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1 Introduction

The SharePoint Content Database Data Migration Communications protocol specifies the APIs used by a front-end Web server to retrieve objects and their meta information from the back-end database servers to do data migration. It also provides helper APIs to be used in conjunction with other protocols to import data objects into back-end database servers.

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

1.1 Glossary

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

- Active Directory
- Coordinated Universal Time (UTC)
- GUID
- serialize
- XML

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

- assembly name
- attachment
- audit flag
- back-end database server
- base view identifier
- change log
- change log identifier
- checked out
- content database
- content type
- content type identifier
- current version
- custom action
- customizable
- data source
- default form
- deployment package
- directory name
- display name
- displayed version
- document
- document identifier
- document library
- document stream
- domain group
- draft
- event
- export operation
- feature
- field
- field definition
The following terms are specific to this document:

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

### 1.2 References

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical documents, which are updated frequently. References to other documents include a publishing year when one is available.

#### 1.2.1 Normative References

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1.2.2 Informative References


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

1.3 Protocol Overview (Synopsis)

This document specifies a protocol that enables a front-end Web server to communicate with back-end database servers to perform data migration. This protocol allows a front-end Web server to retrieve data objects from the back-end database servers or to store data objects into back-end database servers. The protocol defines a number of APIs, each of which is responsible for retrieving one particular type of data object. There are certain sequence orders that the application is required to use to correctly retrieve the data objects. For example, once the data objects are retrieved from the back-end database servers, the application could serialize them into a file format such as the deployment package.

This protocol is intended to support the following 4 main scenarios:

- Export all data objects from a site.
- Export a list of data objects specified by the protocol client.
- Export all data objects that have been modified since a given point in time.
- Import data objects into back-end database servers using APIs from this protocol as well as [MS-WSSFO2] and [MS-WSSDLIM2].

1.4 Relationship to Other Protocols

The following diagram shows the transport stack that the protocol uses:

```
+-----------------------------+                      +-----------------------------+
| Windows SharePoint Services:|                      | This Protocol               |
| Content Database Data      |                      |                             |
| Migration Communications   |                      |                             |
| Version 2                  |                      |                             |
+-----------------------------+                      +-----------------------------+
            T-SQL              |                             |
+-----------------------------+                      +-----------------------------+
            TDS                 |                             |
+-----------------------------+                      +-----------------------------+
            TCP                 |                             |
+-----------------------------+                      +-----------------------------+
            IP                  |                             |
+-----------------------------+                      +-----------------------------+
```

Figure 1: This protocol in relation to other protocols
1.5 Prerequisites/Preconditions

The protocol describes operations between a client and a back-end database server on which the databases are stored. The client is expected to know the location and connection information for those databases.

This protocol requires that the protocol client has appropriate permissions to call the stored procedures stored on the back-end database server.

1.6 Applicability Statement

This protocol is intended to be used to import and export data objects from within the same site collection.

This protocol is intended for use by protocol clients and protocol servers that are both connected by high-bandwidth, low latency network connections.

1.7 Versioning and Capability Negotiation

- Security and Authentication Methods: This protocol supports the SSPI and SQL Authentication with the Protocol Server role described in [MS-TDS].

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.
2 Messages

2.1 Transport

[MS-TDS] is the transport protocol used to call the stored procedures, query SQL views or SQL tables, return result codes, and return result sets.

2.2 Common Data Types

The following are common data types used in conjunction with this protocol.

2.2.1 Simple Data Types and Enumerations

2.2.2 Simple Data Types

2.2.2.1 Web Part Moderation

The view type of which user can see certain documents in a moderated list.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Contributor'</td>
<td>System-created user's view of a moderated list, which displays a user's list items awaiting moderation in a moderated list.</td>
</tr>
<tr>
<td>'Moderator'</td>
<td>System-created moderator's View of a moderated list, which displays list items which are pending approval.</td>
</tr>
<tr>
<td>''</td>
<td>Use default behavior. If this is a moderated list, hide all unapproved list items. This value MUST be used if the list is not moderated. If this is not a moderated list, list items MUST NOT be hidden based on their moderation status.</td>
</tr>
</tbody>
</table>

2.2.2.2 Web Part Scope

The type of which documents are shown in the current view.

<table>
<thead>
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<th>Value</th>
<th>Description</th>
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<td>'Recursive'</td>
<td>Displays all files in the list recursively from the specified folder. Does not display folders.</td>
</tr>
<tr>
<td>'RecursiveAll'</td>
<td>Displays all files and folders in the list recursively from the specified folder.</td>
</tr>
<tr>
<td>'FilesOnly'</td>
<td>Displays all files that are immediate child files of the current folder. Does not display any list items that are Folders.</td>
</tr>
<tr>
<td>''</td>
<td>Displays all files and folders that are immediate child files or folders of the current folder.</td>
</tr>
</tbody>
</table>

2.2.3 Bit Fields and Flag Structures

2.2.3.1 Security Group Membership Flag

A 4 byte integer bit mask that controls how a security group's memberships are managed. The bits that are allowed are defined in the following table. If no bits are set, any can user to see the security group's membership, only the owner of this security group can change group membership,
the user is not allowed to send requests to leave or join this security group and requests to join or leave this security group are not automatically approved.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
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</thead>
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<tr>
<td>0x00000001</td>
<td>Only allow members of the site group to view the membership.</td>
</tr>
<tr>
<td>0x00000002</td>
<td>Allow members of the site group to edit the membership of the site group.</td>
</tr>
<tr>
<td>0x00000004</td>
<td>Allow users to request membership in this site group, and allow users to request to leave the site group. All requests MUST be sent to the e-mail address specified by RequestEmail.</td>
</tr>
<tr>
<td>0x00000008</td>
<td>Automatically accept user requests to join or leave the site group. If this bit is set, bit 0x00000004 MUST also be set as well.</td>
</tr>
</tbody>
</table>

### 2.2.4 Enumerations

#### 2.2.4.1 Deployment Object Type

The type of data objects being exported or imported. The possible values are listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Export Object Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Site collection</td>
</tr>
<tr>
<td>1</td>
<td>Site</td>
</tr>
<tr>
<td>2</td>
<td>Folder</td>
</tr>
<tr>
<td>3</td>
<td>List</td>
</tr>
<tr>
<td>4</td>
<td>List item</td>
</tr>
<tr>
<td>5</td>
<td>File</td>
</tr>
<tr>
<td>6</td>
<td>Folder in a list</td>
</tr>
<tr>
<td>7</td>
<td>File in a list</td>
</tr>
<tr>
<td>8</td>
<td>Content type</td>
</tr>
<tr>
<td>9</td>
<td>Navigation structure</td>
</tr>
<tr>
<td>10</td>
<td>Field</td>
</tr>
<tr>
<td>11</td>
<td>User</td>
</tr>
<tr>
<td>12</td>
<td>User change. Used only during an incremental export operation.</td>
</tr>
<tr>
<td>13</td>
<td>Group</td>
</tr>
<tr>
<td>14</td>
<td>Group change. Used only during an incremental export operation.</td>
</tr>
<tr>
<td>15</td>
<td>Role</td>
</tr>
<tr>
<td>16</td>
<td>Role change. Used only during an incremental export operation.</td>
</tr>
<tr>
<td>17</td>
<td>Role assignments</td>
</tr>
<tr>
<td>Value</td>
<td>Export Object Type</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------</td>
</tr>
<tr>
<td>18</td>
<td>Role assignments change. Used only during an incremental export operation.</td>
</tr>
<tr>
<td>19</td>
<td>Feature</td>
</tr>
<tr>
<td>9999</td>
<td>Unknown.</td>
</tr>
</tbody>
</table>

### 2.2.5 Binary Structures

None.

### 2.2.6 Result Sets

None.

### 2.2.7 Tables and Views

#### 2.2.7.1 Links Table

This table contains all the Links in the back-end database servers. The Links table MUST contain the following columns, in *Transact-Structured Query Language (T-SQL)*. The client uses additional columns to store other metadata about Links in an implementation specific way.

- **SiteId**: the *site collection identifier* of the site collection that contains this Web part.
- **WebPartId**: the identifier of the Web part.
- **DocId**: The *document identifier* of the document that contains this Web part.
- **Level**: *publishing level* value of the document.

```sql
SiteId              uniqueidentifier NOT NULL,
WebPartId           uniqueidentifier NULL,
DocId               uniqueidentifier NOT NULL,
Level               tinyint DEFAULT 1 NOT NULL,
```

#### 2.2.7.2 WebParts Table

This table contains all the Web Parts in the back-end database servers. The WebParts Table MUST contain the following columns, in T-SQL. The client uses additional columns to store other metadata about the Web parts in an implementation specific way.

- **tp_SiteId**: the site collection identifier of the site collection that contains this Web part.
- **tp_ID**: the identifier of the Web part.
- **tp_PageUrlId**: The document identifier of the document that contains this Web part.

```sql
tp_SiteId              uniqueidentifier NOT NULL,
tp_ID                  uniqueidentifier NOT NULL,
tp_PageUrlId           uniqueidentifier NOT NULL,
tp_UserID              int,
tp_Level               tinyint DEFAULT 1 NOT NULL,
```
tp_UserID: When this value is set to NULL, it indicates that this Web part is visible to everyone. If the value is not NULL, it indicates that this Web part is a personal Web part, and is visible only to the user whose identifier equals this value.

tp_Level: publishing level value of the Web part.

2.2.7.3 WebPartLists Table

Each row in this table represents a Web part in a list that is stored in the back-end database servers. This table MUST contain the following columns, in T-SQL. The client uses additional columns to store other metadata about the Web parts in an implementation specific way.

```sql
tp_SiteId uniqueidentifier NOT NULL,
tp_PageUrlId uniqueidentifier NOT NULL,
tp_WebPartId uniqueidentifier NOT NULL,
wp_Level tinyint DEFAULT 1 NOT NULL;
```

tp_SiteId: the site collection identifier of the site collection that contains this Web part.

tp_PageUrlId: The document identifier of the document that contains this Web part.

tp_WebPartId: the identifier of the Web part.

wp_Level: Publishing level value of the Web part.

2.2.7.4 #WebParts Table

This is a temporary table created on the Back-end database server to store the identifiers of the Web parts that are referenced by a File that is being imported. The #WebParts table is defined using T-SQL syntax as follows:

```sql
TABLE #WebParts(
    WebPartId uniqueidentifier NOT NULL PRIMARY KEY
);
```

WebPartId: Identifier of a Web part that is referenced by a file being imported.

2.2.8 XML Structures

No common XML structures are defined in this protocol.

2.2.8.1 Namespaces

None.

2.2.8.2 Simple Types

None.

2.2.8.3 Complex Types

None.
2.2.8.4 Elements
None.

2.2.8.5 Attributes
None.

2.2.8.6 Groups
None.

2.2.8.7 Attribute Groups
None.
3 Protocol Details

3.1 Server Details

3.1.1 Abstract Data Model

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

The server stores a hierarchy of objects. Operations that can be performed against the server are divided into 2 main categories: export and import. During an export operation, the server maintains a table of export objects and in some cases an incremental search scope table. These tables are used to keep track of what objects must be included in the export operation. During an import operation, the server APIs in this protocol are stateless.

3.1.2 Timers

An execution timeout timer on the protocol server governs the execution time for any requests. The amount of time is specified by a timeout value that is configured on the protocol server for all connections.

3.1.3 Initialization

A connection that uses the underlying protocol layers that are specified in section 1.4 MUST be established before using this protocol as specified in [MS-TDS].

3.1.4 Message Processing Events and Sequencing Rules

The T-SQL syntax for each stored procedure and result sets, and the variables they are composed of, are defined in the [MSDN-TSQL-Ref] protocol. In the T-SQL syntax, the variable name is followed by the type of the variable which can optionally have a length value in brackets and can optionally have a default value indicated by an equals sign followed by the default value. Unless otherwise specified, all stored procedures defined in this section are located in the content database.

For definitional clarity, a name has been assigned to any columns in the result sets that do not have a defined name in their current implementation. This does not affect the operation of the result set, as the ordinal position of any column with no defined name is expected by the front-end Web server. Such names are designated in the text using curly braces in the form {name}.

3.1.4.1 proc_DeplAddExportObject

The proc_DeplAddExportObject Stored Procedure is called during an Export Operation to add a data object to the table of export objects. The proc_DeplAddExportObject is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplAddExportObject(
    @SiteId                   uniqueidentifier,
    @Id                       uniqueidentifier,
    @Url                      nvarchar(260),
    @Type                     tinyint,
    @IncludeDescendants       tinyint,
```
@SiteId: The site collection identifier for the Site Collection that contains the object.

@Id: The data object to be exported. If this parameter is NULL, the @Url parameter will be used to determine the data object. The exact meaning of this parameter is determined by the @Type parameter. For example, if the @Type is 1, then @Id is the site identifier of a site, if the @Type is 3, then @Id is the list identifier of a list, and so on.

@Url: The store-relative form of the object to be exported. If this parameter is NULL, the @Id parameter will be used to determine the data object. If both @Id and @Url are not NULL, @Url will be used.

@Type: An 8 bit integer value that specifies the type of the data object to be exported. The parameter is only meaningful when either @Id or @Url is not NULL. It MUST be one of the following values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Data Object Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Site</td>
</tr>
<tr>
<td>2</td>
<td>Folder</td>
</tr>
<tr>
<td>3</td>
<td>List</td>
</tr>
<tr>
<td>4</td>
<td>List item</td>
</tr>
<tr>
<td>5</td>
<td>Document</td>
</tr>
</tbody>
</table>

@IncludeDescendants: This parameter specifies whether the child objects of this object MUST be included in the Export Operation. This Stored Procedure will save this value in the table of export objects. When proc_DepICalculateChildrenToExport, specified in section 3.1.4.6, is called, it reads this value and adds the child objects of this object to the table of export objects. The settings only affect objects with @Type of 1, 2, or 3. This parameter MUST be one of the following values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>When @Type is 2, subfolders and their descendants MUST NOT be exported. When @Type is 1, subsites MUST NOT be exported. When @Type is 3, list items from the list MUST NOT be exported.</td>
</tr>
<tr>
<td>1</td>
<td>When @Type is 2, subfolders and their descendants MUST NOT be exported. When @Type is 1, Subsites MUST NOT be exported. When @Type is 3, list items from the list MUST be exported.</td>
</tr>
<tr>
<td>2</td>
<td>When @Type is 2, subfolders and their descendants MUST be exported. When @Type is 1, Subsites MUST be exported. When @Type is 3, list items from the list MUST be exported.</td>
</tr>
</tbody>
</table>

@IsMajorFileOnly: This parameter MUST be either 0 or 1. When set to 1, this stored procedure will only add the data object to the table of export objects if it is a major version. Otherwise, this stored procedure will add the data object if it is either a major version or minor version. It only takes effect when the @Type parameter is of value 4 or 5.
@IsLink: This parameter MUST be either 0 or 1. When set to 1, this parameter indicates that the object being exported is a link document. Otherwise, the object is not a link document. It only takes effect when the @Type parameter is of value 2, 4, or 5.

@IsSelected: This parameter MUST be either 0 or 1. When set to 0, it indicates that the object is being exported as part of Export Operation of a full Site. Otherwise, it indicates that the client has chosen to export a list of objects smaller than a site, including this one.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>2</td>
<td>This value MUST be returned if the object specified by the @Url parameter could not be found, or if @SiteId is NULL. This value MUST be returned if @id specifies an empty GUID.</td>
</tr>
<tr>
<td>87</td>
<td>Invalid parameter. This value MUST be returned if the @Id is NULL, or @Type does not have a value specified in its description</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.2 proc_DeplAddExportObjectDependencies

The proc_DeplAddExportObjectDependencies Stored Procedure is called during an export operation to add additional, dependent objects that are necessary to correctly persist the state of the objects. The following objects are considered dependency objects:

1. If the object is a site: the root folder of the site, the migration system objects (which includes folders with names "Lists", "_cts", "_private" and "_catalogs"), the catalog lists (which are lists created by the system), Fields and content types, Welcome pages, navigation structures, roles and role assignments are dependent objects.

2. If the object is a list: the Root Folder and Documents in the list (including the template Documents) are dependent objects.

3. If the object is a folder: the list item associated with this folder is a dependent object.

4. If the object is a document: the list item associated with this document is a dependent object.

5. If the object is a list Item: the Document and Content Types associated with this list item are dependent objects.

proc_DeplAddExportObjectDependencies is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplAddExportObjectDependencies(
    @SiteId                   uniqueidentifier,
    @IsMajorFileOnly          int,
    @LinksOnly                tinyint,
    @RequestGuid              uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection whose content will be exported.
@IsMajorFileOnly: This parameter MUST be either 0 or 1. When set to 1, this Stored Procedure will only add Documents whose latest versions are major versions. When set to 0, this Stored Procedure will add Documents whose latest versions are either major versions or minor versions.

@LinksOnly: This parameter MUST be either 0 or 1. When set to 1, this Stored Procedure will only add dependencies for link documents in the table of export objects. When set to 0, this Stored Procedure will add dependencies for non-link documents in the table of export objects.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>87</td>
<td>Invalid Parameter. This is returned when @SiteId IS NULL</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.3 proc_DeplAddExportObjectLinks

The proc_DeplAddExportObjectLinks Stored Procedure is called during an Export Operation to add additional Documents to the table of export objects. The additional Documents are those which are referenced (in their content) by items already in the table of export objects. This Stored Procedure will only add Documents that belong to the same Site Collection as the Documents making the reference. proc_DeplAddExportObjectLinks is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplAddExportObjectLinks(
    @SiteId                   uniqueidentifier,
    @IsMajorFileOnly          tinyint,
    @RequestGuid              uniqueidentifier = NULL OUTPUT
);  
```

@SiteId: The site collection identifier for the Site Collection whose content will be exported.

@IsMajorFileOnly: This parameter MUST be either 0 or 1. When set to 1, this Stored Procedure will only add Documents whose latest versions are major versions. When set to 0, this Stored Procedure will add Documents whose latest versions are either major versions or minor versions.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>87</td>
<td>Invalid parameter value. @SiteId is NULL</td>
</tr>
</tbody>
</table>

Result Sets: MUST return the following Result Set:
3.1.4.3.1 Link Count Result Set

The Link Count Result Set contains at most one row. The Result Set returns the number of Documents it finds and adds them to the list of objects that will be exported. If @SiteId cannot be found or does not exist, the Result Set will still return one row with {LinkCount} = 0.

The Link Count Result Set is defined using T-SQL syntax, as follows:

```
{LinkCount} int;
```

{LinkCount}: Specifies the number of Documents found and added to the table of export objects.

3.1.4.4 proc_DeplAddIncrementalSearchScope

The proc_DeplAddIncrementalSearchScope Stored Procedure is called during an Export Operation to add a Site to the Incremental Search Scope Table.

proc_DeplAddIncrementalSearchScope is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplAddIncrementalSearchScope (  
  @SiteId                   uniqueidentifier,  
  @Id                       uniqueidentifier,  
  @Url                      nvarchar(260),  
  @Type                     tinyint,  
  @IncludeDescendants       tinyint,  
  @IsMajorFileOnly          int,  
  @ChangeTimeStart          datetime,  
  @ChangeNumberStart        int,  
  @RequestGuid              uniqueidentifier = NULL OUTP  
);
```

@SiteId: The site collection identifier for the Site Collection that contains the data objects to be exported.

@Id: The Site that is being added to the Incremental Search Scope Table.

@Url: The Store-Relative Form of the Site. If this parameter is NULL, the Stored Procedure MUST look up the URL of the Site using the @Id parameter.

@Type: This MUST be 1.

@IncludeDescendants: Refer to the @IncludeDescendants parameter of proc_DeplAddExportObject for a complete list of acceptable values of this parameter. This Stored Procedure will save this value to the Incremental Search Scope table.

@IsMajorFileOnly: Reserved. This parameter’s value MUST be ignored.

@ChangeTimeStart: This parameter specifies a time stamp in Coordinated Universal Time (UTC). Only changes made after this time will be included in the Export Operation. This Stored Procedure will save this value to the Incremental Search Scope table.

@ChangeNumberStart: This parameter specifies a change log identification number. Only changes with a larger identification number than this value will be included. This Stored Procedure will save this value to the Incremental Search Scope table.

@RequestGuid: The optional request identifier for the current request.
Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>2</td>
<td>Cannot find a Site with site identifier equal to the specified @Id, or a Store-Relative Form equal to the specified @Url</td>
</tr>
<tr>
<td>87</td>
<td>Invalid parameter. This is returned when the @Type is not 1. Or both @Id and @Url are NULL</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.5 proc_DeplAddSite

The proc_DeplAddSite Stored Procedure is called during an Export Operation to add a Site Collection whose data objects will be exported to the table of export objects. This Stored Procedure will not add any actual data objects. The data objects are added by calling proc_DeplAddExportObject, specified in section 3.1.4.1. proc_DeplAddSite is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplAddSite (
    @SiteId                  uniqueidentifier,
    @RequestGuid             uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection whose data objects will be exported.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>87</td>
<td>Invalid parameter value. @SiteId is NULL</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.6 proc_DeplCalculateChildrenToExport

The proc_DeplCalculateChildrenToExport Stored Procedure is called to recursively expand the table of export objects to include the child objects of the objects that are currently stored in the table of export objects. The following objects are considered child objects:

- If the object is a Folder, all Documents and Subfolders are considered child objects.
- If the object is a Site, all the Subsites are child objects of this Site. Additionally, the Navigation Structure of this Site, the roles and role assignments of this Site, and all the lists in this Site are considered child objects.
- If the object is a Document that belongs to a document library, the list items associated with this Document is considered child object.
proc_DeplCalculateChildrenToExport is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplCalculateChildrenToExport (  
  @SiteId uniqueidentifier,
  @IsMajorFileOnly int,
  @LinksOnly tinyint,
  @IncludeUserInfo bit,
  @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection whose content is being exported.

@IsMajorFileOnly: This parameter MUST be either 0 or 1. When set to 1, this Stored Procedure will only add Documents whose last version is major versions to the table of export objects. Otherwise, this Stored Procedure will add Documents whose last version is either major or minor.

@LinksOnly: This parameter MUST be either 0 or 1. When set to 1, this Stored Procedure will only add child objects for link documents in the table of export objects. When set to 0, this Stored Procedure will add child objects for non-link documents in the table of export objects.

@IncludeUserInfo: This parameter MUST be either 0 or 1. When set to 1, this Stored Procedure will allow lists, Folders and list items from the user information list to be included as child objects. When set to 0, those objects will not be included as child objects.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>87</td>
<td>Invalid Parameter. This code is returned when @SiteId is NULL</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.7 proc_DeplCalculateIncrementalSearchScope

The proc_DeplCalculateIncrementalSearchScope Stored Procedure is called to add Subsites into an Incremental Search Scope Table, if necessary. The Incremental Search Scope Table is created by calling proc_DeplAddIncrementalSearchScope. The @IncludeDescendants parameter passed to proc_DeplAddIncrementalSearchScope decides whether Subsites MUST be included for a Site in the Incremental Search Scope Table when this Stored Procedure is called.

proc_DeplCalculateIncrementalSearchScope is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplCalculateIncrementalSearchScope(  
  @SiteId uniqueidentifier,
  @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection that contains the Sites in the Incremental Search Scope Table.

@RequestGuid: The optional request identifier for the current request.
Return Code Values: proc_DeplCalculateIncrementalSearchScope returns an integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>87</td>
<td>Invalid Parameter. This is returned when the @SiteId is NULL.</td>
</tr>
</tbody>
</table>

Result Sets: proc_DeplCalculateIncrementalSearchScope MUST NOT return any result sets.

### 3.1.4.8 proc_DeplExportGroups

The proc_DeplExportGroups Stored Procedure is called to retrieve information about one Security Group from the back-end database servers. To retrieve all security groups from a Site Collection, a client application calls this Stored Procedure with @GroupIdCur = -1, and then calls this Stored Procedure iteratively, each time with a bigger @GroupIdCur parameter, by using the value in the ID column of the Security Group Information result set, from the previous call.

proc_DeplExportGroups is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplExportGroups(
    @SiteId            uniqueidentifier,
    @GroupIdCur        int,
    @RequestId         uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection which contains the Security Group.

@GroupIdCur: A security group identifier. This Stored Procedure will only return the next Security Group whose identifier is larger than this value.

@RequestId: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return two result sets in the following order:

#### 3.1.4.8.1 Security Group Information Result Set

The Security Group Information Result Set returns information about a Security Group and MUST contain at most one row.

The Security Group Information Result Set is defined using T-SQL syntax, as follows:

```sql
ID int,
Title nvarchar(255),
Description nvarchar(512),
Owner int,
OwnerIsUser bit,
RequestEmail nvarchar(255),
Flags int;
```

ID: The site security group identifier.
**Title:** The name of this Security Group.

**Description:** The description of this Security Group.

**Owner:** The security group identifier of the owner of this Security Group. This could be either a **security principal** identifier, or a security group identifier. The value of OwnerIsUser MUST be used to determine which one is the case.

**OwnerIsUser:** This MUST be either 0 or 1. When set to 1, the owner of this Security Group is a security principal. When set to 0, the owner is any member from this Security Group.

**RequestEmail:** The e-mail address where a user could send a request to join or leave the Security Group.

**Flags:** A value specified in section 2.2.2.1, [Security Group Membership Flag](#).

### 3.1.4.8.2 Security Group Memberships Result Set

The Security Group Memberships Result Set returns the list of security principals that are members of this Security Group. This Result Set MUST contain a number of rows equals to the number of the members in this Security Group. If the Security Group contains no members, this Result Set MUST return 0 rows.

The Security Group Memberships Result Set is defined using T-SQL syntax, as follows:

```sql
MemberId                     int;
```

**MemberId:** The security principal identifier of this member.

### 3.1.4.9 proc_DeplExportGroupX

The proc_DeplExportGroupX Stored Procedure is called during an incremental Export Operation to retrieve information about changes made to a security Group.

proc_DeplExportGroupX is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplExportGroupX(
    @SiteId                   uniqueidentifier,
    @EventTime                datetime,
    @ChangeLogId              bigint,
    @RequestGuid              uniqueidentifier = NULL OUTPUT
);
```

**@SiteId:** The site collection identifier for the **Site Collection** containing security groups.

**@EventTime:** The time stamp, in UTC, of an **event** from the Change Log which records modification made to this security Group.

**@ChangeLogId:** The **change log identifier** of the same Event as described in @EventTime.

**@RequestGuid:** The optional request identifier for the current request.

**Return Code Values:** An integer which the protocol client MUST ignore.

**Result Sets:** MUST return the following Result Set:
3.1.4.9.1 Security Group Change Result Set

The Security Group Change Result Set returns information about changes made to a security Group. The Security Group Change Result Set will return one row if the Event specified by @ChangeLogId is found. Otherwise, the Result Set will contain 0 rows.

The Security Group Change Result Set is defined using T-SQL syntax, as follows:

```sql
EventType int,
ID int,
Title nvarchar(255),
Description nvarchar(512),
tp_Login nvarchar(255),
OwnerIsUser bit,
tp_Id int,
tp_Login nvarchar(255),
RequestEmail nvarchar(255),
Flags int;
```

**EventType:** An Event Type Flag, specified in [MS-WSSDLM2] section 2.2.3.2.

**ID:** The security group identifier.

**Title:** The name of this security Group.

**Description:** The description of this security Group.

**tp_Login:** The login name of the security principal which is the owner of this security Group. If the owner of this security Group is not a security principal, this value MUST be NULL.

**OwnerIsUser:** This MUST be either 0 or 1. When set to 1, the owner of this security Group is a security principal. When set to 0, any Member from this security Group is an owner.

**tp_Id:** An integer identifier of the security principal that is added to or removed from the security Group. When `{EventType} = 2097152`, this value represents the security principal to add to the security Group. When `{EventType} = 4194304`, this value represents the security principal to remove from the security Group. For any other value of `{EventType}`, this value MUST be NULL.

**tp_Login:** The login name of the security principal whose identifier is `{tp_Id}`. This value MUST be NULL if `{tp_Id}` is NULL.

