Informatica®

Informatica® Cloud Data Integration

SAP IQ Connector

Informatica Cloud Data Integration SAP IQ Connector
July 2024

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Preface

Use SAP IQ Connector to learn how to write to SAP IQ database by using Cloud Data Integration. Learn to create an SAP IQ connection, develop mappings, and run mapping tasks.

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CHAPTER 1

Introduction to SAP IQ Connector

You can use SAP IQ Connector to connect to SAP IQ database from Data Integration. SAP IQ is a column-based relational database management system.

Use SAP IQ Connector to securely write data to an SAP IQ database.

You can use SAP IQ objects as targets in mappings and mapping tasks. When you use these objects in mappings, you must configure properties specific to SAP IQ.

You can switch mappings to advanced mode to include transformations and functions that enable advanced functionality.

You can insert records when you use SAP IQ Connector to write to SAP IQ databases.

SAP IQ Connector assets

Create assets in Data Integration to integrate data using SAP IQ Connector.

When you use SAP IQ Connector, you can include the following Data Integration assets:

- Mapping
- Mapping task

For more information about configuring assets and transformations, see *Mappings*, *Transformations*, and *Tasks* in the Data Integration documentation.

CHAPTER 2

Connections for SAP IQ

Create an SAP IQ connection to securely write data to SAP IQ. You can use an SAP IQ connection to specify targets in mappings and mapping tasks.

Prerequisites

Before you create an SAP IQ connection to write to SAP IQ, be sure to complete the prerequisites.

Install the SAP IQ JDBC driver and Sybase client

To write data to SAP IQ databases, you need to install the SAP IQ JDBC driver and Sybase client on the Secure Agent machine.

- Install the SAP IQ JDBC driver on the Secure Agent machine.
  To install the driver, perform the following steps:
  1. From the SAP Support Portal, download the jconn4.jar SAP IQ JDBC driver.
  2. Create the `informatica.sapiq` folder manually in the following directory based on whether the Secure Agent machine is a Windows or a Linux machine:

Secure Agent machine	Directory
Linux	`<Secure Agent installation directory>/ext/connectors/thirdparty`
Windows	`<Secure Agent installation directory>\ext\connectors\thirdparty`

  3. Copy the SAP IQ JDBC driver to the `informatica.sapiq` folder.

- Install the Sybase client on the Secure Agent machine.
  To install the Sybase client, perform the following steps:
  1. Download the Sybase client from the SAP website and install it on the Secure Agent machine.
  2. On Linux, additionally set the following environmental variables:
     - `setenv SYBASE <Sybase client directory>/sybase`
     - `setenv SYBROOT <Sybase client directory>/sybase`

- `setenv IQDIR16 <Sybase client directory>/sybase/IQ-16_1`
- `setenv LD_LIBRARY_PATH <Sybase client directory>/sybase/IQ-16_1/lib64`
- `setenv PATH <Sybase client directory>/sybase/IQ-16_1/bin64`

After you install the SAP IQ JDBC driver and set the environmental variables, you need to restart the Secure Agent.

Connect to SAP IQ

Let's configure the SAP IQ connection properties to connect to SAP IQ.

Before you begin

Before you get started, you'll need to install the SAP IQ JDBC driver and Sybase client on the Secure Agent machine to establish an SAP IQ connection.

Check out "Prerequisites" on page 7 to learn more about the configuration prerequisites.

Connection details

The following table describes the basic connection properties:

Property	Description
Connection Name	Name of the connection. Each connection name must be unique within the organization. Connection names can contain alphanumeric characters, spaces, and the following special characters: _ . + -, Maximum length is 255 characters.
Description	Description of the connection. Maximum length is 4000 characters.
Type	SAP IQ
Runtime Environment	The name of the runtime environment where you want to run tasks. Select a Secure Agent.
Host Name	The name of the machine that hosts the SAP IQ database server.
Port	The port number that connects to the SAP IQ database server. Default is 2638.
Database	The SAP IQ database that you want to connect to.
Schema	The schema name in the SAP IQ server to fetch the metadata.
User Name	The user name to connect to the SAP IQ account.

Property	Description
Password	The password to connect to the SAP IQ account.
Datafile Directory	The SAP IQ directory that stores data files at run time. The directory needs to be accessible from the Secure Agent machine. If the directory is on a Windows system, use a backslash (\) in the path. For example, `\root\mydirectory\inputfile.out` If the directory is on a UNIX system, use a slash (/) in the path. For example, `/root/mydirectory/inputfile.out`

Advanced settings

The following table describes the advanced connection properties:

Property	Description
Checkpoint	Enable the SAP IQ database to issue a checkpoint after successfully loading data into tables. If disabled, the database does not issue a checkpoint. Default is enabled.
Notify Interval	Number of rows that the SAP IQ external loader loads before it writes a status message to the external loader log. Default is 1000.
External Loader Executable	The file name and path of the external loader executable. The name of the external loader executable file is set to **dbisql** by default. If you configure the connection on Windows, you must enter **dbisql -nogui**. If the external loader executable file name is abc.exe and the path is `/root/<folder name>`, enter both the path and file name in the following format: `/root/<folder name>/abc.exe`
Is Staged	Method of loading data Enable to write data to a staging location before loading data into an SAP IQ database. Default is enabled.

