Informatica® Cloud Data Integration
July 2024

Adabas Connector Guide

Informatica Cloud Data Integration Adabas Connector Guide
July 2024

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Preface

Learn how to use the *Adabas Connector* to retrieve Adabas data from a PowerExchange environment and write the data in batch to a supported target. The connector works with Cloud Data Integration mappings, mapping tasks, and taskflows. Learn how to configure connections, mappings, and mapping tasks and to run and monitor mapping tasks.

CHAPTER 1

Introduction to Adabas Connector

You can use Adabas Connector to connect to a PowerExchange environment to move records from an Adabas source database on a z/OS system and write the data in batch to a supported target.

Adabas Connector must be able to connect to an active PowerExchange environment that includes the PowerExchange Listener. You do not need to copy the PowerExchange dbmover configuration file to the Adabas Connector system. For more information about configuring PowerExchange for Adabas Connector, see the *PowerExchange Bulk Data Movement Guide*.

Adabas Connector works with the Informatica Cloud Secure Agent. When you install and start the Secure Agent, it downloads the Adabas Connector components and the PowerExchange Client packages. When you define a runtime environment, you configure a Secure Agent group.

To move Adabas source data, you run a mapping or a mapping task.

When you define mappings in Data Integration, you select the Adabas source database. The Adabas Connector metadata adapter can then retrieve the source metadata and store this information in the cloud.

After you materialize a target, you can use PowerExchange Change Data Capture (CDC), if this option is available at your site, to update the target on a continuous basis. By moving only the change data, you can refresh data on the target faster.

Note: Adabas Connector does not work with the Hosted Agent.

Adabas Connector usage scenario

You can use Adabas Connector to connect to an on-premises PowerExchange for Adabas system from a Linux and Windows system where the Secure Agent is installed.

You can use the browser-based Informatica Intelligent Cloud Services interfaces to define Adabas connections, mappings, and mapping tasks.

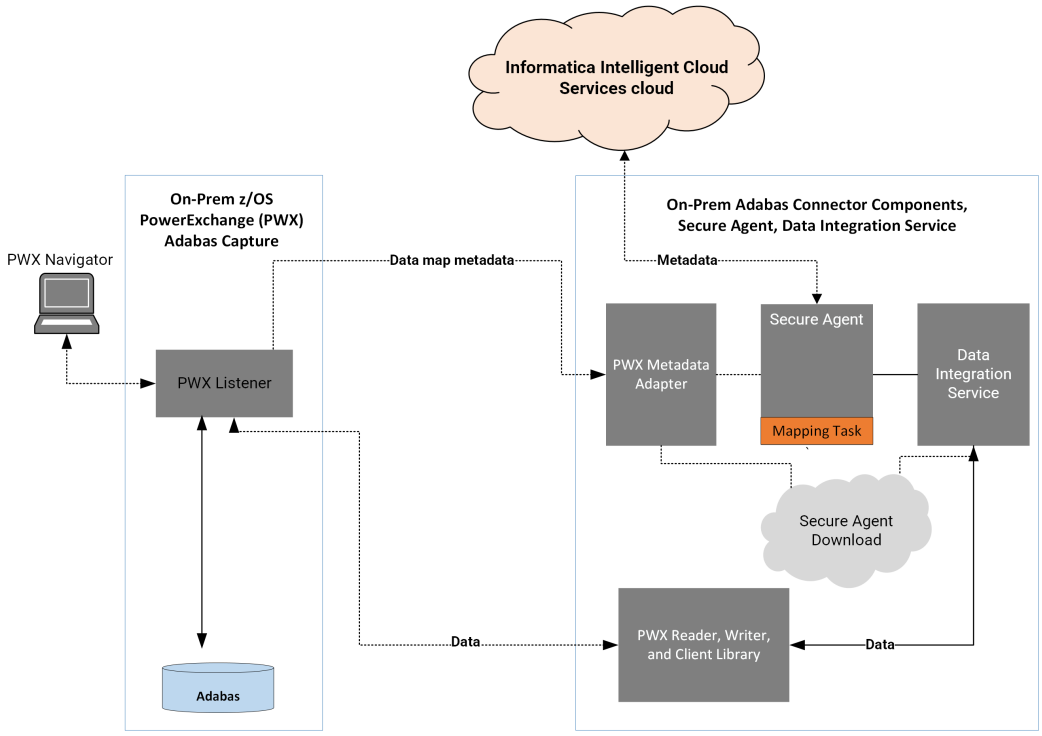
With Informatica Intelligent Cloud Services interfaces, you gain access to easy-to-use, browser-based interfaces for defining mappings and mapping tasks and running and monitoring mapping tasks. When you run the mapping and mapping tasks, Adabas Connector components, in conjunction with Data Integration, read and process the data that Adabas Connector read from the Adabas database.

Integration with the PowerExchange environment

You must have a functional on-premises PowerExchange for Adabas environment that can replicate data from Adabas source tables. Also, you must have a license that allows your organization to use the Adabas Connector and PowerExchange Client packages.

