

Universal Metadata Mapper

InfoLibrarian Universal Mapper Scanner

The InfoLibrarian Universal Mapper generates and automates the process of stitching or chaining scanned metadata objects from different sources. The Mapper defines the linkages between two scanned sources and allows those linkages to be automatically generated when re-scans are run. The result facilitates visual lineage via the portal.

InfoLibrarian Auto-Mapper Job

InfoLibrarian Auto-Mapper
Generate mappings based on a set of criteria and rules to stitch or chain objects within the repository

General Mapping Info | Mappings Rules

Mapping Job Catalog Name: Auto Mapper Demo
Mapping Job Catalog Description: Demo Description
Auto Mappings Display Name: Datamart replication

Source of Mapping
Metadata Source: Northwind Traders Sample [Browse]
MetadataCatalog: Northwind
Source Object Type: DBMS Column

Target of Mapping
Metadata Source: SQLServerDemo [Browse]
MetadataCatalog: Northwind
Target Object Type: DBMS Column

Apply Sample Mappings...

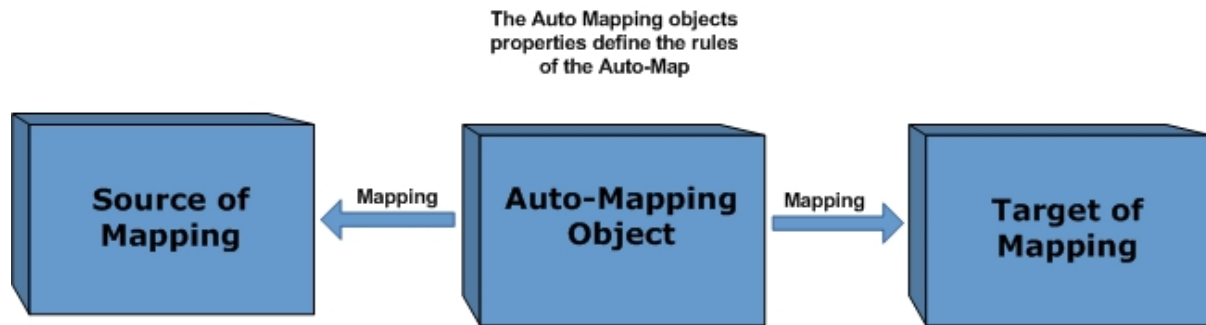
? Click Apply to save settings and Sample Mappings... to view the results before continuing

Cancel Next...

Mapper Settings and Properties (Stitching Metadata)

The Auto Mapper creates a Mapper Object and generates source and target mappings to the selected Source and target catalogs within the repository.

Selection of the Source and Target Object Types determines what "objects" will be the participants in the mappings.



Auto Mapper Default Properties

Auto Mapper Property	Description
Job Catalog Name	Name of the mapping job
Job Catalog Description	Description of the mapping job
Job Catalog Comments	Additional comments about the job
Source Metadata Source	Source Metadata Source of the Mappings
Source Metadata Catalog	Source Metadata Catalog of the Mappings
Source Object Type	Source Object Type to Map
Target Metadata Source	Target Metadata Source of the Mappings
Target Metadata Catalog	Target Metadata Catalog of the Mappings
Target Object Type	Target Object Type to Map
Mapping Rule	MATCH;CONTAINS;BEGINS;ENDS
Restrict Parent	Do not restrict mappings to objects having the same parent in the source and destination.

Mapping Scenario:

The source of a mapping may be the ETL_Columns objects in a scanned ETL Tool that map to the target DBM_Columns in a scanned relational database. This is a very common stitching activity when dealing with ETL metadata.

In this case ETL_Columns would Auto Map to DBMS_Columns automatically for the source and destination criteria. Once run the stitching would be completed.

Mapping Rules

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General Mapping Info | **Mappings Rules**

☒ Map based on Object Name exact Match (Default)
☐ Target contains expression
☐ Target begins with expression
☐ Target ends with expression

Mapping Expression

☐ Do not restrict mapping to objects having the same parent in source and destination

Job Catalog Long Comments (Provide as detailed description of the mapping rules applied)

? Click Apply on the General Mapping Info page to save mapping rules created here

Cancel Next...