**RequestEmail:** The e-mail address where a user could send a request to join or leave the security Group.

**Flags:** A value specified in section 2.2.2.1, Security Group Membership Flag.

### 3.1.4.10 proc_DeplExportRoleAssignments

The proc_DeplExportRoleAssignments Stored Procedure is called during an Export Operation to retrieve a list of role assignments from a Site. proc_DeplExportRoleAssignments is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplExportRoleAssignments(
    @SiteId uniqueidentifier,
    @WebId uniqueidentifier,
    @WssGroupOnly bit,
)/UIKit
```
@ScopeIdCur  uniqueidentifier,
@RequestGuid  uniqueidentifier = NULL OUTPUT
);

@SiteId: The site collection identifier for the Site Collection which contains the role assignments to be retrieved.

@WebId: The site identifier for the Site from which the role assignments will be retrieved.

@WssGroupOnly: When set to 1, this Stored Procedure will only retrieve the role assignments in which a role is assigned to a security Group. Otherwise, it will retrieve all role assignments.

@ScopeIdCur: This parameter represents a security scope. This Stored Procedure MUST only return role assignments for a security Scope whose value is larger than this value, in increasing sorted order.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return two result sets, specified in the following order:

3.1.4.10.1 Scope Information Result Set

The Scope Information Result Set returns information about a security Scope where role assignments are defined. This Result Set MUST return at most one row. If any of the parameters are incorrectly specified, this Result Set MUST return 0 rows.

The Scope Information Result Set is defined using T-SQL syntax, as follows:

SiteId                 uniqueidentifier,
WebId                  uniqueidentifier,
ScopeId                uniqueidentifier,
RoleDefWebId           uniqueidentifier,
FullUrl                nvarchar(260),
{ObjectId}             uniqueidentifier,
{ObjectType}           int,
{ScopeUrl}             nvarchar(256),
AnonymousPermMask      bigint;

SiteId: The site collection identifier for the Site Collection that contains the security Scope.

WebId: The site identifier for the Site that contains the security scope.

ScopeId: The identifier of the security scope.

RoleDefWebId: The site identifier for the Site that contains the definitions of the roles that are used in this security scope.

FullUrl: The Store-Relative Form of the Site that contains the definitions of the roles that are used in this security scope.

{ObjectId}: The root object of the security scope. The value of @ObjectType determines the type of this value.

{ObjectType}: The type of the root object of the security scope as defined in the following table:
### 3.1.4.10.2 Role Assignment Information Result Set

The Role Assignment Information Result Set returns a list of role assignments. The number of rows in the Role Assignment Information Result Set is equal to the number of role assignments defined on the security scope returned by the Role Assignment Information Result Set. When @WssGroupOnly is 1, the number of rows returned will be reduced to only the role assignments in which a role is assigned to a Security Group.

The Role Assignment Information Result Set is defined using T-SQL syntax, as follows:

```
RoleId int,
PrincipalId int,
tp_Id int;
```

- **RoleId**: The role identifier.
- **PrincipalId**: The security principal identifier.
- **tp_Id**: The same Security principal identifier as `PrincipalId` column, when @WssGroupOnly = 0. When @WssGroupOnly = 1, this value MUST be NULL.

### 3.1.4.11 proc_DeplExportRoleAssignmentX

The proc_DeplExportRoleAssignmentX Stored Procedure is called during an Incremental Export Operation to retrieve information about an Event in which one or more role assignments are modified. proc_DeplExportRoleAssignmentX is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplExportRoleAssignmentX(
    @SiteId uniqueidentifier,
    @EventTime datetime,
    @ChangeLogId bigint,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

- **@SiteId**: The site collection identifier for the Site Collection in which the Event has occurred.
- **@EventTime**: The time, in UTC, when this Event occurred.
- **@ChangeLogId**: The Change Log identifier of this Event.
- **@RequestGuid**: The optional request identifier for the current request.
**Return Code Values:** An integer which the protocol client MUST ignore.

**Result Sets:** If there is an Event specified by @EventTime and @ChangeLogId, then the following Result Set MUST be returned.

Otherwise, a Result Set MUST NOT be returned.

### 3.1.4.11.1 Role Assignment Change Result Set

The Role Assignment Change Result Set returns information about the changes that have occurred to one or more role assignment. This Result Set MUST return at most one row. The Role Assignment Change Result Set is defined using T-SQL syntax, as follows:

```sql
{EventType}               int,
{OpCode}                  int,
{WebId}                   uniqueidentifier,
{ScopeId}                 uniqueidentifier,
{RoleDefWebId}            uniqueidentifier,
{RoleDefWebFullUrl}       nvarchar(256),
{ScopeObjectId}           uniqueidentifier,
{ScopeObjectType}         int,
{ScopeUrl}                nvarchar(256),
{AnonymousPermMask}       bigint,
{RoleTitle}               nvarchar(255),
{GroupId}                 int,
{GroupName}               nvarchar(255),
{UserId}                  int,
{UserLogin}               nvarchar(255);  
```

- **{EventType}**: An Event Type Flag, specified in [MS-WSSDLIM2] section 2.2.3.2.
- **{OpCode}**: A Security Change Type Flag, specified in [MS-WSSDLIM2] section 2.2.3.3.
- **{WebId}**: The Site in which this change has taken place.
- **{ScopeId}**: The identifier of the security scope in which this Event has occurred.
- **{RoleDefWebId}**: The Site that contains the definitions of the roles that are used in the security scope defined by {ScopeId}.
- **{RoleDefWebFullUrl}**: The Store-Relative Form of the Site that contains the definitions of the roles that are used in the security scope defined by {ScopeId}.
- **{ScopeObjectId}**: The root object of the security scope defined by {ScopeId}.
- **{ScopeObjectType}**: The type of the object specified by {ScopeObjectId}. The value of this parameter MUST be one of the following:

<table>
<thead>
<tr>
<th>Value</th>
<th>Object Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Site</td>
</tr>
<tr>
<td>1</td>
<td>List</td>
</tr>
<tr>
<td>2</td>
<td>Document or list item</td>
</tr>
</tbody>
</table>
{ScopeUrl}: The Store-Relative Form of the root object of the security scope defined by {ScopeId}.

{AnonymousPermMask}: The permissions granted to anonymous Users in the security scope defined by {ScopeId}. The bit mask values are specified in [MS-WSSFO2] section 2.2.2.14.

{RoleTitle}: The name of the role whose assignment has changed.

{GroupId}: The security group identifier of a security group if a Security Group is assigned to the role specified by {RoleTitle} during this change. Otherwise, this value MUST be NULL.

{GroupTitle}: The name of the Security Group if it is assigned to the role (as specified by {RoleTitle}) during this change. Otherwise, this value MUST be NULL.

{UserId}: The Security principal identifier if a security principal is assigned to the role (as specified by {RoleTitle}) during this change. Otherwise, the value MUST be NULL.

{UserLogin}: The Login Name of the security principal if it is assigned to the role specified by {RoleTitle} during this change. Otherwise, this value MUST be NULL.

3.1.4.12 proc_DeplExportRoles

The proc_DeplExportRoles Stored Procedure is called to retrieve a list of roles from a Site. proc_DeplExportRoles is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplExportRoles(
    @SiteId                  uniqueidentifier,
    @WebId                   uniqueidentifier,
    @RoleIdCur               int,
    @RequestGuid             uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection from which the roles are being retrieved.

@WebId: The site identifier for the Site where the roles are defined.

@RoleIdCur: The role identifier. This Stored Procedure will only return roles whose IDs are larger than this value, sorted in ascending order.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

3.1.4.12.1 Role Information Result Set

The Role Information Result Set returns information of a list of roles. This Result Set will return 100 rows, or one row for each role, whichever is smaller. Each row contains information about a role. The Role Information Result Set is defined using T-SQL syntax, as follows:

```sql
SiteId                 uniqueidentifier,
Id                     uniqueidentifier,
RoleId                 int,
```
SiteId: The site collection identifier of the Site Collection where this role is retrieved.

Id: The site identifier of the Site where this role is defined.

RoleId: The role identifier.

Title: The name of the role.

Description: The description of the role.

PermMask: The permissions that this role allows. The bit mask values are specified in [MS-WSSFO2] section 2.2.2.14.

Hidden: MUST be either 0 or 1. When set to 1, this role MUST be hidden in the user interface.

RoleOrder: This value MUST be used to determine the order of which roles are represented in the user interface.

Type: The type of role specified in [MS-WSSFO2] section 2.2.3.16.

3.1.4.13  proc_DeplExportRoleX

The proc_DeplExportRoleX Stored Procedure is called during an Incremental Export Operation to retrieve information about an Event in which a role is modified. proc_DeplExportRoleX is defined using T-SQL syntax, as follows:

PROCEDURE proc_DeplExportRoleX(
    @SiteId uniqueidentifier,
    @EventTime datetime,
    @ChangeLogId bigint,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);

@SiteId: The site collection identifier for the Site Collection in which this Event is being retrieved.

@EventTime: This value, in UTC, specifies when this Event has occurred.

@ChangeLogId: The Change Log identifier of this Event in the Change Log.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

3.1.4.13.1  Role Change Result Set

The Role Change Result Set returns information about changes that have occurred to a role. This Result Set MUST return one row in the Result Set, if the Event specified by the @EventTime and
@ChangeLogId can be found, or zero rows if the Event could not be found. The Role Change Result Set is defined using T-SQL syntax, as follows:

```sql
EventType int,
{Operation Code} int,
Guid0 uniqueidentifier,
Int0 int,
WebId uniqueidentifier,
FullUrl nvarchar(256),
RoleId int,
Title nvarchar(255),
ItemName nvarchar(255),
Description nvarchar(512),
PermMask bigint,
Hidden bit,
RoleOrder int,
Type tinyint,
tp_Id int,
tp_Login nvarchar(255);
```

**EventType:** An Event Type Flag, specified in [MS-WSSDLIM2] section 2.2.3.2.

**{Operation Code}**: A Security Change Type Flag, specified in [MS-WSSDLIM2] section 2.2.3.3.

**Guid0**: The identifier of the security scope where this change occurred.

**Int0**: If this value is NOT NULL, it MUST contain the identifier of the security principal that created the role and the Event specified by @EventTime and @ChangeLogId MUST be an Event in which a role is created, and the EventType column MUST have bit 19 (value = 262144) set. If this value is NULL, it MUST be ignored.

**WebId**: The Site identifier for the Site where this role is defined.

**FullUrl**: The Store-Relative Form URL of the Site where this role is defined.

**RoleId**: A role identifier, if EventType does not have bit 24 (value = 8388608) set. Otherwise, this value MUST be NULL.

**Title**: The name of the role if RoleId is NOT NULL. Otherwise this value MUST be NULL.

**ItemName**: The name of the role if RoleId is NULL which occurs when a role has been deleted. Otherwise, this value MUST be NULL.

**Description**: The description of the role if RoleId is NOT NULL. Otherwise this value MUST be NULL.

**PermMask**: The permissions this role allows. If RoleId is NOT NULL, the bit mask’s values are specified in [MS-WSSFO2] section 2.2.2.14. Otherwise this value MUST be NULL.

**Hidden**: This value MUST be either 0 or 1. When RoleId is NOT NULL, this value specifies whether this role MUST be hidden in the user interface. Otherwise this value MUST be NULL.

**RoleOrder**: This value MUST be used to determine the order of which roles are represented in the user interface if RoleId is NOT NULL. Otherwise this value MUST be NULL.

**Type**: The type of role specified in [MS-WSSFO2] section 2.2.3.16. Otherwise this value MUST be NULL.
tp_Id: The same value as Int0, if Int0 is NOT NULL. Otherwise, this value MUST be NULL.

tp_login: The Login Name of the security principal represented by Int0, if Int0 is NOT NULL. Otherwise, this value MUST be NULL.

3.1.4.14 proc_DeplExportUsers

The proc_DeplExportUsers Stored Procedure is called to retrieve a list of security principals from the back-end database servers. Each time this Stored Procedure is called, it MUST return at most 100 security principals. This Stored Procedure MUST be called additional times to retrieve more security principals.

proc_DeplExportUsers is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplExportUsers(
    @SiteId uniqueidentifier,
    @UserIdCur int,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection that contains the security principals to be retrieved.

@UserIdCur: A security principal identifier. This Stored Procedure MUST only return security principals whose IDs are larger than this value, sorted in ascending order. The application MUST use 1 the first time it calls this Stored Procedure.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

### 3.1.4.14.1 Security Principal Information Result Set

The Security Principal Information Result Set returns information about a list of security principals. This Result Set MUST return 100 rows, or one row for each security principal, whichever is smaller. Each row contains information about one security principal. The Security Principal Information Result Set is defined using T-SQL syntax, as follows:

```sql
tp_SiteId uniqueidentifier,
tp_Id int,
tp_Title nvarchar(255),
tp_Login nvarchar(255),
tp_Email nvarchar(255),
tp_Notes nvarchar(1023),
tp_DomainGroup bit,
tp_SiteAdmin bit,
tp_SystemId varbinary(512),
tp_Deleted int,
tp_Mobile nvarchar(127),
tp_Flags int;
```

tp_SiteId: The site collection identifier for the Site Collection that contains this security principal.
**tp_Id:** The security principal identifier.

**tp_Title:** The display name of the security principal. This value MUST NOT be NULL

**tp_Login:** The Login Name of the security principal. This value MUST NOT be NULL

**tp_Email:** The e-mail address of the security principal. This value MUST NOT be NULL

**tp_Notes:** A description of the security principal. This value MUST NOT be NULL

**tp_DomainGroup:** This MUST be either 0 or 1. When set to 1, it indicates that the current security principal is a domain group from the Active Directory, otherwise the value MUST be 0.

**tp_SiteAdmin:** This MUST be either 0 or 1. When set to 1, it indicates that the current security principal is an administrator of the containing Site Collection, otherwise the value MUST be 0.

**tp_SystemId:** The SystemID of the security principal.

**tp_Deleted:** A value specifying whether the security principal is marked as "deleted" within this Site Collection. If tp_Deleted is 0, the security principal is not deleted. If tp_Deleted is not 0, the security principal is marked as deleted and the value is the same as the security principal identifier.

**tp_Mobile:** The phone number of the security principal.

**tp_Flags:** A value specified in [MS-WSSFO2] section 2.2.2.11.

### 3.1.4.15 proc_DeplExportUserX

The proc_DeplExportUserX Stored Procedure is called during an Incremental Export Operation to retrieve information about an Event in which a security principal is modified. proc_DeplExportUserX is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplExportUserX(  
   @SiteId            uniqueidentifier,  
   @EventTime         datetime,  
   @ChangeLogId       bigint,  
   @RequestGuid       uniqueidentifier = NULL OUTPUT  
);  
```

**@SiteId:** The site collection identifier for the Site Collection in which the Event has occurred.

**@EventTime:** The time, in UTC, when the Event has occurred.

**@ChangeLogId:** The Change log identifier of this Event.

**@RequestGuid:** The optional request identifier for the current request.

**Return Code Values:** An integer which the protocol client MUST ignore.

**Result Sets:** MUST return the following Result Set:

### 3.1.4.15.1 Security Principal Change Result Set

The Security Principal Change Result Set returns information about changes that have occurred to a security principal. This Result Set will be returned if there is a Change Log Event that matches the @EventTime and @ChangeLogId parameter and the object modified in that event was a security
principal. This Result Set contains at most one row. If any of the parameters are incorrectly specified, or if the event could not be found, the Result Set MUST return 0 rows.

The Security Principal Change Result Set is defined using T-SQL syntax, as follows:

```
EventType              int,
.tp_Id                  int,
.tp_Title               nvarchar(255),
.tp_Login               nvarchar(255),
.tp_Email               nvarchar(255),
.tp_Notes               nvarchar(1023),
.tp_DomainGroup         bit,
.tp_SiteAdmin           bit,
.tp_SystemId            varbinary(512)
.tp_Mobile              nvarchar(127),
.tpFlags               int;
```

**EventType**: An Event Type Flag, specified in [MS-WSSDLIM2] section 2.2.3.2.

**tp_Id**: The security principal identifier.

**tp_Title**: The display name of the security principal. This value MUST NOT be NULL.

**tp_Login**: The Login Name of the security principal. This value MUST NOT be NULL.

**tp_Email**: The e-mail address of the security principal. This value MUST NOT be NULL.

**tp_Notes**: A description of the security principal. This value MUST NOT be NULL.

**tp_DomainGroup**: This MUST be either 0 or 1. When set to 1, it indicates that the current security principal is a **Domain Group** from the **Active Directory**.

**tp_SiteAdmin**: This MUST be either 0 or 1. When set to 1, it indicates that the current security principal is an administrator of the containing Site Collection.

**tp_SystemId**: The SystemID of the security principal.

**tp_Mobile**: The phone number of the security principal.

**tp_Flags**: A value specified in [MS-WSSFO2] section 2.2.11.

### 3.1.4.16 proc_DeplFindScopeObject

The proc_DeplFindScopeObject Stored Procedure is called to find an object given its **Store-Relative Form** and Type. The object returned by the output parameter @ObjectId can be used to import Role Assignments during an Import Operation. proc_DeplFindScopeObject is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplFindScopeObject(
    @SiteId          uniqueidentifier,
    @ObjectUrl       nvarchar(260),
    @ObjectType      int,
    @objectId        uniqueidentifier OUTPUT,
    @RequestGuid     uniqueidentifier = NULL OUTPUT

);```
@SiteId: The site collection identifier for the Site Collection in which the object is being looked up.

@ObjectUrl: The Store-Relative Form of the object that is being looked up.

@ObjectType: The expected type of the object. The value of this parameter MUST be one of the following:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The object is expected to be a Site.</td>
</tr>
<tr>
<td>1</td>
<td>The object is expected to be a list.</td>
</tr>
<tr>
<td>2</td>
<td>The object is expected to be a Document or list item.</td>
</tr>
</tbody>
</table>

@ObjectId: This is an OUTPUT parameter. If the return value is 0, this parameter will hold the identifier of the object, as specified in @ObjectType.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>2</td>
<td>File not found. This is returned when the @SiteId and @ObjectUrl does not specify a valid object, or the object is not the same type as @ObjectType.</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.17 proc_DeplFindScopeObjectById

The proc_DeplFindScopeObjectById Stored Procedure is called to find the existence of an object given its identifier and Type. The object identified in parameter @ObjectId can be used to import Role Assignments during an Import Operation. proc_DeplFindScopeObjectById is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplFindScopeObjectById(
    @SiteId uniqueidentifier,
    @ScopeType int,
    @ObjectId uniqueidentifier
);  
```

@SiteId: The site collection identifier for the Site Collection in which the object is being looked up.

@ScopeType: The expected type of the object. The value of this parameter MUST be one of the following:

<table>
<thead>
<tr>
<th>Value</th>
<th>Object Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Site</td>
</tr>
<tr>
<td>1</td>
<td>List</td>
</tr>
<tr>
<td>Value</td>
<td>Object Type</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------</td>
</tr>
<tr>
<td>2</td>
<td>Document or list item</td>
</tr>
</tbody>
</table>

@ObjectId: This object identifier of type specified by @ScopeType. If the return value is 0, the object of type specified by @ScopeType exists.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>2</td>
<td>File not found. This is returned when the @SiteId and @ObjectId does not specify a valid object, or the object is not the same type as @ScopeType.</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.18 proc_DeplFixWebPartsOnListCreation

The proc_DeplFixWebPartsOnListCreation Stored Procedure is called during an Import Operation to associate a Web Part with a list that has just been created. This Stored Procedure updates the Web Part information with a new list identifier.

proc_DeplFixWebPartsOnListCreation is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplFixWebPartsOnListCreation(
    @SiteId            uniqueidentifier,
    @WebPartId         uniqueidentifier,
    @OldListId         uniqueidentifier,
    @NewListId         uniqueidentifier,
    @RequestGuid       uniqueidentifier = NULL OUTPUT
);```

@SiteId: The site collection identifier for the Site Collection that contains the Web Part and the list.

@WebPartId: The Identifier of the Web Part being updated.

@OldListId: The list identifier of the old list that the Web Part was associated with.

@NewListId: The list identifier of the new list that the Web Part will be associated with.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST NOT return any result sets.

3.1.4.19 proc_DeplGetContentTypeData

The proc_DeplGetContentTypeData Stored Procedure is called during an Export Operation to get a list of Content Types. The proc_DeplGetContentTypeData Stored Procedure is defined using T-SQL syntax, as follows:
PROCEDURE proc_DeplGetContentTypeData(
    @LastOrdinal int,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);

@LastOrdinal: The information for all content types returned by proc_DeplGetContentTypeData
MUST have values in the Ordinal column greater than @LastOrdinal. When calling
proc_DeplGetContentTypeData the first time, set @LastOrdinal to 0. When calling
proc_DeplGetContentTypeData to retrieve more content types, set @LastOrdinal to the largest Ordinal
value returned in the previous call to proc_DeplGetContentTypeData

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

3.1.4.19.1 Content Type Information Result Set

The Content Type Information Result Set returns one row for each Content Type that will be
exported. This Result Set will contain 50 rows, or one row for each content type, whichever is
smaller. The Content Type Information Result Set is defined using T-SQL syntax, as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>ExportObjectUrl</td>
<td>nvarchar(260),</td>
</tr>
<tr>
<td>Ordinal</td>
<td>int,</td>
</tr>
<tr>
<td>ContentTypeId</td>
<td>varbinary(512),</td>
</tr>
<tr>
<td>ParentWebId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>ContentTypeListId</td>
<td>uniqueidentifier;</td>
</tr>
</tbody>
</table>

Id: This value MUST be ignored.

ExportObjectUrl: This value MUST be ignored.

Ordinal: The Export Ordinal number of this Content Type in the table of export objects.

ContentTypeId: The content type identifier of this Content Type.

ParentWebId: The site identifier for the parent Site of this Content Type.

ContentTypeListId: The list identifier of the list that contains this Content Type.

3.1.4.20 proc_DeplGetContentTypesToParse

The proc_DeplGetContentTypesToParse Stored Procedure is called during an Export Operation to get
the list of Content Types which will be exported. The purpose of this Stored Procedure is to get a list
of Content Types so that the application can look for additional, dependent objects that are
necessary to correctly persist the state of these Content Types. If such objects are found, the
application MUST call proc_DeplAddExportObject to add these objects to the table of export objects.
proc_DeplGetContentTypesToParse is defined using T-SQL syntax, as follows:

PROCEDURE proc_DeplGetContentTypesToParse(
    @SiteId uniqueidentifier,
    @LinksOnly tinyint,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
@SiteId: The site collection identifier for the Site Collection containing the Content Types.

@LinksOnly: MUST be either 0 or 1. When set to 1, this Stored Procedure will only return Content Types used by link documents. When set to 0, this Stored Procedure will only return Content Types used by Documents that are not link documents.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

3.1.4.20.1  Content Type List Result Set

The Content Type List Result Set returns a list of Content Types. This Result Set will include all of the Content Types which will be exported. Each row contains information about one Content Type. The Content Type List Result Set is defined using T-SQL syntax, as follows:

```
ContentTypeId          varbinary(512),
ContentTypeListId      uniqueidentifier,
ParentWebId            uniqueidentifier;
```

ContentTypeId: The content type identifier of the content type.

ContentTypeListId: The list identifier of the list that contains this Content Type.

ParentWebId: The site identifier of the Site that contains this list.

3.1.4.21  proc_DeplGetDocLibRootFolderUrl

The proc_DeplGetDocLibRootFolderUrl Stored Procedure is called to get the Store-Relative Form to the Root Folder of a document library. proc_DeplGetDocLibRootFolderUrl is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplGetDocLibRootFolderUrl(
    @SiteId            uniqueidentifier,
    @ListId            uniqueidentifier,
    @Url               nvarchar(1024)OUTPUT,
    @RequestGuid       uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection that contains the document library.

@ListId: The list identifier for the document library whose Root Folder’s URL is to be determined.

@Url: The Store-Relative Form of the document library whose list identifier is specified by @ListId. If such a document library does not exist, the value in @Url MUST NOT be changed.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.
Result Sets: MUST NOT return any result sets.

3.1.4.22 proc_DeplGetFileData

The proc_DeplGetFileData Stored Procedure is called to select all the available metadata information about a File to be exported, except its document stream. proc_DeplGetFileData is defined using T-SQL syntax, as follows:

PROCEDURE proc_DeplGetFileData(
    @SiteId uniqueidentifier,
    @LastOrdinal int,
    @VersionSetting int,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);

@SiteId: The site collection identifier for the Site Collection to operate on.

@LastOrdinal: All Files returned MUST have values in the Ordinal column greater than @LastOrdinal. When calling proc_DeplGetFileData for the first time, set @LastOrdinal to 0. During additional calls to retrieve more Files, set @LastOrdinal to the largest ordinal value returned in the previous call to proc_DeplGetFileData.

@VersionSetting: A value specifying which File versions to select for export which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Export only the current major version of a File.</td>
</tr>
<tr>
<td>2</td>
<td>Export the current version of a File, which is either the most current Minor Version or the most current major version.</td>
</tr>
<tr>
<td>3</td>
<td>Export the most current major version and the most current Minor Version of the File.</td>
</tr>
<tr>
<td>4</td>
<td>Export all checked-in versions of the File.</td>
</tr>
</tbody>
</table>

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return seven result sets in the following order:

3.1.4.22.1 File Information Result Set

The File Information Result Set returns one row for each individual File that needs to be exported ignoring additional versions of the file. If a File has a Publishing Level of checked out, it MUST NOT be returned.

The File Information Result Set MUST contain 200 rows, or one row for each file, whichever is smaller. The File Information Result Set is defined using T-SQL syntax, as follows:

Id uniqueidentifier,
ExportObjectUrl nvarchar(260),
Ordinal int,
WebId uniqueidentifier,
ListId uniqueidentifier,
<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ParentId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>ScopeId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>DocLibRowId</td>
<td>int,</td>
</tr>
<tr>
<td>MetaInfo</td>
<td>image,</td>
</tr>
<tr>
<td>UIVersion</td>
<td>int,</td>
</tr>
<tr>
<td>UIVersionString</td>
<td>nvarchar(61),</td>
</tr>
<tr>
<td>IsGhosted</td>
<td>bit,</td>
</tr>
<tr>
<td>TimeCreated</td>
<td>datetime</td>
</tr>
<tr>
<td>TimeLastModified</td>
<td>datetime,</td>
</tr>
<tr>
<td>DirName</td>
<td>nvarchar(256),</td>
</tr>
<tr>
<td>LeafName</td>
<td>nvarchar(128),</td>
</tr>
<tr>
<td>SetupPath</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>SetupPathUser</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>SetupPathVersion</td>
<td>tinyint,</td>
</tr>
<tr>
<td>CheckinComment</td>
<td>nvarchar(1023),</td>
</tr>
<tr>
<td>AuditFlags</td>
<td>int,</td>
</tr>
<tr>
<td>InheritAuditFlags</td>
<td>int,</td>
</tr>
<tr>
<td>Level</td>
<td>tinyint,</td>
</tr>
<tr>
<td>HasStream</td>
<td>int,</td>
</tr>
<tr>
<td>Size</td>
<td>int,</td>
</tr>
<tr>
<td>Acl</td>
<td>image;</td>
</tr>
</tbody>
</table>

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

**ExportObjectUrl:** The full Store-Relative form URL for the file.

**Ordinal:** An identifier of the file that is a number used with the @LastOrdinal parameter. All rows returned MUST have an ordinal value greater than @LastOrdinal. The ordinals of all rows returned MUST be in increasing order.

**WebId:** The site identifier for the Site containing the file.

**ListId:** The list identifier of the list containing the file. If the file is not contained in a list, this value MUST be NULL.

**ParentId:** The identifier of the Document's parent container. The parent container could be either a folder or document library. This value MUST NOT be NULL.

**ScopeId:** The identifier of the scope which contains the Document.

**DocLibRowId:** The identifier in the document library for this item. If the file is not contained in a list, this value MUST be NULL.

**MetaInfo:** A metadata for the file. The Metadict format is specified in [MS-FPSE] section 2.2.2.5.3.

**UIVersion:** A user interface (UI) version number associated with the Document.

**UIVersionString:** A calculated column presenting the value of the user interface (UI) version column as a displayed version string.

**IsGhosted:** Indicates whether the file is uncustomized or not. The value MUST be "1" if the file is uncustomized. Otherwise, the value MUST be zero ("0").

**TimeCreated:** A timestamp in UTC specifying when this file was first created.

**TimeLastModified:** A timestamp in UTC. The value specifies when the file version returned was last saved. This MAY correspond to the actual time when the file was last modified.
**DirName:** The directory name of the file

**LeafName:** The leaf name of the file.

**SetupPath:** For a file that is now or once was uncustomized, this contains the setup path fragment relative to the base setup path specified by the **SetupPathVersion** value, where the document stream of this document can be found. This value MUST be NULL if the document was never uncustomized.

**SetupPathUser:** If the file is now or once was an uncustomized document, this contains the login name of the user that created the uncustomized document. This value is undefined for files that were never uncustomized documents.

**SetupPathVersion:** For an uncustomized document, this governs the **SetupPath** fragment starting from the template path location. The following are valid 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>
</tbody>
</table>

**UnVersionedMetaInfo:** A Metadict for the file. The Metadict format is specified in [MS-FPSE] section 2.2.2.5.3.

**CheckinComment:** Comment associated with the file when this version of the file was last checked in.

**AuditFlags:** An audit flags value determining the operations to be tracked on this file.

**InheritAuditFlags:** An audit flags value for the operations to be tracked on this file, as determined from parent container audit flags settings.

**Level:** The publishing level of this version of the document.

**HasStream:** Identifies whether the file contents are stored in the database or on the file system. A value of 0 indicates that the file is uncustomized and stored outside of the content database; otherwise, this value MUST be "1".

**Size:** The size of the document stream in bytes. This value MUST not be NULL.

**Acl:** The binary serialization of the access control list, specified in [MS-WSSFO2] section 2.2.4.6, for this file. This is either explicitly defined or inherited from the file's parent object.

### 3.1.4.22.2 Latest File Versions Result Set

Latest File Versions Result Set MUST return one or two rows for each document that is valid to be exported. If a document has a Publishing Level of Checked Out, it will not be returned. If @VersionSetting is 1 then this result set MUST return one row for each document of Publishing Level of type **publish**. If @VersionSetting is not 1, the most current Publish and the current **draft** after the last published version is returned. If there is no document of type Publish and @VersionSetting is not 1 then only the most current Draft version of the document is returned. The Latest File Version Result Set will return information for the first 200 documents with ordinals greater than @LastOrdinal. The Latest File Versions Information Result Set is defined using T-SQL syntax, as follows:
Id: The identifier of the document.

UIVersion: A user interface (UI) version number associated with the Document.

TimeCreated: A timestamp in UTC specifying when this document was first created.

TimeLastModified: A timestamp in UTC specifying when the selected version of the document was last modified.

DocFlags: A Doc Flags value specifying information about the Document. See [MS-WSSFO2] section 2.2.2.3 for details.

MetaInfo: A Metadict for the document. The Metadict format is specified in [MS-FPSE] section 2.2.2.5.3.

CheckinComment: Comment associated with the document when this version of the document was last checked in.

Level: The Publishing Level of this version of the Document.

SetupPath: For a Document that is now or once was uncustomized, this contains the setup path fragment relative to the base setup path specified by the SetupPathVersion value, where the document stream of this document can be found. This value MUST be NULL if the document was never uncustomized.

SetupPathUser: If this document is now or once was uncustomized, this contains the login name of the user that created the uncustomized document. This value is undefined for documents that were never uncustomized.

SetupPathVersion: For an uncustomized document, this governs the SetupPath fragment starting from the template path location. The following are valid 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>
</tbody>
</table>
**HasStream**: Identifies whether the document contents are stored in the database or on the file system. A value of zero ("0") indicates that the document is uncustomized and stored outside of the content database. Otherwise, this value MUST be "1".

**ListId**: The list identifier of the list (1) containing the document. If the document is not contained in a list, this value MUST be NULL.

**Size**: The size of the Document Stream in bytes. This value MUST not be NULL.

### 3.1.4.22.3 Previous File Versions Result Set

The Previous File Version Result Set MUST contain 0 or more rows, for each file that remains to be exported. If @VersionSetting is not 4, then 0 rows MUST be returned. The Previous File Versions Result Set will return information for the first 200 files with ordinals greater than @LastOrdinal. The Previous File Versions Result Set is defined using T-SQL syntax, as follows:

```
id                      uniqueidentifier,
version                 int,
timecreated             datetime,
docflags                int,
metainfo                image,
checkincomment          nvarchar(1023),
hasstream               bit,
size                    int;
```

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

**Version**: A user interface (UI) version number associated with the Document.

**TimeCreated**: A timestamp in UTC specifying when the selected version of the file was created.

**DocFlags**: A Doc Flags value specifying information about the file. See [MS-WSSFO2] section 2.2.2.3 for details.

**MetaInfo**: A Metadict for the file. The Metadict format is specified in [MS-FPSE] section 2.2.2.5.3.

**CheckinComment**: Comment associated with the file when this version of the file was last checked in.

**HasStream**: Identifies whether the file contents are stored in the database or on the file system. A value of zero ("0") indicates that the file is uncustomized and stored outside of the content database. Otherwise, this value MUST be "1".

**Size**: The size of the Document Stream in bytes. This value MUST not be NULL.

### 3.1.4.22.4 File Web Part Result Set

The File Web Part Result Set returns all the Web Part references in the files to be exported. The File Web Part Result Set will return information for the first 200 files with ordinals greater than @LastOrdinal. The File Web Part Result Set is defined using T-SQL syntax, as follows:

```
tp_id                        uniqueidentifier,
ntp_listid                   uniqueidentifier,
ntp_type                     tinyint,
ntp_flags                    int,
ntp_hidden                   int;
```
tp_Threaded int,
tp_FPModified int,
tp_ReadOnly int,
tp_Scope nvarchar(16),
tp_RecurrenceRowset int,
tp_ModerationType nvarchar(16),
tp_Personal int,
tp_Ordered int,
tp_DisplayName nvarchar(255),
tp_ContentTypeId varbinary(512),
tp_PageUrl nvarchar(1024),
tp_BaseViewId tinyint,
tp_View varbinary(max),
tp_Level tinyint,
tp_IsDefault bit,
tp_ZoneID nvarchar(64),
tp_IsIncluded bit,
tp_PartOrder int,
tp_FrameState tinyint,
tp_Version int,
tp_WebPartType uniqueidentifier,
tp_Assembly nvarchar(255),
tp_Class nvarchar(255),
tp_SolutionId uniqueidentifier,
tp_AllUsersProperties varbinary(max),
tp_PerUserProperties varbinary(max),
tp_WebPartIdProperty nvarchar(255),
tp_UserID int,
tp_Source nvarchar(max),
tp_CreationTime DateTime,
DocId uniqueidentifier,
tp_ListRootFolderUrl nvarchar(260);

**tp_ID:** The identifier of the Web Part.

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

**tp_Type:** The page type of this Web Part.

**tp.Flags:** A [MS-WSSFO2] section 2.2.2.12 value specifying View related settings for this Web Part.

**tp.Hidden:** This is 1 if the view MUST NOT be displayed in enumerations of the Views of this list (for example, in a View selector user interface element). Otherwise, this is 0.

**tp.Threaded:** Threaded view for legacy discussion board lists (lists with a List Base Type, specified in [MS-WSSFO2] section 2.2.3.11, of 3). This is 1 if client implementations MUST display results in a threaded fashion, and paging of results MUST be done in terms of threads instead of by individual list items. Otherwise, this is 0.

**tp_FPModified:** This is 1 if the view has been modified by a client application such that it might not be compatible with the web interface for View modification. Otherwise, this is 0.

**tp_ReadOnly:** This is 1 if the view is read-only and implementations MUST NOT permit any modifications to its properties. Otherwise, this is 0.

**tp.Scope:** The web part scope.
tp_RecurrenceRowset: This is 1 if it is required that the View’s data be expanded based on a calendar recurrence. For example, having a view of list item data for the first Thursday of every month. Otherwise, this is 0.

tp_ModerationType: The web part moderation type.

tp_Personal: This MUST be 0.

tp_Ordered: This MUST be 1 if the view displays list items based on the item order of the list (using the tp_ItemOrder column specified in section 3.1.4.30.1). Otherwise, this MUST be 0.

tp_DisplayName: The Display Name of the web part.

tp.CONTENTTypeId: A Content Type identifier value describing the valid content types of folders that this Web Part can be used to view. If this Web Part is not restricted to a particular content type, this value MUST be 0.

tp_PageUrl: The server-relative URL to the Document that contains this Web Part. It MUST begin with a slash. It MUST NOT end with a slash.

tp_BaseViewId: Integer referring to the View specified in the list Template for this list that was used to create this View.

tp_View: An XML string that contains the meta data of the View, if this Web Part is a View. The schema of this XML string is defined as [MS-WSSCAML]. If this Web Part is not a View, this MUST be NULL.

tp_Level: A publishing level value specifying the publishing status of the Web Part.

tp_IsDefault: This MUST be either 0 or 1. When set to 1, the current web part is a default form of the list. Otherwise, the web part is not a default form.

tp_ZoneId: The name of a Web Part Zone that the Web Part is in. This value MUST be NULL if the Web Part is not in any Web Part zone.

tp_IsIncluded: If 1, this indicates the Web Part is visible. This value MUST NOT be NULL.

tp_PartOrder: Ordinal number indicating the location of the Web Part in relation to other Web Parts in the same Web Part Zone.

tp_FrameState: The Web part chrome state of the Web Part. This value MUST NOT be NULL and MUST be one of the following:

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

tp_Version: The version of the Web Part.

tp_WebPartTypeId: A value computed from the hash of the Web Part's fully qualified assembly name.

tp_Assembly: The Web part’s fully qualified assembly name.

tp_Class: The name of the .NET assembly the contains the definition of the Web Part.
tp_SolutionId: The identifier of the solution that installed the Web Part.

tp_AllUsersProperties: A serialized representation of 0 or more customizable properties on the Web Part. If this value is NULL, then default values will be used for all of the customizable properties on the Web Part.

tp_PerUserProperties: A serialized representation of zero or more properties that can be personalized on the Web Part for each user. If this value is NULL, then default values will be used for all of the properties that can be personalized on the Web Part. The ability to personalize indicates a designation for a Web Part property that can be modified for all users and for individual Users. Multiple values are maintained in the back-end database servers for this type of property: One value that is used for all users that have not yet modified the property for themselves, and one value for each user that has modified the property for themselves.

tp_WebPartIdProperty: The optional identifier of the Web Part. If not NULL, it MUST be unique per document, MUST not begin with a number, and contain only a combination of alphanumeric characters and underscores.

tp_UserID: The Security principal identifier of the user who created the Web Part. This value MUST be NULL if the web part was added through a shared view.

tp_Source: The Web part properties of the Web Part in either the format specified in [MS-WPPS] section 2.2.4.5 or HTML format.

tp_CreationTime: A timestamp in UTC specifying when this Web Part was created.

DocId: The file that contains this Web Part.

tp_ListRootFolderUrl: This value MUST be NULL.

### 3.1.4.22.5 Web Part Personalization Result Set

The Web Part Personalization Result Set returns the Web Part personalizations in the files to be exported. The Web Part Personalization Result Set will return information for the first 200 files with ordinals greater than @LastOrdinal. The Web Part Personalization Result Set is defined using T-SQL syntax, as follows:

```
tp_Id uniqueidentifier,
tp_DocId uniqueidentifier,
tp_UserID int,
tp_PartOrder int,
tp_ZoneID nvarchar(64),
tp_IsIncluded bit,
tp_FrameState tinyint,
tp_PerUserProperties image;
```

**tp_Id**: The web part identifier of the personalized Web Part.

**tp_DocId**: The identifier of the file which contains the personalized Web Part. This MUST NOT be NULL.

**tp_UserID**: The identification number of the user who personalized the Web Part.

**tp_PartOrder**: Ordinal number indicating the location of the Web Part in relation to other Web Parts in the same Web Part Zone.
**tp_ZoneID:** The name of a Web Part Zone that the Web Part is in. This value MUST be NULL if the Web Part is not in any Web Part Zone.

**tp_IsIncluded:** If 1, this indicates the Web Part is visible. This value MUST NOT be NULL.

**tp_FrameState:** The Web part chrome state of the Web Part. This value MUST NOT be NULL.

**tp_PerUserProperties:** The properties to assign to this Web Part for this user.

### 3.1.4.22.6 File Links Result Set

The File Links Result Set returns information about the Server-Relative URLs in the files to be exported. The File Links Result Set will return information for the first 200 list items with ordinals greater than @LastOrdinal. The File Links Result Set is defined using T-SQL syntax, as follows:

```sql
Id                    uniqueidentifier,
{TargetId}            uniqueidentifier,
TargetUrl             nvarchar(261),
WebPartId             uniqueidentifier,
LinkNumber            int,
Type                  tinyint,
Security              tinyint,
Dynamic               tinyint,
ServerRel             bit,
Level                 tinyint,
Search                ntext;
```

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

**{TargetId}:** The document identifier of the item the links point to. The value MUST not be NULL.

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

**WebPartId:** The identifier of the Web Part containing the link.

**LinkNumber:** An ordinal value denoting the relative order of this hyperlink within the source of the Document, Web Part, or Field being processed.

**Type:** Type of the link. Values specified in [MS-WSSDLIM2] section 3.1.4.8.

**Security:** A one byte (tinyint) value represented as a single upper case ASCII character specifying the Link's type of URL. Values specified in [MS-WSSDLIM2] section 3.1.4.8.

**Dynamic:** A one byte (tinyint) value represented as a single upper case ASCII character which tracks various special Link Types. Values specified in [MS-WSSDLIM2] section 3.1.4.8.

**ServerRel:** This value MUST be 1.

**Level:** The Publishing Level of this version of the Document.

**Search:** Search parameters for forward links. The link source starting at either the query string signifier '?' or the bookmark signifier '#'.

### 3.1.4.22.7 File Web Part Versions Result Set

The File Web Part Versions Result Set MUST contain 0 or more rows, for each file that remains to be exported. If @VersionSetting is not 4, then 0 rows MUST be returned. The File Web Part Versions
Result set will return information for the first 200 files with ordinal greater than @LastOrdinal. The File Web Part Versions Result Set is defined using T-SQL syntax, as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>tp_ID</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_ListID</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_Type</td>
<td>tinyint,</td>
</tr>
<tr>
<td>tp_Flags</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Hidden</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Threaded</td>
<td>int,</td>
</tr>
<tr>
<td>tp_FFMModified</td>
<td>int,</td>
</tr>
<tr>
<td>tp_ReadOnly</td>
<td>int,</td>
</tr>
<tr>
<td>tp_RecurrenceRowset</td>
<td>int,</td>
</tr>
<tr>
<td>tp_ModerationType</td>
<td>nvarchar(16),</td>
</tr>
<tr>
<td>tp_Personal</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Ordered</td>
<td>int,</td>
</tr>
<tr>
<td>tp_DisplayName</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_ContentTypeId</td>
<td>varbinary(512),</td>
</tr>
<tr>
<td>tp_BaseViewId</td>
<td>nvarchar(1024),</td>
</tr>
<tr>
<td>tp_View</td>
<td>varbinary(max),</td>
</tr>
<tr>
<td>tp_Level</td>
<td>tinyint,</td>
</tr>
<tr>
<td>tp_IsDefault</td>
<td>bit,</td>
</tr>
<tr>
<td>tp_ZoneID</td>
<td>nvarchar(64),</td>
</tr>
<tr>
<td>tp_IsIncluded</td>
<td>bit,</td>
</tr>
<tr>
<td>tp_PartOrder</td>
<td>int,</td>
</tr>
<tr>
<td>tp_FrameState</td>
<td>tinyint,</td>
</tr>
<tr>
<td>tp_Version</td>
<td>int,</td>
</tr>
<tr>
<td>tp_WebPartTypeId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_Assembly</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_Class</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_SolutionId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_AllUsersProperties</td>
<td>varbinary(max),</td>
</tr>
<tr>
<td>tp_PerUserProperties</td>
<td>varbinary(max),</td>
</tr>
<tr>
<td>tp_WebPartIdProperty</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_UserID</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Source</td>
<td>nvarchar(max),</td>
</tr>
<tr>
<td>tp_CreationTime</td>
<td>DateTime,</td>
</tr>
<tr>
<td>DocId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_ListRootFolderUrl</td>
<td>nvarchar(260),</td>
</tr>
<tr>
<td>tp_PageVersion</td>
<td>int;</td>
</tr>
</tbody>
</table>

**tp_ID:** The identifier of the Web Part.

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

**tp_Type:** The page type of this Web Part.

**tp_Flags:** A [MS-WSSFO2] section 2.2.2.12 value specifying View related settings for this Web Part.

**tp_Hidden:** This is 1 if the view MUST NOT be displayed in enumerations of the Views of this list (for example, in a View selector user interface element). Otherwise, this is 0.

**tp_Threaded:** Threaded view for legacy discussion board lists (lists with a List Base Type, specified in [MS-WSSFO2] section 2.2.3.11, of 3). This is 1 if client implementations MUST display results in a threaded fashion, and paging of results MUST be done in terms of threads instead of by individual list items. Otherwise, this is 0.
tp_FPModified: This is 1 if the view has been modified by a client application such that it might not be compatible with the web interface for View modification. Otherwise, this is 0. Implementations MUST restrict modifying any properties they do not understand.

tp_ReadOnly: This is 1 if the view is read-only and implementations MUST NOT permit any modifications to its properties. Otherwise, this is 0.

tp_Scope: The web part scope.

tp_RecurrenceRowset: This is 1 if it is required that the View’s data be expanded based on a calendar recurrence. For example, having a view of list item data for the first Thursday of every month. Otherwise, this is 0.

tp_ModerationType: The web part moderation type.

tp_Personal: This MUST be 0.

tp_Ordered: This MUST be 1 if the view displays list items based on the item order of the list (using the tp_ItemOrder column specified in section 3.1.4.30.4). Otherwise, this MUST be 0.

tp_DisplayName: The Display Name of the web part.

tp_ContentTypeId: A Content Type identifier value describing the valid content types of folders that this Web Part can be used to view. If this Web Part is not restricted to a particular content type, this value MUST be 0.

tp_PageUrl: The server-relative URL to the Document that contains this Web Part. It MUST begin with a slash. It MUST NOT end with a slash.

tp_BaseViewId: Integer referring to the View specified in the list Template for this list that was used to create this View.

tp_View: An XML string that contains the meta data of the View, if this Web Part is a View. The schema of this XML string is defined as [MS-WSSCAML]. If this Web Part is not a View, this MUST be NULL.

tp_Level: A publishing level value specifying the publishing status of the Web Part.

tp_IsDefault: This MUST be either 0 or 1. When set to 1, the current web part is a default form of the list. Otherwise, the web part is not a default form.

tp_ZoneId: The name of a Web Part Zone that the Web Part is in. This value MUST be NULL if the Web Part is not in any Web Part zone.

tp_IsIncluded: If 1, this indicates the Web Part is visible. This value MUST NOT be NULL.

tp_PartOrder: Ordinal number indicating the location of the Web Part in relation to other Web Parts in the same Web Part Zone.

tp_FrameState: The Web part chrome state of the Web Part. This value MUST NOT be NULL and MUST be one of the following:

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

**tp_WebPartTypeId:** A value computed from the hash of the Web Part’s fully qualified assembly name.

**tp_Assembly:** The Web part’s fully qualified assembly name.

**tp_Class:** The name of the .NET assembly the contains the definition of the Web Part.

**tp_SolutionId:** The identifier of the solution that installed the Web Part.

**tp_AllUsersProperties:** A serialized representation of 0 or more customizable properties on the Web Part. If this value is NULL, then default values will be used for all of the customizable properties on the Web Part.

**tp_PerUserProperties:** A serialized representation of zero or more personalizable properties on the Web Part for each user. If this value is NULL, then default values will be used for all of the personalizable properties on the Web Part. Personalizable indicates a designation for a Web Part property that can be modified for all users and for individual Users. Multiple values are maintained in the back-end database servers for this type of property: One value that is used for all users that have not yet modified the property for themselves, and one value for each user that has modified the property for themselves.

**tp_WebPartIdProperty:** The optional identifier of the Web Part. If not NULL, it MUST be unique per document, MUST not begin with a number, and contain only a combination of alphanumeric characters and underscores.

**tp_UserID:** The Security principal identifier of the user who created the Web Part. This value MUST be NULL if the web part was added through a shared view.

**tp_Source:** The Web part properties of the Web Part in either the format specified in [MS-WPPS] section 2.2.4.5 or HTML format.

**tp_CreationTime:** A timestamp in UTC specifying when this Web Part was created.

**DocId:** The file that contains this Web Part.

**tp_ListRootFolderUrl:** This value MUST be NULL.

**tp_PageVersion:** A user interface (UI) version number associated with the Document.

### 3.1.4.23 proc_DeplGetFolderById

The proc_DeplGetFolderById stored procedure returns the site identifier and server-relative URL for a Folder specified by the folder identifier. proc_DeplGetFolderById is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetFolderById(
    @SiteId uniqueidentifier,
    @FolderId uniqueidentifier,
    @RestoreRecycleBinItems bit = 0,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

**@SiteId:** The site collection identifier for the Site Collection that contains the Folder specified by @FolderId.
@FolderId: The folder identifier for the Folder in the Site Collection specified by @SiteId.

@RestoreRecycleBinItems: If this is 1 and the Folder specified by @FolderId is in the Recycle Bin, then the Folder and all items deleted in the same transaction MUST be restored from the Recycle Bin. If this is not 1 and the Folder is in the Recycle Bin, then the return code value MUST be 30001.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished. A Result Set MUST be returned. This MUST also be the value returned if the @SiteId or @FolderId do not match an existing item.</td>
</tr>
<tr>
<td>80</td>
<td>The specified Folder exists, but belongs to a different Site Collection.</td>
</tr>
<tr>
<td>87</td>
<td>@SiteId or @FolderId is NULL.</td>
</tr>
<tr>
<td>30001</td>
<td>The specified Folder is in the Recycle Bin and @RestoreRecycleBinItems is not 1. The specified Folder is in the Recycle Bin and @RestoreRecycleBinItems is 1, but the attempt to restore from the Recycle Bin failed.</td>
</tr>
</tbody>
</table>

Result Sets: MUST return the following Result Set:

3.1.4.23.1 Folder Location Result Set

The Folder Location Result Set returns information about the specified Folder. On successful execution, the Folder Location Result Set MUST be returned and MUST contain 0 or one rows. One row MUST be returned if @SiteId and @FolderId correspond to an existing item. 0 rows MUST be returned in all other cases.

The Folder Location Result Set is defined using T-SQL syntax, as follows:

```sql
WebId     uniqueidentifier,
Url       nvarchar(261);
```

WebId: The site identifier for the Site containing the specified Folder.

Url: The server-relative URL of the Folder. It MUST begin with a slash.

3.1.4.24 proc_DeplGetFolderData

The proc_DeplGetFolderData stored procedure returns information about the Folders to be processed during an Export Operation. proc_DeplGetFolderData is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetFolderData(
    @SiteId     uniqueidentifier,
    @LastOrdinal int,
    @VersionSetting int,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);```

---

[MS-WSSDM2] — v20120630
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Release: July 16, 2012
@SiteId: The site collection identifier for the Site Collection to operate on.

@LastOrdinal: All Folders returned by proc_DeplGetFolderData MUST have values in the Ordinal column of the Folder Information result set, specified in section 3.1.4.24.1, greater than @LastOrdinal. When calling proc_DeplGetFolderData the first time, set @LastOrdinal to 0. When calling proc_DeplGetFolderData to retrieve more Folders, set @LastOrdinal to the largest Ordinal value returned in the previous call to proc_DeplGetFolderData.

@VersionSetting: If this is 1, proc_DeplGetFolderData MUST only return information about Folders with a Publishing Level of published. If this is not 1, proc_DeplGetFolderData MUST return exactly one row for each unique Folder. If a version of a folder has a Publishing Level of Checked Out, information about a different version MUST be returned. If the folder only has information with a publishing level of checked out, proc_DeplGetFolderData MUST NOT return any information about that folder.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

3.1.4.24.1 Folder Information Result Set

The Folder Information Result Set returns one row for each Folder that needs to be exported. If a Folder only has a version with a Publishing Level of Checked Out, it will not be returned. If @SiteId is not found or there are no Folders that need to be exported, the Result Set MUST be empty.

The Folder Information Result Set MUST contain 200 rows, or one row for each folder that remains to be exported, whichever is smaller. The Folder Information Result Set is defined using T-SQL syntax, as follows:

```sql
Id uniqueidentifier,
ExportObjectUrl nvarchar(260),
Ordinal int,
ParentWebId uniqueidentifier,
LeafName nvarchar(128),
ListId uniqueidentifier,
DocLibRowId int,
WelcomePageUrl nvarchar(260),
WelcomePageParameters ntext,
IsWebRootFolder bit,
Acl image,
MetaInfo image,
TimeCreated datetime,
TimeLastModified datetime,
ProgId nvarchar(255),
SortBehavior tinyint;
```

Id: The identifier of the Folder.

ExportObjectUrl: The full Store-Relative Form URL for the Folder.

Ordinal: An identifier of the Folder that is a number used with the @LastOrdinal parameter. All rows returned MUST have an ordinal value greater than @LastOrdinal. The ordinals of all rows returned MUST be in increasing order.

ParentWebId: The site identifier for the Site containing the Folder.
**LeafName:** The Leaf Name of the Folder.

**ListId:** The list identifier of the list containing the Folder. If the Folder is not contained in a list, this value MUST be NULL.

**DocLibRowId:** The identifier in the document library for this item. If the Folder is not contained in a list, this value MUST be NULL.

**WelcomePageUrl:** An optional URL to redirect to when the Folder is requested with an HTTP GET operation. The URL is relative to the URL of the Folder itself, and must be subsumed by the Folder. If a welcome Page is not specified, this value MUST be NULL.

**WelcomePageParameters:** Optional URL parameters to use with the WelcomePageUrl value. If this value is not NULL, it MUST contain a query string starting with "?", a fragment parameter starting with "#", or both a query string and a fragment parameter, starting with "?" and containing "#". If the parameters are not specified, this value MUST be NULL.

**IsWebRootFolder:** If the Folder is the root of a Site, this MUST be 1. Otherwise, this MUST be 0.

**Acl:** The binary serialization of the WSS ACL Format access control list, specified in [MS-WSSFO2] section 2.2.4.6, for this Folder. This is either explicitly defined or inherited from the Folder's parent object.

**MetaInfo:** A Metadict for the Folder. The Metadict format is specified in [MS-FPSE] section 2.2.2.5.3.

**TimeCreated:** Date/time value in UTC specifying when this Folder was created.

**TimeLastModified:** Date/time value in UTC specifying when the Folder was last saved. This value does not necessarily correspond to the actual time when the Folder was last modified.

**ProgId:** This value MUST be ignored.

**SortBehavior:** An integer value specifying how the folder should be sorted within a view. If this parameter is set to 1, then the item MUST be sorted as a folder. If this parameter is set to 0, it MUST be sorted as a file. If the folder is for a site, the value MUST be 2.

### 3.1.4.25 proc_DeplGetIncrementalChanges

The proc_DeplGetIncrementalChanges stored procedure is called to populate the temporary table of export objects based on incremental changes in the Change Log. proc_DeplGetIncrementalChanges is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetIncrementalChanges(
    @SiteId uniqueidentifier,
    @SearchEntireSite tinyint,
    @ChangeTimeStart datetime,
    @ChangeNumberStart int,
    @ChangeTimeEnd datetime,
    @ChangeNumberEnd int,
    @IncludeUsers tinyint,
    @IncludeGroups tinyint,
    @IsMajorFileOnly tinyint,
    @MinChangeTime datetime OUTPUT,
    @MinChangeNumber int OUTPUT,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);```

---

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Release: July 16, 2012"
@SiteId: The site collection identifier for the Site Collection to operate on.

@SearchEntireSite: If @SearchEntireSite is 1, proc_DeplGetIncrementalChanges MUST search the entire site collection for incremental changes. If this is not 1, proc_DeplGetIncrementalChanges MUST be limited to the Sites that are included in the Incremental Search Scope Table.

@ChangeTimeStart: All changes added to the table of export objects MUST have occurred at or after @ChangeTimeStart. @ChangeTimeStart MUST be ignored if @SearchEntireSite is not 1.

@ChangeNumberStart: All changes added to the table of export objects MUST have an identifier greater than @ChangeNumberStart. @ChangeNumberStart MUST be ignored if @SearchEntireSite is not 1.

@ChangeTimeEnd: All changes added to the table of export objects MUST have occurred at or before @ChangeTimeEnd.

@ChangeNumberEnd: All changes added to the table of export objects MUST have an identifier less than or equal to @ChangeNumberEnd.

@IncludeUsers: This value is not used and MUST be ignored.

@IncludeGroups: This value is not used and MUST be ignored.

@IsMajorFileOnly: If this is 1, only objects with a Publishing Level of published will be added. If this is 0, exactly one row for each unique object will be added, except information about versions with a Publishing Level of Checked Out MUST NOT be returned.

@MinChangeTime: When proc_DeplGetIncrementalChanges returns, this MUST be set to the time of the earliest change in the Change Log.

@MinChangeNumber: When proc_DeplGetIncrementalChanges returns, this MUST be set to the Change Log identifier with the lowest value in the Change Log.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>30000</td>
<td>This MUST be returned if there are no changes in the Change Log. This MUST be returned if the stored procedure did not find a valid entry in the change log that matches either @ChangeTimeStart or @ChangeNumberStart. If @SearchEntireSite is 1, this value MUST be returned if @ChangeTimeStart or @ChangeNumberStart is NULL.</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any result sets.

3.1.4.26 proc_DeplGetListData

The proc_DeplGetListData stored procedure is called to return information about the lists to be processed during an export operation. proc_DeplGetListData is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplGetListData(
```
@LastOrdinal: The information for all lists returned by proc_DeplGetListData MUST have values in the Ordinal column greater than @LastOrdinal. When calling proc_DeplGetListData the first time, set @LastOrdinal to 0. When calling proc_DeplGetListData to retrieve more lists, set @LastOrdinal to the largest Ordinal value returned in the previous call to proc_DeplGetListData.