On each system from which you plan to use Adabas Connector, you must install the Secure Agent. After you start the Secure Agent the first time, the Adabas Connector and PowerExchange Client components are installed locally. You then can use Cloud Data Integration, Administrator, and Monitor interfaces to configure Adabas connections, mappings, and mapping tasks and to run and monitor mapping tasks.

The following image shows the general architecture of the Adabas Connector components with Cloud Data Integration and a remote PowerExchange source system:



This configuration spans the following on-premises systems:

- The z/OS system where the Adabas database and PowerExchange Listener run.
- The system where the Adabas Connector components and Secure Agent run.

Based on this configuration, the following processing occurs:

1. PowerExchange reads from and writes to Adabas tables where the PowerExchange Listener for z/OS resides.
2. When you design a mapping in Data Integration, you associate the Source transformation with a Adabas connection. You can define the connection in either Data Integration or Administrator. The PWX Bulk Metadata Adapter then uses the connection to connect to the PowerExchange Listener on z/OS and and read from and write to Adabas tables.

   In the mapping, you must also define a Target transformation and connection and map the source fields to target fields.

3. The Secure Agent in conjunction with Data Integration sends the Adabas metadata to the Informatica Intelligent Cloud Services repository in the cloud.
4. When you run the mapping or mapping task, all of the metadata, connection properties, mapping information, advanced source properties, runtime properties, and advanced session properties are pushed down to the on-premises Secure Agent in the form of a session .xml file.
5. The PWX Bulk Reader and Writer on the Secure Agent machine communicates with the PowerExchange Listener on the z/OS machine to move bulk data from the source tables.
6. Data Integration transmits the records to the mapped target.

Adabas Connector asset types

The following table lists the Data Integration asset types that the Adabas Connector uses:

Asset Type	Required or Optional?
Mapping	Required
Mapping task	Required
Taskflow	Optional

Software requirements

Verify that your PowerExchange system and Adabas Connector system meet the following software requirements for integration with Informatica Cloud Data Integration:

- You must have a PowerExchange installation on the Adabas source system. You also must have a local or remote PowerExchange installation wherever you plan to run the PowerExchange Navigator. For all PowerExchange installations, the following PowerExchange versions are supported:
  - PowerExchange 10.5.*x*
  - PowerExchange 10.4.1
  - PowerExchange 10.4.0 HotFix 1
  - PowerExchange 10.4.0
- Adabas Connector components run on the same Linux and Windows operating systems that are supported for the Informatica Secure Agent. For more information, see the Product Availability Matrix (PAM) for Informatica Intelligent Cloud Services (IICS) <*current_version*>, which is available on Informatica Network at https://network.informatica.com/community/informatica-network/product-availability-matrices.You must have a login to access this location.
- Adabas Connector supports the same Adabas source databases and operating systems that are supported in the **PWX Classic** tab in the Product Availability Matrix (PAM) for Informatica <current_pwx_version>, which is available on Informatica Network at https://network.informatica.com/community/informatica-network/product-availability-matrices.

Supported targets

Adabas Connector is certified with the following target types:

- Amazon Redshift
- Aurora PostgreSQL
- Db2 for z/OS
- Db2 for i
- Google BigQuery
- Microsoft SQL Server and Amazon Relational Database Service (RDS) for SQL Server
- MySQL
- Oracle and Amazon RDS for Oracle
- PostgreSQL
- Snowflake

Important: Other Cloud Data Integration targets are expected to work but have not been fully tested and certified with this source type. Informatica recommends that you use other targets in your test environment first.

Adabas Connector rules and guidelines

Review the Adabas Connector rules and guidelines before you begin creating connections, mappings, and mapping tasks.

- You can use Adabas connections for sources or targets.
- Adabas Connector connects to a PowerExchange Listener on the PowerExchange source system by using the **Listener Location** property in the Adabas connection definition. On the connector system, you do not need to create a local copy of the `dbmover.cfg` configuration file that contains a NODE statement pointing to the PowerExchange Listener.
- If you upgrade your system to a later PowerExchange version, you must stop the Secure Agent that connects to the older PowerExchange Listener before you try to connect to the upgraded PowerExchange Listener. After you edit the connection properties to specify the upgraded PowerExchange Listener, restart the Secure Agent before you try to establish the connection again. For more information, see "Upgrading to a new version of PowerExchange" on page 23.
- The PowerExchange Listener can compress or encrypt the data that it sends to the PWX Reader component of Adabas Connector depending on how you set the **Compression** and **Encryption** properties for the connection.
- If you include multiple Adabas source tables in a mapping, the PWX Reader automatically uses group source processing to read data for all of the tables in a single pass.
- The maximum network buffer size that the PowerExchange Listener can use for sending data is 8 MB. If you have a mapping with an extremely large Adabas source table, this maximum buffer size might be exceeded. In this case, the mapping task fails with the following error:

```
PWXPC_10034 [date time] [ERROR] Dispatcher cannot fetch changed data from the
PowerExchange Listener. Error code: [271]
```

- If you change the source object in a mapping that has been used for processing, create a new mapping task for the mapping.
- PowerExchange imports Long Alpha (LA) fields with a default length of 1,024 bytes. You can override this default length by editing the data map in the PowerExchange Navigator. For more information, see the *PowerExchange Bulk Data Movement Guide*.
- PowerExchange can replicate data from Adabas spanned records up to their maximum size. The Adabas maximum size depends on the device type.

