IBM InfoSphere Information Server
Version 11 Release 3

# *Importing Metadata by Using the Cognos BI Reporting - Content Manager Bridge*

IBM

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# Contents

# Chapter 1. Importing metadata from business intelligence tools

You can use bridges to import business intelligence (BI) metadata into the metadata repository of IBM® InfoSphere® Information Server. The imported metadata includes BI reports, BI models, and related implemented data resources such as database tables.

## Business intelligence metadata

When you import BI metadata into the metadata repository, you can study the components of BI reports and BI models and how they are related. You can track database tables and columns that the BI reports reference, and the jobs that use the columns.

Business intelligence reporting is the means of publishing, distributing, and reviewing data results and information. Analysts must be able to understand the meaning and authenticity of BI reports, which are generated against data sources such as marts or warehouses. You might need to know when the content that feeds a BI report was last updated, and which InfoSphere DataStage® and QualityStage® jobs or other processes were sequenced during the update. Lineage and analysis reports in InfoSphere Information Governance Catalog can display the complete data flows that transform and populate the source data that underlies the BI reports, thus satisfying requirements for data governance and data trust.

For a full list of supported BI bridges, see the technote *List of supported bridges for InfoSphere Information Server Version 11.3*: http://www.ibm.com/support/docview.wss?&uid=swg27042029. Not all BI bridges import BI reports.

BI reports are the report templates that are created within BI reporting tools such as the following:
- IBM Cognos® Report Studio or Query Studio
- SAP BusinessObjects Desktop Intelligence, Web Intelligence, or Crystal Reports
- Oracle Business Intelligence Report Publisher
- MicroStrategy
- Microsoft SQL Server Report Builder and Report Designer

BI reports include BI queries and query members, which source and aggregate the information to display from BI models. BI models are created within modeling tools such as Cognos Framework Manager and BusinessObjects Designer.

In InfoSphere Information Governance Catalog, you can assign stewards and glossary terms to business intelligence reports, and edit the business names and descriptions of the reports.

For best results when you import BI metadata, familiarize yourself with the following concepts and functionality:

| To answer this question | Read this |
|---|---|
| How do I ensure that my imports are efficient and successful? | Importing and managing assets by using InfoSphere Metadata Asset Manager (http://www.ibm.com/support/ knowledgecenter/SSZJPZ_11.3.0/ com.ibm.swg.im.iis.mmi.doc/topics/ ct_imam_top-level.html) |
| Which assets are imported and used by suite tools, and how are they organized? | Common metadata assets (http://www.ibm.com/support/ knowledgecenter/SSZJPZ_11.3.0/ com.ibm.swg.im.iis.metadata.common.doc/ topics/ct_common_metadata_assets.html) |
| Which BI assets are imported and used? | Business intelligence assets |
| How do I view and report on the relationships between the imported BI metadata and the InfoSphere DataStage and QualityStage jobs that use the database tables and columns that reports are based on?. | Reporting data lineage and business lineage (http://www.ibm.com/support/ knowledgecenter/SSZJPZ_11.3.0/ com.ibm.swg.im.iis.mdwb.doc/topics/ ct_analyzingMetadataRelationships.html) |

# Chapter 2. Importing metadata by using InfoSphere Metadata Asset Manager

You can import by using a bridge or connector that is on any computer that is designated as a metadata interchange server. You specify connection information and information about the source metadata, and choose to run either an express import or a managed import.

## Before you begin

You must have the role of Common Metadata Importer or Common Metadata Administrator.

Ensure that you meet all prerequisites for importing metadata:
- Installing InfoSphere Metadata Asset Manager and bridges (http://www.ibm.com/support/knowledgecenter/SSZJPZ_11.3.0/com.ibm.swg.im.iis.productization.iisinfsv.install.doc/topics/wsisinst_install_imam.html)
- Preparing to use InfoSphere Metadata Asset Manager (http://www.ibm.com/support/knowledgecenter/SSZJPZ_11.3.0/com.ibm.swg.im.iis.mmi.doc/topics/t_first_steps.html)
- Prerequisites for using the Cognos BI Reporting - Content Manager bridge

## About this task

You create an import area by running an import. The import area is created whether you run an express import or a managed import.

When you run a managed import, you can closely study the metadata assets in the import. You can preview the effects that the import might have on the repository. You can take time to fix problems in the source metadata, or reimport with other parameters.

An express import saves time when you have high confidence in the contents of your import source. By default, an express import requires that you preview the result of sharing to the metadata repository if repository assets will be deleted as a result of the import. Your administrator can change the defaults to allow automatic sharing in all cases or to require previews in all cases.

