



Informatica® Cloud Data Integration

Yellowbrick Data Warehouse Connector

Informatica Cloud Data Integration Yellowbrick Data Warehouse Connector
April 2024

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Preface

Use *Yellowbrick Data Warehouse Connector* to learn how to read from or write to Yellowbrick Data Warehouse by using Cloud Data Integration. Learn to create a Yellowbrick Data Warehouse connection, develop and run mappings, and mapping tasks.

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CHAPTER 1

Introduction to Yellowbrick Data Warehouse Connector

You can use Yellowbrick Data Warehouse connector to connect to Yellowbrick Data Warehouse from Data Integration.

Use Yellowbrick Data Warehouse Connector to read data from and write data to Yellowbrick Data Warehouse. You can use tables as Yellowbrick sources and targets.

You can use Yellowbrick Data Warehouse as sources and targets in mappings and mapping tasks. When you use these objects in mappings, you must configure properties specific to Yellowbrick.

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

Example

You work for an organization that stores purchase order details, such as customer ID, item codes, and item quantity in a SQL server database. You need to analyze purchase order details and move data from the SQL server database to a Yellowbrick Data Warehouse. Create a mapping to read all the purchase records from the SQL server database and write them to a Yellowbrick Data Warehouse target for data analysis.

Note: This connector is developed by Informatica partners, third-party system integrators, or customers. You can look up the Product Availability Matrix or Informatica Marketplace for more information.

Introduction to Yellowbrick Data Warehouse

Yellowbrick Data Warehouse is a high-performance relational database management system.

You can use Yellowbrick Data Warehouse Connector to securely read data from or write data to Yellowbrick Data Warehouse.

Yellowbrick Data Warehouse Connector task and object types

The following table lists the Yellowbrick Data Warehouse object types that you can use in Data Integration tasks:

Task Type	Source	Target
Mapping	Yes	Yes

CHAPTER 2

Yellowbrick Data Warehouse connections

Create a Yellowbrick Data Warehouse connection to access Yellowbrick Data Warehouse from Data Integration. You can create a connection on the Connections page or when you create a task. After you create a connection, it becomes available to all users who have access to the organization.

Use the connection when you create a mapping task. You can specify the Yellowbrick Data Warehouse source and target in mappings or mapping tasks.

Yellowbrick Data Warehouse connection properties

When you set up a Yellowbrick Data Warehouse connection, you must configure the connection properties.

The following table describes the Yellowbrick Data Warehouse connection properties:

Connection property	Description
Connection Name	Name of the connection.
Description	Optional. Description that you use to identify the connection.
Type	Select Yellowbrick as the connection type.
Runtime Environment	Name of the runtime environment where you want to run the tasks.
Database	Name of the Yellowbrick Data Warehouse that you want to connect to.
Host Name	Hostname or IP address of the Yellowbrick server.
Password	Password for the Yellowbrick Data Warehouse.
Port No	Port number of the Yellowbrick Data Warehouse.
Schema Name	Name of the schema. Required if you select Specified for Schema Policy.

Connection property	Description
Schema Policy	Policy for naming the schemas for tables. Select one of the following options: <ul style="list-style-type: none"> - None - Specified - FromImport: Not applicable
User Name	User name for the Yellowbrick Data Warehouse.
Secure Connection	Select this option to use TLS to secure the communication with Yellowbrick. Default is false.
Secure CA Cert	Use the name of the custom PEM-encoded certificate file or the name and password of the JKS keystore file to customize trust with secure communications. The name and password of the JKS keystore file must be in the following format: FILENAME:PASSWORD If a file name is not specified, use the following fallback root CA certificate file: Windows: %APPDATA%\postgresql\root.crt If the file exists, it will be treated the same as a specified Secure CA Certificate file. For more information, see the Yellowbrick Documentation Library.
Secure Disable Trust	Select this option to disable the SSL and TLS trust when you use a secured connection. Default is false.

CHAPTER 3

Mappings and mapping tasks with Yellowbrick Data Warehouse

Use the Data Integration Mapping Designer to create a mapping. In advanced mode, the Mapping Designer updates the mapping canvas to include transformations and functions that enable advanced functionality.

