

# Masking data

Data masking is a way of securing sensitive data during the development or testing phases of a database development project. It is often performed as a security or compliance measure that protects important information. By masking valid production data, you can provide a copy of the data that is “scrambled” but still represents your production environment.

DB Change Manager lets you specify masking rules for moving data between a source and a target in a data comparison job. You can set rules for individual columns, tables, and entire databases. When you run a data comparison with the Automatically Synchronize option on, the data on the target is replaced with data from the source and any items configured with a masking rule will be masked. You can then use the masked data in your development and testing environments.

The following tasks describe how to create masked data:

- [Create a New Masking Job](#)
- [Specify a Masking Job Name](#)
- [Specify Source and Target Data Sources](#)
- [Set to Automatically Synchronize](#)
- [Specify Mapping Options](#)
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- [Run the Database Masking Job](#)
- [See the Masked Data](#)

## Create a New Masking Job

Use the [Data Comparison Job Editor](#) to define a masking job.

**To start creating a new Data Masking Job:**

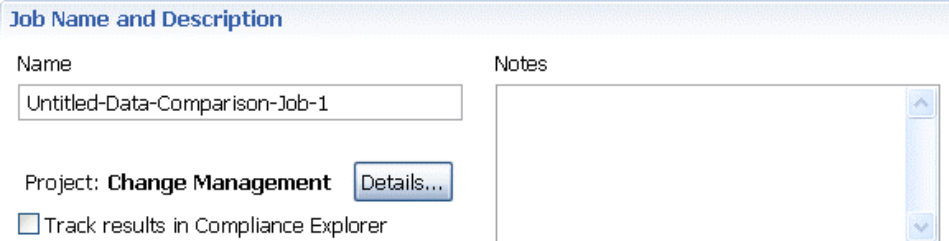
- Select **File > New > Data Comparison Job**.

## Specify a Masking Job Name

The name of the job distinguishes it between other jobs in the application environment.

**To name a masked data job**

- Type the name of the job in the **Name** field of the Data Masking Job Editor.

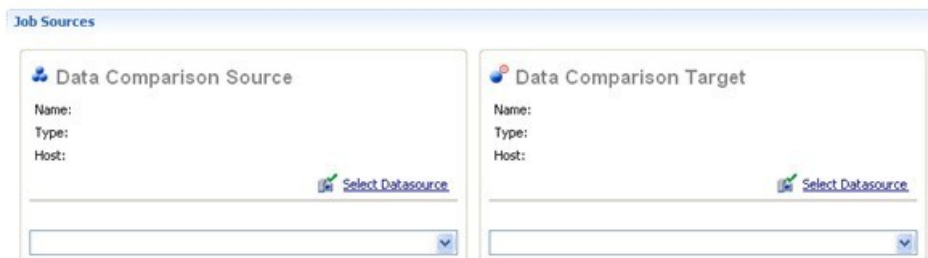


## Specify Source and Target Data Sources

The **Job Sources** section of the Data Comparison Job Editor contains the **Data Comparison Source** box, which identifies the original data source, and **Target Data Source** box, which identifies the data source where the data is altered.

**To specify source and target data sources**

1. Click and drag a data source to be masked from the **Data Source Explorer** to the **Data Comparison Source** box. Drag and drop a target data source, where the mask is applied, from the **Data Source Explorer** to the **Data Comparison Target** box.
2. Use the drop-down **Database** menu to specify the database to be masked for the **Data Comparison Source**, and the database to which you want to apply masking definitions on the **Data Comparison Target**.