## Procedure

1. Log in to InfoSphere Metadata Asset Manager by clicking the desktop icon or entering the URL for the services tier computer in your browser. The URL is `https://server:port/ibm/iis/imam/console`. The default port number is 9443 for HTTPS.
2. On the **Import** tab, click **New Import Area**.
3. In the **New Import Area** window, take the following steps:
   a. Specify a unique name and a description for the import area.
   b. Select the metadata interchange server from which you want to run the import.
   c. From the list of bridges and connectors, select **IBM Cognos BI Reporting - Content Manager**.

d. Click **Next**.

4. For connector imports, and imports with the HDFS bridge, select or create a data connection. You can edit the properties of a selected data connection.

5. Specify import parameters for the Cognos BI Reporting Content Manager bridge. Help for each parameter is displayed when you hover over the value field.

   a. After you enter connection information for an import from a server, click **Test Connection**.

   b. For imports from databases and repositories, browse to select the specific assets that you want to import.

   c. Click **Next**.

6. If required, on the Identity Parameters screen, specify identity parameters for database assets or data models that you are importing. Consult the help for each selected parameter. Click **Next**.

7. Type a description for the import event and specify whether to run an express import or a managed import.

8. Click **Import**. The import area is created. The import runs and status messages are displayed.

   Leave the import window open to avoid the possibility that long imports time out.

## Results

When the import completes, if you ran a managed import, analyze the imported assets in the **Staged Imports** tab of the import area.

If you ran an express import, take one of the actions that are listed in the following table.

*Table 1. Choices after an express import*

| In this case | Take this action |
|---|---|
| If the analysis shows problems that you must fix | The **Staged Imports** tab is displayed. Review the analysis results. If necessary, reimport the staged event. |
| If your administration settings require a preview | The **View Share Preview** screen is displayed. Preview the result of sharing the import. |
| If your administration settings do not require a preview | The assets are shared to the metadata repository. The **Shared Imports** tab is displayed. You can browse the assets on the **Repository Management** tab and work with them in other suite tools. |

## What to do next

If you want to use imported database tables or data file structures in InfoSphere DataStage and QualityStage jobs, you must create table definitions. To create table definitions from the database tables or data file structures, in the Designer client, click **Repository** > **Metadata sharing** > **Create table definition from shared table**, and then select the imported asset that you want to create a table definition from.

# Chapter 3. IBM Cognos BI Reporting - Content Manager bridge reference

Prerequisites, frequently asked questions, troubleshooting, and parameter information for the Cognos Content Manager bridge.

## About this bridge

The IBM Cognos BI Reporting - Content Manager bridge supports Cognos BI Reporting Content Manager functionality in Cognos ReportNet and Cognos versions 8 to 8.4 and 10, including 10.2. The bridge imports a complete package of business intelligence (BI) models, BI reports, and related implemented data resources.

**Note:** The following known limitations are applicable when you use the bridge with Cognos 10.2.

- Metadata that is imported with the updated bridge might not fully reconcile with the metadata that was imported by using the earlier version of the same bridge.
- When you run metadata imports with the updated bridge from multi-server Cognos environments, the connection to the repository might be reset and the import might fail.

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Prerequisites
Frequently asked questions
Troubleshooting

## Prerequisites

Ensure that the following prerequisites are met before you run the bridge:

**Connectivity**

Before you can access Cognos Content Manager, its web services must be operational. Setting up these web services might require working with the networking proxy and firewall.

To test the connection, connect to Cognos Content Manager by using a web browser to make sure that it is accessible from the client computer. An example URL is `http://localhost:9300/p2pd/servlet`. If Cognos Content Manager is running and accessible, you can see a status page. The state of the server must be **running**.

To test if your authentication parameters work, use the web client tool from Cognos to verify the availability of the connection and authentication. An example URL is: `http://localhost/c8/cm_tester.htm`, where `localhost` is replaced with the appropriate IP name and port that is provided by Cognos. The bridge does not work if the connection and authentication are not available.

Cognos must be able to locate a gateway or dispatcher that is running on a web server that supports chunking and attachments to handle large

volumes of data. If there is no firewall between users and Cognos, components use the default setting. If there is a firewall, you must have access to at least one web server that supports chunking outside of the firewall.

The `http` or `https` protocol prefix indicates whether SSL is required. You can find the value in the Cognos installation directory in the file `configuration\cogstartup.xml` file. For example:

```
<crn:parameter name="cdk"
<crn:value xsi-Type="xsd:anyURI">
http://localhost:9300/p2pd/servlet/dispatch</crn:value>
</crn:parameter>
```

Contact your Cognos administrator or Cognos support if necessary.