Yellowbrick Data Warehouse objects in mappings

When you create a mapping, you can configure a Source or Target transformation to represent a Yellowbrick Data Warehouse object.

Yellowbrick Data Warehouse sources in mappings

In a mapping, you can configure a Source transformation to represent a Yellowbrick Data Warehouse source.

The following table describes the source properties that you can configure in a Source transformation:

Property	Description
Connection	Name of the source connection, or create a connection parameter.
Source type	Type of the source object. Select Single Object, Multiple Objects, or Parameter. To define a parameter, select Parameter as the source type, and then specify the parameter in the Parameter property.
Object	Name of the source object.

The following table describes the Yellowbrick Data Warehouse query options that you can configure in a Source transformation:

Property	Description
Filter	<p>Filter value in a read operation. Click Configure to add conditions to filter records and reduce the number of rows that the Secure Agent reads from the source.</p> <p>You can specify the following filter conditions:</p> <ul style="list-style-type: none"> - Not parameterized. Use a basic filter to specify the object, field, operator, and value to select specific records. - Completely parameterized. Use a parameter to represent the field mapping. - Advanced. Use an advanced filter to define a more complex filter condition.
Sort	<p>Add conditions to sort records.</p> <p>You can specify the following sort conditions:</p> <ul style="list-style-type: none"> - Not parameterized. Select the fields and type of sorting to use. - Parameterized. Use a parameter to specify the sort option. - Sort Order. Sorts data in ascending or descending order, according to a specified sort condition.

The following table describes the Yellowbrick Data Warehouse advanced source properties that you can configure in a Source transformation:

Property	Description
Pre-SQL	The pre-SQL commands to run a query before you read data from Yellowbrick Data Warehouse.
Post-SQL	The post-SQL commands to run a query after you write data to a target.
SchemaPolicy	<p>Policy for naming the schemas for tables.</p> <p>Select one of the following options:</p> <ul style="list-style-type: none"> - None - Specified - FromImport - FromConnection
SchemaName	Name of the schema. Required if you select the Specified option for SchemaPolicy.
Filter Condition	Not applicable
IsNative	Not applicable
TableName	<p>The table to read from. If not specified, use the table name in the source definition. You must add the Table name without quotes.</p> <p>Note: Do not use this value to modify user-specific SQL snippets from other attribute fields, such as PreSQL and PostSQL. You must ensure that the table name specified in the SQL snippets matches the table name specified here</p>
Tracing Level	Not applicable

Yellowbrick Data Warehouse targets in mappings

To write data to Yellowbrick Data Warehouse, configure a Yellowbrick Data Warehouse object as the target in a mapping.

Specify the name and description of the Yellowbrick Data Warehouse 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 or create a connection parameter.
Target Type	Type of the target object. Select Single Object or Parameter. If you select Parameter , specify an input parameter for the target object in the Parameter property. When you use a parameter, you specify the target table for the parameterized object on the Targets page of each mapping task associated with the mapping.
Object	Name of the target object. You can select an existing target object from the displayed list. Create New at Runtime property is not applicable.
Parameter	Select or create a parameter for the target object. Appears only when the target type is Parameter .

The following table describes the advanced target properties:

Property	Description
Truncate Target Table	Truncates the database target table before inserting new rows. Select one of the following options: - True - Truncates the target table before inserting all rows. - False - Inserts new rows without truncating the target table.
Bulk Insert	Bulk inserts all source rows into the target table. This option can be used in place of the Write Operation property.
Bulk Commit Interval Rows	The number of rows at which the Secure Agent applies the commit to the target. The default value of 0 means to use a single transaction. When the Write Operation is set to one of the 'Bulk' options, this value is used instead of the session attribute Commit Interval . For more information, see the Yellowbrick Documentation Library.
SchemaPolicy	Policy for naming the schemas for tables. Select one of the following options: - None - Specified - FromImport - FromConnection
SchemaName	Name of the schema. Required if you select Specified for SchemaPolicy.
Pre-SQL	The SQL command that you want to run before the session starts.
Post-SQL	The SQL command that you want to run after the session ends.