Prerequisite tasks for using Adabas Connector

Before you begin configuring Adabas connections, mappings, and mapping tasks, you must complete several prerequisite tasks in PowerExchange and in Informatica Intelligent Cloud Services Administrator. Make sure you have a user role that allows you to perform these tasks.

- Verify that a supported PowerExchange version is installed and that PowerExchange is configured and able to replicate records from Adabas source tables.
- In the PowerExchange Navigator, check that an active PowerExchange data map exists for each Adabas source table.
- If your site uses TLS or SSL security, verify that valid certificates are available for the source and target servers and that the PWX_CONFIG environment variable points to the dbmover configuration file that includes the SSL configuration for the PowerExchange Listener. For more information about configuring TLS or SSL security, see the *PowerExchange Reference Manual*.
- If you localize PowerExchange messages in Japanese, before you start the Secure Agent, create a copy of the PowerExchange dbmover_ja.cfg file. Then set the PWX_CONFIG environment variable to point to the copy. For more information about the dbmover_ja.cfg configuration file, see the *PowerExchange Reference Manual*.
- Download the Secure Agent. The Secure Agent can then download the Adabas Connector components and PowerExchange Client packages based on your licensing. The download also creates a Secure Agent group that contains a Secure Agent as the runtime environment. You can add another Secure Agent to the group. You must have at least one runtime environment in each organization so that users in the organization can run tasks.

  Note: Adabas Connector does not support the Hosted Agent.
- In Administrator, configure user roles if the predefined roles are not sufficient. Then assign one or more roles to each user or user group. The roles must provide the privileges that the users require to perform all of their tasks. Usually, the organization administrator configures user roles.
- If you do not want users to run scheduled mapping tasks during a certain period, define a blackout period for all schedules on the **Schedules** page in Administrator.

Task flow for using Adabas Connector

To use Adabas Connector, create a source connection, mapping, and mapping task. Also create a target connection if one is not already defined.

Before you begin, in the Administrator, you must complete the prerequisite tasks. See "Prerequisite tasks for using Adabas Connector" on page 9 for more information.

1. In Administrator, create a source connection with the type of **Adabas**. Test the connection.

   Alternatively, you can create a source connection in Data Integration when you configure a mapping.

   Adabas Connector uses this connection to retrieve source metadata and data records from PowerExchange.
2. Create a target connection that has a supported target type, if one is not already defined.
3. In Data Integration, configure a mapping. Validate the mapping and then save it.
4. Create a mapping task that is associated with the mapping.
5. Run the mapping task manually, or create a schedule to run it on a recurring basis. For more information, see "Running a mapping task" on page 21.
6. Monitor the job status for the mapping task instance. For more information, see "Monitoring a mapping task" on page 21.

   If a job has the status of Failed or Warning, check the session log for related error or informational messages. Then try to correct the issues that caused the failure and restart the mapping task..

CHAPTER 2

Adabas connections

You must create an Adabas connection to connect to one or more Adabas source files.

The PWX Reader that is on the system where the Secure Agent runs requires the connection information to retrieve records from Adabas source files.

You can create an Adabas connection in Administrator or Data Integration, provided that your assigned user role allows this action. Use one of the following methods:

- In Administrator, click **Connections** on the navigation bar. On the **Connections** page, click **New Connection** and then enter connection details and properties for a connection that has the type of **Adabas**.
- In Data Integration, when you create a mapping, click **Source** on the mapping canvas and then click **Source** in the **Properties: Source** panel. To create a connection, click **New Connection** and define a connection that has the type of **Adabas**. Alternatively, if you previously defined an Adabas connection, select it from the **Connection** list.

When you configure a connection, you must specify a runtime environment for the connection. The runtime environment must contain a Secure Agent with the status "Up and Running."

After you create an Adabas connection, it becomes available for use within the organization and can be used in multiple mappings.

Adabas connection properties

When you configure an Adabas connection, you must set the connection properties.

The following table describes the Adabas connection properties:

Property	Description
Connection Name	A name for the Adabas connection. This name must be unique within the organization. Connection names can contain alphanumeric characters, spaces, and the following special characters: _ . + - Spaces at the beginning or end of the name are trimmed and are not saved as part of the name. Maximum length is 100 characters. Connection names are not case sensitive.
Description	Description of the Adabas connection. Maximum length is 4000 characters.
Type	Type of connection. For Adabas, the type must be **Adabas**.
Runtime Environment	Name of the runtime environment that contains the Secure Agent that you want to use to run mapping tasks.