The wizard allows you to set some basic rules for the mappings:

Auto Mapper Rule	Description
Map based on Object Name exact Match	Map objects with the same object name
Target contains expression	Custom expression handler
Target begins with expression	Custom expression handler
Target Ends with expression	Custom expression handler
Mapping Expression	Custom expression handler text
Do not restrict mapping to objects having the same parent in source and destination	When selected, all objects will be mapped by name regardless of their parents. This option overrides the default behavior of limiting matches to objects with the same parents in the source and destination.

Creating a Mapping Job

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General Mapping Info | Mappings Rules

Mapping Job Catalog Name: Auto Mapper Demo
Mapping Job Catalog Description: Demo Description
Auto Mappings Display Name: Datamart replication

Source of Mapping
Metadata Source: Northwind Traders Sample [Browse]
MetadataCatalog: Northwind
Source Object Type: DBMS Column

Target of Mapping
Metadata Source: SQLServerDemo [Browse]
MetadataCatalog: Northwind
Target Object Type: DBMS Column

[?] Click Apply to save settings and Sample Mappings... to view the results before continuing

[Apply] [Sample Mappings...]

[Cancel] [Next...]

The above diagram depicts a sample mapping jobs settings.

Enter The Mapping job information similar to as show above. Use Browse options for Source and Target Information. The Auto Mapping Display Name is the user defined description for each individual mapping that will be created. This is displayed to the user in the portal when viewing cross references or mappings as depicted in the following diagram

Expand Associations: Cross Reference/Mappings

Object Associations (Mappings)					
Object Name	Object Type	Data Source	Catalog	Parent	Association Type
Address	DBMS Column	SQLServerDemo	Northwind	Customers	Datamart replication
Address	DBMS Column	Northwind Traders Sample	Northwind	Customers	Mapper Source
Address	DBMS Column	SQLServerDemo	Northwind	Employees	Datamart replication

Sampling Mapping Data

The wizard provides an option to sample the mapping data before you save or execute the mapping job. Once you click **Save Settings**, Click on the **Sample Mappings...** to preview actual mappings and verify you have the desired results.

Auto Mapping Results - (Sample first 20 results)

The Following mappings/cross references will be generated by this mapping job

Source Object	Mapping Description	Target Object
Categories.CategoryID	Datamart replication	Categories.CategoryID
Categories.CategoryName	Datamart replication	Categories.CategoryName
Categories.Description	Datamart replication	Categories.Description
Customers.Address	Datamart replication	Customers.Address
Customers.City	Datamart replication	Customers.City
Customers.CompanyName	Datamart replication	Customers.CompanyName
Customers.ContactName	Datamart replication	Customers.ContactName
Customers.ContactTitle	Datamart replication	Customers.ContactTitle
Customers.Country	Datamart replication	Customers.Country
Customers.Fax	Datamart replication	Customers.Fax
Employees.BirthDate	Datamart replication	Employees.BirthDate
Employees.EmployeeID	Datamart replication	Employees.EmployeeID
Employees.Extension	Datamart replication	Employees.Extension
Employees.FirstName	Datamart replication	Employees.FirstName
Employees.HireDate	Datamart replication	Employees.HireDate
Order Details.Discount	Datamart replication	Order Details.Discount
Orders.Freight	Datamart replication	Orders.Freight
Products.Discontinued	Datamart replication	Products.Discontinued
Suppliers.HomePage	Datamart replication	Suppliers.HomePage

Close

Executing Mappings Job

Once you apply your mapping settings and apply your changes, you can click next.

InfoLibrarian Administrator

Scan Job - Action Required!

Scan Details

Scan Type :

ILMapper

Metadata Source :

InfoLibrarian Auto Mapper

Metadata Catalog :

Auto Mapper Demo

Machine Name :

INFOLIBRARIAN

User Name :

BBREWER

What do you want to do?

☒ Execute this scan immediately on this local machine

Scan Now

☐ Save Scan Settings (Do not execute locally! Save config only.)