For more information on connecting to Cognos by using SSL, see the following technote http://www-01.ibm.com/support/docview.wss?&uid=swg27038545.

**Permissions for users**

IBM Cognos has five types of permissions: Read, Execute, Traverse, Write, and Set Policy. These permissions can be assigned or restricted for a user, group, or role.

Ensure that the user has the Read, Execute, and Traverse permissions assigned for all entries that are included in the import, (not just Execute and Traverse, as often recommended by the IBM Cognos documentation). Such entries include folders, reports, queries, analysis, packages, and connections. These permissions are read-only and do not change the Cognos contents. Many entries depend upon others. For example, packages use connections, reports use packages, and so on.

Data sources in IBM Cognos can be secured against multiple namespaces. In some environments, the namespace that is used to secure the data source is not the primary namespace that is used for access to IBM Cognos Connection. The bridge might need to access a report or other entry that is associated with a data source that secured against multiple namespaces. In such cases you must specify a user that has permissions for the required primary namespace. See the IBM Cognos documentation on permissions and security for more details.

## Frequently asked questions

**Why are multiple versions of a package extracted from Content Manager?**
You can edit or update any design model in Cognos Framework Manager and publish it as a new version of a Framework Manager package in Content Manager. The Cognos development lifecycle requires that you then migrate any related reports to use this new version of the package in Content Manager. If you do not complete that migration for all such reports, some reports might still use an old version of a package. Remove old versions of a package that are longer be used. Some new versions of a package might not be used yet by any version. In such cases, multiple versions of a package might be used by different reports and thus imported.

**How can I extract only the latest version of a package from Content Manager?**
Select a single package to import, and set the **Add dependent objects** parameter to **False**. Only the latest version of the package is extracted.

**What should I do about import log warnings such as `Could not get model reference for Report XXX`?**

> The report metadata might not have a valid reference to the model that is based on the report or query. Open the report or query in Report Studio or Query Studio and save it without making changes, then reimport the report or query. Saving the report or query updates the references in the repository.
>
> It is also possible that the model the report or query is based upon is no longer accessible, perhaps because it was deleted or renamed. In this case, fix the report or the query to refer to the correct model.

## Troubleshooting

To provide metadata for support cases, export your metadata from the Cognos 8.4 or Cognos 10 server into an archive file, such as a ZIP file:

1. Connect to IBM Cognos Connection by using the web browser.
2. Click **Launch** > **IBM Cognos Administration**.
3. Click **Configuration**.
4. Click **Content Administration**.
5. Click **New Export**.
6. Follow the instructions in the export wizard to export the metadata.
   - Avoid exporting the whole content store. To export specific folders and directory content, click **Select public folders and directory content** and follow the wizard pages to choose only the packages and folders that you want.
   - Do not include access permissions and references to namespaces other than IBM Cognos.
   - Set entry ownership to the user who performs the import in the target environment.
   - If you create a deployment archive, do not use spaces in the name.
7. After you run the export, send the archive file to the support team. The export can result in a single compressed file or a multi-volume archive file. The exported archive is usually located on the server in the folder `C:\Program Files\cognos\c8\deployment`.

For more information, see the IBM Cognos documentation for details about exporting metadata from your version Cognos.

## Import parameters

The Cognos BI Reporting - Content Manager bridge uses the following import configuration parameters.

**Version**

> Required. Select the version of Cognos server that you want to import from. Select Cognos 10 to import from Cognos 10.1 or 10.2.
>
> **Options**
>
> > - **Cognos 10**
> > - **Cognos 8.4**
> > - **Cognos 8.3**
> > - **Cognos 8.1 and 8.2**
> > - **Cognos ReportNet 1**

**Dispatcher URL**

Required. Type the URI that is used by the Framework Manager, Metrics Designer, or SDK to send requests to Cognos.

The value typically corresponds to the External dispatcher URI of one of the dispatchers in your installation, for example `http://Server:9300/p2pd/server/dispatch`. You must use the specific network host name or IP address instead of localhost. If the Framework Manager, Metrics Designer, or SDK clients connect to Cognos through an intermediary such as a load balancer or proxy, specify the host and port of the intermediary. For more information, see the bridge prerequisites.

**Namespace**

Leave blank if Cognos authentication is not configured.

A namespace defines a collection of user accounts from an authentication provider. See *Authentication Providers* in the *Cognos ReportNet Installation and Configuration Guide*.

**User name**

Type the user name to use if Cognos authentication is configured. Leave blank if Cognos authentication is not configured.