Property	Description

Listener Location	Host name or IP address of the system where the PowerExchange Listener that processes requests for Adabas runs. Also include the Listener port number. Enter the value in the following format, where *host_name* can be a host name or IP address:
	`host_name:port_number`
	For example:
	`ADALSNR:14673`

User Name	A user name that can be used to access the PowerExchange Listener when PowerExchange Listener security is enabled. For more information, see the SECURITY statement in the *PowerExchange Reference Manual*.
Password	Password that is associated with the user name that is specified in the **User Name** property.
Schema Name	The schema name in the data map.
Code Page	The code page that the Secure Agent for the Data Integration Service uses to extract data from the source database.
Offload Processing	Controls whether to use offload processing. Offload processing transfers bulk data processing from the source system to the target system. Options are: - **Auto**. Cloud Data Integration determines whether to use offload processing. - **Filter After**. Offloads the bulk data processing to the target, including the filtering of data. - **Filter Before**. Offloads processing to the target but continues to filter data on the source system. - **No**. Disables offload processing. Default is No.
Offload Threads	The number of threads that Cloud Data Integration uses to process bulk data. For optimal performance, this value should not exceed the number of installed or available processors on the machine where the secure agent runs. Valid values are 1 through 64. Default is 0, which disables multithreading. Not all connection types support offload threads. If the **Offload Threads** connection attribute for one of these connections is set to a nonzero value, processing continues without threads.
Array Size	For Adabas data sets and sequential files, the size of the storage array, in number of records, that is used for partitioned or multithreaded sessions. For partitioned sessions, this array size is shared across the partitions. For multithreaded sessions, each thread has this array size. Valid values are from 1 through 5000. Default is 25. To tune partitioned sessions, particularly when the **Write Mode** attribute specifies **Confirm Write On**, increase the array size.
Replace Low Values with Spaces	Controls whether to replace embedded nulls in character data with spaces. Select this property to replace embedded nulls. By default, this property is selected.
Connection Retry Period	Number of seconds that the PowerExchange Bulk Reader tries to reconnect to the PowerExchange Listener after the initial connection attempt fails. If a connection cannot be established within the retry period, the mapping task fails. The default is 0, which disables connection retries.

Property	Description
Custom Properties	Custom properties or connection property overrides. Custom properties are properties that you can specify to override PowerExchange default settings. You can enter multiple properties by using a semicolon (;) as the separator. For example: `<property>=<value>;<property>=<value>` Normally, you set custom properties only at the direction of Informatica Global Customer Support. **Note:** These properties are equivalent to the **PWX Override** options for the PowerExchange Client for PWX NRDB Batch connections in PowerCenter. You can also specify connection property overrides in this field or through a parameter file. To specify connection property overrides through a parameter file, you set a parameter in the form of `$<ParameterName>`, where you prefix a user-defined parameter name with a dollar sign character ($). Then configure a mapping task for the mapping to use a parameter file that contains the user-defined parameter definition by specifying the parameter file name in the **Parameter File Name** field on the **Runtime Options** tab. **Note:** - If you enter the same parameter for both the mapping and connection, the connection custom property takes precedence. - If you have a parameter file, the parameter name you specify in this field must match an entry defined in the parameter file. For more information, see the “Connection overrides reference” chapter.
Write Mode	Options are: - **Confirm Write On**. Sends data to the PowerExchange Listener and waits for a success or no success response before sending more data. This mode sends data synchronously to the PowerExchange Listener rather than buffering the data. - **Confirm Write Off**. Sends data asynchronously to the PowerExchange Listener by buffering the data. This mode does not wait for a success or no success response. Default is **Confirm Write On**.

CHAPTER 3

Mappings and mapping tasks with Adabas Connector

In Data Integration, create a mapping that includes the Adabas source and a target of a supported type. Then create a mapping task that is associated with the mapping to process source data based on the mapping.

The mapping and mapping task information is stored in the Informatica Intelligent Cloud Services cloud.

To process the Adabas data, run the mapping task in a selected runtime environment. The mapping task runs on premises, on the same machine where the Secure Agent and PowerExchange client components run. The mapping task uses the mapping and mapping task information pushed down from the Informatica Intelligent Cloud Services cloud. During a mapping task run, the PWX Reader retrieves the source data, and Data Integration transmits the data to the target based on the mapping.

After a mapping task ends, you can determine its job status and view the session log from either Data Integration or Monitor.

Mapping configuration

You must configure a mapping that contains a Source transformation for a Adabas source and map it to a Target transformation.

To begin creating a mapping in Data Integration, click **New** > **Mappings** > **Mapping**, and then click **Create**. In the **New Mapping** dialog box, click **Mapping** > **Continue**.

A mapping must contain at least one Source transformation mapped to one Target transformation. Alternatively, a mapping can contain multiple Adabas sources and multiple targets. For example, you can define multiple one-to-one mappings, map one source to multiple targets, or map multiple sources to one target. To map multiple sources to the same target, you can create multiple one-to-one mappings that map each source separately to the same target. In this case, each source must have a different primary key value.

Important: If you include multiple sources in a mapping, all of the Source transformations must use the same Adabas connection, which connects to the same PowerExchange Listener and source location.

When you define a Source transformation in a mapping, specify a name for the transformation, an Adabas connection that can connect to the PowerExchange Listener, the source type, and the data map for the Adabas source object. You can also set some additional source properties. The PWX Bulk Metadata Adapter retrieves metadata for the source table from the PowerExchange data map, including the field definitions.