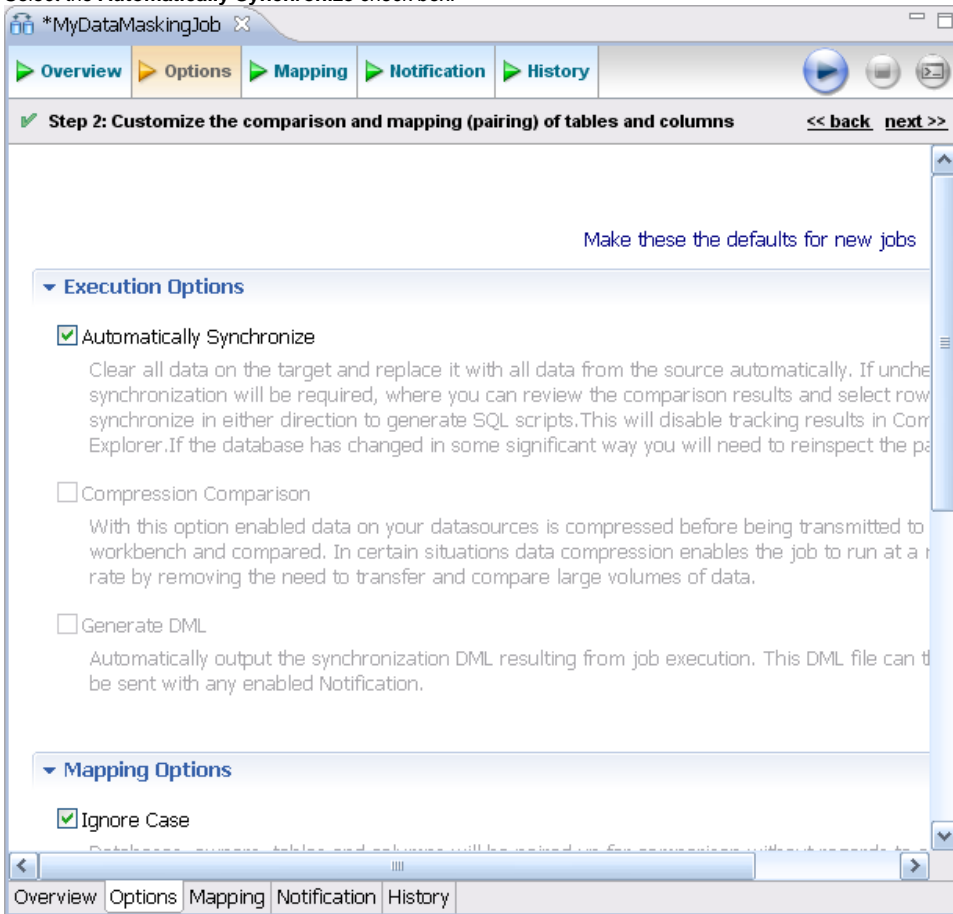


## Set to Automatically Synchronize

Prior to running a masking job, set it to automatically clear all the data on the target and replace it with new, masked data.

### To set synchronization

1. Click on the Options tab.
2. Select the **Automatically Synchronize** check box.



## Specify Mapping Options

Use the Mappings tab to specify the tables to mask. You can apply a Default Masking Rule to selected columns using the pulldown menus.

The options are:

- **Use Default.** The default masking rule as set in the **Database Mapping** box.
- **None.** No masking is applied.
- **Randomize.** Replaces characters with random other characters.
- **Shuffle.** Reorders the values in different rows. For example, in a **First Name** column Bob, Ted, and Alice can change to Alice, Bob, and Ted.

Use the check boxes in the left-hand column to de-select any columns that you do not want to include in the data masking job process.

### To specify mapping options

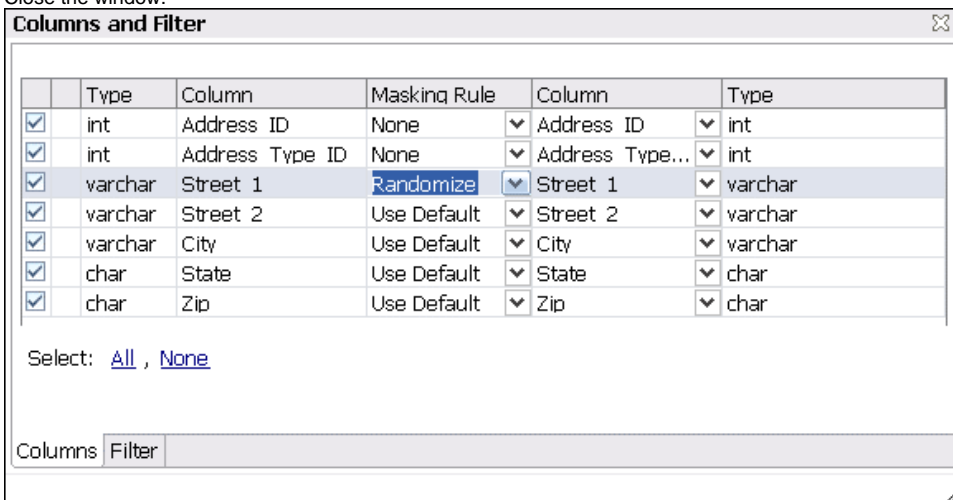
1. Click on the Mappings tab.
2. Select check box of the database you want to mask.
3. Click on the **Yes, retrieve the objects in the pair** button to inspect the tables and columns. The Table Mapping section opens.
4. Select a **Default Masking Rule** for the in the **Database Mapping** box.
5. Select a **Default Masking Rule** in the **Table Mapping** box.