This import bridge is read-only and never affects the IBM Cognos contents. It is safe to attempt the initial metadata import as Administrator in order to ensure that the entire content is extracted without access permission issues. Eventually, the administrator can set up a read-only user or group. For more information, see the bridge prerequisites.

**Password**

Type the password if Cognos authentication is configured. Leave blank if Cognos authentication is not configured.

**Content browsing mode**

Specify what types of objects are retrieved when you browse the Cognos repository. To see all available content, select the default, **All**, which retrieves the tree of packages, folders, queries, and reports.

This parameter is used only if you browse for assets in the **Assets to import** field. It is not used if you type a content string that specifies search paths.

**Assets to import**

Required. Browse to select the assets that you want to import, or type a content string that specifies one or more search paths. Always select a smaller set of objects than the whole server content, which is the default.

Once you specify a selection, you can return to the previous page of the import wizard and test the data connection again, if desired, to make sure that you have permission to import all the assets that you selected.

A content string is a semicolon-separated list of individual Cognos search paths that are used to retrieve objects from Cognos. The following object types are supported: package, folder, model, report, query, and shortcut. See the Cognos documentation for the full search path syntax.

Search paths that attempt to retrieve everything under a certain folder or content root are inefficient. The import might run for a long time or cause errors on the Cognos server. Instead of using //*, use more specific search paths, such as these search paths:

- `//*[@objectClass='query'`
- `@objectClass='report'`
- `@objectClass='model']`

Use a backslash character (\) to escape each semicolon (;) and or backslash character in the content string. You can retrieve models by package name, for example `/content/package[@name='GO Sales and Retailers']/model`. If there are multiple published versions, the latest is imported.

You can retrieve reports by using the complete search path. To find the complete search path in Cognos, click **View the search path** on the properties page for the report. An example is `/content/package[@name='GO Sales and Retailers']/folder[@name='Documentation Report Samples']/report[@name='Create a Prompt']`.

If a query returns multiple models or reports, only the last model or report is imported. The following queries return multiple reports:

- `//report` returns all reports
- `/content/package[@name='GO Sales and Retailers']//report` returns all reports in a package

**Add dependent objects**

You can add dependent objects to the initial selection of Cognos objects that you selected with the parameter **Cognos assets to import**. By default, this option is selected. Only the first level of dependent objects is added. That is, when a report search path is specified, its source model is imported, but other reports that depend on the model are not imported.

**Incremental import**

Keep this parameter selected. When you reimport from the same source, the bridge uses cached information to determine which objects did not change since the previous import. Only changed objects are retrieved from Cognos. Using the cached information can increase performance for large imports.

For new imports, or when the cache is deleted or corrupted, the bridge imports all objects from the source regardless of the selection that is specified.

**Folder representation**

Accept the default value, **Ignore**, which ignores folders from Cognos Framework Manager. The default automatically captures the Cognos server and the package or folder location of the report.

**Transformer import configuration**

You can import an XML file that describes mappings between Cognos Content Manager data sources and PowerPlay Transformer models. Choose whether to import the file from the metadata interchange server or the local computer.

Multiple Content Manager data sources can refer to a PowerCube that is generated from a single Transformer model. The bridge assumes a one-to-one mapping between a PowerCube and the Transformer model.

Each <Model> element corresponds to a single Transformer model file with either .mdl or .pyj file extension. The <Model> element lists all Content Manager data sources that refer to the PowerCube for that model. Optionally, you can list Impromptu Query Definition data sources, which are <iqd> child elements that require a specific database type other than the default. The configuration file can have multiple <Model> elements.

XML format example:

```
<ImportConfiguration database="Teradata" dbVersion="1.0.0">
  <!-- database attribute specifies default database -->
  <!-- Impromptu Query Definition (IQD) SQL statements -->
  <!-- dbVersion attribute format: major version.minor version.release-->

  <Model path="directory_name\model_name.mdl">

  <!--Transformer model (.mdl or .pyj) -->
  <cmDataSource name="A_Cognos_datasource_name" />

  <!-- List IQD data sources for databases other than default -->
  <iqd name="Customers" database="Oracle" dbVersion="11.1.0"/>
  <iqd name="Products" database="MS SQL Server" dbVersion="8.0.0"/>

  </Model>
</ImportConfiguration>
```

**Worker threads**

Specify the number of worker threads to retrieve metadata asynchronously from the source. For the most reliable performance, leave the parameter blank to have the bridge compute the default value based on JVM architecture and the number of available CPU cores.