When you define a Target transformation, specify a name for the transformation, a connection to the target, the target type, and the operation type of **Data Driven**. In the user's environment, the target can reside on premises or in a cloud. If you do not want to send all of the incoming fields to the target, you can define one

or more exclusion field rules. As part of configuring the target, you must also map the incoming fields to the target fields. You can map fields automatically based on the field names or manually map them.

Instead of selecting specific connections and objects in the Source and Target transformations, you can define a parameter for the connection, the source or target object, or both. You then must enter a specific connection or object in the associated mapping tasks. If you want to use a parameter for the source or target connection, you must perform one of the following actions before the mapping can be successfully validated:

- Set the **Source Type** or **Target Type** field to **Parameter** and then enter a parameter for the source or target object in the **Parameter** field. On the **Field Mapping** tab of the Target transformation, you must set the map option to **Automatic** for the mapping to be validated.
- If you want to use a specific source or target object with a connection parameter, first select a specific connection, set the **Source Type** or **Target Type** field to **Single Object**, select a source or target object in the **Object** field, validate the mapping, and then enter the connection parameter.

  Tip: If you want to validate the source-to-target field mappings, map the fields in the Target transformation before validating the mapping. After the mapping is confirmed as valid, enter connection parameters.

You can also completely or partially parameterize field mappings, and then define specific mappings in the mapping tasks.

Adabas source properties in mappings

When you create a mapping, you configure a Source transformation for a Adabas source and set some source properties for the Source transformation.

Click the Source transformation box on the mapping canvas. Then configure the source properties in the **Source Properties** panel below the mapping canvas.

If you have multiple Source transformations in a mapping, configure source properties for each source. If you use a specific connection instead of a connection parameter, enter the same connection for all sources.

Note: If a mapping includes source tables or columns that have special characters in their names, the associated mapping task fails because it cannot import the source metadata. Special characters include s #, $, @, %, *, !, and ~. Therefore, ensure that none of the source tables and mapped columns have names with any special character. Rename the tables and columns if necessary.

The **Source Properties** panel contains the following tabs on which you can enter information:

- **General** tab. Specify a user-defined name and optional description for the Adabas source.
- **Source** tab. Configure the source properties under **Details** and under **Advanced**. The advanced properties are available only if you enter a specific connection for the source. If you enter a parameter for the source connection, the advanced properties are not displayed. However, you can define these properties in the associated mapping task after you select a specific source connection for the task.

  Note: The **Filter** and **Sort** options under **Query Options** are not supported for connections. If you specify a parameter for the source connection, the **Sort** and **Filter** options are available but will be ignored if you configure them.

The following table describes the Adabas source properties under **Details**:

Property	Description
Connection	*Required*. Select a source connection of the type **Adabas** , or click **New Connection** to create one. Alternatively, you can define a connection parameter in the mapping and enter a specific connection in each mapping task that is associated with the mapping. If you want to use a connection parameter with a specific source object, you must first select a specific connection so that you can access the source to select the source object in the **Object** field. After you select the source object, define the connection parameter. If you want to use parameters for both the connection and source object, you do not need to first select a specific connection. You can just define the parameters in either order. To define a connection parameter, click **New Parameter** next to the **Connection** property and enter the following information: - Enter a parameter name that begins with a letter and is up to 200 characters in length, including @, #, _, and alphanumeric characters. - In the **Type** property, verify that **connection** is selected. - Leave the **Connection Type** property blank. After you click **OK**, the parameter appears in the **Connection** property.
Source Type	*Required*. Select **Multi Group** to select an data map for a Adabas source table Alternatively, you can define a parameter for the source object in the mapping and enter a specific source object in each mapping task that is associated with the mapping. To define a parameter, select **Parameter** as the source type, and then specify the parameter in the **Parameter** property.
Parameter	Parameter to use for the source object. This field only appears when you select **Parameter** as the source type. To parameterize a source object, click **New Parameter**. Enter the parameter name and then select the type **multi group data object**. This type of parameter can accept a set of groups. From the **New Input Parameter** dialog box, you can add or delete groups for the parameter. When you create a multi-group data object parameter, the corresponding links are also created. You can use these links in the mapping to connect to downstream transformations.
Schema, Data Map, and Tables	On the **Source** tab, click the pencil to select a schema, a data map, or table. **Note:** The **Preview Data** feature is not supported.

The following table describes the optional source properties under **Advanced**:

Property	Description
Map Schema Override	A schema name that overrides the schema name in the PowerExchange data map.
Map Name Override	A map name that overrides the name defined in the PowerExchange data map.
Database Id Override	A database ID that overrides the ID in the PowerExchange data map.
File Id Override	A file ID that overrides the ID in the PowerExchange data map.

