements-schema">
<xs:include
id="WSS"
schemaLocation="wsswire_DeploymentRequirements.xsd" />

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5.5 RootObjectMap.xml Schema

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint/soap namespace in the schema with urn:deployment-rootobjectmap-schema.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<xs:schema

targetNamespace="urn:deployment-rootobjectmap-schema"

elementFormDefault="qualified"

xmlns="urn:deployment-rootobjectmap-schema"

xmlns:mstns="urn:deployment-rootobjectmap-schema"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

xmlns:core="urn:deployment-rootobjectmap-schema">

<xs:include

id="WSS"

schemaLocation="wsswire_DeploymentRootObjectMap.xsd" />

<xs:simpleType name="SPDeploymentObjectType">

<xs:restriction base="xs:string">

<xs:enumeration value="Web" />

<xs:enumeration value="ListItem" />

<xs:enumeration value="File" />

</xs:restriction>

</xs:simpleType>

<xs:complexType name="SPRootObject">

<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"

use="required" />

<xs:attribute name="Type" type="SPDeploymentObjectType" use="required" />

<xs:attribute name="ParentId" type="core:UniqueIdentifierWithoutBraces"

use="required" />

<xs:attribute name="WebUrl" type="xs:string" use="required" />

<xs:attribute name="Url" type="xs:string" use="required" />

<xs:attribute name="IsDependency" type="core:truefalse_Only_Lowercase"

use="required" />

</xs:complexType>

<xs:complexType name="SPImportRequirements">

<xs:sequence>

<xs:element name="Requirement" type="SPRequirement"

minOccurs="0" maxOccurs="unbounded" />

</xs:sequence>

</xs:complexType>

<xs:complexType name="SPRequirement">

<xs:attribute name="Type" type="SPRequirementObjectType" />

<xs:attribute name="Id" type="xs:string" use="required" />

<xs:attribute name="Name" type="xs:string" use="required" />

<xs:attribute name="Data" type="xs:string" use="optional" />

</xs:complexType>

<xs:element name="Requirements" type="SPImportRequirements" />
</xs:schema>
```
5.6 SystemData.xml Schema

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint/soap namespace in the schema with urn:deployment-systemdata-schema.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<xs:schema

targetNamespace="urn:deployment-systemdata-schema"
elementFormDefault="qualified"
xmlns="urn:deployment-systemdata-schema"
xmlns:mstns="urn:deployment-systemdata-schema"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:core="urn:deployment-systemdata-schema">

<xs:include
    id="WSS"
schemaLocation="wsswire_DeploymentSystemData.xsd" />

<xs:complexType name="SPSchemaVersion">
    <xs:attribute name="Version" type="xs:string" use="required"/>
    <xs:attribute name="Build" type="BuildVersion" use="required" />
    <xs:attribute name="DatabaseVersion" type="xs:nonNegativeInteger" use="required" />
    <xs:attribute name="SiteVersion" type="xs:string" use="required" />
    <xs:attribute name="ObjectsProcessed" type="xs:int" />
</xs:complexType>

<xs:complexType name="SPManifestFiles">
    <xs:sequence>
        <xs:element name="ManifestFile" type="SPManifestFile" minOccurs="1" maxOccurs="unbounded" />
    </xs:sequence>
</xs:complexType>

<xs:complexType name="SPSystemObjects">
    <xs:sequence>
        <xs:element name="SystemObject" type="SPSystemObject" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
</xs:complexType>

<xs:complexType name="SPSystemObject">
    <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />
    <xs:attribute name="Type" use="required">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:enumeration value="Web" />
                <xs:enumeration value="Folder" />
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
</xs:complexType>
```
<xs:enumeration value="List" />  
<xs:enumeration value="ListItem" />  
<xs:enumeration value="File" />  
</xs:restriction>  
</xs:simpleType>  
</xs:attribute>  
<xs:attribute name="Url" type="xs:string" use="required" />  
</xs:complexType>  
<xs:complexType name="SPManifestFile">  
<xs:attribute name="Name" type="xs:string" use="required" />  
</xs:complexType>  
<xs:complexType name="SPSystemData">  
<xs:sequence>  
<xs:element name="SchemaVersion" type="SPSchemaVersion" minOccurs="1" maxOccurs="1" />  
<xs:element name="ManifestFiles" type="SPManifestFiles" minOccurs="1" maxOccurs="1" />  
<xs:element name="SystemObjects" type="SPSystemObjects" minOccurs="1" maxOccurs="1" />  
<xs:element name="RootWebOnlyLists" type="SPRootWebOnlyLists" minOccurs="0" maxOccurs="1" />  
</xs:sequence>  
</xs:complexType>  
</xs:complexType>  
<xs:complexType name="SPRootWebOnlyLists">  
<xs:sequence>  
<xs:element name="List" type="SPRootWebOnlyList" minOccurs="0" maxOccurs="unbounded" />  
</xs:sequence>  
</xs:complexType>  
<xs:complexType name="SPRootWebOnlyList">  
<xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces" use="required" />  
</xs:complexType>  
<xs:simpleType name="BuildVersion">  
<xs:restriction base="xs:string">  
<xs:pattern value="[\d.]+\.[\d.]+\.[\d.]+\.[\d.]+" />  
</xs:restriction>  
</xs:simpleType>  
<xs:element name="SystemData" type="SPSystemData" />  
</xs:schema>

