Informatica

Informatica® Cloud Data Integration

Microsoft Azure Blob Storage V2 Connector

Informatica Cloud Data Integration Microsoft Azure Blob Storage V2 Connector
October 2020

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Preface

Use *Microsoft Azure Blob Storage V2 Connector* to learn how to read from or write to Microsoft Azure Blob Storage by using Cloud Data Integration. Learn to create a Microsoft Azure Blob Storage V2 connection, develop and run mappings, mapping tasks, and mass ingestion tasks in Cloud Data Integration.

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CHAPTER 1

Introduction to Microsoft Azure Blob Storage V2 Connector

This chapter includes the following topics:

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- Microsoft Azure Blob Storage V2 Connector Task and Object Types, 6
- Microsoft Azure Blob Storage V2 Connector Example, 7
- Administration of Microsoft Azure Blob Storage V2 Connector, 7

Microsoft Azure Blob Storage V2 Connector Overview

Microsoft Azure Blob Storage V2 connector enables you to read delimited data from or write delimited data to blobs in Microsoft Azure Storage. When you write to Microsoft Azure Blob Storage V2, you can insert delimited data to a target object or create a new target object.

Blobs are files of any type and size, and are organized into containers in Microsoft Azure Storage. You can access delimited files that are page blobs, block blobs, or append blobs with Microsoft Azure Blob Storage V2 connections.

When you read delimited data from or write delimited data to Microsoft Azure Blob Storage, you can specify the Hosted Agent or the Secure Agent.

Microsoft Azure Blob Storage V2 Connector Task and Object Types

The following table lists the Microsoft Azure Blob Storage V2 object types that you can use in Data Integration tasks:

Task Type	Source	Target	Lookup
Synchronization	Yes	Yes	No
Mapping	Yes	Yes	No

Microsoft Azure Blob Storage V2 Connector Example

You work in sales operations and want to score leads to drive higher sales for your organization. You need to bring in leads from Salesforce to Microsoft Azure Storage. You can score leads for sales readiness in Microsoft Azure Machine Learning, and then load the lead scores back into Salesforce. You can keep data up to date with the latest leads and lead scores by scheduling a task flow to run on a regular basis.

You have leads in Salesforce, with data such as the contact information, industry, company size, and marketing information.

You configure a synchronization task to insert leads from Salesforce to Microsoft Azure Blob Storage V2. Use Microsoft Azure Machine Learning to score the leads, and then create another synchronization task to load the lead scores into Salesforce.

You create a task flow so that the synchronization tasks run serially on a schedule. The sales organization can see the most current lead scores for prospects, and focus on the most promising leads, increasing efficiency.

Administration of Microsoft Azure Blob Storage V2 Connector

Before you use Microsoft Azure Blob Storage V2 objects in tasks, an administrator must perform the following tasks:

- Get the storage account name and account key for Microsoft Azure Blob Storage.
- Create a blob container in Microsoft Azure Blob Storage.

CHAPTER 2

Microsoft Azure Blob Storage V2 Connections

This chapter includes the following topics:

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- Microsoft Azure Blob Storage V2 connection properties, 8

Microsoft Azure Blob Storage V2 Connections Overview

Create a Microsoft Azure Blob Storage V2 connection to access blobs in Microsoft Azure Blob Storage.

Create a Microsoft Azure Blob Storage V2 connection on the **Connections** page in the Synchronization Task wizard, in the Mapping Designer, or in the Mapping Task wizard. The connection then becomes available to the entire organization to use.

Microsoft Azure Blob Storage V2 connection properties

When you create a Microsoft Azure Blob Storage V2 connection, you must configure the connection properties.

The following table describes Microsoft Azure Blob Storage V2 connection properties:

Connection property	Description
Runtime Environment	The name of the runtime environment where you want to run the tasks.
Account Name	Microsoft Azure Blob Storage account name.
Account Key	Microsoft Azure Blob Storage access key.
Container Name	Microsoft Azure Blob Storage container name.