Property	Description

Filter Overrides	One or more conditions that filter the source records that the PWX Reader retrieves from the source files. Based on the filter conditions, a WHERE clause is appended to the default SQL SELECT query that the PWX Reader uses to read the records.
	You must use the nonrelational SQL syntax that PowerExchange supports for comparison and LIKE operators. For more information, see the "PowerExchange Nonrelational SQL" chapter in the *PowerExchange Reference Manual*. If the filter includes a date or timestamp column, ensure that the range of years in the column data is within the range of years for PowerExchange data filtering, as controlled by the DATERANGE statement in the DBMOVER configuration file. The default range is 1800 to 2200.
	For example, to select records in which the TYPE column has a value of A or D, specify the following condition:
	`TYPE='A' or TYPE='D'`
	Maximum length of the entire SELECT statement that PowerExchange builds, including the WHERE clause with the filter conditions, is 8192 bytes.
	Note: If you specify the **Filter Overrides** attribute and also specify an **SQL Query Override** attribute value that contains a filtering WHERE clause, the resulting SELECT statement contains a WHERE clause that uses the AND operator to associate the Filter Overrides filter conditions with the SQL Query Override conditions. For example:
	`SELECT * from schema.table WHERE Filter_Overrides_conditions AND SQL_Query_Override_conditions`

SQL Query Override	An SQL statement that overrides the default SQL query that the PWX Reader uses to retrieve records from PowerExchange.
	You must use the nonrelational SQL syntax that PowerExchange supports. For more information, see the "PowerExchange Nonrelational SQL" chapter in the *PowerExchange Reference Manual*. If the override statement includes a date or timestamp column, ensure that the range of years in the column data is within the range of years for PowerExchange data checking and filtering, as controlled by the DATERANGE statement in the DBMOVER configuration file. The default range is 1800 to 2200.
	For example, to select records for the USER source table when the TYPE column has the value of A or D, specify the following query:
	`SELECT ID, NAME from schema.data_map.USER where TYPE='A' or TYPE='D';`
	Maximum length of the SELECT query override statement is 8192 bytes.
	Note: If you specify an **SQL Query Override** attribute value that contains a filtering WHERE clause and also specify the **Filter Overrides** attribute, the resulting SELECT statement contains a WHERE clause that uses the AND operator to associate the **SQL Query Override** conditions with the **Filter Overrides** filter conditions. For example:
	`SELECT * from schema.table WHERE Filter_Overrides_conditions AND SQL_Query_Override_conditions`

Tracing Level	The level of detail that appears in the session log for a Source transformation. Select one of the following options, which are listed in order of increasing detail: - **Terse** - **Normal** - **Verbose Initialization** - **Verbose Data** Default is **Normal**.

- **Fields** tab. Select the fields that you want to use in the data flow. You can edit field metadata such as precision and scale if necessary.

Note: Ignore the **Partitions** tab. Key-range partitioning is not supported for connections.

Targets in mappings with Adabas sources

To configure a target in a mapping, click the Target transformation box on the mapping canvas. Then configure the target properties in the **Target Properties** panel below the mapping canvas.

Note: To determine which target types are supported by Adabas Connector, see "Supported targets" on page 8.

- **General** tab. Specify a user-defined name and optional description for the target.
- **Incoming Fields** tab. Optionally review the included fields and define field exclusion rules and renaming criteria.
- **Target** tab. Configure the target properties under **Details** and under **Advanced**. The advanced properties are available only if you enter a specific connection for the target. Target properties vary based on the supported target that you select.
- **Target Fields** tab. Optionally add fields, delete fields, or edit field metadata such as native data type, precision, and scale.
- **Field Mapping** tab. Map the incoming fields to the target fields. You can manually map an incoming field to a target field or automatically map fields based on the field names. If you entered a connection parameter, you must select **Automatic** as the field map option to be able to validate the mapping. Alternatively, you can completely or partially parameterize field mappings, and then define the specific field mappings in the mapping task. For more information, see Transformations > Target Transformation > Target Transformation Field Mappings in the Data Integration Help.

Adabas targets in a mapping

To write data to an Adabas database, configure an Adabas object as the Target transformation in a mapping.

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

The following table describes the target properties under **Details**:

Property	Description
Connection	Select an existing Adabas target connection, or create a target connection that has a type of **Adabas**. Alternatively, you can use a connection parameter in the mapping and then enter a specific connection in each mapping task that is associated with the mapping. If you want to use a connection parameter with a specific target object, you must first select a specific connection so that you can access the target to select the target object in the **Object** field. After you select the target object, define the connection parameter. If you want to use parameters for both the connection and target object, you do not need to first select a specific connection. You can just define the parameters in either order. To define a connection parameter, click **New Parameter** and enter the following information: - Enter a parameter name that begins with a letter and is up to 200 characters in length, including @, #, _, and alphanumeric characters. - In the **Type** property, verify that **connection** is selected. - Leave the **Connection Type** property blank.
Target Type	Select **Single Object** if you want to specify a target table.