5.7 UserGroup.xml Schema

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint/soap namespace in the schema with urn:deployment-usergroupmap-schema.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<xs:schema
targetNamespace="urn:deployment-usergroupmap-schema" elementFormDefault="qualified"
xmlns="urn:deployment-usergroupmap-schema"
xmlns:mstns="urn:deployment-usergroupmap-schema"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:core="urn:deployment-usergroupmap-schema">
  <xs:include
```
<xs:complexType name="DeploymentUser">
  <xs:attribute name="Id" type="xs:int" use="required" />
  <xs:attribute name="Name" type="String255NonEmpty" use="required" />
  <xs:attribute name="Login" type="String255NonEmpty" use="required" />
  <xs:attribute name="Email" type="String255" use="optional" />
  <xs:attribute name="IsDomainGroup" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="IsSiteAdmin" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="IsDeleted" type="core:truefalse_Only_Lowercase" use="required" />
  <xs:attribute name="MobilePhone" type="xs:string" use="optional" />
  <xs:attribute name="Flags" type="xs:int" use="optional" />
</xs:complexType>

<xs:complexType name="DeploymentUsers">
  <xs:sequence>
    <xs:element name="User" type="DeploymentUser" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="DeploymentGroupMember">
  <xs:attribute name="UserId" type="xs:int" use="required" />
</xs:complexType>

<xs:complexType name="DeploymentGroup">
  <xs:sequence>
    <xs:element name="Member" type="DeploymentGroupMember" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="Id" type="xs:int" use="required" />
  <xs:attribute name="Name" type="String255NonEmpty" use="required" />
  <xs:attribute name="Owner" type="xs:int" use="required" />
  <xs:attribute name="OwnerIsUser" type="core:truefalse_Only_Lowercase" use="required" />
  <xs:attribute name="Description" type="String512" use="optional" />
  <xs:attribute name="OnlyAllowMembersViewMembership" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AllowMembersEditMembership" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
  <xs:attribute name="AllowRequestToJoinLeave" type="core:truefalse_Only_Lowercase" use="optional" default="false" />
</xs:complexType>
5.8 **ViewFormsList.xml Schema**

This XML schema includes the XML schema described in [MS-WSSCAML], replacing the http://schemas.microsoft.com/sharepoint/soap namespace in the schema with urn:deployment-viewformlist-schema.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<xs:schema targetNamespace="urn:deployment-viewformlist-schema"
  elementFormDefault="qualified"
  xmlns="urn:deployment-viewformlist-schema"
  xmlns:msdt="urn:deployment-viewformlist-schema"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:core="urn:deployment-viewformlist-schema">

<xs:include id="WSS"
  schemaLocation="wsswire_DeploymentViewFormsList.xsd" />

<xs:complexType name="SPViewFormsList">
  <xs:sequence>
    <xs:element name="ViewForm" type="SPViewForm"
      minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="SPViewForm">
  <xs:attribute name="Id" type="core:UniqueIdentifierWithoutBraces"
    use="required" />
  <xs:attribute name="Type" use="required" >
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="View" />
        <xs:enumeration value="Forms" />
      </xs:restriction>
    </xs:attribute>
</xs:schema>
```
</xs:complexType>

<xs:element name="ViewFormsList" type="SPViewFormsList" />

</xs:schema>
6 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.

