IBM DB2 Cube Views

Bridge for Integration Server User's Guide

Version 8

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This edition applies to Version 8.1 of DB2 Cube Views bridge for Integration Server (program number 5724-E15) and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Introduction

The bridge helps you import or export metadata objects to and from the IBM® DB2 Universal Database™ (DB2® UDB) catalog and the DB2 OLAP Integration Server add-on feature of IBM DB2 OLAP Server™ or Hyperion® Essbase® Integration Services™. To complete the import or export process, you use the OLAP Center in DB2 Cube Views.

In this book, DB2 OLAP Integration Server and Hyperion Integration Services are referred to as *Integration Server*.

To use the the bridge for Integration Server, you need the following additional documentation:
- DB2 Cube Views, Version 8.1 *Setup and User's Guide*
- Relevant information for the DB2 Universal Database, Version 8.1.2 catalog
- Relevant information for IBM DB2 OLAP Integration Server, Version 8.1 or Hyperion Integration Services 6.5

To exchange metadata objects between Integration Server and the DB2 UDB catalog, you should know how to create Integration Server models and metaoutlines and be familiar with the DB2 UDB catalog tables. You should also know how to use the OLAP Center in DB2 Cube Views to import or export metadata XML files to and from Integration Server and DB2 UDB.

Prerequisites

You must have the following software to use the bridge for Integration Server:
- Windows NT®, Windows® 2000, and Windows XP
- IBM DB2 Universal Database, Version 8.1.2 or later
- DB2 OLAP Server, Version 8.1 (with DB2 OLAP Integration Server) or Hyperion Essbase Integration Services 6.5

What is the bridge for Integration Server

DB2 Cube Views provides a utility called a bridge that maps Integration Server model or metaoutline objects to their corresponding DB2 Cube Views metadata objects. The bridge creates an XML file that creates mapped associations between Integration Server metadata objects and DB2 Cube Views metadata objects. You can use the bridge XML file to import model or metaoutline objects to the DB2 UDB catalog via DB2 Cube Views. See the Integration Server documentation for information about importing and exporting models or metaoutlines as XML files.

After you use the bridge to create an XML file, use the OLAP Center in DB2 Cube Views to import the XML file to the DB2 UDB catalog. After you populate the DB2 UDB catalog with metadata objects, you can view the metadata objects by using the OLAP Center interface. See the DB2 Cube Views *Setup and User's Guide* for more information about how to use the OLAP Center.

You can also export DB2 Cube Views metadata objects from the DB2 UDB catalog to Integration Server. With the OLAP Center, you can export an XML file that is then read by the bridge. The bridge maps the metadata objects from the DB2 UDB catalog to model or metaoutline metadata objects.

Figure 1 on page 4 shows how metadata is imported or exported between Integration Server and the DB2 UDB catalog.
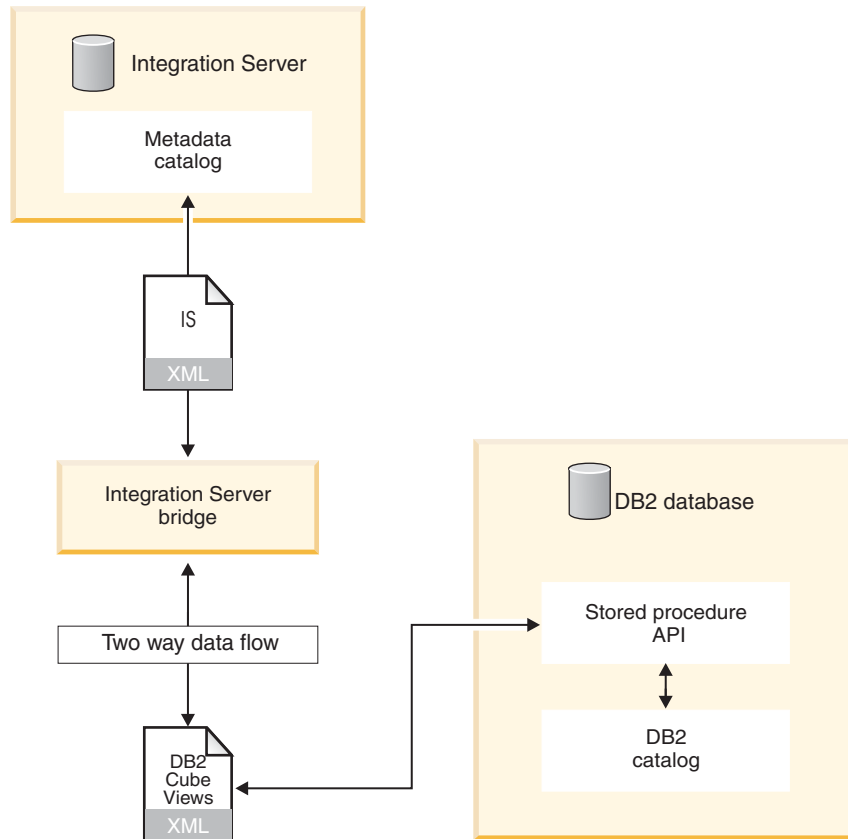
Figure 1. How the bridge helps to import or export metadata