Property	Description
Object	Click **Select**. In the **Target Object** dialog box, select **Existing** and then select an existing target table.
Operation	Select the target operation. You can perform the following operations on an Adabas target: - Insert - Update - Upsert - Delete - Data Driven

The following table describes the advanced target properties that appear under **Advanced**:

Advanced Property	Description
Forward Rejected Rows	Select this option to have the Target transformation pass rejected records to a reject file that is generated in the following directory: `\agent_install_directory\apps\Data_Integration_Server\data\error` Clear this option to ignore the rejected records. **Note:** This field is not displayed if a parameter is specified for the target connection.
Pre SQL	SQL statements that run on the target before the extracted data is written to a target. Maximum length is 5000 characters.
Post SQL	SQL statements that run on the target after the extracted data is written to a target. Maximum length is 5000 characters.
Update SQL Override	Overrides the default Update SQL that is sent to PowerExchange.
Map Schema Override	A schema name that overrides the schema name in the PowerExchange data map.
Map Name Override	Overrides the target PowerExchange data map name.
Insert SQL override	Overrides the default Insert SQL sent to PowerExchange.
Delete SQL override	Overrides the default Delete SQL that is sent to PowerExchange.
Pre SQL run once per Connection	Runs the SQL that you specify in the **Pre SQL** attribute only once for a connection. Select this attribute in either of the following cases: - In the **Pre SQL** attribute for a session that uses writer partitioning, you specify a SQL statement such as CREATEFILE that can run only once for the session. If you do not select **Pre SQL run once per Connection**, the session tries to run the statement once for each partition. - In the **Pre SQL** attribute for a session that performs a multiple-record write, you specify a CREATEFILE statement that creates a new generation of a GDG or creates an empty file. If you do not select **Pre SQL run once per Connection**, the session creates a generation or tries to create a new empty file for each record that the session writes.

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Lookup Transformation

You can configure a cached Lookup transformation when you use an Adabas connection in a mapping to return data from an Adabas source based on a specified lookup condition. However, the Adabas Connector does not support uncached lookup.

For more information, see Cloud Data Integration *Transformations*.

Mapping task configuration

Configure an optional mapping task for a mapping with a Adabas source. When you run the mapping task, the Adabas records are transmitted to the target.

Note: SQL ELT optimization and Visio templates are not supported for Adabas mapping tasks.

To begin configuring a mapping task, perform one of the following actions:

- In Data Integration, click **New** > **Mapping Task** and then click **Create**.
- While the mapping is open, select **New Mapping Task** from the **Actions** menu.

Then enter information on some or all of the following pages in the mapping task wizard:

- **General**. Enter a name for the mapping task, a project or folder location for the mapping task, and the runtime environment that contains the Secure Agent or Secure Agent Group under which the mapping task will run. If you began creating the mapping task without first opening the mapping, you must also select the mapping with which to associate the mapping task. The description is optional.
- **Sources**. This page appears only if you defined a parameter for the connection or source object in the mapping. If you defined a connection parameter, select or create the specific connection that you want the mapping task to use. If you defined a source object parameter, select the data map for a specific source object. For more information, see "Properties for parameterized sources and connections" on page 20.
- **Targets**. This page appears only if you defined a parameter for the target connection or object in the mapping. For more information about configuring targets in mapping tasks, click the help icon on this page.
- **Runtime Options**. Optionally define a schedule for running the mapping task.

Properties for parameterized sources and connections

The **Sources** page appears in the mapping task wizard if you defined a parameter for the connection or source object in the associated mapping.

If you defined a parameter for the source connection in the mapping, you must select or create a specific connection for the mapping task. Ensure that the connection type is consistent with the source object type. After a connection is selected, you can click **Advanced Options** to configure the optional **Filter Overrides** or **SQL Query Override** advanced property. For more information about these advanced properties, see "Adabas source properties in mappings" on page 15.

Note: If the mapping uses a specific source connection and a parameter for the source object, you can specify these properties in the mapping and also specify them in the mapping task. In this case, the properties in the mapping task override those in the mapping.

If you defined a parameter for the source object in the mapping, you must select a specific source object for the mapping task. After you select a source object, the **Preview All Columns** button appears under **Data Preview**. However, you cannot preview data for a source object.

If you are parameterizing a source object, select the objects that correspond to the groups you selected in the mapping from the mapping task **Sources** tab. The number of objects you select must match the number of groups that were added in the multi group data object parameter. To select the source objects, click **Select**.

Note: To parameterize a source object, you must define a parameter of the type **multi group data object** for the mapping.

By default, the objects are associated with the groups in the order in which the objects appear in the selection window. From the **Group Map** area, you can change the group to object association by using drag and drop to associate a group with a object.

When you finish entering information on the **Sources** page, click **Validate** to validate your entries.

Note: If the mapping specifies a connection parameter and you edit the mapping to change the source object, check the specific connection in the mapping task to determine if you need to reset it and then validate the mapping task again.

Running a mapping task

A mapping task runs on premises under control of the Secure Agent.

To run the mapping task, use any of the following methods:

- After you finish configuring the mapping task, click **Run**.
- Manually start the mapping task from the **Explore** page.
- Create a schedule that runs the mapping task based on a date, time, and repeat frequency, such as hourly, daily, weekly, or monthly.
- Include the mapping task in a taskflow and then run the taskflow.

Monitoring a mapping task

After you run a mapping task, you can check the job status for the task to determine if the job succeeded, completed with warnings, or failed. If the job failed or ended with a warning, you can view the session log for the job to identify the error or warning conditions. If necessary, you can stop the mapping task from the Monitor.