Property	Description
Combine non-bulk inserts	Select this property to automatically combine multiple INSERTtableVALUES(a,b); statements into a single statement. For example, to insert values to multiple tables, you must enter the values in the following format: INSERT table VALUES (a1, b1), (a2, b2), (a3, b3), ...
Non-bulk write flush interval	The number of records to be sent to the database at a time. 0 means the connector will select automatically.
Write Operation	Defines how the source records update the target table. Select from one of the following options: <ul style="list-style-type: none"> - Bulk INSERT - Bulk UPDATE - Bulk DELETE - Bulk UPSERT - JDBC Data Driven - 1.1.20 compatibility mode This option can be used in place of the Bulk Insert property.
Perform Bulk Truncate In Txn	Required if you selected the Truncate Table and if you chose one of the Bulk options for Write operation. When checked, the truncate occurs in the same transaction as the Bulk operation and not in a separate transaction before the Bulk Operation.
Bulk Duplicate Handler	Specifies how to handle duplicate source records. by entering one of the following options: You can choose form the following options: <ul style="list-style-type: none"> - <empty> or NONE: Do not handle the duplicate source records. - RANDOM: Pick one of the duplicates to apply. - FIRST: Pick the first duplicate in the workflow order. - LAST: Pick the last duplicate in the workflow order. - ORDER BY {sql clause}: Apply the given order to the duplicates and select the first record. Use ASC/DESC to get different orders.
TableName	The table to write to. If not specified, use the table name in the target definition. You must add the table name without quotes. Note: Do not use this value to modify user-specific SQL snippets from other attribute fields, such as pre-SQL and post-SQL. You must ensure that the table name specified in the SQL snippets matches the table name specified here.
AdvWriteProps	Yellowbrick Support may want you to add special options. In such instances, they will show you how to do so in AdvWriteProps. Note: The Yellowbrick output component has all of the string parsing and data type conversion capabilities as the ybload command line tool. This flexibility is not necessary inside Informatica toolsas they have their own robust mechanisms for string parsing and data type conversion, but the options are still available.

Rules and guidelines for sources and targets

Consider the following rules and guidelines when you read from and write to Yellowbrick Data Warehouse:

- When you write to Yellowbrick that has rejected rows and click the **Preview Error Rows File** link, the activity log does not display the records.

- When you view a mapping task, the Enable target bulk load entry does not apply to the Yellowbrick connector.
- You cannot add custom properties under Advanced in a mapping task configuration.
- Time values only preserve millisecond precision. If Time columns in Yellowbrick contain higher precise fractional seconds, the extra precision beyond millisecond is discarded.
- Date and Timestamp values with dates before October 15, 1582 are not handled correctly.
- The error message appears incomplete when the “Bulk Duplicate Handler” values are not valid. The error message reads, `yb.load.duplicate_handler` must be one of NONE | RANDOM | ORDER BY `<sql clause>` first and last should also be included in the error message as valid values. As a workaround, you can correct the syntax of the Bulk Duplicate Handler value.
- The statistics for affected rows in bulk update, delete, and upsert is not accurate. For example, in a delete operation with 26 source rows, only 20 rows match existing rows in the target table.

CHAPTER 4

Data Type Reference

Data Integration uses the following data types in mappings and mapping tasks with Yellowbrick Data Warehouse:

Yellowbrick Data Warehouse Native Data Types

Yellowbrick Data Warehouse 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.

Yellowbrick Data Warehouse and transformation data types

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

Yellowbrick Data Warehouse Data Type	Transformation Data Type	Description
Smallint	integer	16-bit signed integer.
Integer	integer	32-bit signed integer.
Bigint	bigint	64-bit signed integer.
Varchar	nstring	Variable length character string.
Char	nstring	Fixed length character string.

Yellowbrick Data Warehouse Data Type	Transformation Data Type	Description
Decimal	decimal	Yellowbrick Data Warehouse supports a maximum precision of 38, but the transformation data type only supports a maximum of 28 digits. If the source data has more than 28 digits of precision, a maximum of 28 digits is preserved.
Date	date/time	Date.
Time	date/time	Time of day value.
Timestamp	date/time	Timestamp without time zone.
Timestamp with time zone	date/time	Timestamp with time zone.
Boolean	nstring	1-byte Boolean value.
Real	double	32-bit floating point value.
Double Precision	double	64-bit floating-point value.
UUID	nstring	128-bit generated value consisting of lowercase and uppercase hexadecimal digits.

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