

# [MS-CONNMGR]: Integration Services Connection Manager File Format

---

## Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation for protocols, file formats, languages, standards as well as overviews of the interaction among each of these technologies.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you may make copies of it in order to develop implementations of the technologies described in the Open Specifications and may distribute portions of it in your implementations using these technologies or your documentation as necessary to properly document the implementation. You may also distribute in your implementation, with or without modification, any schema, IDL's, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that may cover your implementations of the technologies described in the Open Specifications. Neither this notice nor Microsoft's delivery of the documentation grants any licenses under those or any other Microsoft patents. However, a given Open Specification may be covered by Microsoft [Open Specification Promise](#) or the [Community Promise](#). If you would prefer a written license, or if the technologies described in the Open Specifications are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting [iplg@microsoft.com](mailto:iplg@microsoft.com).
- **Trademarks.** The names of companies and products contained in this documentation may be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights. For a list of Microsoft trademarks, visit [www.microsoft.com/trademarks](http://www.microsoft.com/trademarks).
- **Fictitious Names.** The example companies, organizations, products, domain names, email addresses, logos, people, places, and events depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

**Reservation of Rights.** All other rights are reserved, and this notice does not grant any rights other than specifically described above, whether by implication, estoppel, or otherwise.

**Tools.** The Open Specifications do not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments you are free to take advantage of them. Certain Open Specifications are intended for use in conjunction with publicly available standard specifications and network programming art, and assumes that the reader either is familiar with the aforementioned material or has immediate access to it.

## Revision Summary

Date	Revision History	Revision Class	Comments
07/07/2011	0.1	New	Released new document.
11/03/2011	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
01/19/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
02/23/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
03/27/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
05/24/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
06/29/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
07/16/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
10/08/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
10/23/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
03/26/2013	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
06/11/2013	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
08/08/2013	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
12/05/2013	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
02/11/2014	1.0	Major	Significantly changed the technical content.

# Contents

<b>1 Introduction</b> .....	<b>4</b>
1.1 Glossary .....	4
1.2 References .....	4
1.2.1 Normative References .....	4
1.2.2 Informative References .....	4
1.3 Overview .....	5
1.4 Relationship to Protocols and Other Structures .....	5
1.5 Applicability Statement .....	5
1.6 Versioning and Localization .....	5
1.7 Vendor-Extensible Fields .....	5
<b>2 Structures</b> .....	<b>6</b>
2.1 Connection Manager File .....	6
2.1.1 XML Namespace .....	6
2.1.2 ConnectionManagersType .....	6
<b>3 Structure Examples</b> .....	<b>7</b>
<b>4 Security</b> .....	<b>8</b>
4.1 Security Considerations for Implementers .....	8
4.2 Index of Security Fields .....	8
<b>5 Appendix A: Product Behavior</b> .....	<b>9</b>
<b>6 Change Tracking</b> .....	<b>10</b>
<b>7 Index</b> .....	<b>12</b>

# 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 and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in RFC 2119. All other sections and examples in this specification are informative.

## 1.1 Glossary

The following terms are specific to this document:

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

**project:** A collection of **SSIS 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.

**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.

**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 documents, which are updated frequently. References to other documents include a publishing year when one is available.

### 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](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information.

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

[MS-DTSX2] Microsoft Corporation, "[Data Transformation Services Package XML Version 2 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 Microsoft SQL Server Integration Services (SSIS) 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 Microsoft SQL Server Integration Services (SSIS) **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](http://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 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 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

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 the [MS-CONNMGR] protocol document between the December 2013 and February 2014 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

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 document from the documentation set.

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** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the 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](mailto:dochelp@microsoft.com).

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
<a href="#">5</a> <a href="#">Appendix A: Product Behavior</a>	Added Microsoft SQL Server 2014 to the list of applicable products.	Y	Content updated.

## 7 Index

### A

[Applicability](#) 5

### C

[Change tracking](#) 10

[Connection manager file](#) 6

[ConnectionManagersType complex type](#) 6

### G

[Glossary](#) 4

### L

[Localization](#) 5

### N

[Namespace URI](#) 6

[Normative references](#) 4

### O

Other protocols and structures

[relationship to](#) 5

### P

[Project connection manager file](#) 6

[Project connection manager file example](#) 7

### R

References

[normative](#) 4

[Relationship to other protocols](#) 5

### S

[Security considerations](#) 8

### T

[Tracking changes](#) 10

### V

[Vendor-extensible fields](#) 5

[Versioning](#) 5

### X

[XML namespace](#) 6