Each time a user or schedule starts a mapping task, Informatica Intelligent Cloud Services creates a job to run the task.

1. To view a list of mapping task jobs, use one of the following methods:
    - In Data Integration, select **My Jobs**. The **My Jobs** page lists all jobs that you, the user who is currently logged in, started. It does not include jobs that were started by a schedule.

- In Monitor, select **All Jobs** or **Running Jobs**. The **All Jobs** page lists all of the running and completed jobs that members of your organization started or that were started by a schedule. The **Running Jobs** page lists only the jobs that are currently running or that have completed within the last 5 minutes.

2. On the **My Jobs**, **All Jobs**, or **Running Jobs** page, review the information about the jobs you're interested in. The following information is displayed by default and shown for each job instance:
   - Start date and time
   - End date and time
   - Number of rows processed
   - Current state, which can be one of the following values: Queued, Starting, Running, Success, Stopped, Suspended, Warning, or Failed.

   Tip: You can change the columns that are displayed by right-clicking the column-heading area and selecting or deselecting column names in the list.

   For more information about a job, click the job name to open a page that contains job details and a download link for the session log. You can also download the session log by moving the cursor to the right end of the row for a job and clicking the **Download Log** icon.
3. If the job state is Failed or Warning, gather more information about the error or warning condition in the following ways:
   - For a Failed job, hover the cursor over the Failed icon in the **State** column. A brief description of the error condition appears, which you can copy.
   - Download the session log and look for error or warning messages that begin with the message ID prefix of "PWXPC" or "PWX."

   If possible, correct the error or warning condition and then restart the job. To restart the job from the **Jobs** or **My Jobs** page, move the cursor to the right end of the row for the job and click the **Restart** icon.

CHAPTER 4

Adabas administration

As the organization administrator for a Adabas Connector implementation, you might need to perform some administrative tasks to keep processing running smoothly.

For example, you might need to perform some administrative tasks when you upgrade PowerExchange. For more information, see "Upgrading to a new version of PowerExchange" on page 23.

Upgrading to a new version of PowerExchange

The connector can replicate data from only a single version of PowerExchange. If you upgrade your on-premise environment to a later supported PowerExchange version, use this task to move your Informatica Intelligent Cloud Services Data Integration connections to the new PowerExchange environment.

1. Upgrade the PowerExchange installation. For more information, see the *PowerExchange Installation and Upgrade Guide*.
2. In Monitor, open the **Running Jobs** page.
3. Make sure that any running mapping tasks that connect to the previous PowerExchange version run to completion, or stop the task if necessary.
4. Stop the Secure Agent that is specified in the connection configuration for any connection to the previous PowerExchange version.
5. In Data Integration, edit the connections to point to the new PowerExchange version.
6. If necessary, edit the mapping task configurations to specify the appropriate connection to the new version of the PowerExchange environment.
7. Start the mapping tasks again, when appropriate.

CHAPTER 5

Data type reference

Data Integration uses the following data types in mappings and tasks with Adabas:

Adabas native data types

Adabas data types appear in the source and target transformations 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 reads source data, it converts the native data types to the comparable transformation data types before transforming the data. When Data Integration writes to a target, it converts the transformation data types to the comparable native data types.

Adabas and transformation data types

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

Adabas Data Type	Transformation Data Type
BIGINT	bigint
BINARY	binary
BIT	string
BLOB	binary
CHAR	string
CLOB	string
DATE	date/time
DBCLOB	binary
DECIMAL	decimal

Adabas Data Type	Transformation Data Type
DOUBLE	double
FLOAT	double
GRAPHIC	binary
INTEGER	integer
LONG VARCHAR	string
LONG VARGRAPHIC	binary
MONEY	decimal
NUM16	integer
NUM16U	integer
NUM32	integer
NUM32U	integer
NUM64	bigint
NUM64U	bigint
NUM8	integer
NUM8U	integer
NUMCHAR	decimal
NUMERIC	integer
PACKED	decimal
REAL	decimal
ROWID	string
SMALLINT	integer
SPACKED	decimal
STRING	string
TIME	date/time
TIMESTAMP	date/time
UPACKED	decimal
UZONED	decimal

Adabas Data Type	Transformation Data Type
VARBINARY	binary
VARCHAR	string
VARGRAPHIC	binary
ZONED	decimal

CHAPTER 6

Connection overrides reference

When you create a mapping that uses this connector type, you can specify a connection property that allows you to specify connection property overrides through a parameter file in the connection properties panel **Custom Properties** field.

Connection overrides

The following table lists the connection overrides that you can specify for nonrelational sources such as Adabas, Datacom, IDMS, IMS, sequential file, and VSAM connections:

Connection Override	Default	Valid Values
Array Size	25	1 to 100000
Connection Retry Period	0	0 to 1000000
Offload Processing	No	A - Auto F - Filter After N - No Y - Yes
Offload Threads	0	0 to 64
Password	no default	A valid password for the specified user
Replace Low-values With Spaces	no default	Y|N
User Name	no default	A user name
Confirm Network Write	Confirm Write On	Y|N

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