CHAPTER 3

Synchronization Tasks with Microsoft Azure Blob Storage V2

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- Microsoft Azure Blob Storage V2 Sources in Synchronization Tasks, 9
- Microsoft Azure Blob Storage V2 Targets in Synchronization Tasks, 10
- Rules and guidelines for synchronization tasks, 11

Microsoft Azure Blob Storage V2 Sources in Synchronization Tasks

When you create a synchronization task with a Microsoft Azure Blob Storage V2 source, you can configure source properties.

You can configure Microsoft Azure Blob Storage V2 properties on the **Source** page of the Synchronization Task wizard.

The following table describes the Microsoft Azure Blob Storage V2 source properties:

Property	Description
Connection Name	Name of the source connection.
Source Type	Source type. Select **Single** for a single source object.
Source Object	The Microsoft Azure Blob Storage V2 blob that you want to use as a source object.
Formatting Options	Opens the **Formatting Options** dialog box to define the format of the file. Configure the following format options: - Delimiter: Delimiter character. You can configure other parameters such as comma, tab, colon, semicolon, or others. - Text Qualifier: Character to qualify text. You can configure other parameters such as single quote or double quote. - Escape: Escape character.

The following table describes the Microsoft Azure Blob Storage V2 advanced source properties:

Advanced Property	Description
Number of concurrent connections to Blob Store	The number of concurrent connections to Blob Store to download files. Default is 4.
Blob Name Override	Overrides the default file name.
Blob Container Override	Overrides the default container name. **Note:** When you create a new target at the run time and select the blob container override property, the Secure Agent generates an empty header file in the container specified in the connection.
Header in the first row of Blob	Indicates that the first row of the Blob is a header and the Secure Agent does not read the first row.

Microsoft Azure Blob Storage V2 Targets in Synchronization Tasks

You can insert data to a target or create a new target in Microsoft Azure Blob Storage V2 for synchronization tasks. You can use a single Microsoft Azure Blob Storage V2 object or multiple related Microsoft Azure Blob Storage V2 objects as targets in a synchronization task. When you configure more than one Microsoft Azure Blob Storage V2 target, you can select the parent object and add a child object.

Configure Microsoft Azure Blob Storage V2 target properties on the **Target** page of the synchronization Task wizard.

The following table describes the Microsoft Azure Blob Storage V2 target properties:

Property	Description
Connection	Name of the target connection.
Target Object	Name of the target object.
Formatting Options	Opens the **Formatting Options** dialog box to define the format of the file. Configure the following format options: - Delimiter: Delimiter character. You can configure other parameters such as comma, tab, colon, semicolon, or others. - Text Qualifier: Character to qualify text. You can configure other parameters such as single quote or double quote. - Escape: Escape character.

You configure Microsoft Azure Blob Storage V2 advanced target properties on the **Schedule** page of the synchronization Task wizard.

The following table describes the Microsoft Azure Blob Storage V2 advanced target properties:

Advanced Property	Description
Number of concurrent connections to Blob Store	The number of concurrent connections to Blob Store to upload files. Default is 4.
Blob Name Override	Overrides the default file name. You must use this property when you want to write compressed blob files to Microsoft Azure Blob Storage.
Blob Container Override	Overrides the default container name. **Note:** When you create a new target at the run time and select the blob container override property, the Secure Agent generates an empty header file in the container specified in the connection.
Header in the first row of Blob	Creates a header in the target file. Header will not be created in the target file if this option is not selected.
Compress newly created Blob	Compresses the newly created blob when set to True.
Write Strategy	Appends block to a blob, when you select append blob.
Blob Type	Writes data to a block blob or an append blob.
Success File Directory	NA
Error File Directory	NA

Rules and guidelines for synchronization tasks

Consider the following guidelines when you configure a synchronization task:

- When you run a task to read a Microsoft Azure Blob Storage source, use either comma or pipe as the delimiter.
- The Text Qualifier formatting option is ignored for data preview and at run time in a synchronization task.
- Ensure that the source blob does not contain single quote (') as the text qualifier.
- The **Compress newly created Blob** option is ignored if you do not override the blob.