You can use the XML file that is created by the bridge to import (exported from the DB2 UDB catalog) the metadata objects to Integration Server. See the Integration Server documentation for information about importing XML files to Integration Server.

Mapping and importing metadata

With the bridge, you can create an XML file that the OLAP Center Import wizard uses to import metadata objects from Integration Server to the DB2 UDB catalog. Before you use the bridge, you must export your models or metaoutlines to an XML file. The bridge then maps the Integration Server metadata objects to DB2 Cube Views metadata objects.

The following table shows how Integration Server metadata objects map to DB2 Cube Views metadata objects.

Table 1. How Integration Server objects map to DB2 Cube Views objects

Integration Server object	DB2 Cube Views object
Model	Cube model
Fact	Facts
Numeric member of fact	Measure
Dimension	Dimension
Dimension view member	Attribute
Hierarchy	Hierarchy
Join (logical and physical)	Join
Metaoutline	Cube
Nonaccounts dimension	Cube dimension
Accounts dimension	Cube facts
Metaoutline dimension hierarchy	Cube hierarchy

Mapping and importing metadata from Integration Server to DB2 UDB is a three-step process:

1. With Integration Server, export the model or metaoutline as an XML file.
2. Map the Integration Server OLAP objects to their corresponding DB2 Cube Views metadata objects.

   Use the bridge to create a DB2 Cube Views XML file that maps Integration Server metadata objects to DB2 Cube Views metadata objects.
3. Import the DB2 Cube Views metadata objects to the DB2 UDB catalog.

   Use the Import wizard in the OLAP Center to import the XML file to the DB2 UDB catalog.

Restrictions:

If you map a metaoutline, you must also map its model.

The bridge cannot map the following Integration Server metadata objects to DB2 Cube Views metadata objects:
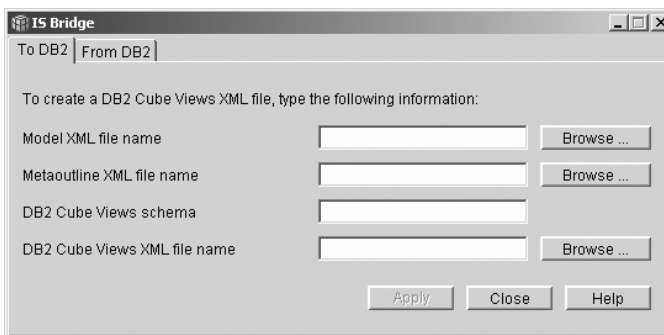
- Members that have the PASSTHRU expression or formula
- Hidden members that are not used in joins
- Metaoutline dimension members that are below outline and Hybrid Analysis levels

- Measures that do not reference other measures and do not specify an aggregation type or specify NONE for the aggregation
- Measures that are used in a join
- Implicit measures
- Joins that are used to define recursive hierarchies
- User-defined dimensions and members
- Attribute dimensions
- Hierarchies and metaoutline dimensions in which none of the members are mapped

Procedure:

To map Integration Server metadata objects to a DB2 Cube Views metadata objects:

1. Start the bridge by double-clicking the `isbridge.bat` file in the `SQLLIB\BIN` directory or by typing `isbridge` from a command prompt.
2. Click the **To DB2** tab.