If you need to experiment with increasing retrieval speed, specify a number from 1 to 6 to provide the actual number of threads. If the value specified is invalid, a warning is issued and the number 1 is used instead. If you experience out-of-memory conditions when importing metadata asynchronously, experiment with smaller numbers. If your computer has a large amount of available memory, for example, 10 GB or more, you can try larger numbers when retrieving many documents. However, setting the number too high can decrease performance due to resource contention.

**Import joins**

You can import joins that are defined in the BI model. By default, joins are not imported.

**Import levels**

You can import levels and hierarchies. When the option is selected, levels and hierarchies that are defined in the BI model are imported. By default, they are not imported.

**Metadata consistency check**

Perform a consistency check on the selected metadata before it is imported into the metadata repository. It is possible to save metadata in source tools in ways that cause problems when the assets are imported into the metadata repository or used in other tools. For example, a foreign key might have no connection to a primary key or to an alternate key. In some cases, the metadata might be so semantically inconsistent that the bridge cannot import it.

The metadata consistency check returns warnings and errors in the log file.

**Basic check**

The default. Performs the minimum consistency checks necessary to validate the metadata, including checking for missing relationships and foreign keys that are not connected to primary or alternate keys.

In some cases, the basic check might be more rigorous than necessary and you can ignore certain errors or warnings.

**Detailed check**

Performs the basic check plus more advanced semantic checks specific to the type of metadata that is imported. This level can be used when the source tool does not have the ability to validate the metadata.

**No check**

Use with extreme caution. Selecting this option could result in the import of duplicates or invalid identities and might cause serious problems with your use of suite tools and the metadata repository.

# Chapter 4. Identity parameters for imported assets

You specify values for identity parameters when you import database assets, logical data models, or physical data models. Specifying identity values helps prevent duplicate assets in the metadata repository and ensures that you do not overwrite assets by mistake.

When you use consistent values for identity parameters, suite users can readily identify which assets to use for such tasks as creating jobs, designating stewards, or assigning to terms.

You specify values on the Identity Parameters screen when you import database assets, logical data models, or physical data models by using InfoSphere Metadata Asset Manager.

## Database assets

The bridges and connectors that import metadata from remote databases and repositories occasionally provide incomplete or inconsistent information about the host systems and databases that contain the assets that you are importing.

The identity of a database table has the following components:
- Host system name
- Database identity, consisting of database name, DBMS name, and DBMS server instance name
- Database schema name
- Database table name

Thus, host name, database name, database management system (DBMS) name, and DBMS server instance name are critical parts of the identity of the tables and schemas that they contain. If you were to import the same database assets by two different methods, and each method produced a different DBMS name, you could create duplicate assets in the metadata repository. Assets that have technically different identities but have identical content or contain the same child assets are potential duplicates.

To avoid duplicates and to ensure that your database assets are correctly identified, you specify values for identity parameters during the import process. Identity parameters are also valuable when you want the imported assets to be associated with a different host system, database, or DBMS than you imported them from. For example, you might want the assets to be identified with the host system and database that you use for test and production. For the host system, database, and schema parameters you can either type a name or select a host, database, or schema that is already in the metadata repository to associate the imported assets with.

Depending on the bridge or connector that you choose for import, you can specify values for the following identity parameters for database assets:

**Host system name**
> The name of the computer that hosts the database. If you are importing from a database, you can specify a different name than the name of the

source computer. For example, you might specify the computer that will host this database during development or production.

**Database name**
> The name of the database that contains the imported schemas and tables. You can specify a different name than the name of the source database.

**DBMS name**
> The name of the DBMS that hosts the database. The DBMS name is part of the identity of the target database. You can specify a different DBMS than the one that hosts the source database. The DBMS name should be appropriate for the value that you enter for database name.

**DBMS server instance name**
> The name of the DBMS server instance, if it exists. Some database management systems do not have the concept of DBMS server instance. DBMS server instance name is part of the identity of the target database. You can specify a different DBMS server instance name than the one that hosts the source database. The DBMS server instance name should be appropriate for the value that you enter for database name.

**Schema name**
> The name of the schema that the imported tables belong to.

## Logical data model and physical data model assets

If you import a physical data model from a design tool, you can choose to create a database schema and database tables from the physical data model. This is necessary for InfoSphere DataStage and QualityStage users who want to create table definitions from these shared tables for use in jobs. You specify identity parameters for host system, database, and optionally DBMS to create a valid identity for the database schema. Both the physical data model and the database schema are stored in the metadata repository on import.

In the metadata repository, the identity of a logical data model or physical data model is a combination of the name of the model and a namespace value. You specify the value for the **Model namespace** parameter on the Identity Parameters screen when you import the model.

You can specify whatever value you want. The value does not have to correspond to an actual namespace structure. You can type a namespace value or browse to use an existing namespace value that is in the metadata repository.