- Windows SharePoint Services 3.0
- Microsoft SharePoint Foundation 2010
- Microsoft SharePoint Foundation 2013
- Microsoft SharePoint Server 2016
- Microsoft SharePoint Server 2019

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

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

<1> Section 2.1.2.1: This type has been added since SharePoint Foundation 2010.

<2> Section 2.1.2.2.1: For Windows SharePoint Services 3.0, see [MS-WSSFO] section 2.2.8.3.3 instead. For SharePoint Foundation 2010, see [MS-WSSFO2] section 2.2.8.3.3 instead.

<3> Section 2.1.2.3: This type has been added since SharePoint Foundation 2010.

<4> Section 2.1.2.5.1: This value has been added since SharePoint Foundation 2010.

<5> Section 2.1.2.5.2: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.8.3.3 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.8.3.3 instead.

<6> Section 2.1.2.7.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.13 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.14 instead.

<7> Section 2.1.2.8.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.13 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.14 instead.

<8> Section 2.1.2.10.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.13 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.14 instead.

<9> Section 2.1.2.12.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.13 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.14 instead.

<10> Section 2.1.2.13.1: This attribute has been added since SharePoint Foundation 2010

<11> Section 2.1.2.13.1: This attribute has been added since SharePoint Foundation 2010, and the definition is defined in [MS-WSSFO2] section 2.2.2.11.

<12> Section 2.1.2.15.1: This attribute has been added since SharePoint Foundation 2010.

<13> Section 2.1.2.19.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.8.3.3 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.8.3.3 instead.

<14> Section 2.1.2.21: This type has been added since SharePoint Foundation 2010.
Section 2.1.2.23: This type has been added since SharePoint Foundation 2010.

Section 2.1.2.28.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.29.1: This functionality was deprecated in Windows SharePoint Services 3.0. However, the attribute can be present for upgraded instances.

Section 2.1.2.29.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.29.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: In Windows SharePoint Services 3.0, HostType=ListItem will never appear in deployment package.

Section 2.1.2.30.1: The following values have been added in SharePoint Foundation 2013: ItemVersionDeleting, GroupAdding, GroupUpdating, GroupDeleting, GroupUserAdding, GroupUserDeleting, RoleDefinitionAdding, RoleDefinitionUpdating, RoleDefinitionDeleting, RoleAssignmentAdding, RoleAssignmentDeleting, InheritanceBreaking, InheritanceRestoring, ItemVersionDeleted, GroupAdded, GroupUpdated, GroupDeleted, GroupUserAdded, GroupUserDeleted, RoleDefinitionAdded, RoleDefinitionUpdated, RoleDefinitionDeleted, RoleAssignmentAdded, RoleAssignmentDeleted, InheritanceBroken, and InheritanceRestored.

Section 2.1.2.30.1: This value has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This value has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This value has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This value has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This value has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This value has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.30.1: The following attributes have been added since SharePoint Foundation 2010: ItemVersionDeleting, GroupAdding, GroupUpdating, GroupDeleting, GroupUserAdding, GroupUserDeleting, RoleDefinitionAdding, RoleDefinitionUpdating, RoleDefinitionDeleting, RoleAssignmentAdding, RoleAssignmentDeleting, InheritanceBreaking, InheritanceRestoring, ItemVersionDeleted, GroupAdded, GroupUpdated, GroupDeleted, GroupUserAdded, GroupUserDeleted, RoleDefinitionAdded, RoleDefinitionUpdated, RoleDefinitionDeleted, RoleAssignmentAdded, RoleAssignmentDeleted, InheritanceBroken, and InheritanceRestored.

Section 2.1.2.40.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.40.1: This attribute has been added since SharePoint Foundation 2010.
Section 2.1.2.41.1: For Windows SharePoint Services 3.0, see [MS-WSSFO] section 2.2.2.11 instead. For SharePoint Foundation 2010, see [MS-WSSFO2] section 2.2.2.12 instead.

Section 2.1.2.41.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.41.1: This attribute has been added since SharePoint Foundation 2013.

Section 2.1.2.41.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.45.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.10 instead. For SharePoint Foundation 2010, see [MS-WSSFO2] section 2.2.3.10 instead.

Section 2.1.2.45.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.9 instead. For SharePoint Foundation 2010, see [MS-WSSFO2] section 2.2.3.9 instead.

Section 2.1.2.45.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.8 instead. For SharePoint Foundation 2010, see [MS-WSSFO2] section 2.2.3.8 instead.