3. Type or browse for the following files and information:
   a. Model XML file name: The XML file that is generated by the Integration Server for a model
   b. Optional: Metaoutline XML file name: The XML file that is generated by the Integration Server for a metaoutline
   c. DB2 Cube Views Schema name: The schema name that is used for all DB2 Cube Views objects that are generated by the bridge
   d. DB2 Cube Views XML file name: The XML file that is generated by the bridge
4. Click **Apply**.

To start the bridge from a command line and import a model or a model with a metaoutline, enter the following command on one line:

```
ISBridge -Model model XML file [-Metaoutline metaoutline XML file]
-OutFile output XML file -OLAPSchema schema name
[-Log Yes|No]
```

See step 3 in the previous section for a description of each file. `Output XML file` is the DB2 Cube Views XML file name.

If you enter `Yes` for the log command, the bridge creates a log file. The default is `No`.

Now you can use the OLAP Center in DB2 Cube Views to import the new XML file to the DB2 UDB catalog. See the DB2 Cube Views *Setup and User's Guide* for information about how to import XML files.

Exporting metadata

You can export DB2 Cube Views metadata objects to Integration Server by using the bridge. The bridge creates an XML file that you can import to Integration Server.
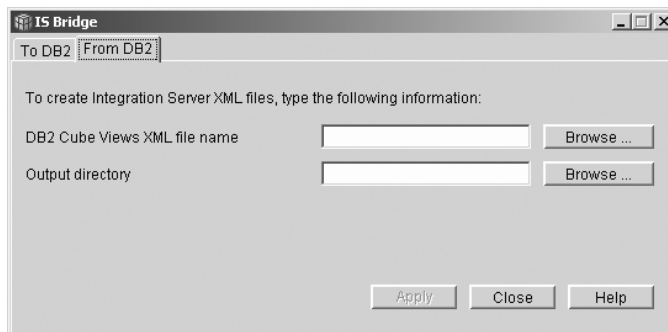
Restrictions:

The bridge cannot map the following DB2 Cube Views metadata objects to Integration Server metadata objects:

- Attributes, measures, dimensions, or hierarchies that are not used in a cube model
- Measures whose aggregation is not one of the following types: SUM, AVG, MAX, MIN, COUNT, NONE
- Measures that have multiple aggregations
- Measures that do not have aggregations and whose expressions do not allow the construction of a measure hierarchy in a metaoutline accounts dimension
- Attributes and measures that reference unmapped objects
- Joins that form a loop
- Joins whose type is not inner, or the operator is not =, or the cardinality is n:m
- Joins that do not link relational columns
- Hierarchies whose type is not balanced or whose deployment is not standard
- Dimensions whose facts-to-dimension join is not mapped
- Cube hierarchies that reference unmapped hierarchies
- Cube dimensions that reference either unmapped dimensions or unmapped hierarchies
- Attribute relationships

Procedure:

To export DB2 Cube Views metadata objects to Integration Server:

1. Start the bridge by double-clicking the `isbridge.bat` file in the SQLLIB\BIN directory or by typing `isbridge` from a command prompt.
2. Click the **From DB2** tab.

3. Type or browse for the following files and information:
   a. DB2 Cube Views XML file: The XML file that is generated by DB2 Cube Views

b. Output directory: The location where the output model and metaoutline are stored

4. Click **Apply**.

To export metadata from DB2 Cube Views to Integration Server from a command line, enter the following command on one line:

```
ISBridge -DB2MetadataFile DB2 Cube Views XML file
-outDirectory output directory [-Log Yes|No]
```

See step 3 in the previous section for a description of each file.

If you enter `Yes` for the log command, the bridge creates a log file. The default is `No`.

Now you can import the new XML file to Integration Server. See the Integration Server documentation for information about how to import model and metaoutline XML files.

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> Provides links to information about DB2 Cube Views.

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