By specifying a unique namespace value, you can distinguish between two different logical or physical models that have the same name. If you are importing logical and physical data models at the same time, the namespace value that you specify is used for each of them.

**Important:** In imports that are created by using design tool bridges in version 8.7 of InfoSphere Information Server, the identity of an imported logical or physical data model includes a namespace value that contains the path of the model file. If you imported the same data model with version 8.7, take either of the following actions:

• To merge the new data model with the previously imported data model, use the same value for **Model namespace** that was provided for you in the original import. You can copy this namespace value by browsing to the previously imported logical or physical data model and displaying the model on the **Repository Management** tab.

- To create a different identity for the current data model, specify a value for **Model namespace** that is different from the namespace value of the previously imported data model. The current data model is imported as a unique asset, while the previously imported model remains in the metadata repository. If desired, a Common Metadata Administrator can delete the previously imported data model on the **Repository Management** tab.

# Chapter 5. Business intelligence assets

Business intelligence (BI) assets are used by BI tools to organize reports and models that provide a business view of data. These assets include BI reports, BI models, BI collections, and cubes.

You can use bridges to import BI assets from tools such as IBM Cognos and SAP BusinessObjects.

It is good practice when importing BI assets to simultaneously import the database tables that BI reports are based on. You can then use InfoSphere Information Governance Catalog to create data lineage reports that show the relationship between the database tables, the jobs that use the database tables, and the BI reports that are based on the tables.

You can use InfoSphere Metadata Asset Manager to browse and delete BI assets and manage duplicate BI assets.

## Asset types

The following table lists and defines the types of BI assets that are stored in the metadata repository of InfoSphere Information Server.

*Table 2. BI assets*

| Asset type | Definition | Components of the identity of the asset | Contained asset types |
|---|---|---|---|
| BI server | When a BI tool supports multiple servers on a single host computer, the BI server value is the name of the source tool server. When a BI tool supports a single server per host computer, the BI server value is the name or IP address of the host system. <br><br> BI servers are displayed in InfoSphere Information Governance Catalog and on the Import tab of InfoSphere Metadata Asset Manager. | • BI server name | BI folder |

*Table 2. BI assets (continued)*

| Asset type | Definition | Components of the identity of the asset | Contained asset types |
|---|---|---|---|
| BI folder | The folder structure that contains BI models, or BI reports, or both in the source tool. BI folders can also contain other BI folders.<br><br>BI folders are displayed in InfoSphere Information Governance Catalog and on the Import tab of InfoSphere Metadata Asset Manager. | • BI folder name<br>• Identity of the BI server, or, for subfolders, the identity of the containing BI folder | BI folder, BI model, and BI report |
| BI model | A grouping of BI data collection views that are relevant to a BI application. | • BI model name<br>• Identity of BI folder | Cube, BI collection, BI join, BI hierarchy, and BI filter |
| BI collection | A data structure that provides a view of data that is stored in databases and files. In dimensional modeling, these structures are known as dimensions and fact tables. BI collections are the data sources of BI reports. | • BI collection name<br>• BI collection namespace<br>• Identity of the BI model that contains the collection, or, for subcollections, the identity of the BI collection that contains the subcollection | BI collection member, BI level, BI hierarchy, and BI filter. BI collections can contain other BI collections. |
| BI collection member | The basic abstraction of a data value that is projected from a database column. BI collection members define the structure of the collection that owns them. There are two types of members: regular and measure. Regular members are dimension attributes that describe the characteristics and semantics of the owner collection. Measures represent analytic values that define a measurement entity in a fact collection. | • BI collection member name<br>• Identity of the BI collection | |

*Table 2. BI assets  (continued)*

| Asset type | Definition | Components of the identity of the asset | Contained asset types |
|---|---|---|---|
| BI level | An asset that defines a logical step in the order of a BI hierarchy. A BI level consists of one or more BI collection members of the same BI collection that are related and function as a logical unit. | • BI level name<br>• Identity of the BI collection | BI level element |
| BI level element | An associative class that assigns a BI collection member to a specific level within the collection. | • Identity of the BI collection member<br>• Identity of the BI level | |
| Cube | A subset of a BI model that consists of a set of related analytic values that share the same dimensionality. | • Cube name<br>• Cube namespace<br>• Identity of the BI model | Cube dimension and cube measure |
| Cube dimension | An associative class that connects a cube to dimensions in the BI collection that are relevant to the analytic values of the cube. A cube dimension references the BI collection from which the dimension is derived and the relevant dimension hierarchy of the cube. | • Identity of the cube<br>• Identity of the BI collection | |
| Cube measure | An associative class that connects a cube to BI collection members that are measures. | • Identity of the cube<br>• Identity of the BI collection member | |
| BI filter | A filtering constraint on the source data that is viewed through a BI collection. Filters are either local or global. A local filter is owned by a single BI collection. A global filter is owned by the BI model and by one or more collections. | • BI filter name<br>• BI filter namespace<br>• Either the identity of the containing BI model or the containing BI collection | |