@SiteId: The site collection identifier for the Site Collection to operate on.

@IsIncremental: If this is 1, the Deleted Fields result set, specified in section 3.1.4.26.4, Deleted Views result set, specified in section 3.1.4.26.5, and Deleted Content Types result set, specified in section 3.1.4.26.6 will be returned. Otherwise, the Null List result set, specified in section 3.1.4.26.7, the Null List result set two, specified in section 3.1.4.26.8 and the Null List result set three, specified in section 3.1.4.26.9 will be returned.

@ChangeTimeStart: @ChangeTimeStart is only used if @IsIncremental is 1. If this is not NULL, the entire Site Collection will be searched for incremental changes that result in deleted Fields. All changes returned MUST have occurred at or after @ChangeTimeStart. If this is NULL, fields returned will be limited to the Sites that are included in the Incremental Search Scope Table.

@ChangeNumberStart: @ChangeNumberStart is only used if @IsIncremental is 1 and @ChangeNumberStart is not NULL. All Field deletion changes returned MUST have a Change log identifier greater than @ChangeNumberStart.

@ChangeTimeEnd: @ChangeTimeEnd is only used if @IsIncremental is 1. All Field deletion changes returned MUST have occurred at or before @ChangeTimeEnd.

@ChangeNumberEnd: @ChangeNumberEnd is only used if @IsIncremental is 1. All Field deletion changes returned MUST have a Change log identifier less than or equal to @ChangeNumberEnd.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return eight result sets in the following order:

3.1.4.26.1 List Information Result Set

This Result Set MUST be returned.

The List Information Result Set MUST contain 50 rows, or one row for each list that remains to be exported, whichever is smaller. The List Information Result Set is defined using T-SQL syntax, as follows:

```
Id uniqueidentifier,
ExportObjectUrl nvarchar(260),
Ordinal int,
tp_Title nvarchar(255),
```
<table>
<thead>
<tr>
<th>Column</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>tp_Description</td>
<td>ntext,</td>
</tr>
<tr>
<td>tp_Modified</td>
<td>datetime,</td>
</tr>
<tr>
<td>tp_Created</td>
<td>datetime,</td>
</tr>
<tr>
<td>tp_Version</td>
<td>int,</td>
</tr>
<tr>
<td>tp_BaseType</td>
<td>int,</td>
</tr>
<tr>
<td>tp_FeatureId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_ServerTemplate</td>
<td>int,</td>
</tr>
<tr>
<td>tp_RootFolder</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_Template</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>tp_ReadSecurity</td>
<td>int,</td>
</tr>
<tr>
<td>tp_WriteSecurity</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Fields</td>
<td>ntext,</td>
</tr>
<tr>
<td>tp_Flags</td>
<td>bigint,</td>
</tr>
<tr>
<td>tp_ThumbnailSize</td>
<td>int,</td>
</tr>
<tr>
<td>tp_WebImageWidth</td>
<td>int,</td>
</tr>
<tr>
<td>tp_WebImageHeight</td>
<td>int,</td>
</tr>
<tr>
<td>tp_ImageUrl</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_Author</td>
<td>int,</td>
</tr>
<tr>
<td>tp_EventSinkAssembly</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_EventSinkClass</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_EventSinkData</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>tp_EmailAlias</td>
<td>nvarchar(128),</td>
</tr>
<tr>
<td>tp_DocTemplateUrl</td>
<td>nvarchar(261),</td>
</tr>
<tr>
<td>tp_ContentTypes</td>
<td>ntext,</td>
</tr>
<tr>
<td>Acl</td>
<td>image,</td>
</tr>
<tr>
<td>tp_MaxMajorVersionCount</td>
<td>int,</td>
</tr>
<tr>
<td>tp_MaxMajorwithMinorVersionCount</td>
<td>int,</td>
</tr>
<tr>
<td>tp_SendToLocation</td>
<td>nvarchar(512),</td>
</tr>
<tr>
<td>tp_NoThrottleListOperations</td>
<td>bit,</td>
</tr>
<tr>
<td>TitleResource</td>
<td>nvarchar(256),</td>
</tr>
<tr>
<td>DescriptionResource</td>
<td>nvarchar(256),</td>
</tr>
<tr>
<td>DataSource</td>
<td>nvarchar(max),</td>
</tr>
<tr>
<td>ValidationFormula</td>
<td>nvarchar(1024),</td>
</tr>
<tr>
<td>ValidationMessage</td>
<td>nvarchar(1024),</td>
</tr>
<tr>
<td>tp_ScopeId</td>
<td>uniqueidentifier;</td>
</tr>
</tbody>
</table>

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

**ExportObjectUrl:** The full Store-Relative Form URL for the list.

**Ordinal:** An identifier of the list that is a number used with the @LastOrdinal parameter. All rows returned MUST have an ordinal value greater than @LastOrdinal. The ordinals of all rows returned MUST be in increasing order.

**tp_Title:** The title of this list for display in the user interface.

**tp_Description:** The description of this list for display in the user interface.

**tp_Modified:** A timestamp in UTC specifying when this list was last modified.

**tp_Created:** A timestamp in UTC specifying when this list was created.

**tp_Version:** A counter incremented any time a change is made to the schema or other properties of this list, and is used for internal conflict detection.

**tp_BaseType:** This specifies the List Base Type, specified in [MS-WSSFO2] section 2.2.3.11 of this list.
tp_FeatureId: The identifier for the feature that defines the base schema of this list.

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

tp_RootFolder: The identifier of the root Folder of this list.

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

tp_ReadSecurity: This signifies special restrictions that MUST be placed on list item access. It MUST be one of the following values:

<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 MUST 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-WSSFO2] section 2.2.2.14.</td>
</tr>
</tbody>
</table>

tp_WriteSecurity: This signifies special restrictions that can be placed on list item update. It MUST be one of the following values:

<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 change only their own list items. The front-end Web server MUST NOT allow users without the ManageLists right to update a list item unless the list item was created by that user.</td>
</tr>
<tr>
<td>4</td>
<td>Users will not update any list items in this list. The front-end Web server MUST NOT allow users without the ManageLists right to add or update list items in this list.</td>
</tr>
</tbody>
</table>

tp_Fields: This field MUST be NULL if the site or list has been flagged to cache all schema data; otherwise, it contains a compressed structure. Uncompressed it contains an implementation-specific version string followed by an XML representation of the field definitions. The field definitions include display and interaction options. The XML MUST conform to the FieldDefinitionDatabaseWithVersion complex type, as defined by [MS-WSSFO2] section 2.2.8.3.5.

tp_Direction: An enumerated value specifying the direction of text flow for user interface elements presented by this list. It MUST be one of the following values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No explicit direction is specified.</td>
</tr>
<tr>
<td>1</td>
<td>Text flow MUST be left to right.</td>
</tr>
<tr>
<td>2</td>
<td>Text flow MUST be right to left.</td>
</tr>
</tbody>
</table>

tp_Flags: A list flags value describing this list.

tp_ThumbnailSize: The width, in pixels, that MUST be used when creating thumbnail images of list items within this list. If the list is not a picture library, this MUST be NULL.
**tp_WebImageWidth**: The width, in pixels, that MUST be used when displaying images of list items within this list. If the list is not a picture library, this MUST be NULL.

**tp_WebImageHeight**: The height, in pixels, that MUST be used when displaying images of list items within this list. If the list is not a picture library, this MUST be NULL.

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

**tp_Author**: The identifier in the UserInfo Table, specified in [MS-WSSFO2] section 2.2.7.10, of the user who is listed as creating this list.

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

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

**tp_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.

**tp_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.

**tp_DocTemplateUrl**: The Server-relative URL of the tp_Template Document. It MUST begin with a slash.

**tp_ContentTypes**: XML data specifying the Content Types registered for this list. The XML Schemas for a Content Type are defined in [MS-WSSCAML] section as ContentTypeDefinition.

**Acl**: The binary serialization of the WSS ACL Format access control list, specified in [MS-WSSFO2] section 2.2.4.6, for this list. This is either explicitly defined or inherited from the parent object of the list.

**tp_MaxMajorVersionCount**: If the list has versioning enabled, this field contains the number of major versions that will be retained for this document. All versions more than tp_MaxMajorVersionCount removed from the current version of the document are automatically removed at version creation time. A value of NULL specifies that versions MUST not automatically be removed for this list.

**tp_MaxMajorwithMinorVersionCount**: If the list has versioning enabled, this field contains the number of major versions that will have their associated minor versions retained for this document. All minor versions associated with a major version that is more than tp_MaxMajorwithMinorVersionCount removed from the current major version of the document are automatically removed at version creation time. A value of NULL specifies that versions MUST not automatically be removed for this list.

**tp_SendToLocation**: The title and URL for the "Send To Location" configured on this list. The SendToLocation is an implementation specific feature that allows users to manually save copies of list items and Documents to the remote location.

**tp_NoThrottleListOperations**: If the resource usage for list operations is to be limited, then this MUST be 1. Otherwise this MUST be 0.

**TitleResource**: The **resource token** or **resource identifier** of the title for the list.

**DescriptionResource**: The resource token or resource identifier of the description for the list.
**DataSource:** A string that MUST contain the XML fragment for the list data source. The schema of this fragment is specified in [MS-WSSDLIM2] section 2.2.8.3.1.

**ValidationFormula:** A string that is used to perform custom validation rules prior to the list being updated. If specified this MUST be an expression as specified by [MS-WSSTS] section 2.9 and MUST NOT be longer than 1024 characters.

**ValidationMessage:** A string that is suitable to display in a user interface when the list fails validation based on ValidationFormula.

**tp_ScopeId:** The identifier of the scope which contains the List.

### 3.1.4.26.2 List Web Parts Result Set

This Result Set MUST be returned.

The List Web Parts Result Set contains information about the Web Parts defined for the Lists to be exported. The List Web Parts Result Set MUST contain one row for each Web Part associated with the first 50 lists to be exported with export ordinals greater than `@LastOrdinal`, or if there are less than 50 lists with export ordinals greater than `@LastOrdinal`, all of them MUST be returned. This Result Set is ordered by the Web Part creation time in ascending order.

The List Web Parts Result Set is defined using T-SQL syntax, as follows:

```sql
    tp_ID                    uniqueidentifier,
    tp_ListID                uniqueidentifier,
    tp_Type                  tinyint,
    tp_Flags                 int,
    tp_Hidden                bit,
    tp_Threaded              bit,
    tp_FPModified            bit,
    tp_ReadOnly              bit,
    tp_Scope                 nvarchar(256),
    tp_RecurrenceRowset      bit,
    tp_ModerationType        nvarchar(256),
    tp_Personal              bit,
    tp_Ordered               bit,
    tp_DisplayName           nvarchar(255),
    tp_ContentTypeId         varbinary(512),
    tp_PageUrl               nvarchar(261),
    tp_BaseViewId            tinyint,
    tp_View                  ntext,
    tp_Level                 tinyint,
    tp_IsDefault             bit,
    tp_ExtendedProperties    nvarchar(255),
    tp_ZoneID                nvarchar(64),
    tp_IsIncluded            bit,
    tp_PartOrder             int,
    tp_FrameState            tinyint,
    tp_WebPartType          uniqueidentifier,
    Id                       uniqueidentifier,
    OnQuickLaunch            bit,
    tp_MobileView            bit,
    tp_ContentTypeDefault   bit,
    tp_FailIfEmpty           bit,
    tp_FreeForm              bit,
```
tp_ID: The identifier of the Web Part.

tp_ListID: The list identifier of the list.

tp_Type: The page type of this Web Part.

tp_Flags: A [MS-WSSFO2] section 2.2.2.12 value specifying View related settings for this Web Part.

tp_Hidden: This is 1 if the view MUST NOT be displayed in enumerations of the Views of this list (for example, in a View selector user interface element). Otherwise, this is 0.

tp_Themed: Threaded view for legacy discussion board lists (lists with a List Base Type, specified in [MS-WSSFO2] section 2.2.3.11, of 3). This is 1 if client implementations SHOULD display results in a threaded fashion, and paging of results SHOULD be done in terms of threads instead of by individual list items. Otherwise, this is 0.

tp_FPMModified: This is 1 if the View has been modified by a client application such that it might not be compatible with the browser-based interface for View modification. Otherwise, this is 0.

tp_ReadOnly: This is 1 if the view is read-only and implementations MUST not allow any modifications to its properties. Otherwise, this is 0.

tp_Scope: The web part scope, specified in section 2.2.1.2.

tp_RecurrenceRowset: This MUST be 1 if it is required that the View's data be expanded based on a recurring calendar event. For example, having a View of list item data for the first Thursday of every month. Otherwise, this MUST be 0.

tp_ModerationType: The web part moderation type, specified in section 2.2.1.1.

tp_Personal: This MUST be 0.

tp_Ordered: This MUST be 1 if the view displays list items based on the item order of the list (using the tp_ItemOrder column specified in section 3.1.4.30.1). Otherwise, this MUST be 0.

tp_DisplayName: The Display Name, for use in the user interface, defined for this list.

tp_ContentTypeId: A Content Type identifier value specifying the valid folder content type that this Web Part can be used to view. If this Web Part is not restricted to a particular content type, this value MUST be 0.

tp_PageUrl: The server-relative URL to the Document that contains this Web Part. It MUST begin with a slash. It MUST NOT end with a slash.

tp_BaseViewId: The base view identifier for the Web Part.

tp_View: A value containing implementation-specific XML used when processing this Web Part. If this Web Part is not a View, this MUST be NULL.

tp_Level: A Publishing Level value specifying the publishing status of the Web Part.
**tp_IsDefault**: This is 1 if the view is to be used as the default form for the corresponding list. Otherwise, this is 0.

**tp_WbPartIdProperty**: The optional identifier of the Web Part. If not NULL, it MUST be unique per document, MUST not begin with a number, and contain only a combination of alphanumeric characters and underscores.

**tp_ZoneId**: The name of a Web Part Zone.

**tp_IsIncluded**: The Web Part Is in the Closed state. This value MUST NOT be NULL.

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

**tp_FrameState**: The Web part chrome state of the Web Part. This value MUST NOT be NULL and MUST be one of the following:

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

**Tp_WbPartTypeId**: The identifier of the type of the Web part. MUST NOT be NULL.

**Id**: The identifier of the Document that contains this Web Part.

**OnQuickLaunch**: This MUST be 1 if the document is in the Site's Navigation Structure. Otherwise, this MUST be 0.

**tp_MobileView**: This MUST be 1 if the view is intended for display on mobile devices. Otherwise, this MUST be 0.

**tp_MobileDefaultView**: This MUST be 1 if the view MUST be displayed as the default View of this list when a mobile View is requested. Otherwise, this MUST be 0.

**tp_ContentTypeDefault**: This MUST be 1 if the view MUST be the default view presented when a View is requested for a particular Content Type. Otherwise, this MUST be 0.

**tp_LockWeb**: Value is unused and MUST be ignored.

**tp_FailIfEmpty**: If the query for this view returns no rows, implementations of the front-end Web server MUST return an HTTP 410 error when displaying this view as part of an HTTP request, instead of displaying a normal empty view body. See [RFC2068] section 10.4.11 for the specification of HTTP 410. See also flag VIEWFLAG_FAILIFEMPTY (0x00000040) in "View Flags" in [MS-WSSFO2] section 2.2.2.12.

**tp_FreeForm**: This MUST be 1 if data is presented in a fashion that is not tabular. Implementations SHOULD format results in a manner compatible with free-form presentation. Otherwise, this MUST be 0.

**tp_FileDialog**: This MUST be 1 if the View is suitable for displaying in an HTML-based file navigation dialog to client applications. Otherwise, this MUST be 0.

**tp_AggregationView**: This MUST be 1 if the View has functionality for aggregating data across multiple XML documents within an XML form library. Otherwise, this MUST be 0.
**tp_IncludeRootFolder:** This MUST be 1 if the View of a Folder MUST fetch the list item for the Folder of the view, in addition to the standard behavior of fetching all list items contained within it. Otherwise, this MUST be 0.

**tp_IncludeVersions:** This MUST be 1 if the View displays historical versions of list items. Otherwise, this MUST be 0.

**tp_AllUsersProperties:** A serialized representation of 0 or more customizable properties on the View. If this value is NULL, then default values will be used for all of the customizable properties on the View.

**tp_PerUserProperties:** A serialized representation of zero or more properties that can be personalized on the View for each user. If this value is NULL, then default values will be used for all of the properties that can be personalized on the View. The ability to personalize indicates a designation for a View property that can be modified for all users and for individual Users. Multiple values are maintained in the back-end database servers for this type of property: One value that is used for all users that have not yet modified the property for themselves, and one value for each user that has modified the property for themselves.

### 3.1.4.26.3 Event Receivers Result Set

This Result Set MUST be returned.

The Event Receivers Result Set contains information about the event receivers defined for the lists to be exported. The Event Receivers Result Set MUST contain one row for each event receiver. The event receivers in the Result Set MUST be registered with the first 50 lists to be exported with export ordinals greater than @LastOrdinal, or if there are less than 50 lists with export ordinals greater than @LastOrdinal, information about all of their event receivers MUST be returned. If @SiteId does not match an existing Site Collection, this Result Set MUST be empty.

The Event Receivers Result Set is defined using T-SQL syntax, as follows:

```sql
Id uniqueidentifier,
HostId uniqueidentifier,
WebId uniqueidentifier,
Name nvarchar(256),
HostType int,
ItemId int,
Synchronization int,
Type int,
SequenceNumber int,
Assembly nvarchar(256),
Class nvarchar(256),
SolutionId uniqueidentifier,
Data nvarchar(256),
Filter nvarchar(256),
Credential int;
```

**Id:** The identifier of the event receiver.

**HostId:** The identifier for the list on which the event receiver is registered.

**WebId:** The site identifier for the Site that contains the event receiver.

**Name:** The display name of the event receiver.
**HostType:** The identifier of the event host type, specified in [MS-WSSFO2] section 2.2.3.5, on which the event receiver is registered.

**ItemId:** This MUST be NULL.

**Synchronization:** An ordinal that determines whether the event receiver should be triggered synchronously or asynchronously.

**Type:** The identifier of the event receiver type, specified in [MS-WSSFO2] section 2.2.3.6, of the event tracked by the event receiver.

**SequenceNumber:** An ordinal that determines the order in which the event receiver is triggered. SequenceNumber MUST be greater than OR equal to 0 AND less than OR equal to 65535.

**Assembly:** The name of the .NET assembly that contains the class definition of the event receiver.

**Class:** The fully qualified name of the .NET class definition for the event receiver.

**SolutionId:** The identifier of the solution that installed the event receiver.

**Data:** Additional Unicode data persisted on behalf of the event receiver implementation to be passed to the event receiver.

**Filter:** Reserved. A client MUST NOT use Filter.

**Credential:** Reserved. A client MUST NOT use Credential.

### 3.1.4.26.4 Deleted Fields Result Set

This Result Set MUST ONLY be returned if @IsIncremental is 1.

The Deleted Fields Result Set returns information about the Fields marked as deleted from the lists to be exported. The Deleted Fields Result Set will return the deleted Fields associated with the first 50 lists to be exported with export ordinals greater than @LastOrdinal, or if there are less than 50 lists with export ordinals greater than @LastOrdinal, all of them MUST be returned.

The Deleted Fields Result Set is defined using T-SQL syntax, as follows:

```sql
ListId uniqueidentifier,
FieldId uniqueidentifier;
```

**ListId:** The list identifier of the list that contained the deleted Field.

**FieldId:** The Field identifier of the deleted Field.

### 3.1.4.26.5 Deleted Views Result Set

This Result Set MUST ONLY be returned if @IsIncremental is 1.

The Deleted Views Result Set returns information about the Views marked as deleted from the lists to be exported. The Deleted Views Result Set will return the deleted Views associated with the first 50 lists to be exported with export ordinals greater than @LastOrdinal, or if there are less than 50 lists with export ordinals greater than @LastOrdinal, all of them MUST be returned.

The Deleted Views Result Set is defined using T-SQL syntax, as follows:
ListId      uniqueidentifier,
ViewId      uniqueidentifier;

**ListId**: The list identifier of the list that contained the deleted View.

**ViewId**: The View identifier of the deleted View.

### 3.1.4.26.6 Deleted Content Types Result Set

This Result Set MUST ONLY be returned if @IsIncremental is 1.

The Deleted Content Types Result Set returns information about the Content Types marked as deleted from the lists to be exported. The Deleted Content Types Result Set will return the deleted Content Types associated with the first 50 lists to be exported with export ordinals greater than @LastOrdinal, or if there are less than 50 lists with export ordinals greater than @LastOrdinal, all of them MUST be returned.

The Deleted Content Types Result Set is defined using T-SQL syntax, as follows:

```
ListId      uniqueidentifier,
ContentTypeId      varbinary(512);
```

**ListId**: The list identifier of the list that contained the deleted Content Type.

**ContentTypeId**: The content type identifier of this Content Type.

### 3.1.4.26.7 Null List Result Set

This Result Set MUST ONLY be returned if @IsIncremental is not 1.

The Null List Result Set is a placeholder that MUST have 0 rows. The Null List Result Set is defined using T-SQL syntax, as follows:

```
ListId      uniqueidentifier,
FieldId     uniqueidentifier;
```

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

**FieldId**: The Field identifier of the Field.

### 3.1.4.26.8 Null List Result Set Two

This Result Set MUST ONLY be returned if @IsIncremental is not 1.

The Null List Two Result Set is a placeholder that MUST have 0 rows. The Null List Two Result Set is defined using T-SQL syntax, as follows:

```
ListId      uniqueidentifier,
ViewId      uniqueidentifier;
```

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

**ViewId**: The View identifier of the view.
3.1.4.26.9  Null List Result Set Three

This Result Set MUST ONLY be returned if @IsIncremental is not 1.

The Null List Three Result Set is a placeholder that MUST have 0 rows. The Null List Three Result Set is defined using T-SQL syntax, as follows:

```
ListId               uniqueidentifier,
{ContentTypeId}      varbinary(512);
```

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

**{ContentTypeId}**: The content type identifier of the Content Type.

3.1.4.26.10  List User Custom Actions Result Set

This Result Set MUST be returned if @IsIncremental is not 1.

The List Custom Action Result Set contains information about the custom actions defined for the lists to be exported. The List User Custom Actions Result Set MUST contain one row for each unique custom action. The user custom actions in the Result Set MUST be registered with the first 50 lists to be exported with export ordinals greater than @LastOrdinal, or if there are less than 50 lists with export ordinals greater than @LastOrdinal, information about all of their custom actions MUST be returned. If @SiteId does not match an existing Site Collection, this Result Set MUST be empty.

The List Custom Action Result Set is defined using T-SQL syntax, as follows:

```
Id            uniqueidentifier,
ScopeId       uniqueidentifier,
Properties    nvarchar(max),
Version       nvarchar(64);
```

**Id**: The identifier of the user custom action.

**ScopeId**: The identifier of the List.

**Properties**: The custom action data describing its functionality.

**Version**: The custom action version.

3.1.4.26.11  List Unique Resources Result Set

This Result Set MUST be returned.

The List Unique Resource Result Set contains information about the unique resources defined for the lists to be exported. The List Unique Resource Result Set MUST contain one row for each unique resource. The unique resources in the Result Set MUST be registered with the first 50 lists to be exported with export ordinals greater than @LastOrdinal, or if there are less than 50 lists with export ordinals greater than @LastOrdinal, information about all of their unique resources MUST be returned. If @SiteId does not match an existing Site Collection, this Result Set MUST be empty.

The List Unique Resources Result Set is defined using T-SQL syntax, as follows:

```
ListId          uniqueidentifier,
ResourceName    nvarchar(256),
```

[MS-WSSDM2] — v20120630
Windows SharePoint Services: Content Database Data Migration Communications Version 2 Protocol Specification

Copyright © 2012 Microsoft Corporation.

Release: July 16, 2012
BitType: The list identifier of the List.

ResourceName: The name of the resource.

BitType: Specifies whether the resource string is a single line string or multi-line string. If its value is 0, the resource string is a single line. If its value is 1, the resource string is a multi-line string. It MUST NOT be NULL.

3.1.4.26.12 List All Resources Result Set

This Result Set MUST be returned.

The List All Resource Result Set contains information about all the resources defined for the lists to be exported. The List All Resource Result Set MUST contain one row for each resource. The all resources in the Result Set MUST be registered with the first 50 lists to be exported with export ordinals greater than @LastOrdinal, or if there are less than 50 lists with export ordinals greater than @LastOrdinal, information about all of their resources MUST be returned. If @SiteId does not match an existing Site Collection, this Result Set MUST be empty.

The List All Resources Result Set is defined using T-SQL syntax, as follows:

```
ListId              uniqueidentifier,
ResourceName        nvarchar(256),
BitDirty            bit,
LCID                int,
NvarcharVal         nvarchar(256),
NtextVal            nvarchar(max);
```

ListId: The list identifier of the List.

ResourceName: The name of the resource.

BitDirty: This bit column indicates if the resource is dirty.

LCID: The Language Code Identifier (LCID) for the resource string.

NvarcharVal: The value of the user resource string to be added when the BitType is 0. If the BitType is 1, it MUST be NULL.

NtextVal: The value of the user resource string to be added when the BitType is 1. If the BitType is 0, it MUST be NULL.