CHAPTER 3

Mappings and mapping tasks with SAP IQ

Use the Data Integration Mapping Designer to create a mapping. When you create a mapping, configure a Target transformation to represent an SAP IQ object.

In advanced mode, the Mapping Designer updates the mapping canvas to include transformations and functions that enable advanced functionality.

You can create a target object or use an existing object in a Target transformation.

SAP IQ targets in mappings

To write data to an SAP IQ database, configure an SAP IQ object as the target in a mapping.

Specify the name and description of the SAP IQ target. Configure the target and advanced properties for the target object.

The following table describes the target properties that you can configure in a Target transformation:

Property	Description
Connection	Name of the target connection. You can select an existing connection, create a new connection, or define parameter values for the target connection property.
Target Type	Type of the SAP IQ target object available. You can choose from the following target types: - Single - Parameter
Object	Name of the SAP IQ target object. Specify the target object that you want to create. You can also select an existing object from the list.

Property	Description
Parameter	A parameter file where you define values that you want to update without having to edit the task. Select or create a parameter for the target object. The parameter property appears when you select target type as **Parameter**.
Operation	The target operation. Only the insert operation is supported.

The following table describes the advanced target properties that you can configure in a Target transformation:

Property	Description
Append if exists	Not applicable
Create Target Directory	Specifies whether to create a directory to store the output files. Default is disabled.
Header Options	Not applicable
Output file directory	The SAP IQ directory that stores the output files. The directory must be accessible from the Secure Agent machine.
Output filename	Name of the output file that is stored in the directory you created. Default is output1.out.
Reject file directory	The directory that stores the rejected files. Specify the directory where you want to store the rejected files.
Reject filename	Name of the rejected file that is stored in the reject file directory. Default is output1.bad
Forward Rejected Rows	Not applicable

Rules and guidelines for SAP IQ object

Consider the following rules and guidelines when you write to SAP IQ:

- When you write data to the SAP IQ target objects, ensure that the data, field and column names do not contain unicode characters.
- When you configure an SAP IQ connection, you cannot use the Hosted Agent and Serverless runtime environment.
- When you configure an SAP IQ target transformation, you cannot preview data of an SAP IQ target object.

CHAPTER 4

Data type reference

Data Integration uses the following data types in mappings and mapping tasks with SAP IQ:

SAP IQ native data types

SAP IQ data types appear in the **Target Fields** tab of the Target transformation when you choose to edit metadata for the fields.

Transformation data types

Set of data types that appear in the transformations. They are internal data types based on ANSI SQL-92 generic data types, which the Secure Agent uses to move data across platforms. Transformation data types appear in all transformations in a mapping.

When Data Integration writes to a target, it converts the transformation data types to the comparable native data types.

SAP IQ and transformation data types

The following table lists the SAP IQ data types that Data Integration supports and the corresponding transformation data types:

SAP IQ Data Type	Transformation Data Type	Description
Bigint	Bigint	-9,223,372,036,854,770,000 to 9,223,372,036,854,770,000
Bit	Integer	1 to 104,857,600 characters
Char	String	1 to 104,857,600 characters
Date	Date/Time	Jan 1, 0001 A.D. to Dec 31, 9999 A.D. (precision to the nanosecond)
Datetime	Date/Time	Jan 1, 0001 A.D. to Dec 31, 9999 A.D. (precision to the nanosecond)
Decimal	Decimal	Precision 1 to 28, scale 0 to 28
Double	Double	Precision 15

SAP IQ Data Type	Transformation Data Type	Description
Float	Double	Precision 15
Int	Integer	Precision 10, scale 0
Integer	Integer	Precision 10, scale 0
Numeric	Decimal	Precision 1 to 28, scale 0 to 28
Real	Double	32-bit floating point value. Precision 15
Smalldatetime	Date/Time	1/1/1900 0:00 to 6/6/2079 23:59
Smallint	Integer	-32768 to 32767, precision 10, scale 0
Time	String	00:00:00.0000000 to 23:59:59.9999999
Timestamp	Date/Time	Jan 1, 0001 A.D. to Dec 31, 9999 A.D (precision to the nanosecond)
Tinyint	Integer	0 to 255
Varchar	String	Precision 104857600

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