CHAPTER 4

Mappings and Mapping Tasks with Microsoft Azure Blob Storage V2

This chapter includes the following topics:

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- Microsoft Azure Blob Storage V2 Targets in Mappings, 13
- Rules and guidelines for mappings and mapping tasks, 16

Microsoft Azure Blob Storage V2 Sources in Mappings

In a mapping, you can configure a Source transformation to represent a Microsoft Azure Blob Storage V2 object.

The following table describes the Microsoft Azure Blob Storage V2 source properties that you can configure in a Source transformation:

Property	Description
Connection Name	Name of the source connection.
Source Type	Source type. Select one of the following types:- - Single Object - Parameter: Select Parameter to define the source type when you configure the mapping task.
Object	The Microsoft Azure Blob that you want to use as a source object.

Property	Description
Formatting Options	Opens the **Formatting Options** dialog box to define the format of the file. Configure the following format options: - Delimiter: Delimiter character. You can configure other parameters such as comma, tab, colon, semicolon, or others. - Text Qualifier: Character to qualify text. You can configure other parameters such as single quote or double quote. - Escape: Escape character.
Filter	A simple filter includes a field name, operator, and value. Use an advanced filter to define a more complex filter condition, which can include multiple conditions using the AND or OR logical operators.
Number of concurrent connections to Blob Store	The number of concurrent connections to Blob Store to upload files. Default is 4.
Blob Name Override	Overrides the default file name.
Blob Container Override	Overrides the default container name. **Note:** When you create a new target at the run time and select the blob container override property, the Secure Agent generates an empty header file in the container specified in the connection.
Header in the first row of Blob	Indicates that the first row of the Blob generated is a header and the Secure Agent does not read the first row.
Tracing Level	Sets the amount of detail that appears in the log file. You can choose terse, normal, verbose initialization or verbose data. Default is normal.

Microsoft Azure Blob Storage V2 Targets in Mappings

In a mapping, you can configure a Target transformation to represent a Microsoft Azure Blob Storage V2 object.

The following table describes the Microsoft Azure Blob Storage V2 target properties that you can configure in a Target transformation:

Property	Description
Connection	Name of the target connection.
Target Type	Target type. Select one of the following target types: - Single Object. - Parameter. Select **Parameter** to define the target type when you configure the task.
Object	The Microsoft Azure Blob Storage V2 blob that you want to use as a target object.

Property	Description
Formatting Options	Opens the **Formatting Options** dialog box to define the format of the file. Configure the following format options: - Delimiter: Delimiter character. You can configure other parameters such as comma, tab, colon, semicolon, or others. - Text Qualifier: Character to qualify text. You can configure other parameters such as single quote or double quote. - Escape: Escape character. **Note:** The formatting options are ignored if you select Create Table.
Operation	Target operation. Select **Insert**. You can only insert data to aMicrosoft Azure Blob Storage V2 target.
Number of concurrent connections to Blob Store	The number of concurrent connections to Blob Store to upload files. Default is 4.
Blob Name Override	Overrides the default file name. You must use this property when you want to write compressed blob files to Microsoft Azure Blob Storage.
Blob Container Override	Overrides the default container name. **Note:** When you create a new target at the run time and select the blob container override property, the Secure Agent generates an empty header file in the container specified in the connection.
Header in the first row of Blob	Creates a header in the target file. Header will not be created in the target file if this option is not selected.
Compress newly created Blob	Compresses the newly created blob when set to True.
Write Strategy	Appends block to a blob, when you select append blob.
Blob Type	Writes data to a block blob or an append blob.
Success File Directory	NA
Error File Directory	NA

Specifying a Target

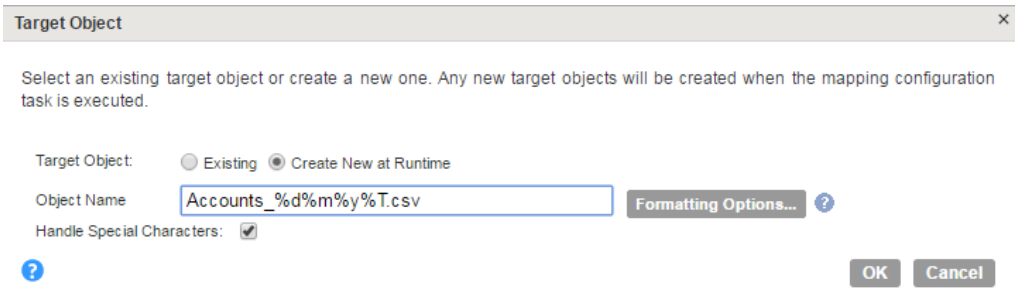
You can use an existing target or create a target to hold the results of a mapping. If you choose to create the target, the agent creates the target when you run the task.