3.1.4.27 proc_DeplGetListItemAndReserveId

The proc_DeplGetListItemAndReserveId stored procedure is called to determine if a Document already exists in a list, and if not, reserve an identifier for adding a new Document.

proc_DeplGetListItemAndReserveId is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplGetListItemAndReserveId(  
    @SiteId                   uniqueidentifier,  
    @ListId                   uniqueidentifier,  
    @IsListItem               bit,  
    @DocId                    uniqueidentifier OUTPUT,
```
@IsDeleted: When proc_DeplGetListItemAndReserveId returns, this MUST output 1 if the Document is marked for deletion in the Recycle Bin. Otherwise, the output MUST be 0.

@ListItemId: If the Document exists, proc_DeplGetListItemAndReserveId MUST output in @ListItemId the list item identifier of the row in the document library which represents this Document. If the Document does not exist, proc_DeplGetListItemAndReserveId MUST output the next available identifier reserved by proc_DeplGetListItemAndReserveId.

@WebId: The site identifier for the Site to operate on.

@OriginalListItemId: If the list item does not exist and @OriginalListItemId is not already used as a list item identifier in this list, then proc_DeplGetListItemAndReserveId MUST reserve @OriginalListItemId as a list item identifier and the output of @ListItemId MUST be @OriginalListItemId. If the list item does exist or if @OriginalListItemId is already in use, this MUST be ignored.

@IsIdTaken: If the identifier specified in @OriginalListItemId is already being used as the identifier of a list item, output 1. Otherwise, output 0.

@ListItemUrl: Either @DocId or @ListItemUrl MUST have a valid input value to get a valid output for @DocId and @ListItemUrl. If the input value of @ListItemUrl does not match the identifier of an existing Document, the output value of @DocId MUST be the identifier of the Document referred to by the input value of @ListItemUrl. Otherwise, the output value of @DocId MUST be the same as the input value of @DocId.

@DeleteRecycleBinItems: If this is 1, the Document exists, and the Document is marked for deletion, the Document and all items deleted in the same transaction MUST be emptied from the Recycle Bin. If the Document is removed from the Recycle Bin, @IsDeleted MUST have output 0. If @DeleteRecycleBinItems is 0, the Recycle Bin MUST NOT be emptied.

@RequestGuid: The optional request identifier for the current request.
**Return Code Values:** An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The document does not exist or is in the Recycle Bin.</td>
</tr>
<tr>
<td>1</td>
<td>The document already exists.</td>
</tr>
<tr>
<td>87</td>
<td>@SiteId is NULL or @ListId is NULL.</td>
</tr>
</tbody>
</table>

**Result Sets:** MUST NOT return any result sets.

### 3.1.4.28 `proc_DeplGetListItemByDocId`  

The `proc_DeplGetListItemByDocId` Stored Procedure is called to retrieve information about a Document in a list. `proc_DeplGetListItemByDocId` is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetListItemByDocId(
    @SiteId               uniqueidentifier,
    @ListId               uniqueidentifier,
    @DocId                uniqueidentifier,
    @IsDeleted            bit OUTPUT,
    @ListItemId           int OUTPUT,
    @RequestGuid          uniqueidentifier = NULL OUTPUT
);
```

- **@SiteId:** The site collection identifier for the **Site Collection** containing this Document.
- **@ListId:** The list identifier for the list containing this Document.
- **@DocId:** The document identifier of the Document.
- **@IsDeleted:** Outputs 1 if the Document is marked for deletion. Otherwise, outputs 0.
- **@ListItemId:** Outputs the list item identifier of the row in the Document library. If `@SiteId`, `@ListId`, or `@DocId` do not match any existing objects, the output value of `@ListItemId` MUST be the same as its input value.
- **@RequestGuid:** The optional request identifier for the current request.

**Result Sets:** MUST NOT return any result sets.

### 3.1.4.29 `proc_DeplGetListItemByUrl`  

The `proc_DeplGetListItemByUrl` Stored Procedure is called to retrieve information about a list item based on its Directory Name and Leaf Name. `proc_DeplGetListItemByUrl` is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetListItemByUrl(
    @SiteId            uniqueidentifier,
    @ListId            uniqueidentifier,
    @DirName           nvarchar(256),
    @LeafName          nvarchar(128),
    @IsDeleted         bit OUTPUT,
);
```

- **@SiteId:** The site collection identifier for the **Site Collection** containing this Document.
- **@ListId:** The list identifier for the list containing this Document.
- **@DirName:** The Directory Name.
- **@LeafName:** The Leaf Name.
- **@IsDeleted:** Outputs 1 if the Document is marked for deletion. Otherwise, outputs 0.

**Result Sets:** MUST NOT return any result sets.
@ListItemId: The site collection identifier for the Site Collection containing this list.

@ListId: The list identifier for the list containing this list item.

@DirName: The Directory Name of the list item.

@LeafName: The Leaf Name of the list item.

@IsDeleted: Outputs 1 if the list item is marked for deletion. Otherwise, outputs 0.

@ListItemId: The list item identifier of the row in the list which represents this list item. If the list item is not found, the output value of @ListItemId MUST be the same as its input value.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST NOT return any result sets.

3.1.4.30 proc_DeplGetListItemData

The proc_DeplGetListItemData stored procedure is called to return information about the list items to be processed during an export operation. proc_DeplGetListItemData is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetListItemData(
    @SiteId uniqueidentifier,
    @LastOrdinal int,
    @VersionSetting int,
    @ListId uniqueidentifier,
    @Columns nvarchar(1700),
    @IsSolutionGallery bit = 1,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection containing the list items.

@LastOrdinal: All list items returned MUST have export ordinals greater than @LastOrdinal. When calling proc_DeplGetListItemData for the first time, set @LastOrdinal to 0. When calling proc_DeplGetListItemData to retrieve more data, set @LastOrdinal to the largest Ordinal value returned in the previous call.

@VersionSetting: If this is 1, proc_DeplGetListItemData MUST return only current information with a Publishing Level of Published. If this is 4, proc_DeplGetListItemData MUST return data for all versions, except data about versions with a Publishing Level of Checked Out. For all other values, proc_DeplGetListItemData MUST return current version data, except data about versions with a Publishing Level of Checked Out.

@ListId: The list identifier for the list containing the list items.

@Columns: A comma-separated list of application-defined fields in the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3, to return in the Result Set. These are the columns marked as
nvarchar#, ntext#, sql_variant#, int#, float#, datetime#, bit#, and uniqueidentifier1 in the
description of AllUserData Table. Example: 'ntext1, ntext3, int10'.

@IsSolutionGallery: The optional parameter that MUST be either 0 or 1. When set to 1, @ListId is
the identifier for the solution gallery list. When set to 0, @ListId is not the identifier for the
solution gallery list.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return ten result sets in the following order:

3.1.4.30.1 List Item Data Result Set

The List Item Data Result Set returns information about the current version of list items to be
exported. The List Item Data Result Set MUST contain one row for each of the first 200 list items
with export ordinals greater than @LastOrdinal, or one row for each list item that remains to be
exported, whichever is smaller. Information about versions with a Publishing Level of Checked Out
MUST NOT be returned.

The List Item Data Result Set is defined using T-SQL syntax, as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>ExportObjectUrl</td>
<td>nvarchar(260),</td>
</tr>
<tr>
<td>Ordinal</td>
<td>int,</td>
</tr>
<tr>
<td>ParentId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>DirName</td>
<td>nvarchar(256),</td>
</tr>
<tr>
<td>LeafName</td>
<td>nvarchar(128),</td>
</tr>
<tr>
<td>IntId</td>
<td>int,</td>
</tr>
<tr>
<td>tp_RowOrdinal</td>
<td>int,</td>
</tr>
<tr>
<td>tp_UIVersion</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Author</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Editor</td>
<td>int,</td>
</tr>
<tr>
<td>tp_Modified</td>
<td>datetime,</td>
</tr>
<tr>
<td>tp_Created</td>
<td>datetime,</td>
</tr>
<tr>
<td>tp_Ordering</td>
<td>varchar(512),</td>
</tr>
<tr>
<td>tp_HasAttachment</td>
<td>bit,</td>
</tr>
<tr>
<td>tp_ModerationStatus</td>
<td>int,</td>
</tr>
<tr>
<td>tp_IsCurrent</td>
<td>bit,</td>
</tr>
<tr>
<td>tp_ItemOrder</td>
<td>float,</td>
</tr>
<tr>
<td>tp_InstanceID</td>
<td>int,</td>
</tr>
<tr>
<td>tp_CopySource</td>
<td>nvarchar(260),</td>
</tr>
<tr>
<td>tp_HasCopyDestinations</td>
<td>bit,</td>
</tr>
<tr>
<td>tp_AuditFlags</td>
<td>int,</td>
</tr>
<tr>
<td>tp_InheritAuditFlags</td>
<td>int,</td>
</tr>
<tr>
<td>tp_ContentTypeId</td>
<td>varbinary(512),</td>
</tr>
<tr>
<td>tp_ThreadIndex</td>
<td>varbinary(512),</td>
</tr>
<tr>
<td>tp_UIVersionString</td>
<td>nvarchar(61),</td>
</tr>
<tr>
<td>Id</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>Type</td>
<td>tinyint,</td>
</tr>
<tr>
<td>FolderId</td>
<td>uniqueidentifier,</td>
</tr>
<tr>
<td>ProgId</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>SortBehavior</td>
<td>tinyint,</td>
</tr>
<tr>
<td>Acl</td>
<td>image,</td>
</tr>
<tr>
<td>UserLoginName</td>
<td>nvarchar(255),</td>
</tr>
<tr>
<td>GroupName</td>
<td>nvarchar(255),</td>
</tr>
</tbody>
</table>
Id: Identifier of the list item that is used by the export process.

ExportObjectUrl: The full Store-Relative Form URL for the list item.

Ordinal: An identifier of the list item that is a number used with the @LastOrdinal parameter. All rows returned MUST have an ordinal value greater than @LastOrdinal. The ordinals of all rows returned MUST be in ascending order.

ParentId: The identifier of the list containing this list item.

DirName: The Directory Name of the list item.

LeafName: The Leaf Name of the list item.

IntId: The identifier for the list item, uniquely identifying it within the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.

tp_RowOrdinal: The zero-based ordinal index of this row in the set of rows representing the list item. Additional rows are used to represent list items which have more application-defined columns of one or more data types than can fit in a single row in the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3. This Result Set MUST contain only rows with tp_RowOrdinal equal to 0.

tp_UIVersion: The user interface (UI) version number associated with this list item. The default value of tp_UIVersion is 512, which corresponds to a displayed version of 1.0.

tp_Author: The User identifier for the user who created the list item.

tp_Editor: The User identifier for the user who last edited the list item.

tp_Modified: A date/time value in UTC specifying when this list item was last modified.

tp_Created: A date/time value in UTC specifying when this list item was created.

tp_Ordering: A concatenation of timestamp values in yyyyMMddHHmmss (year, month, day, hour, minute, second) format, specifying the threading structure of the list items in a legacy discussion board list (a list with a List Base Type, specified in [MS-WSSFO2] section 2.2.3.11, of 3). For list items in all other types of lists, this parameter MUST be NULL.

tp_HasAttachment: A bit set to 1 if the list item has an attachment associated with it, otherwise set to 0.

tp_ModerationStatus: A moderation status value indicating the current moderation approval status of the list item.

tp_IsCurrent: A bit set to 1 if this is a current version of this list item, otherwise set to 0.

tp_ItemOrder: A value used to calculate the relative order in which to view the list item when displayed with other list items from the same list.

tp_InstanceID: If this list item is associated with a particular instance of a recurring meeting, this is the integer identifier of that instance. For all other list items, this MUST be NULL.

_tp_Copysource: The URL used as a source for the list item. If this list item is not copied from a source list item, this value MUST be NULL.
tp_HasCopyDestinations: This bit is set to 1 if destination locations for the list item to be copied have been set. This bit is set to 0, if the list item does not have a destination location set. This is NULL, if the list item never had a destination location.

tp_AuditFlags: An audit flags value determining the operations to be tracked on this list item.

tp_InheritAuditFlags: An audit flags value for the operations to be tracked on this list item, as determined from parent container audit flags settings.

tp_ContentTypeId: The binary identifier of the Content Type associated with the list item.

tp_ThreadIndex: A binary structure specifying the list item's position within a legacy discussion board list (a list with a List Base Type, specified in [MS-WSSFO2] section 2.2.3.11, of 3). For list items in all other types of list, this parameter MUST be NULL.

tp_UIVersionString: A calculated column containing the value of the tp_UIVersion column as a displayed version string.

Id: The identifier of the Document associated with this list item.

Type: An integer identifier specifying the Document Store Type, specified in [MS-WSSFO2] section 2.2.2.4, of the Document.

FolderId: The document identifier of the Document's parent container.

ProgId: Designates a preferred Application to open the Document.

SortBehavior: This value MUST be ignored.

Acl: The binary serialization of the WSS ACL Format access control list, specified in [MS-WSSFO2] section 2.2.4.6, for this Document. This is either explicitly defined or inherited from the parent object.

UserLoginName: If @ListId is the identifier of the user information list and the list item is a user, then UserLoginName MUST be the Login Name for the security principal. Otherwise, this MUST be NULL.

GroupName: If @ListId is the identifier of the user information list and the list item is a group, then GroupName MUST be the name of the group. Otherwise, this MUST be NULL.

tp_Level: A Publishing Level value specifying the publishing status of this version of the list item.

3.1.4.30.2 Field Data Result Set

The Field Data Result Set returns Field data for the current versions of the list items in the specified list. If @VersionSetting is 1, only list item information with a Publishing Level of Published will be returned. Otherwise, data for one instance of each unique list item will be returned, except information about versions with a Publishing Level of Checked Out.

The Field Data Result Set MUST return the first 200 list items with export ordinals greater than @LastOrdinal, or all the remaining list items with export ordinals greater than @LastOrdinal, whichever is less. The Field Data Result Set is defined using T-SQL syntax, as follows:

```
Id                                uniqueidentifier,
IntId                             int,
Id                                uniqueidentifier,
Id                                uniqueidentifier,
```
tp_UIVersionString nvarchar(61),
tp_RowOrdinal int,
<Fields specified by @Columns> types will vary,
 tp_Level tinyint;

Id: Identifier used by the export process to refer to the list item.

IntId: The identifier for the list item, uniquely identifying it within the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.

Id: The identifier of the Document associated with this list item.

tp_UIVersion: The user interface (UI) version number associated with this list item. The default value of tp_UIVersion is 512, which corresponds to a displayed version of 1.0.

tp_UIVersionString: A calculated column containing the value of the tp_UIVersion column as a displayed version string.

tp_RowOrdinal: The zero-based ordinal index of this row in the set of rows representing the list item. Additional rows are used to represent list items which have more application-defined columns of one or more data types than can fit in a single row in the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.

<Fields specified by @Columns>: This part of the Result Set MUST contain one column for each column specified in the @Columns parameter. The data returned will be from the application-defined fields of the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3, that matches the names specified in the @Columns parameter.

tp_Level: A publishing level value specifying the publishing status of this version of the list item.

3.1.4.30.3 Multi Lookup Result Set

The Multi Lookup Result Set returns the current version of the information about list items that lookup multiple values in another list. If @VersionSetting is 1, only list item information with a Publishing Level of Published will be returned. Otherwise, data for one instance of each unique list item will be returned, except information about versions with a Publishing Level of Checked Out.

The Multi Lookup Result Set will return information about the first 200 list items to be exported with Export Ordinals greater than @LastOrdinal, or if there are less than 200 list items with Export Ordinals greater than @LastOrdinal, information about all of them MUST be returned. The Result Set MUST be ordered by the Export Ordinal, then tp_FieldId, and then tp_Ordinal. The Multi Lookup Result Set is defined using T-SQL syntax, as follows:

    Id uniqueidentifier,
    tp_FieldId uniqueidentifier,
    IntId int,
    tp_UIVersion int,
    tp_Level tinyint,
    tp_Ordinal int;

Id: The identifier used by the Export Operation to refer to the list item.

.tp_FieldId: The identifier of the Field with the multi-value lookup.
**IntId:** The identifier in the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3, for the list item containing the data being looked up.

**tp_UIVersion:** The user interface (UI) version number. The default value of tp_UIVersion is 512, which corresponds to a displayed version of 1.0.

**tp_Level:** A **Publishing Level** value specifying the publishing status of this version of the list item.

**tp_Ordinal:** Ordinal number used to determine the ordering of the values returned in the IntId column.

### 3.1.4.30.4 List Item Versions Result Set

The List item Versions Result Set returns information about the list items to be exported. If @VersionSetting is 4, information about all versions of the list items will be returned. Otherwise, only information about the current version will be returned. Information about versions of list items with a Publishing Level of Checked Out MUST NOT be returned. The List Item Versions Result Set MUST return the first 200 list items with Export Ordinals greater than @LastOrdinal, or if there are less than 200 list items with Export Ordinals greater than @LastOrdinal, information about all of the remaining list items MUST be returned. The Result Set must be ordered first by the Export Ordinal, and then tp_UIVersion. The List Item Versions Result Set is defined using T-SQL syntax, as follows:

```sql
Id                        uniqueidentifier,
ExportObjectUrl           nvarchar(260),
Ordinal                   int,
ParentId                  uniqueidentifier,
DirName                   nvarchar(256),
LeafName                  nvarchar(128),
IntId                     int,
{tp_RowOrdinal}            int,
{tp_UIVersion}            int,
{tp_Author}               int,
{tp_Editor}               int,
{tp_Modified}             datetime,
{tp_Created}              datetime,
{tp_Ordering}             varchar(512),
{tp_HasAttachment}        bit,
{tp_ModerationStatus}     int,
{tp_IsCurrent}            bit,
{tp_ItemOrder}            float,
{tp_InstanceID}           int,
{tp_CopySource}           nvarchar(260),
{tp_HasCopyDestinations}  bit,
{tp_AuditFlags}           int,
{tp_InheritAuditFlags}    int,
{tp_ContentTypeId}        varbinary(512),
{tp_ThreadIndex}          varbinary(512),
{tp_UIVersionString}      nvarchar(61),
{Id}                      uniqueidentifier,
{Type}                    tinyint,
{FolderPath}              uniqueidentifier,
{ProgId}                  nvarchar(255),
{Acl}                      image,
{GroupName}               nvarchar(255),
{UserName}                nvarchar(255),
{tp_Level}                tinyint;
```
**Id:** Identifier used by the Export Operation to refer to the list item.

**ExportObjectUrl:** The full Store-Relative Form URL for the list item.

**Ordinal:** The Export Ordinal of the list item. All rows returned MUST have an ordinal value greater than @LastOrdinal.

**ParentId:** The identifier of the list containing this list item.

**DirName:** The Directory Name of the list item.

**LeafName:** The Leaf Name of the list item.

**IntId:** The identifier for the list item, uniquely identifying it within the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.

**tp_RowOrdinal:** The zero-based ordinal index of this row in the set of rows representing the list item. Additional rows are used to represent list items which have more application-defined columns of one or more data types than can fit in a single row in the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.

**tp_UIVersion:** The user interface (UI) version number associated with this list item. The default value of tp_UIVersion is 512, which corresponds to a displayed version of 1.0.

**tp_Author:** The User identifier for the user who created the list item.

**tp_Editor:** The User identifier for the user who last edited the list item.

**tp_Modified:** The time value in UTC specifying when this list item was last modified.

**tp_Created:** The time value in UTC specifying when this list item was created.

**tp_Ordering:** A concatenation of timestamp values in yyyyMMddHHmmss format (year, month, day, hour, minute, second), specifying the threading structure of the list items in a legacy discussion board list (a list with a List Base Type, specified in [MS-WSSFO2] section 2.2.3.11, of 3). For list items in all other types of list, this parameter MUST be NULL.

**tp_HasAttachment:** This MUST be 1 if the list item has an attachment associated with it, otherwise this MUST be 0.

**tp_ModerationStatus:** A moderation status value indicating the current moderation approval status of the list item.

**tp_IsCurrent:** This MUST be 1 if this is a current version of this list item, otherwise this MUST be 0.

**tp_ItemOrder:** A value used to calculate the relative order in which to view the list item when displayed with other list items from the same list.

**tp_InstanceID:** If this list item is associated with a particular instance of a Recurring Meeting, this is the integer identifier of that instance. For all other list items, this MUST be NULL.

**tp_CopySource:** The URL used as a source for the list item. If this list item is not copied from a source list item, this value MUST be NULL.

**tp_HasCopyDestinations:** This is set to 1 if destination locations for the list item to be copied to have been set. This is set to 0 if the list item does not have a destination location set. This is NULL if the list item never had a destination location.
tp_AuditFlags: An audit flags value determining the operations to be tracked on this list item.

tp_InheritAuditFlags: An audit flags value for the operations to be tracked on this list item, as determined from parent container audit flags settings.

tp_ContentTypeId: The binary identifier of the Content Type associated with the list item.

{tp_ThreadId}: This value MUST be NULL and MUST be ignored.

tp_UIVersionString: A calculated column containing the value of the tp_UIVersion column as a Displayed Version string.

{Id}: This value MUST be NULL and MUST be ignored.

{Type}: This value MUST be NULL and MUST be ignored.

{FolderId}: This value MUST be NULL and MUST be ignored.

{ProgId}: This value MUST be NULL and MUST be ignored.

{SortBehavior}: This value MUST be NULL and MUST be ignored.

{Acl}: This value MUST be NULL and MUST be ignored.

{UserLoginName}: This value MUST be NULL and MUST be ignored.

{GroupName}: This value MUST be NULL and MUST be ignored.

tp_Level: A Publishing Level value specifying the publishing status of this version of the list item.

3.1.4.30.5 Versions Fields Data Result Set

The Versions Fields Data Result Set returns Field data for the list items to be exported. If @VersionSetting is 4, information about all versions of the list items will be returned. Otherwise, only information about the current version will be returned. The Result Set MUST NOT contain information for versions of list items that have a Publishing Level of Checked Out.

The Versions Fields Data Result Set MUST return the first 200 list items with Export Ordinals greater than @LastOrdinal, or if there are less than 200 list items with Export Ordinals greater than @LastOrdinarl, information about all of them MUST be returned. The Result Set MUST be ordered first by the Export Ordinal, and then tp_UIVersion. The Versions Fields Data Result Set is defined using T-SQL syntax, as follows:

```
Id                                  uniqueidentifier,
IntId                               int,
DocId                               uniqueidentifier,
 tp_UIVersion                       int,
 tp_UIVersionString                 nvarchar(61),
 tp_RowOrdinal                      int,
<Fields specified by @Columns>      <types will vary>,
 tp_Level                           tinyint;
```

Id: The identifier used by the Export Operation to refer to the list item.

IntId: The identifier for the list item uniquely identifying it within the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.
**DocId**: The document identifier of the Document associated with this list item.

**tp/UIVersion**: The user interface (UI) version number associated with this list item. The default value of tp/UIVersion is 512, which corresponds to a Displayed Version of 1.0.

**tp/UIVersionString**: A calculated column containing the value of the tp/UIVersion column as a Displayed Version string.

**tp/RowOrdinal**: The zero-based ordinal index of this row in the set of rows representing the list item. Additional rows are used to represent list items which have more application-defined columns of one or more data types than can fit in a single row in the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.

**<Fields specified by @Columns>**: This part of the Result Set MUST contain one column for each column specified in the @Columns parameter. The data returned will be from the application-defined fields of the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3 that matches the names specified in the @Columns parameter.

**tp/Level**: A Publishing Level value specifying the publishing status of this version of the list item.

### 3.1.4.30.6 Versions Multi Lookup Result Set

The Versions Multi Lookup Result Set returns the information about list items that lookup multiple values in another list. If @VersionSetting is 4, information about all versions of the list items MUST be returned. Otherwise, only information about the current version will be returned. The Result Set MUST NOT contain information for versions of list items that have a Publishing Level of Checked Out.

The Versions Multi Lookup Result Set will return information about the first 200 list items to be exported with Export Ordinals greater than @LastOrdinal, or if there are less than 200 list items with Export Ordinals greater than @LastOrdinal, information about all of them MUST be returned. The Result Set MUST be ordered by the Export Ordinal, then tp/FieldId, and then tp/Ordinal. The Versions Multi Lookup Result Set is defined using T-SQL syntax, as follows:

```
Id                    uniqueidentifier,
DocId                 uniqueidentifier,
tp/FieldId            uniqueidentifier,
IntId                 int,
tp/UIVersion          int,
tp/Level              tinyint,
tp/Ordinal            int;
```

**Id**: The identifier used by the Export Operation to refer to the list item.

**DocId**: The document identifier of the Document associated with the list item containing the lookup.

**tp/FieldId**: The identifier of the Field with the multi-value lookup.

**IntId**: The identifier in the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3, for the list item containing the data being looked up.

**tp/UIVersion**: The user interface (UI) version number. The default value of tp/UIVersion is 512, which corresponds to a Displayed Version of 1.0.

**tp/Level**: A Publishing Level value specifying the publishing status of this version of the list item.
**tp_Original**: Ordinal number used to determine the ordering of the values returned in the IntId column.

### 3.1.4.30.7 List Item Links Result Set

The List Item Links Result Set returns information about the links, in server-relative form, in the list items to be exported. If @VersionSetting is 1, only list item information with a Publishing Level of Published will be returned. Otherwise, data for all versions of list item information with a Publishing Level that is not Checked Out will be returned.

The List Item Links Result Set will return information for the first 200 list items with export ordinals greater than @LastOrdinal, or all list items with export ordinals greater than @LastOrdinal, whichever is less. The List Item Links Result Set is defined using T-SQL syntax, as follows:

```
Id                 uniqueidentifier,
{TargetDocId}      uniqueidentifier,
TargetUrl          nvarchar(261) ,
WebPartId          uniqueidentifier,
LinkNumber         int,
Type               tinyint,
Security           tinyint,
Dynamic            tinyint,
ServerRel          bit,
Level              tinyint,
Search             ntext;
```

**Id**: Identifier used by the Export Operation to refer to the list item.

**{TargetDocId}**: The identifier of the Document that the link points to. If the Document is not found, a new identifier will be generated.

**TargetUrl**: Server-relative URL of the link. This MUST begin with a slash.

**WebPartId**: The identifier of the Web Part containing the link.

**LinkNumber**: An ordinal value denoting the relative order of this hyperlink within the source of the Document, Web Part, or Field being processed.

**Type**: Type of the link. These values are specified in [MS-WSSDLIM2] section 3.1.4.8.

**Security**: A one byte (tinyint) value represented as a single upper case ASCII character specifying the Link's type of URL. These values are specified in [MS-WSSDLIM2] section 3.1.4.8.

**Dynamic**: A one byte (tinyint) value represented as a single upper case ASCII character which tracks various special Link Types. These values are specified in [MS-WSSDLIM2] section 3.1.4.8.

**ServerRel**: This value MUST be 1.

**Level**: The Publishing Level of this version of the Document.

**Search**: Search parameters for forward links. The link source starts at either the query string signifier '?' or the bookmark signifier '#'.

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[MS-WSSDM2] — v20120630
Windows SharePoint Services: Content Database Data Migration Communications Version 2 Protocol Specification

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3.1.4.30.8 Attachments Result Set

The Attachments Result Set returns information about the attachments in the specified list items to export. This Result Set MUST only be returned if @ListId matches an existing list identifier and the Document associated with the list's URL can be found. The Attachments Result Set MUST return information for the first 200 list items with Export Ordinal values greater than @LastOrdinal, or all list items with Export Ordinal values greater than @LastOrdinal, whichever is less. The Result Set MUST be ordered by Export Ordinal. The Attachments Result Set is defined using T-SQL syntax, as follows:

```
ListItemId          uniqueidentifier,
DocId               uniqueidentifier,
WebId               uniqueidentifier,
ListId              uniqueidentifier,
ScopeId             uniqueidentifier,
MetaInfo            varbinary(max),
TimeCreated         datetime,
TimeLastModified    datetime,
Size                int,
DirName             nvarchar(256),
LeafName            nvarchar(128),
Url                 nvarchar(260);
```

**ListItemId:** The list item identifier of the list item that's used by the export process.

**DocId:** The document identifier of the Document.

**WebId:** The site identifier for the Site containing this Document.

**ListId:** The list identifier of the list containing the Document.

**ScopeId:** The identifier of the Scope which contains the Document.

**MetaInfo:** A Metadict for the Document. The Metadict format is specified in [MS-FPSE] section 2.2.2.5.3.

**TimeCreated:** Date/time value in UTC specifying when this Document was created.

**TimeLastModified:** A datetime containing a timestamp in UTC specifying when the Document was last saved. This value does not necessarily correspond to the actual time when the Document was last modified.

**Size:** The number of bytes in the Document Stream.

**DirName:** The Directory Name of the Document.

**LeafName:** The Leaf Name of the Document.

**Url:** The full Store-Relative Form URL for the specified Document.

3.1.4.30.9 Missing List Result Set

The Missing List Result Set MUST only be returned if @ListId does not match an existing list identifier or if the Document associated with the list's URL cannot be found.

The Missing List Result Set is a placeholder that MUST have 0 rows. The Missing List Result Set is defined using T-SQL syntax, as follows:

```
ListItemId          uniqueidentifier,
DocId               uniqueidentifier,
WebId               uniqueidentifier,
ListId              uniqueidentifier,
ScopeId             uniqueidentifier,
TimeCreated         datetime,
TimeLastModified    datetime,
Size                int,
DirName             nvarchar(256),
LeafName            nvarchar(128),
Url                 nvarchar(260);
```

**ListItemId:** The list item identifier of the list item that's used by the export process.

**DocId:** The document identifier of the Document.

**WebId:** The site identifier for the Site containing this Document.

**ListId:** The list identifier of the list containing the Document.

**ScopeId:** The identifier of the Scope which contains the Document.

**TimeCreated:** Date/time value in UTC specifying when this Document was created.

**TimeLastModified:** A datetime containing a timestamp in UTC specifying when the Document was last saved. This value does not necessarily correspond to the actual time when the Document was last modified.

**Size:** The number of bytes in the Document Stream.

**DirName:** The Directory Name of the Document.

**LeafName:** The Leaf Name of the Document.

**Url:** The full Store-Relative Form URL for the specified Document.
Id: Identifier of the Document.


WebId: The site identifier for the Site containing this Document.

ListId: The list identifier of the list containing the Document.

ScopeId: The identifier of the Scope which contains the Document.

MetaInfo: A Metadict for the Document. The Metadict format is specified in [MS-FPSE] section 2.2.2.5.3.

TimeCreated: Date/time value in UTC specifying when this Document was created.

TimeLastModified: A datetime containing a timestamp in UTC specifying when the Document was last saved. This value does not necessarily correspond to the actual time when the Document was last modified.

Size: The number of bytes in the Document Stream.

DirName: The Directory Name of the Document.

LeafName: The Leaf Name of the Document.

Url: The full Store-Relative Form URL for the specified Document.

3.1.4.30.10 List Item Event Receivers Result Set

The List Item Event Receivers Result Set returns information about the event receivers defined for the list items to be exported. The List Item Event Receivers Result Set MUST contain information for the first 200 list items with export ordinals greater than @LastOrdinal, or all list items with export ordinals greater than @LastOrdinal, whichever is less. The List Item Event Receivers Result Set is defined using T-SQL syntax, as follows:
Id: The identifier of the event receiver.

HostId: The identifier of the event host that the event receiver is associated with.

WebId: The site identifier for the Site that contains the event receiver.

Name: The name of the event receiver.

HostType: The type of the event host that the event receiver is associated with. HostType MUST be a value of event host type, specified in [MS-WSSFO2] section 2.2.3.5.

ItemId: Reserved. A client MUST NOT use ItemId.

Synchronization: An ordinal that determines whether the event receiver should be triggered synchronously or asynchronously.

Type: The type of the event receiver. Type MUST be a value of event receiver type, specified in [MS-WSSFO2] section 2.2.3.6.

SequenceNumber: An ordinal that determines the order in which the event receiver is triggered. SequenceNumber MUST be greater than OR equal to 0 AND less than OR equal to 65535.

Assembly: The name of the .NET assembly that contains the class definition of the event receiver.

Class: The fully qualified name of the .NET class definition for the event receiver.

SolutionId: The identifier of the solution that installed the event receiver.

Data: Additional Unicode data persisted on behalf of the event receiver implementation to be passed to the event receiver.

Filter: Reserved. A client MUST NOT use Filter.

Credential: Reserved. A client MUST NOT use Credential.

ListItemId: Identifier used by the Export Operation to refer to the list item in the table of export objects.

### 3.1.4.30.11 List Item Solutions Result Set

The List Item Solutions Result Set returns information about the [MS-WSSPROG2] section 2.2.4.1 corresponding to the document. If @IsSolutionGallery is 0 then 0 rows MUST be returned. The List Item Solutions Receivers Result Set MUST contain information for the first 200 list items with export ordinals greater than @LastOrdinal, or all list items with export ordinals greater than @LastOrdinal, whichever is less. The List Item Solutions Result Set is defined using T-SQL syntax, as follows:

```
Id       uniqueidentifier,
Status   smallint,
```
3.1.4.31 proc_DeplGetLookupItemData

The proc_DeplGetLookupItemData stored procedure is called to return information about list items in a given list that are referenced by other lists. proc_DeplGetLookupItemData is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetLookupItemData(
    @SiteId   uniqueidentifier,
    @ListId   uniqueidentifier,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection containing the list items.

@ListId: The list identifier for the list containing the list items.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

3.1.4.31.1 Lookup Data Result Set

The Lookup Data Result Set returns information about list items that are referenced by other lists. The Lookup Data Result Set is defined using T-SQL syntax, as follows:

```sql
Id             int,
Id             uniqueidentifier,
{URL}          nvarchar(261),
Included       bit;
```

Id: The identifier for the list item, uniquely identifying it within the AllUserData Table, specified in [MS-WSSFO2] section 2.2.7.3.

Id: The identifier of the Document associated with this list item.

{URL}: The Server-relative URL of this Document. This MUST begin with a slash.

Included: If this Document is in the table of export objects, this MUST be 1. Otherwise, this MUST be 0.

3.1.4.32 proc_DeplGetLookupListUrl

The proc_DeplGetLookupListUrl stored procedure is called to retrieve the URL of the list. proc_DeplGetLookupListUrl is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetLookupListUrl(
    @SiteId   uniqueidentifier,
    @ListId   uniqueidentifier,
```

[MS-WSSDM2] — v20120630
Windows SharePoint Services: Content Database Data Migration Communications Version 2 Protocol Specification

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Release: July 16, 2012
@SiteId: The site collection identifier for the Site Collection containing the list.

@ListId: The list identifier for the list.

@Url: This will output the Server-relative URL of the list. The output MUST begin with a slash, unless the list is not found. If the list is not found, this output value MUST be the same as its input value.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST NOT return any result sets.

3.1.4.33 proc_DeplGetNextObjectBatch

The proc_DeplGetNextObjectBatch stored procedure is called during an Export Operation to select the next set of Export Objects that need to be exported. proc_DeplGetNextObjectBatch is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplGetNextObjectBatch(
    @LastOrdinal    int,
    @RequestGuid    uniqueidentifier = NULL OUTPUT
);
```

@LastOrdinal: All Export Objects returned by proc_DeplGetNextBatch MUST have values in the Ordinal column greater than @LastOrdinal. When calling proc_DeplGetNextObjectBatch for the first time, set @LastOrdinal to 0. When calling proc_DeplGetNextObjectBatch to retrieve more Objects set @LastOrdinal to the largest Ordinal value returned in the previous call to proc_DeplGetNextObjectBatch.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following result set:

3.1.4.33.1 Export Object Batch Result Set

Export Object Batch Result Set returns the next set of export objects to be exported. The Export Object Batch Result Set MUST return 100 rows or one row for each object to be exported whichever is smaller. The Export Object Batch Result Set is defined using T-SQL syntax, as follows:

```
Id                 uniqueidentifier,
Type               tinyint,
ParentId           uniqueidentifier,
ParentWebId        uniqueidentifier,
{FullUrl}          nvarchar(260)
Ordinal            int,
IsDeleted          tinyint,
ContentTypeId      varbinary(512),
```
{ParentWebUrl} nvarchar(260),
EventData datetime,
ChangeLogId bigint,
IsSiteRename tinyint,
IsProvisioned tinyint;

**Id:** The identifier of the object to be exported.

**Type:** A value that specifying the deployment object type, specified in section 2.2.4.1, of the object stored in the row.

**ParentId:** The identifier of the parent of the object.

**ParentWebId:** The site identifier for the Site that the object lives in. For an Object of type root Site this MUST be NULL.

**{FullUrl}:** Server-relative URL of the Export Object.

**Ordinal:** The identifier of the Object used with the @LastOrdinal parameter. All rows returned MUST have an ordinal value greater than @LastOrdinal. The ordinals of all rows returned MUST be in increasing order.

**IsDeleted:** Whether the object was deleted. This is set to 1 if the Object was deleted; otherwise set to 0. Used only during an incremental export operation otherwise this MUST be ignored.

**ContentTypeId:** A Content Type identifier value describing the valid folder content types that this Export Object can be used to view. If this Export Object is not restricted to a particular content type, this value MAY be 0x or NULL.

**{ParentWebUrl}:** Server-relative URL of the Site that the object lives in. For an object of type root site, this MUST be NULL.

**EventTime:** The UTC time from the change log that the object was modified. Used only during an incremental export operation, otherwise this MUST be ignored.

**ChangeLogId:** The identifier of the Event. Used only during an incremental export operation, otherwise this MUST be ignored.

**IsSiteRename:** Whether the object was renamed. This is set to 1 if the Object is of type 1 and was renamed; otherwise set to 0. Used only during an incremental export operation otherwise this MUST be ignored.

**IsProvisioned:** Whether the object was provisioned. This is set to 1 if the object is of type 1 and has not been completely provisioned; otherwise, MUST be 0.

### 3.1.4.34 proc_DeplGetParentWebIdForList

The proc_DeplGetParentWebIdForList stored procedure is called to return information about the Site that contains the given list. proc_DeplGetParentWebIdForList is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetParentWebIdForList(
    @ListId uniqueidentifier,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```
@ListId: The list identifier for the list.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: If the @ListId parameter is NULL then it MUST NOT return any Result Set. Otherwise, if the parameter is NOT NULL, then it MUST return the following Result Set:

### 3.1.4.34.1 Parent Site Result Set

The Parent Site Result Set returns information about the Site containing the list. The Parent Site Result Set MUST contain exactly one row if the list exists. Otherwise, it MUST contain 0 rows. The Parent Site Result Set is defined using T-SQL syntax, as follows:

```sql
SELECT
    tp_WebId
FROM
    tp_web
WHERE
    @ListId = WebId
```

tp_WebId: The site identifier for the Site containing the list.

### 3.1.4.35 proc_DeplGetParentWebIdFromDocId

The proc_DeplGetParentWebIdFromDocId stored procedure is called to return information about the Site and list that contain a given Document. proc_DeplGetParentWebIdFromDocId is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetParentWebIdFromDocId(
    @DocId uniqueidentifier,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@DocId: The document identifier of the Document.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: If the @DocId is NULL then it MUST NOT return any Result Set. Otherwise, if @DocId is NOT NULL, then it MUST return the following Result Set:

### 3.1.4.35.1 Document Container Result Set

The Document Container Result Set returns information about the Site and list that contain the Document. The Document Container Result Set MUST contain one row if the Document exists. Otherwise, it MUST contain 0 rows. The Document Container Result Set is defined using T-SQL syntax, as follows:

```sql
SELECT
    WebId, ListId
FROM
    parent
WHERE
    @DocId = DocId
```

WebId: The site identifier for the Site containing the Document.

ListId: The list identifier of the list containing the Document. If the Document is not contained in a list, this MUST be NULL.
3.1.4.36 proc_DeplGetParentWebIdFromDocUrl

The proc_DeplGetParentWebIdFromDocUrl Stored Procedure is called to return the location of a specified Document. The Stored Procedure is defined using T-SQL syntax as follows:

```sql
PROCEDURE proc_DeplGetParentWebIdFromDocUrl (
    @SiteId uniqueidentifier,
    @DocUrl nvarchar(260),
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection that contains a Document with the @DocUrl parameter value.

@DocUrl: A Store-Relative Form URL for a Document within the Site.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: If one of the @SiteId or @DocUrl parameters are NULL, then it MUST NOT return any Result Set. Otherwise if both the @SiteId and @DocUrl parameters are NOT NULL, then it MUST return the following Result Set:

3.1.4.36.1 Location Result Set

The Location Result Set contains information about the location of the document within the site collection. The Location Result Set MUST contain one row if the document is found within the site collection, and MUST contain 0 rows otherwise. The Location Result Set is defined using T-SQL syntax, as follows:

```sql
WebId uniqueidentifier,
ListId uniqueidentifier;
```

WebId: The site identifier for the Site.

ListId: The list identifier of the list in the Site which contains the specified Document. If the Document is not in any list, this MUST be NULL.

3.1.4.37 proc_DeplGetRootObjects

The proc_DeplGetRootObjects stored procedure is called to return information about the root level objects (objects that do not have their parent objects included as part of the export) to be processed during an Export Operation. proc_DeplGetRootObjects is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_GetRootObjects(
    @SiteId uniqueidentifier,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection containing the objects. MUST be the identifier of an existing Site Collection.
@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:

3.1.4.37.1 Root Objects Result Set

The Root Objects Result Set returns information about objects being exported that do not have their parent objects also included as part of the export. The Root Objects Result Set is defined using T-SQL syntax, as follows:

```sql
Id uniqueidentifier,
Type tinyint,
ParentId uniqueidentifier,
FullUrl nvarchar(256),
IsDependency tinyint,
IsSelected tinyint;
```

Id: Identifier used by the Export Operation to refer to the object being exported.

Type: An identifier specifying the object's deployment object type, specified in section 2.2.3.1.

ParentId: Identifier of the parent of this object.

FullUrl: The Store-Relative Form URL of the Site containing this object.

FullUrl: The Store-Relative Form URL of this object.

IsDependency: This MUST be 1 if and only if the object is referenced from another object being exported using a Link. Otherwise, this MUST be 0.

IsSelected: This MUST be 1 if this object was chosen directly by the user for export. Otherwise, this MUST be 0.

3.1.4.38 proc_DeplGetSystemObjects

The proc_DeplGetSystemObjects stored procedure is called to return information about Migration System Objects that are referenced by objects to be exported. proc_DeplGetSystemObjects is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplGetSystemObjects(
    @SiteId uniqueidentifier,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

@SiteId: The site collection identifier for the Site Collection containing the objects. MUST be the identifier of an existing Site Collection.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST return the following Result Set:
3.1.4.38.1 System Objects Result Set

The System Objects Result Set returns information about Migration System Objects that are referenced by objects to be exported. The System Objects Result Set MUST NOT contain identical rows.

The System Objects Result Set is defined using T-SQL syntax, as follows:

```sql
Id uniqueidentifier,
Type tinyint,
{Url} nvarchar(261);
```

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

**Type**: An identifier specifying the object's deployment object type, specified in section 2.2.3.1.

**{Url}**: The Server-relative URL of the object. This MUST begin with a slash.

3.1.4.39 proc_DeplOrderExportObjects

The proc_DeplOrderExportObjects stored procedure is called to sort the table of export objects. proc_DeplOrderExportObjects is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplOrderExportObjects(
    @TestRun tinyint,
    @ObjectCount int OUTPUT,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```

**@TestRun**: If this is 1, proc_DeplOrderExportObjects MUST only output a value for @ObjectCount and do nothing else. If @TestRun is not 1, objects to be exported are ordered by deployment object type specified in section 2.2.3.1, URL, and the time they were updated and proc_DeplOrderExportObjects MUST output a value for @ObjectCount.

**@ObjectCount**: Outputs the number of entries in the table of export objects.

**@RequestGuid**: The optional request identifier for the current request.

**Return Code Values**: An integer which the protocol client MUST ignore.

**Result Sets**: MUST NOT return any result sets.

3.1.4.40 proc_DeplReserveNextAvailableId

The proc_DeplReserveNextAvailableId stored procedure is called to reserve a list item identifier in a given list during an Import Operation. proc_DeplReserveNextAvailableId is defined using T-SQL syntax, as follows:

```sql
PROCEDURE proc_DeplReserveNextAvailableId(
    @WebId uniqueidentifier,
    @ListId uniqueidentifier,
    @ListItemId int,
    @RequestGuid uniqueidentifier = NULL OUTPUT
);
```
@WebId: The site identifier for the Site containing the list.

@ListId: The list identifier for the list.

@ListItemId: The list item identifier of the list item to reserve. There MUST be no action taken if @ListItemId is already in use.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST NOT return any result sets.