*Table 2. BI assets (continued)*

| Asset type | Definition | Components of the identity of the asset | Contained asset types |
|---|---|---|---|
| BI hierarchy | An organizational structure that defines an ordering or relationship of data within a BI collection. | • BI hierarchy name<br>• BI hierarchy namespace<br>• Either the identity of the containing BI model or the containing BI collection | BI hierarchy member |
| BI hierarchy member | An asset that orders BI levels within a hierarchy structure. | • Identity of the BI hierarchy<br>• Identity of the BI level | |
| BI join | An asset that joins two database tables (a physical join) or two BI collections (a logical join). The physical join defines the data source of a BI collection and the logical join is used in a star schema between fact and dimension collections. | • BI join name<br>• BI join condition<br>• Identity of the BI model | BI report query |
| BI report | A business intelligence report that is based on information in a database or a BI model. | • BI report name<br>• Identity of the BI folder | BI report query |
| BI report query | A query on a database or a BI model. | • BI report query name<br>• BI report query namespace<br>• Identity of the BI report | BI report query item |
| BI report query item | An asset that defines a column in a BI report query. | • BI report query item name<br>• Identity of the BI report query | |

# Appendix A. Product accessibility

You can get information about the accessibility status of IBM products.

The IBM InfoSphere Information Server product modules and user interfaces are not fully accessible.

For information about the accessibility status of IBM products, see the IBM product accessibility information at http://www.ibm.com/able/product_accessibility/index.html.

## Accessible documentation

Accessible documentation for InfoSphere Information Server products is provided in an information center. The information center presents the documentation in XHTML 1.0 format, which is viewable in most web browsers. Because the information center uses XHTML, you can set display preferences in your browser. This also allows you to use screen readers and other assistive technologies to access the documentation.

The documentation that is in the information center is also provided in PDF files, which are not fully accessible.

## IBM and accessibility

See the IBM Human Ability and Accessibility Center for more information about the commitment that IBM has to accessibility.

# Appendix B. Contacting IBM

You can contact IBM for customer support, software services, product information, and general information. You also can provide feedback to IBM about products and documentation.

The following table lists resources for customer support, software services, training, and product and solutions information.

*Table 3. IBM resources*

| Resource | Description and location |
|---|---|
| IBM Support Portal | You can customize support information by choosing the products and the topics that interest you at www.ibm.com/support/ entry/portal/Software/ Information_Management/ InfoSphere_Information_Server |
| Software services | You can find information about software, IT, and business consulting services, on the solutions site at www.ibm.com/ businesssolutions/ |
| My IBM | You can manage links to IBM Web sites and information that meet your specific technical support needs by creating an account on the My IBM site at www.ibm.com/account/ |
| Training and certification | You can learn about technical training and education services designed for individuals, companies, and public organizations to acquire, maintain, and optimize their IT skills at http://www.ibm.com/training |
| IBM representatives | You can contact an IBM representative to learn about solutions at www.ibm.com/connect/ibm/us/en/ |

# Appendix C. Accessing the product documentation

Documentation is provided in a variety of formats: in the online IBM Knowledge Center, in an optional locally installed information center, and as PDF books. You can access the online or locally installed help directly from the product client interfaces.

IBM Knowledge Center is the best place to find the most up-to-date information for InfoSphere Information Server. IBM Knowledge Center contains help for most of the product interfaces, as well as complete documentation for all the product modules in the suite. You can open IBM Knowledge Center from the installed product or from a web browser.

## Accessing IBM Knowledge Center

There are various ways to access the online documentation:
* Click the **Help** link in the upper right of the client interface.
* Press the F1 key. The F1 key typically opens the topic that describes the current context of the client interface.

   **Note:** The F1 key does not work in web clients.
* Type the address in a web browser, for example, when you are not logged in to the product.