Section 2.1.2.47.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.8.3.3 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.8.3.3 instead.

Section 2.1.2.47.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.12 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.3.12 instead.

Section 2.1.2.47.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.12 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.3.12 instead.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.

Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2010.
<68> Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2013.

<69> Section 2.1.2.47.1: This list Flag bit was added in SharePoint Foundation 2013.

<70> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<71> Section 2.1.2.47.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.8.3.3 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.8.3.3 instead.

<72> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<73> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<74> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<75> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010

<76> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2013.

<77> Section 2.1.2.47.1: In SharePoint Foundation 2010 this attribute is or is not processed depending on DefaultItemOpenUseListSetting attribute.

<78> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<79> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<80> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<81> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<82> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<83> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<84> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<85> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<86> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<87> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<88> Section 2.1.2.47.1: This attribute has been added since SharePoint Foundation 2010.

<89> Section 2.1.2.47.1: This attribute has been added since SharePoint Server 2016.

<90> Section 2.1.2.47.2: This collection has been added since SharePoint Foundation 2010.

<91> Section 2.1.2.47.2: This collection has been added since SharePoint Foundation 2010.

<92> Section 2.1.2.47.2: This collection has been added since SharePoint Foundation 2010.

<93> Section 2.1.2.47.2: This collection has been added since SharePoint Foundation 2010.

<94> Section 2.1.2.47.2: This collection has been added since SharePoint Foundation 2010.

<95> Section 2.1.2.48.1: This attribute has been added since SharePoint Foundation 2010.

<96> Section 2.1.2.48.1: This attribute has been added since SharePoint Foundation 2010.

<97> Section 2.1.2.48.1: This attribute has been added since SharePoint Foundation 2010.

<98> Section 2.1.2.48.2: This collection has been added since SharePoint Foundation 2010.
Section 2.1.2.53.2: This collection has been added since SharePoint Foundation 2010.

Section 2.1.2.54: This type has been added since SharePoint Foundation 2010.

Section 2.1.2.55: This type has been added since SharePoint Foundation 2010.

Section 2.1.2.56: This type has been added since SharePoint Foundation 2010.

Section 2.1.2.57: This type has been added since SharePoint Foundation 2010.

Section 2.1.2.58: This type has been added since SharePoint Foundation 2010.

Section 2.1.2.59.1: This value is not used in Windows SharePoint Services 3.0, SharePoint Foundation 2010, SharePoint Foundation 2013 and SharePoint Server 2016.

Section 2.1.2.59.1: In Windows SharePoint Services 3.0, SharePoint Foundation 2010, SharePoint Foundation 2013, SharePoint Server 2016 and SharePoint Server 2019, the value of Type is RECURRENCE if the VIEWFLAG_HTML bit (0x00000001) of the Flags attribute (specified in section 2.1.3.2) is 1 or the VIEWFLAG_RECURRENCE_RS bit (0x00002000) of the Flags attribute (specified in section 2.1.3.2) is 1, and the VIEWFLAG_GRID bit (0x00000800), VIEWFLAG_CHART bit (0x00020000), VIEWFLAGCALENDAR bit (0x00080000) and VIEWFLAG_GANTT bit (0x04000000) bits of the Flags attribute (specified in section 2.1.3.2) are 0.

Section 2.1.2.59.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: For Windows SharePoint Services 3.0 value is one of the time zone identifiers as specified in [MS-WSSFO] section 2.2.3.17. For SharePoint Foundation 2010 value is one of the time zone identifiers as specified in [MS-WSSFO2] section 2.2.3.17. For SharePoint Foundation 2013 value is one of the time zone identifiers as specified in [MS-WSSFO3] section 2.2.1.3.

Section 2.1.2.61.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.3 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.3.3 instead.

Section 2.1.2.61.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.4 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.3.4 instead.

Section 2.1.2.61.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.3 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.3.3 instead.

Section 2.1.2.61.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.12 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.13 instead.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010. Value 3 corresponds to the user interface of Windows SharePoint Services 3.0, value 4 corresponds to the user interface of SharePoint Foundation 2010 and value 15 corresponds to the user interface of SharePoint Foundation 2013.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.
Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.61.1: This attribute has been added since SharePoint Foundation 2013.

Section 2.1.2.61.2: This collection has been added since SharePoint Foundation 2010.

Section 2.1.2.61.2: This collection has been added since SharePoint Foundation 2010.