3.1.4.41  proc_DeplUpdateWebProperties

The proc_DeplUpdateWebProperties Stored Procedure is called to update various stored values of a given Site during an Import Operation. proc_DeplUpdateWebProperties is defined using T-SQL syntax, as follows:

```
PROCEDURE proc_DeplUpdateWebProperties(
    @SiteId                      uniqueidentifier,
    @WebId                       uniqueidentifier,
    @AlternateCSSUrl             nvarchar(260),
    @CustomizedCssFiles          nvarchar(260),
    @CustomJSUrl                 nvarchar(260),
    @ExternalSecurityProvider    uniqueidentifier,
    @ThemeComposite              nvarchar(64),
    @TimeCreated                 datetime,
    @WebTemplateId               int,
    @ProvisionConfig             int,
    @RequestGuid                 uniqueidentifier = NULL OUTPUT
);

@SiteId: This value MUST be ignored.

@WebId: The site identifier for the Site. If the Site is not found, proc_DeplUpdateWebProperties MUST NOT update anything.

@AlternateCSSUrl: New value for the URL for a custom cascading style sheet file registered on the Site for use in Pages of the Site. If this is '', the stored value MUST be set to NULL. If this is NULL, the stored value MUST NOT be changed.

@CustomizedCssFiles: New value of an implementation-specific list of custom cascading style sheet files associated with this Site. If this is '', the stored value MUST be set to NULL. If this is NULL, the stored value MUST NOT be changed.

@CustomJSUrl: New value of the URL for a custom JavaScript file registered on the Site for use in Pages of the Site. If this is '', the stored value MUST be set to NULL. If this is NULL, the stored value MUST NOT be changed.

@ExternalSecurityProvider: New value of the COM class of the external security provider (1) for this site. If this is '00000000-0000-0000-0000-000000000000', the stored value MUST be set to NULL and the Site MUST use the native security implementation. If this is NULL, the stored value MUST NOT be changed.
@ThemeComposite: New value of the name of a theme that is used as part of the display of the Site. If this is ",", the stored value MUST be set to NULL. If this is NULL, the stored value MUST NOT be changed.

@TimeCreated: New value of the timestamp in UTC specifying when this Site was created. If this is NULL, the timestamp MUST NOT be changed.

@WebTemplateId: New value of the identifier of the site definition that contains the site template configuration used to provision this Site. If this is NULL, the stored value MUST NOT be changed.

@ProvisionConfig: New value of the identifier of the Site Template Configuration used to provision this Site. If this is NULL, the stored value MUST NOT be changed.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which the protocol client MUST ignore.

Result Sets: MUST NOT return any result sets.

3.1.4.42 proc_FileExists

The proc_FileExists Stored Procedure is called to search if a Document exists in a Site Collection. proc_FileExists is defined using T-SQL syntax, as follows:

PROCEDURE proc_FileExists (
    @SiteId                   uniqueidentifier,
    @WebId                    uniqueidentifier,
    @DocId                    uniqueidentifier,
    @Url                      nvarchar(260),
    @DeleteRecycleBinItems    bit = 0,
    @IsDeleted                bit OUTPUT,
    @DocExists                bit OUTPUT,
    @DestDocId                uniqueidentifier OUTPUT,
    @RequestGuid              uniqueidentifier = NULL OUTPUT
);

@SiteId: The site collection identifier for the Site Collection which contains the specified Document.

@WebId: The site identifier for the Site used to find the specified Document. This parameter is used only if the @Url parameter is used to search for the Document.

@DocId: The document identifier of the document to find. If this parameter is NULL, the search is done using @Url parameter.

@Url: The URL of the Document to find. This parameter is used only if the Document defined by @DocId is not found in any Site Collection in the database, or the Document is found and then removed from the Recycle Bin or if @DocId is NULL.

@DeleteRecycleBinItems: This parameter is ignored if @DocId is NULL. If this parameter is equal to 1, and the Document exists in the Site Collection defined by @SiteId, and the Document is placed in the Recycle Bin, then the Document defined by @DocId will be removed from the Recycle Bin.

@IsDeleted: When the Document exists in the Site Collection defined by @SiteId, and the Document is in the Recycle Bin, the value of 1 is returned.
@DocExists: When the Document exists in any Site Collection in the database, the value of 1 is returned; otherwise the value of 0 is returned.

@DestDocId: If @DocId is not NULL then @DestDocId is equal to @DocId. If a Document is found using the @Url parameter for search, then @DestDocId is equal to the document identifier of the Document found.

@RequestGuid: The optional request identifier for the current request.

Return Code Values: An integer which MUST be listed in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Execution finished.</td>
</tr>
<tr>
<td>80</td>
<td>Returned when the Document specified by @DocId exists in a different Site Collection than the one defined by @SiteId, and it is found in the same database.</td>
</tr>
</tbody>
</table>

Result Sets: MUST NOT return any Result Set.

3.1.5 Timer Events
None.

3.1.6 Other Local Events
None.

3.2 Client Details
The front-end Web server acts as a client when it calls the back-end database server requesting execution of Stored Procedures.

3.2.1 Abstract Data Model
Same as section 3.1.1, Abstract Data Model.

3.2.2 Timers
None.

3.2.3 Initialization
None.

3.2.4 Message Processing Events and Sequencing Rules
The front-end Web server handles each Stored Procedure with the same processing method of calling the Stored Procedure and waiting for the return code and any result sets that will be returned.

The front-end Web server can execute dynamically generated SQL queries against the Stored Procedures, or the Tables and Views used within the database. However, unless otherwise specified, any data addition, removal, or modification MUST occur only by calling the listed Stored Procedures.
SQL queries MUST NOT attempt to add, remove, or update data in any Table or View in the Content or Configuration databases, unless explicitly described in this section.

This protocol defines the following sequences which MUST be followed during export operations. The protocol client needs to create the table of export objects during an Export Operation. If the Export Operation is an Incremental Export Operation, the client needs to further create an Incremental Search Scope Table. The schemas of these tables and how they are created are implementation specific.

During an Import Operation, the protocol client needs to create a WebParts Table, section 2.2.7.4. The table will be deleted when the import operation is complete.

### 3.2.4.1 Export Sequence

Export sequence defines the order in which a number of stored procedures MUST be invoked to perform an export operation. Export sequence performs the following actions.

**Figure 2: Create the table of export objects**

1. Request creation of the table of export objects.
2. Specify the site collection that contains the data to be exported.
3. Add objects selected by the application to the table of export objects.
4. Calculate from the objects in the table of export objects what other data they need to function properly. Add those additional objects to the table of export objects as well.

5. Retrieve the list of content types to be exported. Calculate if additional objects need to be added to the table of export objects.

6. Add additional dependency objects found in (5).

7. Calculate Add child objects (for example subsites) if application has specified that those objects need to be included.

8. Order the objects in table of export objects based on type, time, and Url.

9. Retrieve the objects from the table of export objects in a batched fashion. Serialize them into XML.

10. Repeat step 9 until there is no more objects from the table of export objects. Steps 1 through 8 MUST be carried out in a batch. Failure to do so will cause the table of export objects to be insufficiently populated. As a result, the objects that are exported might not function properly together because some objects are missing.

### 3.2.4.2 Incremental Export Sequence

Incremental Export Sequence defines the order in which a number of stored procedures MUST be invoked to perform an Incremental Export Operation. Incremental Export Sequence performs the following sequences.
Figure 3: Create the table of export objects and the Incremental Search Scope Table

1. Create the table of export objects and the Incremental Search Scope Table.

2. Specify the sites that are included in the Incremental Export Operation.

3. Calculate any Subsites that need to be included as well.

4. Step 4 to 10 are the same as the ones illustrated in section 3.2.4.1, Export Sequence.

3.2.4.3 Link Documents Export Sequence

The Link Documents Export Sequence defines the order in which a number of stored procedures MUST be called to include link documents into the table of export objects. This sequence MUST be used as part of either the Export Sequence, section 3.2.4.1, or the Incremental Export Sequence, section 3.2.4.2. When used in either sequence, it MUST be inserted between steps 7 and 8.
1. Add link documents to the table of export objects from objects that are currently in that table.

2. Process the Link Count result set, specified in section 3.1.4.3.1. If the Link Count result set returns one row, and \{LinkCount\} = 0, stop this sequence. Otherwise, continue.

3. Add additional dependency objects because new objects have been added by step 1.

4. Calculate child objects to be added to the table of export objects if the application has specified that child objects need to be included.

5. Repeat Steps 1 through 4.

### 3.2.4.4 Unused Web Parts Removal Sequence

To avoid dealing with duplicate web parts, the web parts for each document that is imported are stored in a temporary table so that the duplicate web parts can be removed. These web parts need to be removed because they can cause multiple web parts to be displayed.

1. Create the #WebParts Table, specified in section 2.2.7.4.

2. While importing the document, add the web parts referenced by this document to the #WebParts Table.

3. If the identifier of the web part associated with the document is not contained in the #WebParts Table, delete any rows representing that web part in the Links Table, the WebParts Table and WebPartList Table, sections 2.2.7.1, 2.2.7.2 and 2.2.7.3.
4. Clean up all the rows in the #WebParts Table.
5. Repeat step 2, 3 and 4 for every document that is imported.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.
4  Protocol Examples

4.1  Export a List

This example describes communication between the protocol client ("client") and the server when exporting a list, including all its content from a Site. The list URL is http://server/subweb/MyList, which contains one item in it. The export operation consists of the following steps.

Figure 6: Process used to export a list (Part 1)

1. Create the table of export objects.

2. Specify the site collection that contains the list to be exported. proc_DeplAddSite, specified in section 3.1.4.5, is called with @SiteId = '54F720B1-EC52-44CB-B347-6747DA861CBC'.

3. Add the list object to the table of export objects by calling proc_DeplAddExportObject, specified in section 3.1.4.1, with the following parameters:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@Id</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
</tbody>
</table>
Add objects to the table of export objects which are needed in order for the "MyList" list to function properly. Call proc_DeplAddExportObjectDependencies, specified in section 3.1.4.2, with the following parameters:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@IsMajorFileOnly</td>
<td>0</td>
</tr>
<tr>
<td>@IsLink</td>
<td>0</td>
</tr>
</tbody>
</table>

Retrieve the list of Content Types to be exported. Call proc_DeplGetContentTypesToParse, section 3.1.4.19, with the following parameter:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
</tbody>
</table>
In this case, the result set does not contain any rows. Therefore, no additional objects need to be added to the table of export objects.

Add child objects to the "MyList" list, because in step 3 the @IncludeDescendants parameter specified was 2.

1. Order the objects in table of export objects to facilitate the client to process these objects in the most efficient way. The exact sorting order is implementation specific.

2. Call `proc_DeplGetNextObjectBatch`, specified in section 3.1.4.32, with @LastOrdinal = 0, to get the first batch of objects to export. The result set returned contains 11 rows, as shown in the following table. Data in the EventTime, ChangeLogId, and ContentType column are NULL. Data in the IsDeleted, IsSiteRename and IsProvisioned columns are 0. These columns are omitted from the following table.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@IsMajorFileOnly</td>
<td>0</td>
</tr>
<tr>
<td>@IsLink</td>
<td>0</td>
</tr>
<tr>
<td>@IncludeUserInfo</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Id</th>
<th>Type</th>
<th>ParentId</th>
<th>ParentWebId</th>
<th>{FullUrl}</th>
<th>Ordinal</th>
<th>{ParentWebUrl}</th>
</tr>
</thead>
<tbody>
<tr>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
<td>0</td>
<td>NULL</td>
<td>NULL</td>
<td>NULL</td>
<td>1</td>
<td>NULL</td>
</tr>
<tr>
<td>Id</td>
<td>Type</td>
<td>ParentId</td>
<td>ParentWebId</td>
<td>{FullPath}</td>
<td>Ordinal</td>
<td>{ParentWebUrl}</td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
<td>----------------</td>
<td>-------------------</td>
<td>-----------------------</td>
<td>---------</td>
<td>----------------</td>
</tr>
<tr>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>2</td>
<td>36583090-D164-418C-A626-689B83092AF1</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList</td>
<td>2</td>
<td>/subweb</td>
</tr>
<tr>
<td>09FE3453-98C9-4A91-B652-F9CB6E841B0B</td>
<td>2</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/Announcement</td>
<td>3</td>
<td>/subweb</td>
</tr>
<tr>
<td>5E6B556B-68F1-488F-9B7E-839A3ED7E5F2</td>
<td>2</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/Attachments</td>
<td>4</td>
<td>/subweb</td>
</tr>
<tr>
<td>4905FA83-DEB9-4749-BE22-5E872CCF0521</td>
<td>5</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/AllItems.aspx</td>
<td>5</td>
<td>/subweb</td>
</tr>
<tr>
<td>457C7B49-7817-4232-B5AB-85CBE95054C5</td>
<td>5</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/DispForm.aspx</td>
<td>6</td>
<td>/subweb</td>
</tr>
<tr>
<td>89297112-F7FF-4E36-A472-424640A77CFC</td>
<td>5</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/EditForm.aspx</td>
<td>7</td>
<td>/subweb</td>
</tr>
<tr>
<td>0AECB3CB-97CF-4EA0-9B8E-D73DBC02F66A</td>
<td>5</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/NewForm.aspx</td>
<td>8</td>
<td>/subweb</td>
</tr>
<tr>
<td>D825D4D3-1352-498B-A498-8DC725D7458F</td>
<td>3</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/1_00</td>
<td>9</td>
<td>/subweb</td>
</tr>
<tr>
<td>D2DB5C42-1FB1-4847-BE2D-85FC7B0D33AC</td>
<td>7</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
<td>/subweb/Lists/MyList/1_00</td>
<td>10</td>
<td>/subweb</td>
</tr>
</tbody>
</table>
What's shown in the result set is an object representing a site collection, followed by three folder objects, four file objects, one list object, one document library file object and one list item.

### Figure 7: Process used to export a list (Part 2)

- Get additional metadata of the 3 Folder objects by calling `proc_DeplGetFolderData`, specified in section 3.1.4.23, with the following parameters:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@ LastOrdinal</td>
<td>0</td>
</tr>
</tbody>
</table>
Parameter Name | Parameter Value
---|---
@VersionSetting | 4

The result set contains three rows. The first one is listed in the following table:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
</tr>
<tr>
<td>ExportObjectUrl</td>
<td>subweb/Lists/MyList</td>
</tr>
<tr>
<td>Ordinal</td>
<td>2</td>
</tr>
<tr>
<td>ParentWebId</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
</tr>
<tr>
<td>LeafName</td>
<td>MyList</td>
</tr>
<tr>
<td>ListId</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
<tr>
<td>DocLibRowId</td>
<td>NULL</td>
</tr>
<tr>
<td>WelcomePageUrl</td>
<td>NULL</td>
</tr>
<tr>
<td>WelcomePageParams</td>
<td>NULL</td>
</tr>
<tr>
<td>IsWebRootFolder</td>
<td>0</td>
</tr>
</tbody>
</table>
- Get metadata of the next batch file objects by calling `proc_DeplGetFileData`, specified in section 3.1.4.21, with the following parameters:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@ LastOrdinal</td>
<td>0</td>
</tr>
<tr>
<td>@VersionSetting</td>
<td>4</td>
</tr>
</tbody>
</table>

`proc_DeplGetFileData` returns 7 result sets:

- **File Information result set**, specified in section 3.1.4.22.1, which returns one row per file containing meta information of the file. In this sample, five rows will be returned because there are four file objects and 1 document library File object. The first row is listed in the following table:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>4905FA83-DEB9-4749-BE22-5E872CCF0521</td>
</tr>
<tr>
<td><strong>Column Name</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>ExportObjectUrl</td>
<td>subweb/Lists/MyList/AllItems.aspx</td>
</tr>
<tr>
<td>Ordinal</td>
<td>5</td>
</tr>
<tr>
<td>WebId</td>
<td>30D0C9FD-659E-4882-9C46-6CB46ABB417B</td>
</tr>
<tr>
<td>ListId</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
<tr>
<td>ParentId</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
</tr>
<tr>
<td>ScopeId</td>
<td>6BE9822E-5AC6-41DD-940D-BF058FFA5894</td>
</tr>
<tr>
<td>DocLibRowId</td>
<td>NULL</td>
</tr>
<tr>
<td>MetaInfo</td>
<td>NULL</td>
</tr>
<tr>
<td>UIVersion</td>
<td>512</td>
</tr>
<tr>
<td>UIVersionString</td>
<td>1.0</td>
</tr>
<tr>
<td>IsGhosted</td>
<td>1</td>
</tr>
<tr>
<td>TimeCreated</td>
<td>2008-03-03 18:44:43.000</td>
</tr>
<tr>
<td>TimeLastModified</td>
<td>2008-03-03 18:44:43.000</td>
</tr>
<tr>
<td>DirName</td>
<td>subweb/Lists/MyList</td>
</tr>
<tr>
<td>LeafName</td>
<td>AllItems.aspx</td>
</tr>
<tr>
<td>SetupPath</td>
<td>pages\viewpage.aspx</td>
</tr>
<tr>
<td>SetupPathUser</td>
<td>REDMOND\user</td>
</tr>
<tr>
<td>SetupPathVersion</td>
<td>4</td>
</tr>
<tr>
<td>UnVersionedMetaInfo</td>
<td>NULL</td>
</tr>
<tr>
<td>CheckinComment</td>
<td>NULL</td>
</tr>
<tr>
<td>AuditFlags</td>
<td>NULL</td>
</tr>
<tr>
<td>InheritAuditFlags</td>
<td>NULL</td>
</tr>
<tr>
<td>Level</td>
<td>1</td>
</tr>
<tr>
<td>HasStream</td>
<td>0</td>
</tr>
<tr>
<td>Size</td>
<td>2661</td>
</tr>
<tr>
<td>Acl</td>
<td>0xF3FE0000010000000000000003000000030000000FFFFFFFFFFFF7F0400000061104308B</td>
</tr>
</tbody>
</table>
### Latest File Versions result set

Specified in section 3.1.4.22.2, which contains five rows representing the last major version for each of the five files. All these files contain one and only one version in this example. The first row in the result set is the following.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>4905FA83-DEB9-4749-BE22-5E872CCF0521</td>
</tr>
<tr>
<td>UIVersion</td>
<td>512</td>
</tr>
<tr>
<td>TimeCreated</td>
<td>2008-03-03 18:44:43.000</td>
</tr>
<tr>
<td>TimeLastModified</td>
<td>2008-03-03 18:44:43.000</td>
</tr>
<tr>
<td>DocFlags</td>
<td>268</td>
</tr>
<tr>
<td>MetaInfo</td>
<td>NULL</td>
</tr>
<tr>
<td>CheckinComment</td>
<td>NULL</td>
</tr>
<tr>
<td>Level</td>
<td>1</td>
</tr>
<tr>
<td>SetupPath</td>
<td>pages\viewpage.aspx</td>
</tr>
<tr>
<td>SetupPathUser</td>
<td>REDMOND\user</td>
</tr>
<tr>
<td>SetupPathVersion</td>
<td>4</td>
</tr>
<tr>
<td>HasStream</td>
<td>0</td>
</tr>
<tr>
<td>ListId</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
<tr>
<td>Size</td>
<td>2661</td>
</tr>
</tbody>
</table>

### Previous File Versions result set

Specified in section 3.1.4.22.3, which will return one row per old version of the files given that the @VersionSettings parameter is 4. In this example, the four files have no old versions. Therefore this result set is empty.

### File Web Part result set

Specified in section 3.1.4.22.4, which has one row for each Web Part reference in the files returned. In this example, there are five files in total. Four of the five files contain exactly one Web Part. As a result, four rows are returned in this result set. The first one is shown as following.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>tp_Id</td>
<td>FD655044-665A-4468-BF7D-5CD1B41E1A3A</td>
</tr>
<tr>
<td>tp_ListID</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
<tr>
<td>tp_Type</td>
<td>0</td>
</tr>
<tr>
<td>tp_Flags</td>
<td>25165825</td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>tp_Hidden</td>
<td>0</td>
</tr>
<tr>
<td>tp_Threaded</td>
<td>0</td>
</tr>
<tr>
<td>tp_FPMModified</td>
<td>0</td>
</tr>
<tr>
<td>tp_ReadOnly</td>
<td>0</td>
</tr>
<tr>
<td>tp_Scope</td>
<td>[Empty String]</td>
</tr>
<tr>
<td>tp_RecurrenceRowset</td>
<td>0</td>
</tr>
<tr>
<td>tp_ModerationType</td>
<td>[Empty String]</td>
</tr>
<tr>
<td>tp_Personal</td>
<td>0</td>
</tr>
<tr>
<td>tp_Ordered</td>
<td>0</td>
</tr>
<tr>
<td>tp_DisplayName</td>
<td>All Items</td>
</tr>
<tr>
<td>tp_ContentTypeId</td>
<td>0x</td>
</tr>
<tr>
<td>tp_PageUrl</td>
<td>/subweb/Lists/MyList/AllItems.aspx</td>
</tr>
<tr>
<td>tp_BaseViewId</td>
<td>1</td>
</tr>
<tr>
<td>tp_View</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_Level</td>
<td>1</td>
</tr>
<tr>
<td>tp_IsDefault</td>
<td>0</td>
</tr>
<tr>
<td>tp_ZoneID</td>
<td>Main</td>
</tr>
<tr>
<td>tp_IsIncluded</td>
<td>1</td>
</tr>
<tr>
<td>tp_PartOrder</td>
<td>1</td>
</tr>
<tr>
<td>tp_FrameState</td>
<td>0</td>
</tr>
<tr>
<td>tp_Version</td>
<td>1</td>
</tr>
<tr>
<td>tp_WebPartTypeId</td>
<td>FD9424E7-E654-37B5-DA14-A3AD6E18C6AE</td>
</tr>
<tr>
<td>tp_Assembly</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_Class</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_SolutionId</td>
<td>NULL</td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>tp_AllUsersProperties</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_PerUserProperties</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_UserID</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_Source</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_CreationTime</td>
<td>1900-01-01 00:00:00.000</td>
</tr>
<tr>
<td>DocId</td>
<td>4905FA83-DEB9-4749-BE22-5E872CCF0521</td>
</tr>
<tr>
<td>tp_ListRootFolderUrl</td>
<td>/subweb/Lists/MyList</td>
</tr>
</tbody>
</table>

- **Web Part Personalization result set**, specified in section 3.1.4.22.5. The web parts referenced in these files do not have any personalization in this example. This result set does not contain any rows.

- **File Links result set**, specified in section 3.1.4.22.6. These files do not contain any hyperlinks to other documents within the same site collection. This result set does not contain any rows.

- **File Web Part Versions result set**, specified in section 3.1.4.22.7. This result set does not contain any rows. which will return one row per web part per old version of the files given that the @VersionSettings parameter is 4. In this example, the four files have no old versions. Therefore this result set is empty.

- Call proc_FetchDocForHttpGet, specified in [MS-WSSFO2] section 3.1.5.19, to get the content of the files. In the previous step, only the file metadata was collected, but not the file stream. To get the file with export ordinal number 5, this sproc is called with the following parameters.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@DocSiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@DocDirName</td>
<td>subweb/Lists/MyList</td>
</tr>
<tr>
<td>@DocLeafName</td>
<td>AllItems.aspx</td>
</tr>
<tr>
<td>@LooksLikeAttachmentFile</td>
<td>0</td>
</tr>
<tr>
<td>@IfModifiedSince</td>
<td>Dec 30 1899 12:00:00:000AM</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>@FetchType</td>
<td>0</td>
</tr>
<tr>
<td>@ValidationType</td>
<td>0</td>
</tr>
<tr>
<td>@ClientVersion</td>
<td>NULL</td>
</tr>
<tr>
<td>@ClientId</td>
<td>NULL</td>
</tr>
<tr>
<td>@PageView</td>
<td>NULL</td>
</tr>
<tr>
<td>@FetchBuildDependencySet</td>
<td>0</td>
</tr>
<tr>
<td>@SystemID</td>
<td>0x0105000000000000515000000A065CF7E784B9B5FE77C87704AB10000</td>
</tr>
<tr>
<td>@CurrentVirusVendorID</td>
<td>NULL</td>
</tr>
<tr>
<td>@PrefetchListScope</td>
<td>1</td>
</tr>
<tr>
<td>@ChunkSize</td>
<td>5242880</td>
</tr>
<tr>
<td>@DGCacheVersion</td>
<td>0</td>
</tr>
<tr>
<td>@MaxCheckinLevel</td>
<td>1</td>
</tr>
</tbody>
</table>
Repeat this three more times with slightly different parameters to get the streams of the other three files.

Call **proc_DeplGetListData**, specified in section 3.1.4.26, to get the meta info of the list object. The stored procedure is called with the following parameters.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@LastOrdinal</td>
<td>0</td>
</tr>
<tr>
<td>@IsIncremental</td>
<td>0</td>
</tr>
</tbody>
</table>

This stored procedure returns four result sets:

**List Information result set**, specified in section 3.1.4.26.1, which contains only one row because there is only 1 list to be exported. The row contains the following:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
<tr>
<td>ExportObjectUrl</td>
<td>subweb/Lists/MyList</td>
</tr>
<tr>
<td>Ordinal</td>
<td>9</td>
</tr>
<tr>
<td>tp_Title</td>
<td>MyList</td>
</tr>
<tr>
<td>tp_Descr</td>
<td></td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>iption</td>
<td></td>
</tr>
<tr>
<td>tp_Modified</td>
<td>2008-03-03 18:49:33.000</td>
</tr>
<tr>
<td>tp_Created</td>
<td>2008-03-03 18:44:43.000</td>
</tr>
<tr>
<td>tp_Version</td>
<td>0</td>
</tr>
<tr>
<td>tp_BaseType</td>
<td>0</td>
</tr>
<tr>
<td>tp_FeatureId</td>
<td>00BFEA71-D1CE-42DE-9C63-A44004CE0104</td>
</tr>
<tr>
<td>tp_ServletTemplate</td>
<td>104</td>
</tr>
<tr>
<td>tp_RootFolder</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
</tr>
<tr>
<td>tp_Tempate</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_ReadSecurity</td>
<td>1</td>
</tr>
<tr>
<td>tp_WriteSecurity</td>
<td>1</td>
</tr>
<tr>
<td>tp_Fields</td>
<td>0xA8A930310C0000001E010000789C6DBEC10AC23010447FA5E403344DBD08EAC160C1831EA4 F710CC8AB9B6C445D2BFB7C14B29612FBBEBCBC969771B394FB7575D590E3D82770F783577 1BE02834586C8C334C2DS89ED9FD1F903D884693FFDF16BD3F6D535BD19A1B39489691A2 A61066BDCF9264C85CC37AF460B29449A52A312A62AD499DCB476AFE92E79C404CB22CE3230 062857EC6875DA4 Which is a compressed version of: 14.0.0.3923.0.0&lt;FieldRef Name=&quot;ContentTypeId&quot; /&gt;&lt;FieldRef Name=&quot;Title&quot; ColName=&quot;nvarchar1&quot; /&gt;&lt;FieldRef Name=&quot;_ModerationComments&quot; ColName=&quot;ntext1&quot; /&gt;/&lt;FieldRef Name=&quot;File_x0020_Type&quot; ColName=&quot;nvarchar2&quot; /&gt;&lt;FieldRef Name=&quot;Body&quot; ColName=&quot;ntext2&quot; /&gt;&lt;FieldRef Name=&quot;Expires&quot; ColName=&quot;datetime1&quot; /&gt; The XML conforms to the FieldDefinitionDatabaseWithVersion complex type, as defined by [MS-WSSFO2] section 2.2.8.3.5.</td>
</tr>
<tr>
<td>tp_Direction</td>
<td>0</td>
</tr>
<tr>
<td>tp_Flags</td>
<td>536875008</td>
</tr>
<tr>
<td>tp_ThumbnailSize</td>
<td>NULL</td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>tp_WebImageWidth</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_WebImageHeight</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_ImageUrl</td>
<td>/_layouts/images/itann.gif</td>
</tr>
<tr>
<td>tp_Author</td>
<td>1</td>
</tr>
<tr>
<td>tp_EventSinkAssembly</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_EventSinkClass</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_EventSinkData</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_EmailInsertsFolder</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_EmailAlias</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_DocTemplateUrl</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_ContentTypes</td>
<td>0xA8A930310C000000E500000789C758E4D0E82301844AF427A01A6BF94A492D096266E5C182</td>
</tr>
<tr>
<td></td>
<td>E40F4D38D144330D1DB8B385CB09D977932E4C79A1BCF49F279DE9561CE381E10D0E05F0C46</td>
</tr>
<tr>
<td></td>
<td>56D830CDA1BCF95B66D1B0220450D9B62D7B1C6A5E971A5B9E887F94ECB691BE9C0DA9CA757</td>
</tr>
<tr>
<td></td>
<td>8ED0B8959D9B8F27FA1713B802803075AC749594975D25945D01ACB94C760F4CFB7A96DFD3E</td>
</tr>
<tr>
<td></td>
<td>E1181957C018D3742E8</td>
</tr>
<tr>
<td></td>
<td>Which is a compressed version of:</td>
</tr>
<tr>
<td></td>
<td>&lt;ContentTypeRef ID=&quot;0x0104001F1398C3C5B6B1458AACC032908FDEE&quot;&gt;&lt;Folder</td>
</tr>
<tr>
<td></td>
<td>TargetName=&quot;Announcement&quot; /&gt;&lt;/ContentRef&gt;&lt;ContentTypeRef ID=&quot;0x012000269D757F4B3E724B8056003F1BF65&quot; /&gt;&lt;ContentType ID=&quot;0x0104&quot; /&gt;</td>
</tr>
<tr>
<td></td>
<td>Acl 0xF3FE00000100000000000000000300000003000000FFFFFFFFFFF7F040000061104308B000000005000000EE12433C0B0010000</td>
</tr>
<tr>
<td>tp_MaxMajorVersionCount</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_MaxMajorwithMinorVersionCount</td>
<td>NULL</td>
</tr>
</tbody>
</table>
### List Web Parts result set

specified in section 3.1.4.26.2, which contains all Web Parts defined on the list, one per each row. In this sample, four Web Parts will be returned. The first row is listed as the following:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>tp_ID</td>
<td>FD655044-665A-4468-BF7D-5CD1B41E1A3A</td>
</tr>
<tr>
<td>tp_ListID</td>
<td>D825D4D3-1352-49BB-A49B-8DC725D7458F</td>
</tr>
<tr>
<td>tp_Type</td>
<td>0</td>
</tr>
<tr>
<td>tp_Flags</td>
<td>25165825</td>
</tr>