Save Settings

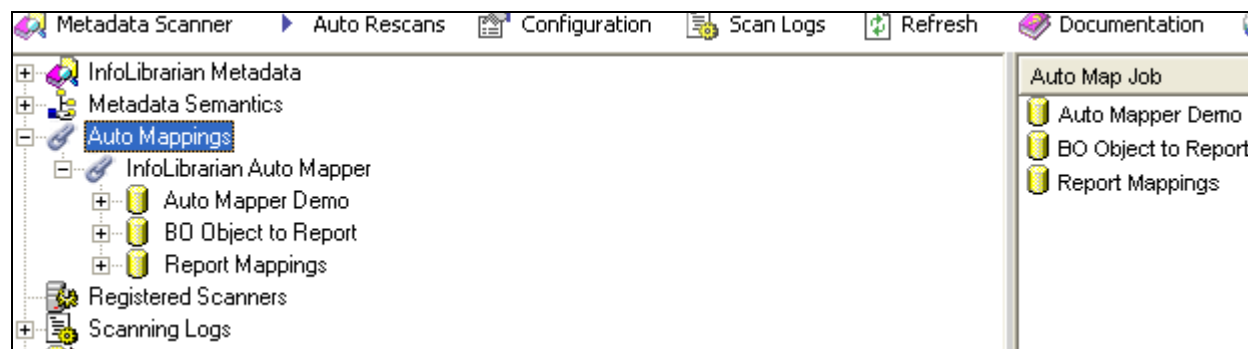
☐ Cancel and discard the scan settings or changes

Cancel

?

Saved scans can be executed via the Administrator, Enterprise Control Center or Auto-Scan Utility.

A mappings job is saved or executed just like any other scan. However, Once you create your first mapping job you will notice the following Auto Mappings Section appear within the InfoLibrarian Administrator.



Each Mapping job you define is created as a catalog under the InfoLibrarian Auto Mapper Metadata Source.

Manage/View Mappings (InfoLibrarian Administrator)

Expanding your Mapping job will show all the individual mapping objects that were created. Now each Mapping Objects properties can be viewed including Job information and the mappings themselves as depicted below.

The screenshot displays the InfoLibrarian Administrator interface. On the left is a tree view of the application structure, including 'Metadata Scanner', 'Auto Rescans', 'Configuration', 'Scan Logs', 'Refresh', 'Documentation', and 'Portal'. Under 'InfoLibrarian Metadata', 'Auto Mappings' is expanded, showing 'InfoLibrarian Auto Mapper' and 'Auto Mapper Demo'. The 'Auto Generated Mapping' is selected, showing a list of mappings. The 'BirthDate' mapping is highlighted.

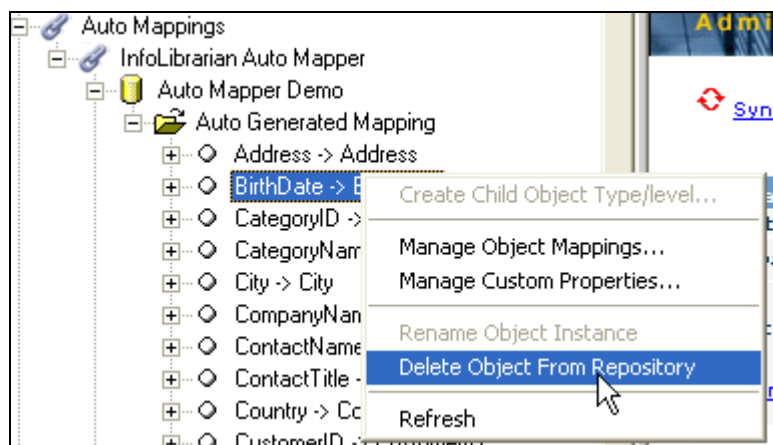
The main content area shows the 'BirthDate' mapping details. It includes a 'Synch/Refresh' button, a 'Print' link, and a table of 'Metadata Object' properties. The table has columns for 'Object Name', 'Object Type', and 'ID'. The 'BirthDate' mapping is listed with 'Object Type' as 'Auto Generated Mapping' and 'ID' as '11436292'. Below the table, there is a section for 'Object Last Changed in Repository on 8/20/2008 1:50:44 PM By BBREWER'. There are links for 'Manage Custom Properties', 'Mapping Editor', and 'Mapping Wizard'. A 'Keyword Description' field contains 'Datamart replication' with a 'Delete' link. A 'Comments' field is also present with a 'Delete' link. A 'Save Changes' button is at the bottom. A warning message states: '[Thesaurus Set to Off] - WARNING - Description and Comments entered and saved here for this object may be over-written by rescans!'. Below this is a 'Scanned Properties (Read Only)' table with columns for 'Property Name', 'Property Value', and 'Last Changed in Repository'. The table lists various properties such as 'Job Catalog Name', 'Job Catalog Description', 'Source Metadata Source', 'Target Metadata Source', 'Mapping Rule', and 'Restrict Parent'. At the bottom, there is a table for 'Auto Generated Mapping Mappings' with columns for 'Associated Object Name', 'Parent Object', 'Data Source', 'Catalog', 'Object Type', 'Mapping Description', and 'Mapping'. This table shows two mappings for 'BirthDate': one from 'SQLServerDemo' to 'Northwind' and another from 'Northwind Traders Sample' to 'Northwind'.