Section 2.1.2.61.2: This collection has been added since SharePoint Foundation 2010.

Section 2.1.2.62.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.62.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.14 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.3.14 instead.

Section 2.1.2.62.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.62.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.62.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.62.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.62.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.2.62.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.3.2.1: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.11 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.12 instead.

Section 2.1.3.2.1: This attribute has been added since SharePoint Foundation 2010.

Section 2.1.4.3: This type has been added since SharePoint Foundation 2010.

Section 2.1.4.6: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.13 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.14 instead.

Section 2.1.4.8: This value has been added since SharePoint Foundation 2010.

Section 2.1.4.8: This value has been added since SharePoint Foundation 2010.

Section 2.1.4.15: The type SPBrowserFileHandling and its values have been added in SharePoint Foundation 2010

Section 2.1.4.16: The type SPEventReceiverSynchronization and its values have been added in SharePoint Foundation 2010.

Section 2.1.4.17: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.3.12 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.3.12 instead.

Section 2.1.4.17: This enumeration value has been added since SharePoint Foundation 2010.

Section 2.1.4.17: This enumeration value has been added since SharePoint Foundation 2010.

Section 2.1.4.17: This enumeration value has been added since SharePoint Foundation 2010.

Section 2.1.4.17: This enumeration value has been added since SharePoint Foundation 2010.

Section 2.1.4.31: For Windows SharePoint Services 3.0 refer to [MS-WSSFO] section 2.2.2.13 instead. For SharePoint Foundation 2010, refer to [MS-WSSFO2] section 2.2.2.14 instead.

Section 2.2.2.1.1: In some cases, Windows SharePoint Services 3.0 does set this to the Id of the parent deployment object.

Section 2.2.2.3.1: Windows SharePoint Services 3.0 uses the folder path that was used when generating the deployment package.
<148> Section 2.2.2.3.1: Windows SharePoint Services 3.0 uses the file name that was used when generating the deployment package.

<149> Section 2.2.2.3.1: This attribute has been added since SharePoint Server 2016.

<150> Section 2.2.2.3.1: This attribute has been added since SharePoint Foundation 2010.

<151> Section 2.6.2.3.1: The value is 12.0.10.0 for Windows SharePoint Services 3.0, 14.0.0.0 for SharePoint Foundation 2010 and 15.0.0.0 for SharePoint Foundation 2013.

<152> Section 2.6.2.3.1: Windows SharePoint Services 3.0, SharePoint Foundation 2010, and SharePoint Foundation 2013 use the version of the software module used to perform the export operation. This is ignored for Windows SharePoint Services 3.0 in an import operation.

<153> Section 2.6.2.3.1: Windows SharePoint Services 3.0 uses the timestamp of the content database.

<154> Section 2.6.2.3.1: This attribute has been added since SharePoint Foundation 2010.

<155> Section 2.6.2.4.1: This element has been added since SharePoint Foundation 2010.

<156> Section 2.6.2.7: This type has been added since SharePoint Foundation 2010.

<157> Section 2.6.2.8: This type has been added since SharePoint Foundation 2010.

<158> Section 2.7.2.3.1: This attribute has been added since SharePoint Foundation 2010.

<159> Section 2.7.2.3.1: This attribute has been added since SharePoint Foundation 2010, and the definition is defined in [MS-WSSFO2] section 2.2.2.11.
7 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](mailto:dochelp@microsoft.com).

<table>
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<tr>
<th>Section</th>
<th>Description</th>
<th>Revision class</th>
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<tr>
<td>All</td>
<td>Updated supported products throughout document.</td>
<td>Major</td>
</tr>
<tr>
<td>2.1.2.28.1 Attributes</td>
<td>Clarified the availability of the NextChildByte attribute.</td>
<td>Minor</td>
</tr>
<tr>
<td>2.1.2.30.1 Attributes</td>
<td>Updated use of normative term in the description for Type.</td>
<td>Minor</td>
</tr>
<tr>
<td>2.1.2.47.1 Attributes</td>
<td>Added references for EditListItems and ApproveItems.</td>
<td>Minor</td>
</tr>
<tr>
<td>2.1.2.61.1 Attributes</td>
<td>Clarified how the value of the AlternativeCalendarType attribute should be expressed.</td>
<td>Minor</td>
</tr>
<tr>
<td>6 Appendix B: Product Behavior</td>
<td>Updated list of supported products.</td>
<td>Major</td>
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