<tr>
<td>tp_Hidden</td>
<td>0</td>
</tr>
<tr>
<td>tp_Themed</td>
<td>0</td>
</tr>
<tr>
<td>tp_FPMmodified</td>
<td>0</td>
</tr>
<tr>
<td>tp_ReadOnly</td>
<td>0</td>
</tr>
<tr>
<td>tp_Scope</td>
<td>[Empty String]</td>
</tr>
<tr>
<td>tp_RecurrenceRowset</td>
<td>0</td>
</tr>
<tr>
<td>tp_ModerationType</td>
<td>[Empty String]</td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>tp_Personal</td>
<td>0</td>
</tr>
<tr>
<td>tp_Ordered</td>
<td>0</td>
</tr>
<tr>
<td>tp_DisplayName</td>
<td>All Items</td>
</tr>
<tr>
<td>tp_ContentTypeId</td>
<td>0x</td>
</tr>
<tr>
<td>tp_PageUrl</td>
<td>/subweb/Lists/MyList/AllItems.aspx</td>
</tr>
<tr>
<td>tp_BaseViewId</td>
<td>1</td>
</tr>
<tr>
<td>tp_View</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_Level</td>
<td>1</td>
</tr>
<tr>
<td>tp_IsDefault</td>
<td>0</td>
</tr>
<tr>
<td>tp_ZoneID</td>
<td>Main</td>
</tr>
<tr>
<td>tp_IsIncluded</td>
<td>0</td>
</tr>
<tr>
<td>tp_PartOrder</td>
<td>1</td>
</tr>
<tr>
<td>tp_FrameState</td>
<td>0</td>
</tr>
<tr>
<td>Id</td>
<td>4905FA83-DEB9-4749-BE22-5E872CCF0521</td>
</tr>
<tr>
<td>OnQuickLaunch</td>
<td>1</td>
</tr>
<tr>
<td>tp_MobileView</td>
<td>1</td>
</tr>
<tr>
<td>tp_MobileDefaultView</td>
<td>1</td>
</tr>
<tr>
<td>tp_ContentTypeDefault</td>
<td>0</td>
</tr>
<tr>
<td>tp_LockWeb</td>
<td>0</td>
</tr>
<tr>
<td>tp_FailIfEmpty</td>
<td>0</td>
</tr>
<tr>
<td>tp_FreeForm</td>
<td>0</td>
</tr>
<tr>
<td>tp_FileDialog</td>
<td>0</td>
</tr>
<tr>
<td>tp_AggregationView</td>
<td>0</td>
</tr>
<tr>
<td>tp_IncludeRootFolder</td>
<td>0</td>
</tr>
<tr>
<td>tp_IncludeVersions</td>
<td>0</td>
</tr>
</tbody>
</table>

- **Event Receivers result set**, which contains 0 rows because this list does not have any event receiver associated with it.
- **Deleted Fields result set**, specified in section 3.1.4.26.4, is not returned because this is not an Incremental Export Operation.
- **Deleted Views result set**, specified in section 3.1.4.26.5, is not returned because this is not an Incremental Export Operation.
- **Deleted Content Types result set**, specified in section 3.1.4.26.6, is not returned because this is not an Incremental Export Operation.

- **Null List result set**, specified in section 3.1.4.26.7, which contains 1 row.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ListId</td>
<td>NULL</td>
</tr>
<tr>
<td>FieldId</td>
<td>NULL</td>
</tr>
</tbody>
</table>

- **Null List result set two**, specified in section 3.1.4.26.8, which contains 1 row.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ListId</td>
<td>NULL</td>
</tr>
<tr>
<td>ViewId</td>
<td>NULL</td>
</tr>
</tbody>
</table>

- **Null List result set three**, specified in section 3.1.4.26.9, which contains 1 row.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ListId</td>
<td>NULL</td>
</tr>
<tr>
<td>{ContentTypeId}</td>
<td>NULL</td>
</tr>
</tbody>
</table>

- **List User Custom Actions result set**, specified in section 3.1.4.26.10, which contains 0 rows because this list does not have any custom actions associated with it.

- **List Unique Resources result set**, specified in section 3.1.4.26.11, which contains 0 rows because the list does not have a unique resource associated with it.

- **List All Resources result set**, specified in section 3.1.4.26.12, which contains 0 rows because the list does not have any resources associated with it.

- Call **`proc_DeplGetListItemData`**, specified in section 3.1.4.30, to retrieve the metadata of the list items in the "MyList" list. The stored procedure is called with the following parameters:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@ LastOrdinal</td>
<td>0</td>
</tr>
<tr>
<td>@ VersionSetting</td>
<td>4</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>@ListId</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
<tr>
<td>@Columns</td>
<td>nvarchar1,ntext1,nvarchar2,ntext2,datetime1</td>
</tr>
<tr>
<td>@IsSolutionGallery</td>
<td>0</td>
</tr>
</tbody>
</table>

This stored procedure returns ten result sets.

List Item Data result set, specified in section 3.1.4.30.1, which contains meta data of the list items, one per row. The "MyList" list contains only 1 list item. Therefore, this result set contains only 1 row, as following:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>6F7A8954-EC20-4861-864A-A634BCA5028D</td>
</tr>
<tr>
<td>ExportObjectUrl</td>
<td>subweb/Lists/MyList/1_.000</td>
</tr>
<tr>
<td>Ordinal</td>
<td>11</td>
</tr>
<tr>
<td>ParentId</td>
<td>D825D4D3-1352-49BB-A498-8DC725D7458F</td>
</tr>
<tr>
<td>DirName</td>
<td>subweb/Lists/MyList</td>
</tr>
<tr>
<td>LeafName</td>
<td>1_.000</td>
</tr>
<tr>
<td>IntId</td>
<td>1</td>
</tr>
<tr>
<td>tp_RowOrdinal</td>
<td>0</td>
</tr>
<tr>
<td>tp_UIVersion</td>
<td>512</td>
</tr>
<tr>
<td>tp_Author</td>
<td>1</td>
</tr>
<tr>
<td>tp_Editor</td>
<td>1</td>
</tr>
<tr>
<td>tp_Modified</td>
<td>2008-03-03 18:49:33.000</td>
</tr>
<tr>
<td>tp_Created</td>
<td>2008-03-03 18:49:33.000</td>
</tr>
<tr>
<td>tp_Ordering</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_HasAttachme nt</td>
<td>0</td>
</tr>
<tr>
<td>tp_ModerationSt atus</td>
<td>0</td>
</tr>
<tr>
<td>tp_IsCurrent</td>
<td>1</td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>tp_ItemOrder</td>
<td>100.0</td>
</tr>
<tr>
<td>tp_InstanceID</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_CopySource</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_HasCopyDestinations</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_AuditFlags</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_InheritAuditFlags</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_ContentType</td>
<td>Announcement</td>
</tr>
<tr>
<td>tp_ContentTypeId</td>
<td>0x0104004475039B7ED69249ADDE60E6DAC4CE4A</td>
</tr>
<tr>
<td>tp_ThreadIndex</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_UIVersionString</td>
<td>1.0</td>
</tr>
<tr>
<td>Id</td>
<td>D2DB5C42-1FB1-4B47-BE2D-85FC7B0D33AC</td>
</tr>
<tr>
<td>Type</td>
<td>0</td>
</tr>
<tr>
<td>FolderId</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
</tr>
<tr>
<td>ProgId</td>
<td>NULL</td>
</tr>
<tr>
<td>Acl</td>
<td>0xF3FE0000010000000000000300000000300000000FFFFFFF7F040000061104308B000000005000000EF12433CB0010000</td>
</tr>
<tr>
<td>UserLoginName</td>
<td>NULL</td>
</tr>
<tr>
<td>GroupName</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_Level</td>
<td>1</td>
</tr>
</tbody>
</table>

- **Field Data result set**, specified in section 3.1.4.30.2, which contains the field data for the current version of the list item. In this example, the result set contains 1 row, as the following:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>6F7A8954-EC20-4861-864A-A634BCA5028D</td>
</tr>
<tr>
<td>IntId</td>
<td>1</td>
</tr>
<tr>
<td>Id</td>
<td>D2DB5C42-1FB1-4B47-BE2D-85FC7B0D33AC</td>
</tr>
<tr>
<td>tp_UIVersion</td>
<td>512</td>
</tr>
<tr>
<td>tp_UIVersionString</td>
<td>1.0</td>
</tr>
<tr>
<td>tp_RowOrdinal</td>
<td>0</td>
</tr>
</tbody>
</table>
### Column Name | Description
--- | ---
nvarchar1 | A new announcement!
ntext1 | NULL
nvarchar2 | NULL
ntext2 | \(<\text{div class=ExternalClass54E2F257DBEA44C0B29B6FC9D1E6F200}><\text{div}></\text{div}></\text{div}>\) NULL
datetime1 | NULL
tp_Level | 1

- **Multi Lookup result set**, specified in section 3.1.4.30.3, does not contain any rows because this list does not have any lookup fields to another list.
- **List Item Versions result set**, specified in section 3.1.4.30.4, contains 1 row because the list item in this list has only 1 version.

### Column Name | Description
--- | ---
Id | 6F7A8954-EC20-4861-864A-A634BCA5028D
ExportObjectUrl | subweb/Lists/MyList/1_.000
Ordinal | 11
ParentId | D825D4D3-1352-49B8-A498-8DC725D7458F
DirName | subweb/Lists/MyList
LeafName | 1_.000
IntId | 1
tp_RowOrdinal | 0
tp_UIVersion | 512
tp_Author | 1
tp_Editor | 1
tp_Modified | 2008-03-03 18:49:33.000
tp_Created | 2008-03-03 18:49:33.000
tp_Ordering | NULL
tp_HasAttachment | 0
tp_ModerationStatus | 0
tp_IsCurrent | 1
tp_ItemOrder | 100.0
tp_InstanceID | NULL
<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>tp_CopySource</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_HasCopyDestinations</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_AuditFlags</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_InheritAuditFlags</td>
<td>NULL</td>
</tr>
<tr>
<td>tp.CONTENTType</td>
<td>Announcement</td>
</tr>
<tr>
<td>tp.CONTENTTypeId</td>
<td>0x0104004475039B7ED69249ADDE60E6DAC4CE4A</td>
</tr>
<tr>
<td>{tp_ThreadIndex}</td>
<td>NULL</td>
</tr>
<tr>
<td>tp.UIVersionString</td>
<td>1.0</td>
</tr>
<tr>
<td>{Id}</td>
<td>NULL</td>
</tr>
<tr>
<td>{Type}</td>
<td>NULL</td>
</tr>
<tr>
<td>{Acl}</td>
<td>NULL</td>
</tr>
<tr>
<td>{UserLoginName}</td>
<td>NULL</td>
</tr>
<tr>
<td>{GroupName}</td>
<td>NULL</td>
</tr>
<tr>
<td>tp_LEVEL</td>
<td>1</td>
</tr>
</tbody>
</table>

- **Versions Fields Data result set**, specified in section 3.1.4.30.5, contains 1 row because the list item in this list has only 1 version.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>6F7A8954-EC20-4861-864A-A634BCA5028D</td>
</tr>
<tr>
<td>IntId</td>
<td>1</td>
</tr>
<tr>
<td>DocId</td>
<td>D2DB5C42-1FB1-4B47-BE2D-85FC7B0D33AC</td>
</tr>
<tr>
<td>tp.UIVersion</td>
<td>512</td>
</tr>
<tr>
<td>tp.UIVersionString</td>
<td>1.0</td>
</tr>
<tr>
<td>tp_ROWOrdinal</td>
<td>0</td>
</tr>
<tr>
<td>nvarchar1</td>
<td>A new announcement!</td>
</tr>
<tr>
<td>ntext1</td>
<td>NULL</td>
</tr>
<tr>
<td>nvarchar2</td>
<td>NULL</td>
</tr>
<tr>
<td>ntext2</td>
<td>&lt;div class=ExternalClass54E2F2F257DBEA44C0B29B6FC9D1E6F200&gt;&lt;/div&gt;&lt;/div&gt;&lt;/div&gt;</td>
</tr>
<tr>
<td>datetime1</td>
<td>NULL</td>
</tr>
<tr>
<td>tp.LEVEL1</td>
<td>NULL</td>
</tr>
<tr>
<td>tp.LEVEL</td>
<td>1</td>
</tr>
</tbody>
</table>
- **Versions Multi Lookup result set**, specified by section 3.1.4.30.6, does not contain any rows, because the list does not have any look up fields to another list.

- **List Item Links result set**, specified by section 3.1.4.30.7, does not contain any rows because the list item in this list does not contain any links.

- **Attachments result set**, specified in section 3.1.4.30.8, does not contain any rows because the list item in this list does not have any attachments.

- **List Item Event Receivers result set**, specified in section 3.1.4.30.10, does not contain any rows because there are no event receivers associated with the list item in this list.

- **List Item Solutions result set**, specified in section 3.1.4.30.11, does not contain any rows because there are no custom solutions associated with the list item in this list.

- Call proc_DeplGetNextObjectBatch, specified in section 3.1.4.33, again to get the next batch, with parameter @LastOrdinal = 11. The result set does not contain any rows because there are no more data objects that need to be exported.

![Diagram showing data flow between Front-End Web Server and Back-End Database Server]

**Figure 8: Process used to export a list (Part 3)**

- Export security principals. Call proc_DeplExportUsers, specified in section 3.1.4.14, with the following parameters:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@UserIdCur</td>
<td>-1</td>
</tr>
</tbody>
</table>

The **Security Principal Information result set**, specified in section 3.1.4.14.1, contains 1 row:
### Column Name | Description
--- | ---
| tp_SiteId | 54F720B1-EC52-44CB-B347-6747DA861CBC |
| tp_Id | 1 |
| tp_Title | User |
| tp_Login | Redmond\user |
| tp_Email | user@exchange.microsoft.com |
| tp_Notes | [Empty String] |
| tp_DomainGroup | 0 |
| tp_SiteAdmin | 1 |
| tp_SystemId | 0x010500000000000515000000A065CF7E784B9B5FE77C87704AB10000 |
| tp_Deleted | 0 |
| tp_Mobile | NULL |
| tp_Flags | 0 |

- Export security groups. Call proc_DeplExportGroups, specified in section 3.1.4.8, with the following parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@GroupIdCur</td>
<td>-1</td>
</tr>
</tbody>
</table>

- Security Group Information result set, specified in section 3.1.4.8.1, contains 1 row as the following:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>3</td>
</tr>
<tr>
<td>Title</td>
<td>Team Site Owners</td>
</tr>
<tr>
<td>Description</td>
<td>Use this group to give people full control permissions to the SharePoint site: Team Site Owner</td>
</tr>
<tr>
<td>Owner</td>
<td>3</td>
</tr>
<tr>
<td>OwnerIsUser</td>
<td>0</td>
</tr>
<tr>
<td>RequestEmail</td>
<td><a href="mailto:user@exchange.microsoft.com">user@exchange.microsoft.com</a></td>
</tr>
<tr>
<td>Column Name</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Flags</td>
<td>1</td>
</tr>
</tbody>
</table>

- **Security Group Memberships result set**, specified in section 3.1.4.8.2, contains 1 row as the following:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MemberId</td>
<td>1</td>
</tr>
</tbody>
</table>

- Retrieve information about root level objects by calling `proc_DeplGetRootObjects`, specified in section 3.1.4.37. The **Root Objects result set**, specified in section 3.1.4.37.1, contains two rows. The first row is shown as the following:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>F78F95EA-59FB-43A6-860A-8F2F34C06F74</td>
</tr>
<tr>
<td>Type</td>
<td>2</td>
</tr>
<tr>
<td>ParentId</td>
<td>36583090-D164-418C-A626-689B83092AF1</td>
</tr>
<tr>
<td>FullUrl</td>
<td>subweb</td>
</tr>
<tr>
<td>FullUrl</td>
<td>subweb/Lists/MyList</td>
</tr>
<tr>
<td>IsDependency</td>
<td>0</td>
</tr>
<tr>
<td>IsSelected</td>
<td>0</td>
</tr>
</tbody>
</table>

- Retrieve information about migration system objects by calling `proc_DeplGetSystemObjects`, specified in section 3.1.4.38, with @SiteId = '54F720B1-EC52-44CB-B347-6747DA861CBC'. The result set returned one row:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>F0679A07-C519-4570-A7D9-FF6343187332</td>
</tr>
<tr>
<td>Type</td>
<td>3</td>
</tr>
<tr>
<td>{Url}</td>
<td>/_catalogs/users</td>
</tr>
</tbody>
</table>

- The client now has collected enough information about the objects to be exported. It serializes this information into the XML file format as described in Deployment Package.

### 4.2 Import a List

This example shows the communication between the client and the server when importing a Deployment Package which contains one list named "MyList", and one list item inside it. The Deployment Package also contains several other data objects that are necessary for the list to function properly. Such a Deployment Package could be created by using this protocol with steps outlined in the previous example.

The import operation will use a number of stored procedures from outside of this protocol. The definition of those stored procedures can be found in [MS-WSSFO2] and [MS-WSSDLIM2].
Figure 9: Importing a list

- Prepare the data to be imported. If the data was from a XML package such as a Deployment package, the client is required to parse it and convert the XML file into data that are usable by the stored procedures. In this example, the client has the following data to import. The data will be imported into a Site at http://server2/sites/import.

<table>
<thead>
<tr>
<th>Date Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>List</td>
<td>Name = &quot;My List&quot;</td>
</tr>
<tr>
<td>List Item</td>
<td>Title = &quot;A new announcement!&quot;</td>
</tr>
<tr>
<td>Folder</td>
<td>Lists/MyList, List support folder</td>
</tr>
<tr>
<td>Folder</td>
<td>Lists/MyList/Announcement, List support folder</td>
</tr>
</tbody>
</table>
Call `proc_DeplGetParentWebIdFromDocUrl`, specified in section 3.1.4.36, to obtain the site and list information of a folder 'Lists/MyList'. The following parameters are used.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>54F720B1-EC52-44CB-B347-6747DA861CBC</td>
</tr>
<tr>
<td>@DocUrl</td>
<td>Sites/Import</td>
</tr>
</tbody>
</table>

The `Location result set`, specified in section 3.1.4.36.1, returned is the following, which provides the identifier of the site where data are being imported to. Many subsequence stored procedure calls will use this information.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WebId</td>
<td>8F7BFFAC-5FDA-4B90-B130-DF1CBF13252A</td>
</tr>
<tr>
<td>ListId</td>
<td>NULL</td>
</tr>
</tbody>
</table>

Call `proc_CreateDir`, specified in [MS-WSSFO2] section 3.1.5.9, to import the folder "Lists/MyList". The parameters are the following:
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@DirSiteId</td>
<td>94CC3683-3875-43D0-8DC2-9F82A7D43EB7</td>
</tr>
<tr>
<td>@DirWebId</td>
<td>8F7BFFAC-5FDA-4B90-B130-DF1CBF13252A</td>
</tr>
<tr>
<td>@DirDirName</td>
<td>Sites/Import</td>
</tr>
<tr>
<td>@DirLeafName</td>
<td>MyList</td>
</tr>
<tr>
<td>@DirLevel</td>
<td>1</td>
</tr>
<tr>
<td>@AddMinorVersion</td>
<td>0</td>
</tr>
<tr>
<td>@DocFlags</td>
<td>0</td>
</tr>
<tr>
<td>@CreateDirFlags</td>
<td>24</td>
</tr>
<tr>
<td>@UserId</td>
<td>1</td>
</tr>
</tbody>
</table>

This stored procedure returns 0 when it creates the folder successfully.

Repeat step 2 and 3 until all folders are imported.

Call proc_FileExists, specified in section 3.1.4.42, to check if a file "/importweb/Lists/MyList/AllItems.aspx" already exists before importing it. The parameters are the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>94CC3683-3875-43D0-8DC2-9F82A7D43EB7</td>
</tr>
</tbody>
</table>
The stored procedure returns 0 when it finishes execution successfully. The output parameters are returned as the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@IsDeleted</td>
<td>0</td>
</tr>
<tr>
<td>@DocExists</td>
<td>0</td>
</tr>
<tr>
<td>@DestDocId</td>
<td>NULL</td>
</tr>
</tbody>
</table>

The result indicates the file does not exist.

Call [MS-WSSDLIM2] section 3.1.4.5 import File "Lists/MyList/AllItems.aspx". The parameters are the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>94CC3683-3875-43D0-8DC2-9F82A7D43EB7</td>
</tr>
<tr>
<td>@WebId</td>
<td>8F7BFFAC-5FDA-4B90-B130-DF1CBF13252A</td>
</tr>
<tr>
<td>@DocId</td>
<td>1D37ECF4-D2E1-4A98-A440-4A911F4F1E68</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>@DocDirName</td>
<td>sites/import/MyList</td>
</tr>
<tr>
<td>@DocLeafName</td>
<td>AllItems.aspx</td>
</tr>
<tr>
<td>@Level</td>
<td>1</td>
</tr>
<tr>
<td>@UIVersion</td>
<td>512</td>
</tr>
<tr>
<td>@EnableMinorVersions</td>
<td>0</td>
</tr>
<tr>
<td>@DocSize</td>
<td>2661</td>
</tr>
<tr>
<td>@DocFlags</td>
<td>268</td>
</tr>
<tr>
<td>@OnRestore</td>
<td>1</td>
</tr>
<tr>
<td>@Overwrite</td>
<td>0</td>
</tr>
<tr>
<td>@UserId</td>
<td>1</td>
</tr>
<tr>
<td>@HasDeleteListItemsRight</td>
<td>0</td>
</tr>
<tr>
<td>@SetupPathVersion</td>
<td>3</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>@SetupPath</td>
<td>pages\viewpage.aspx</td>
</tr>
<tr>
<td>@SetupPathUser</td>
<td>Redmond\user</td>
</tr>
<tr>
<td>@ListId</td>
<td>NULL</td>
</tr>
<tr>
<td>@DoclibRowId</td>
<td>NULL</td>
</tr>
<tr>
<td>@fCheckQuotaAndWriteLock</td>
<td>0</td>
</tr>
</tbody>
</table>

The store procedure returns 0 after the document was successfully imported.

Repeat step 4 and 5 until all files are imported.

Call **proc_CreateList**, specified in [MS-WSSDLIM2] section 3.1.4.19, to create the "MyList" list. The parameters are the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>94CC3683-3875-43D0-8DC2-9F82A7D43EB7</td>
</tr>
<tr>
<td>@WebId</td>
<td>8F7BFFAC-5FDA-4B90-B130-DF1CBF13252A</td>
</tr>
<tr>
<td>@ListId</td>
<td>494CFA0C-BAA8-45F1-9C7B-C8C843DC1C93</td>
</tr>
<tr>
<td>@DirName</td>
<td>NULL</td>
</tr>
<tr>
<td>@FolderNameBase</td>
<td>NULL</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>@bAlternateUrlOnCollision</td>
<td>1</td>
</tr>
<tr>
<td>@Title</td>
<td>MyList</td>
</tr>
<tr>
<td>@Version</td>
<td>1</td>
</tr>
<tr>
<td>@Author</td>
<td>1</td>
</tr>
<tr>
<td>@BaseType</td>
<td>0</td>
</tr>
<tr>
<td>@bCreateAttachmentsSubFolder</td>
<td>0</td>
</tr>
<tr>
<td>@FeatureId</td>
<td>00BFEA71-D1CE-42DE-9C63-A44004CE0104</td>
</tr>
<tr>
<td>@ServerTemplate</td>
<td>104</td>
</tr>
<tr>
<td>@DocLibTemplate</td>
<td>NULL</td>
</tr>
<tr>
<td>@ImageUrl</td>
<td>/_layouts/images/itann.gif</td>
</tr>
<tr>
<td>@ReadSecurity</td>
<td>1</td>
</tr>
<tr>
<td>@WriteSecurity</td>
<td>1</td>
</tr>
<tr>
<td>@Description</td>
<td>[Empty String]</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>@MajorVersionCount</td>
<td>NULL</td>
</tr>
<tr>
<td>@MinorVersionCount</td>
<td>NULL</td>
</tr>
<tr>
<td>@Fields</td>
<td>12.0.0.6304.0.0&lt;FieldRef Name=&quot;ContentTypeId&quot;/&gt;&lt;FieldRef Name=&quot;Title&quot; ColName=&quot;nvarchar1&quot;/&gt;&lt;FieldRef Name=&quot;_ModerationComments&quot; ColName=&quot;ntext1&quot;/&gt;&lt;FieldRef Name=&quot;File_x0020_Type&quot; ColName=&quot;nvarchar2&quot;/&gt;&lt;FieldRef Name=&quot;Body&quot; ColName=&quot;ntext2&quot;/&gt;&lt;FieldRef Name=&quot;Expires&quot; ColName=&quot;datetime1&quot;/&gt;</td>
</tr>
<tr>
<td>@Direction</td>
<td>0</td>
</tr>
<tr>
<td>@Flags</td>
<td>545263616</td>
</tr>
<tr>
<td>@ThumbnailSize</td>
<td>NULL</td>
</tr>
<tr>
<td>@WebImageWidth</td>
<td>NULL</td>
</tr>
<tr>
<td>@WebImageHeight</td>
<td>NULL</td>
</tr>
<tr>
<td>@bParentFolderChecked</td>
<td>0</td>
</tr>
<tr>
<td>@OnRestore</td>
<td>0</td>
</tr>
<tr>
<td>@EventSinkAssembly</td>
<td>NULL</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>@EventSinkClass</td>
<td>NULL</td>
</tr>
<tr>
<td>@EventSinkData</td>
<td>NULL</td>
</tr>
<tr>
<td>@ContentTypes</td>
<td>&lt;ContentTypeRef ID=&quot;0x0104004475039B7ED69249ADDE60E6DAC4CE4A&quot; /&gt; &lt;Folder TargetName=&quot;Announcement&quot;/&gt; &lt;ContentTypeRef ID=&quot;0x012000B599492C8570004D4ACBD86A4B77EAE9C9&quot; /&gt; &lt;ContentType ID=&quot;0x0104&quot; /&gt; &lt;ContentType ID=&quot;0x0120&quot; /&gt;</td>
</tr>
<tr>
<td>@RootFolderId</td>
<td>8570D03E-2C7D-4863-BABA-B8DC2F01A6D6</td>
</tr>
<tr>
<td>@SiteId</td>
<td>94CC3683-3875-43D0-8DC2-9FB2A7D43EB7</td>
</tr>
<tr>
<td>@WebId</td>
<td>8F7BFFAC-5FDA-4B90-B130-DF1CBF13252A</td>
</tr>
<tr>
<td>@ListID</td>
<td>494CFA0C-BAA8-45F1-9C7B-C8C843DC1C93</td>
</tr>
<tr>
<td>@RowOrdinal</td>
<td>0</td>
</tr>
<tr>
<td>@ItemDocType</td>
<td>0</td>
</tr>
<tr>
<td>@RetainId</td>
<td>689BE3B3-ABC4-4B81-9F44-FADAE3FDBF02</td>
</tr>
<tr>
<td>@RetainObjectId</td>
<td>1</td>
</tr>
<tr>
<td>@ItemDirName</td>
<td>sites/import/MyList</td>
</tr>
<tr>
<td>@ItemLeafName</td>
<td>NULL</td>
</tr>
<tr>
<td>@UserID</td>
<td>1</td>
</tr>
<tr>
<td>@TimeNow</td>
<td>20080305 00:02:48</td>
</tr>
<tr>
<td>@ServerTemplate</td>
<td>104</td>
</tr>
<tr>
<td>@Basetype</td>
<td>0</td>
</tr>
<tr>
<td>@tp_GUID</td>
<td>4EBAEAC61-BDFF-47A5-93B2-52B3F608613C</td>
</tr>
</tbody>
</table>
The stored procedure returns 0 when the list is created successfully. It also returns the identifier and full URL result set, specified in [MS-WSSDLIM2] section 3.1.4.19.2, with 1 row:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>{ListId}</td>
<td>494CFA0C-BAA8-45F1-9C7B-C8C843DC1C93</td>
</tr>
<tr>
<td>{FolderFullUrl}</td>
<td>sites/import/MyList</td>
</tr>
</tbody>
</table>

- Call `proc_DeplGetListItemAndReserveId`, specified in section 3.1.4.27, in preparation to import the list items. The parameters are the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>94CC3683-3875-43D0-8DC2-9F82A7D43EB7</td>
</tr>
</tbody>
</table>
The stored procedure returns 0 upon completion. It also returns the output parameters as the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ListId</td>
<td>494CFA0C-BAA8-45F1-9C7B-C8C843DC1C93</td>
</tr>
<tr>
<td>@DocId</td>
<td>D2DB5C42-1FB1-4B47-BE2D-85FC7B0D33AC</td>
</tr>
<tr>
<td>@WebId</td>
<td>8F7BFFAC-5FDA-4B90-B130-DF1CBF13252A</td>
</tr>
<tr>
<td>@OriginalListItemId</td>
<td>1</td>
</tr>
</tbody>
</table>

The stored procedure returns 0 upon completion. It also returns the output parameters as the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@DocId</td>
<td>D2DB5C42-1FB1-4B47-BE2D-85FC7B0D33AC</td>
</tr>
<tr>
<td>@IsDeleted</td>
<td>0</td>
</tr>
<tr>
<td>@ListItemId</td>
<td>1</td>
</tr>
<tr>
<td>@IsIdTaken</td>
<td>0</td>
</tr>
<tr>
<td>@ListItemUrl</td>
<td>NULL</td>
</tr>
</tbody>
</table>

Call [MS-WSSFO2] section 3.1.5.4 to import the list items. The parameters are the following:

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>94CC3683-3875-43D0-8DC2-9F82A7D43EB7</td>
</tr>
<tr>
<td>@WebId</td>
<td>8F7BFFAC-5FDA-4B90-B130-DF1CBF13252A</td>
</tr>
<tr>
<td>@ListID</td>
<td>494CFA0C-BAA8-45F1-9C7B-C8C843DC1C93</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Parameter Value</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>@RowOrdinal</td>
<td>0</td>
</tr>
<tr>
<td>@ItemDocType</td>
<td>0</td>
</tr>
<tr>
<td>@RetainId</td>
<td>689BE3B3-ABC4-4B81-9F44-FADAE3FDBF02</td>
</tr>
<tr>
<td>@RetainObjectIdentity</td>
<td>1</td>
</tr>
<tr>
<td>@UserID</td>
<td>1</td>
</tr>
<tr>
<td>@TimeNow</td>
<td>'20080305 00:02:48</td>
</tr>
<tr>
<td>@ServerTemplate</td>
<td>104</td>
</tr>
<tr>
<td>@Basetype</td>
<td>0</td>
</tr>
<tr>
<td>@Level</td>
<td>1</td>
</tr>
<tr>
<td>@tp_GUID</td>
<td>4EBEAC61-BDFF-47A5-93B2-52B3F608613C,</td>
</tr>
<tr>
<td>@OnRestore</td>
<td>1,</td>
</tr>
<tr>
<td>@AddNamespace</td>
<td>1,</td>
</tr>
<tr>
<td>@CheckDiskQuota</td>
<td>1,</td>
</tr>
<tr>
<td>@tp_ContentTypeId</td>
<td>0x0104004475039B7ED69249ADDE60E6DAC4CE4A</td>
</tr>
<tr>
<td>@nvarchar1</td>
<td>A new announcement!</td>
</tr>
<tr>
<td>@ntext1</td>
<td>NULL</td>
</tr>
<tr>
<td>@nvarchar2</td>
<td>NULL</td>
</tr>
<tr>
<td>@ntext2</td>
<td>&lt;div class=ExternalClass54E2F257DBEA44C0B29B6FC9D1E6F200&gt;&lt;/div&gt;&lt;/div&gt;&lt;/div&gt;</td>
</tr>
<tr>
<td>@datetime1</td>
<td>NULL</td>
</tr>
<tr>
<td>@tp_ContentType</td>
<td>Announcement</td>
</tr>
<tr>
<td>@tp_ModerationStatus</td>
<td>0</td>
</tr>
<tr>
<td>@Size</td>
<td>212</td>
</tr>
<tr>
<td>@ExtraItemSize</td>
<td>0</td>
</tr>
<tr>
<td>@ItemName</td>
<td>A new announcement!</td>
</tr>
<tr>
<td>@acl</td>
<td>0xF3FE00000100000000000000100000001000000FFFFFFFFFFFFFFFF7F</td>
</tr>
</tbody>
</table>

This stored procedure returns 0 after the list item is successfully created.

### 4.3 Remove Unused Web Parts After Importing a File

This example shows queries that are used to directly update the **Links Table**, the **WebParts Table**, and the **WebPartLists Table**, sections 2.2.7.1, 2.2.7.2, and 2.2.7.3 to find and remove unused web parts after a file is imported. The steps match the ones shown in section 3.2.4.4.
1. Create the #WebParts Table

   CREATE TABLE #WebParts (WebPartId uniqueidentifier NOT NULL PRIMARY KEY)

2. While importing the file, add the web parts referenced by this file to the #WebParts Table

   INSERT INTO #WebParts VALUES(@WebPartId) 'BA8CB0D4-CD11-43F7-823E-0394DFFA891'

3. Delete any rows in the Links Table, the WebParts Table and WebPartLists Table, section 2.2.7.1, 2.2.7.2, and 2.2.7.3, if the web part represented by that row is associated with the file being imported, but the identifier for the Web Part is not contained in the #WebParts Table.

   DELETE Links FROM
   (SELECT L2.WebPartId FROM Links AS L2 WHERE
    L2.SiteId = @SiteId AND
    L2.DocId = @DocId AND
    L2.WebPartId IS NOT NULL AND
    (NOT EXISTS
     (SELECT 1 FROM #WebParts AS TempWP WHERE
      TempWP.WebPartId = L2.WebPartId)
    )
   ) AS L1
   WHERE
    Links.SiteId = @SiteId AND
    Links.DocId = @DocId AND
    Links.WebPartId IS NOT NULL AND
    Links.WebPartId = L1.WebPartId AND
    Links.Level = 1

   DELETE WebPartLists FROM
   (SELECT WP2.tp_ID FROM WebParts AS WP2 WHERE
    WP2.tp_SiteId = @SiteId AND
    WP2.tp_PageUrlID = @DocId AND
    WP2.tp_UserID IS NULL AND
    (NOT EXISTS
     (SELECT 1 FROM #WebParts AS TempWP WHERE
      TempWP.WebPartId = WP2.tp_ID)
    )
   ) AS WP1
   WHERE
    WebPartLists.tp_SiteId = @SiteId AND
    WebPartLists.tp_WebPartID = WP1.tp_ID AND
    WebPartLists.tp_Level = 1

   DELETE WebParts FROM
   (SELECT WP2.tp_ID FROM WebParts AS WP2 WHERE
    WP2.tp_SiteId = @SiteId AND
    WP2.tp_PageUrlID = @DocId AND
    WP2.tp_UserID IS NULL AND
    (NOT EXISTS
     (SELECT 1 FROM #WebParts AS TempWP WHERE
      TempWP.WebPartId = WP2.tp_ID)
    )
   ) AS WP1
   WHERE
    WebParts.tp_SiteId = @SiteId AND
WebParts.tp_ID = WP1.tp_ID AND
WebParts.tp_Level = 1

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SiteId</td>
<td>7537FBDF-2B82-43E7-9F16-9251CA8879FE</td>
<td>Identifier of the Site Collection which contains the document being imported.</td>
</tr>
<tr>
<td>@DocId</td>
<td>CEED281B-7684-43C4-A6B4-6A25DA1558EB</td>
<td>Identifier of the document that is being imported</td>
</tr>
</tbody>
</table>

- Clean up all the rows in the #WebParts Table

    TRUNCATE TABLE #WebParts
5 Security

5.1 Security Considerations for Implementers

Interactions with SQL are susceptible to tampering and other forms of security risks. Implementers are advised to sanitize input parameters for stored procedures prior to invoking the stored procedure.

5.2 Index of Security Parameters

<table>
<thead>
<tr>
<th>Security Parameter</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>proc_DeplExportGroups</td>
<td>3.1.4.8</td>
</tr>
<tr>
<td>proc_DeplExportGroupX</td>
<td>3.1.4.9</td>
</tr>
<tr>
<td>proc_DeplExportRoleAssignments</td>
<td>3.1.4.10</td>
</tr>
<tr>
<td>proc_DeplExportRoleAssignmentX</td>
<td>3.1.4.11</td>
</tr>
<tr>
<td>proc_DeplExportRoles</td>
<td>3.1.4.12</td>
</tr>
<tr>
<td>proc_DeplExportRoleX</td>
<td>3.1.4.13</td>
</tr>
<tr>
<td>proc_DeplExportUsers</td>
<td>3.1.4.14</td>
</tr>
<tr>
<td>proc_DeplExportUserX</td>
<td>3.1.4.15</td>
</tr>
</tbody>
</table>
6 Appendix A: Product Behavior

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

- Microsoft® SharePoint® Foundation 2010
- Microsoft® SQL Server® 2005
- Microsoft® SQL Server® 2008
- Microsoft® SQL Server® 2008 R2

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

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

No table of changes is available. The document is either new or has had no changes since its last release.
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