To specify the target properties, follow these steps:

1. Select the Target transformation in the mapping.
2. On the **Incoming Fields** tab, configure field rules to specify the fields to include in the target.
3. To specify the target, click the **Target** tab.
4. Select the target connection.
5. For the target type, choose **Single Object** or **Parameter**.
6. Specify the target object or parameter.

- To create a target file at run time, enter the name for the target file including the extension, for example, `Accounts.csv`.
- If you want the file name to include a time stamp, click **Handle Special Characters** and add special characters to the file name. For example, add the special characters shown here to include all the time stamp information: `Accounts_%d%m%y%T.csv`.

7. Click **Formatting Options** if you want to configure the formatting options for the file, and click **OK**.
8. Click **Select** and choose a target object. You can select an existing target object or create a new target object at run time and specify the object name.



9. Specify Advanced properties for the target, if needed.

Target Time Stamps

When you create a target at run time, you can append time stamp information to the file name to show when the file is created.

When you specify the file name for the target file, include special characters based on Linux STRFTIME function formats that the mapping task uses to include time stamp information in the file name. The time stamp is based on the organization's time zone.

The following table describes some common STRFTIME function formats that you might use in a mapping or mapping task:

Special Character	Description
%d	Day as a two-decimal number, with a range of 01-31.
%m	Month as a two-decimal number, with a range of 01-12.
%y	Year as a two-decimal number without the century, with range of 00-99.
%Y	Year including the century, for example 2015.
%T	Time in 24-hour notation, equivalent to %H:%:M:%S.
%H	Hour in 24-hour clock notation, with a range of 00-24.
%I	Hour in 12-hour clock notation, with a range of 01-12.
%M	Minute as a decimal, with a range of 00-59.
%S	Second as a decimal, with a range of 00-60.
%p	Either AM or PM.

Rules and guidelines for mappings and mapping tasks

Consider the following guidelines when you configure mappings and mapping tasks:

- When you run a task to read a Microsoft Azure Blob Storage source, use either comma or pipe as the delimiter.
- When you create a mapping task, the Header in the first row of Blob attribute in the advanced source and target properties is disabled by default. If you want to write the header to the target, enable the header.

APPENDIX A

Microsoft Azure Blob Storage V2 Data Type Reference

This appendix includes the following topics:

- Microsoft Azure Blob Storage V2 Data Type Reference Overview, 17
- Microsoft Azure Blob Storage V2 and Transformation Data Types, 18

Microsoft Azure Blob Storage V2 Data Type Reference Overview

Data Integration applications use the String Microsoft Azure Blob Storage native data type and the String Transformation data type in tasks.

Microsoft Azure Blob Storage native data types

Microsoft Azure Blob Storage data types appear in the Fields tab for Source and Target transformations when you choose to edit metadata for the fields.

Transformation data types

Set of data types that appear in the remaining transformations. They are internal data types based on ANSI SQL-92 generic data types, which Data Integration uses to move data across platforms. Transformation data types appear in all remaining transformations in mappings, synchronization tasks, or mapping tasks.

When the Data Integration application reads source data, it converts the native data types to the comparable transformation data types before transforming the data. When the Data Integration application writes to a target, it converts the transformation data types to the comparable native data types.

Microsoft Azure Blob Storage V2 and Transformation Data Types

The following table lists the Microsoft Azure Blob Storage V2 data types that the Secure Agent supports and the corresponding transformation data types:

Microsoft Azure Blob Storage V2 Native Data Type	Transformation Data Type	Range and Description
String	String	1 to 104,857,600 characters

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