[MS-CONNMGR-Diff]:

Integration Services Connection Manager File Format

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Revision Summary

Date	Revision History	Revision Class	Comments
7/7/2011	0.1	New	Released new document.
11/3/2011	0.1	None	No changes to the meaning, language, or formatting of the technical content.
1/19/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
2/23/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
3/27/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
5/24/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
6/29/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
7/16/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
10/8/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
10/23/2012	0.1	None	No changes to the meaning, language, or formatting of the technical content.
3/26/2013	0.1	None	No changes to the meaning, language, or formatting of the technical content.
6/11/2013	0.1	None	No changes to the meaning, language, or formatting of the technical content.
8/8/2013	0.1	None	No changes to the meaning, language, or formatting of the technical content.
12/5/2013	0.1	None	No changes to the meaning, language, or formatting of the technical content.
2/11/2014	1.0	Major	Updated and revised the technical content.
5/20/2014	1.0	None	No changes to the meaning, language, or formatting of the technical content.
5/10/2016	2.0	Major	Significantly changed the technical content.
8/16/2017	3.0	Major	Significantly changed the technical content.

Table of Contents

1   Introduction

The Microsoft SQL Server Integration Services (SSIS) connection manager file format provides the format for the connection manager file. The connection manager file is a file type that is used to store the metadata for a project connection manager.

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

1.1   Glossary

This document uses the following terms:

connection manager: A component that is referenced by an SSIS package. A connection manager stores the information necessary to establish connections to external resources and establishes and provides these connections, on demand, to other components within the SSIS package.

project: A collection of Integration Services (IS) packages that are developed and deployed as a unit.

project connection manager: A connection manager that is defined at the scope of the project rather than at the scope of any particular package. Because the project connection manager is defined at the project scope, the project connection manager can be used within each package in the project.

serialization: A mechanism by which an application converts an object into an XML representation.

SQL Server Integration Services (SSIS) package: A module of a project. The module contains control flow and data flow, as specified in [MS-DTSX] section 1.3.

XML document: A document object that is well formed, as described in [XML10/5], and might be valid. An XML document has a logical structure that is composed of declarations, elements, comments, character references, and processing instructions. It also has a physical structure that is composed of entities, starting with the root, or document, entity.

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

1.2   References

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

1.2.1   Normative References

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

[MS-DTSX2] Microsoft Corporation, "Data Transformation Services Package ~~XML Version~~XMLVersion 2 File Format".

[MS-DTSX] Microsoft Corporation, "Data Transformation Services Package XML File Format".

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

1.2.2 Informative References

None.

1.3 Overview

The file format for the Integration Services connection manager file is a file type that is used to store the metadata for a project connection manager.

The connection manager file is an XML document.

1.4 Relationship to Protocols and Other Structures

The connection manager file format can be used as a payload in protocols that support the transport of binary data.

1.5 Applicability Statement

The connection manager file format is applicable for use in ~~a~~an Integration Services project.

1.6 Versioning and Localization

This document describes version 1.0 of the connection manager file format. There are no localization-dependent structures in the connection manager file format.

1.7 Vendor-Extensible Fields

Extensions to the file format that is specified in this document are not allowed. Tools that process this format do not have to preserve unrecognized structures when loading or persisting this file format.

2   Structures

2.1   Connection Manager File

A project connection manager file is an XML file.

2.1.1   XML Namespace

The connection manager file contains an XML structure. The namespace URI for the connection manager XML structure is www.microsoft.com/SqlServer/Dts.

2.1.2   ConnectionManagersType

The **ConnectionManagersType** complex type is of the same type as the type that is specified in [MS-DTSX2] section 2.4.4.

3 Structure Examples

The following is an example of a typical project connection manager file for a project deployment file, including all the mandatory elements and examples of property and parameter declarations.

```xml
<?xml version="1.0"?>
<DTS:ConnectionManager xmlns:DTS="www.microsoft.com/SqlServer/Dts"
  DTS:ObjectName="LocalHost.SSISDB"
  DTS:DTSID="{F748E972-9F95-460C-80D2-22763B281155}"
  DTS:CreationName="OLEDB">
  <DTS:ObjectData>
    <DTS:ConnectionManager
      DTS:ConnectionString="Data Source=.;Initial
Catalog=SSISDB;Provider=SQLNCLI11.1;Integrated Security=SSPI;Auto Translate=False;" />
  </DTS:ObjectData>
</DTS:ConnectionManager>
```

4   Security

4.1   Security Considerations for Implementers

The shared connection manager file can contain sensitive information, such as user names and passwords that are used to access data sources.

When sensitive values are present in a project or its SSIS packages, the user ~~should~~is advised to use the appropriate protection level for serialization, as described in this document and in [MS-DTSX] section 4.1.

4.2   Index of Security Fields

None.

5   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 SQL Server 2012

- Microsoft SQL Server 2014

- Microsoft SQL Server 2016

- Microsoft SQL Server 2017

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.

6 Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as ~~New,~~ Major, Minor, ~~Editorial,~~ or ~~No change~~None.

~~The revision class **New** means that a new document is being released.~~

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

- A document revision that incorporates changes to interoperability requirements ~~or functionality~~.
- ~~The removal of a~~A document ~~from the documentation set~~revision that captures changes to protocol functionality.

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

The revision class ~~**Editorial** means that the formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.~~

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

~~Major and minor changes can be described further using the following change types:~~

- ~~New content added.~~

- ~~Content updated.~~

- ~~Content removed.~~

- ~~New product behavior note added.~~

- ~~Product behavior note updated.~~

- ~~Product behavior note removed.~~

- ~~New protocol syntax added.~~

- ~~Protocol syntax updated.~~

- ~~Protocol syntax removed.~~

- ~~New content added due to protocol revision.~~

- ~~Content updated due to protocol revision.~~

- ~~Content removed due to protocol revision.~~

- ~~New protocol syntax added due to protocol revision.~~

- ~~Protocol syntax updated due to protocol revision.~~

- ~~Protocol syntax removed due to protocol revision.~~

- ~~Obsolete document removed.~~

~~Editorial changes are always classified with the change type **Editorially updated**.~~

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.

- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

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

Section	~~Tracking number (if applicable) and description~~Description	~~Major change (Y or N)~~Revision class	~~Change type~~
5 Appendix A: Product Behavior	Added SQL Server ~~2016~~2017 to the product applicability list ~~of applicable products~~.	~~Y~~Major	~~Content update.~~

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