Object Name	Object Type	ID
BirthDate -> BirthDate	Auto Generated Mapping	11436292

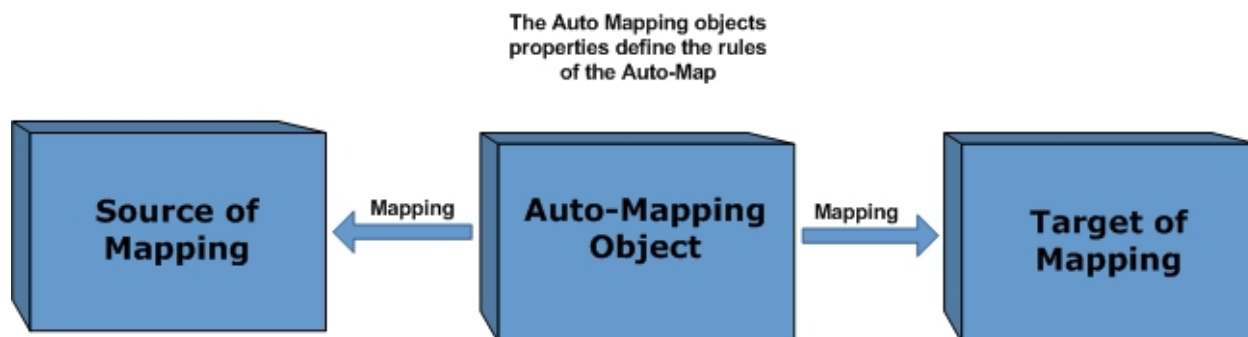
Property Name	Property Value	Last Changed in Repository
Job Catalog Name	Auto Mapper Demo	8/20/2008 1:50:44 PM
Job Catalog Description	Demo Description	8/20/2008 1:50:44 PM
Job Catalog Comments	Creates metadata mappings for datamart from ods replication of Northwind databases	8/20/2008 1:50:44 PM
Source Metadata Source	Northwind Traders Sample	8/20/2008 1:50:44 PM
Source Metadata Catalog	Northwind	8/20/2008 1:50:44 PM
Source Object Type	DBMS Column	8/20/2008 1:50:44 PM
Target Metadata Source	SQLServerDemo	8/20/2008 1:50:44 PM
Target Metadata Catalog	Northwind	8/20/2008 1:50:44 PM
Target Object Type	DBMS Column	8/20/2008 1:50:44 PM
Mapping Rule	MATCH	8/20/2008 1:50:44 PM
Restrict Parent	FALSE	8/20/2008 1:50:44 PM

Associated Object Name	Parent Object	Data Source	Catalog	Object Type	Mapping Description	Mapping
BirthDate	Employees	SQLServerDemo	Northwind	DBMS Column	Datamart replication	Target
BirthDate	Employees	Northwind Traders Sample	Northwind	DBMS Column	Mapper Source	Source

Delete Individual Mapping



As depicted here, you can manage individual Auto Mappings as objects themselves. The actual mappings are source and target mapping properties of the Auto Mapping object itself, as this diagram shows.



Individual Mappings are properties of the “Auto Mapping Object”

InfoLibrarian Portal

Here's a portion of Visual Lineage depicting an Auto Generated Mapping



Here's a view of cross references mappings

☐ **Expand Associations:** Cross Reference/Mappings

Object Associations (Mappings)					
Object Name	Object Type	Data Source	Catalog	Parent	Association Type
Address	DBMS Column	SQLServerDemo	Northwind	Customers	Datamart replication
Address	DBMS Column	Northwind Traders Sample	Northwind	Customers	Mapper Source
Address	DBMS Column	SQLServerDemo	Northwind	Employees	Datamart replication

Customization

Customization of the mapping rules is facilitated via the Auto-Mapper custom scanner template. This template can be modified to create new (Custom Mapper Jobs) which gives you complete control over the mapping rules logic if required.

The following can be customized using the Auto-Mapper Template.

- Mapping Rules and Logic
- Mapping Object Type
- Mapping Wizard

See Custom Scanner documentation for more information on customization of mapping template.