   Enter the following address to access all versions of InfoSphere Information Server documentation:

   `http://www.ibm.com/support/knowledgecenter/SSZJPZ/`

   If you want to access a particular topic, specify the version number with the product identifier, the documentation plug-in name, and the topic path in the URL. For example, the URL for the 11.3 version of this topic is as follows. (The ⇒ symbol indicates a line continuation):

   `http://www.ibm.com/support/knowledgecenter/SSZJPZ_11.3.0/⇒`
   `com.ibm.swg.im.iis.common.doc/common/accessingiidoc.html`

   **Tip:**

   The knowledge center has a short URL as well:

   `http://ibm.biz/knowctr`

   To specify a short URL to a specific product page, version, or topic, use a hash character (#) between the short URL and the product identifier. For example, the short URL to all the InfoSphere Information Server documentation is the following URL:

   `http://ibm.biz/knowctr#SSZJPZ/`

   And, the short URL to the topic above to create a slightly shorter URL is the following URL (The ⇒ symbol indicates a line continuation):

   `http://ibm.biz/knowctr#SSZJPZ_11.3.0/com.ibm.swg.im.iis.common.doc/⇒`
   `common/accessingiidoc.html`

## Changing help links to refer to locally installed documentation

IBM Knowledge Center contains the most up-to-date version of the documentation. However, you can install a local version of the documentation as an information center and configure your help links to point to it. A local information center is useful if your enterprise does not provide access to the internet.

Use the installation instructions that come with the information center installation package to install it on the computer of your choice. After you install and start the information center, you can use the **iisAdmin** command on the services tier computer to change the documentation location that the product F1 and help links refer to. (The ⇒ symbol indicates a line continuation):

**Windows**
```
IS_install_path\ASBServer\bin\iisAdmin.bat -set -key ⇒
com.ibm.iis.infocenter.url -value http://<host>:<port>/help/topic/
```

**AIX® Linux**
```
IS_install_path/ASBServer/bin/iisAdmin.sh -set -key ⇒
com.ibm.iis.infocenter.url -value http://<host>:<port>/help/topic/
```

Where <host> is the name of the computer where the information center is installed and <port> is the port number for the information center. The default port number is 8888. For example, on a computer named server1.example.com that uses the default port, the URL value would be http://server1.example.com:8888/help/topic/.

## Obtaining PDF and hardcopy documentation

- The PDF file books are available online and can be accessed from this support document: https://www.ibm.com/support/docview.wss?uid=swg27008803&wv=1.
- You can also order IBM publications in hardcopy format online or through your local IBM representative. To order publications online, go to the IBM Publications Center at http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss.

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*Table 4. Use of cookies by InfoSphere Information Server products and components*

| Product module | Component or feature | Type of cookie that is used | Collect this data | Purpose of data | Disabling the cookies |
|---|---|---|---|---|---|
| Any (part of InfoSphere Information Server installation) | InfoSphere Information Server web console | • Session<br>• Persistent | User name | • Session management<br>• Authentication | Cannot be disabled |
| Any (part of InfoSphere Information Server installation) | InfoSphere Metadata Asset Manager | • Session<br>• Persistent | No personally identifiable information | • Session management<br>• Authentication<br>• Enhanced user usability<br>• Single sign-on configuration | Cannot be disabled |

*Table 4. Use of cookies by InfoSphere Information Server products and components (continued)*

| Product module | Component or feature | Type of cookie that is used | Collect this data | Purpose of data | Disabling the cookies |
|---|---|---|---|---|---|
| InfoSphere DataStage | Big Data File stage | • Session<br>• Persistent | • User name<br>• Digital signature<br>• Session ID | • Session management<br>• Authentication<br>• Single sign-on configuration | Cannot be disabled |
| InfoSphere DataStage | XML stage | Session | Internal identifiers | • Session management<br>• Authentication | Cannot be disabled |
| InfoSphere DataStage | IBM InfoSphere DataStage and QualityStage Operations Console | Session | No personally identifiable information | • Session management<br>• Authentication | Cannot be disabled |
| InfoSphere Data Click | InfoSphere Information Server web console | • Session<br>• Persistent | User name | • Session management<br>• Authentication | Cannot be disabled |
| InfoSphere Data Quality Console | | Session | No personally identifiable information | • Session management<br>• Authentication<br>• Single sign-on configuration | Cannot be disabled |
| InfoSphere QualityStage Standardization Rules Designer | InfoSphere Information Server web console | • Session<br>• Persistent | User name | • Session management<br>• Authentication | Cannot be disabled |
| InfoSphere Information Governance Catalog | | • Session<br>• Persistent | • User name<br>• Internal identifiers<br>• State of the tree | • Session management<br>• Authentication<br>• Single sign-on configuration | Cannot be disabled |
| InfoSphere Information Analyzer | Data Rules stage in the InfoSphere DataStage and QualityStage Designer client | Session | Session ID | Session management | Cannot be disabled |

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