## Specify Masking Rules for Individual Columns

You can specify different masking rules for different columns.

### To specify a masking rule for a column

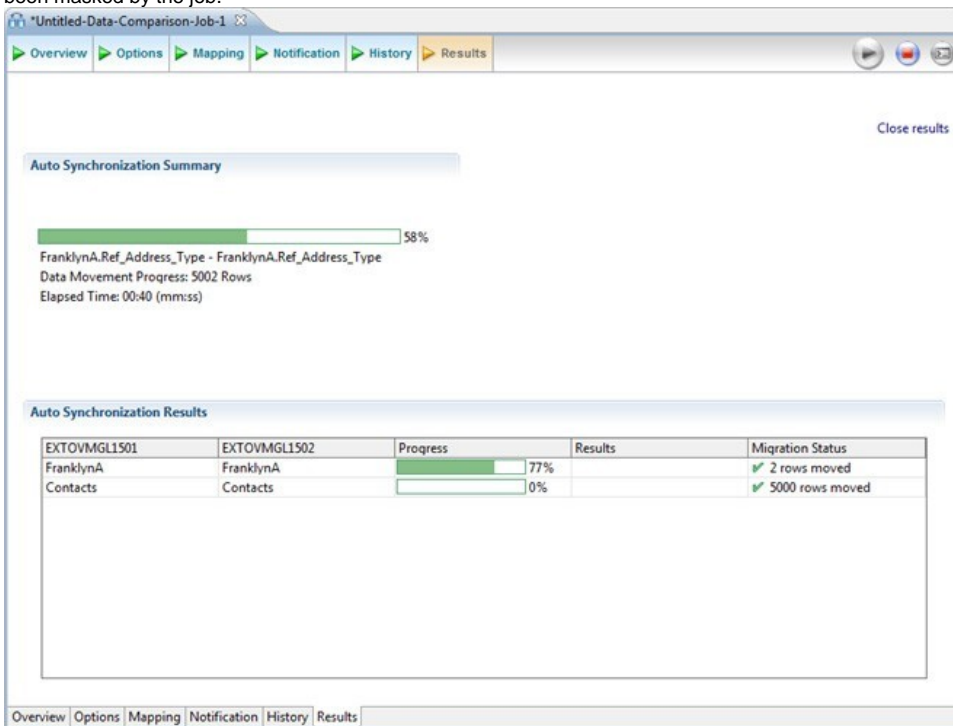
1. In the **Table Mapping** box, click **View Column Mapping**.
2. Click on the **Data Masking Rule** option for the column and select from the pulldown menu one of the following:
  - **Use Default**. The default masking rule as set in the **Database Mapping** box.
  - **None**. No masking is applied.
  - **Randomize**. Replaces characters with random other characters.
  - **Shuffle**. Reorders the values in different rows. For example, in a **First Name** column Bob, Ted, and Alice can change to Alice, Bob, and Ted.
3. Close the window.



## Run the Database Masking Job

### To execute the data masking job

1. Click **File > Save** to save the job.
  2. Click the **Run Job** icon in the upper right-hand corner of the screen.
  3. Click **OK** in the Confirmation dialog box to agree that you want to overwrite the target data.
- The Results tab displays the progression of the masking job as it executes, and the **Rows Written** column indicates how many rows of data have been masked by the job.



## See the Masked Data

You can see the masked data by running a new Data Comparison job and looking at the changes. For more information, see [Comparing data](#).

For rows that do not have masking applied, you should see “0” in the **Different** column of the **Results Overview** box. For rows that are masked, you should see the number of rows that changed.

In the **Selected Table** box, you can see the masked data in the target table. For example, the **First** and **Last Name** data shown below was masked using the **Randomize** setting.

MyDataMaskingJob

Untitled-Data-Comparison-Job-1

Overview

Options

Mapping

Notification

History

Results

Database Results

Close results

Results Overview - FranklynA

Source: Fran...	Target: Fra...	Matched	Only in TORL...	Only in TORL...	Different	
dbo.Category	dbo.Category	16	0	0	0	0
dbo.Customer	dbo.Customer	0	0	0	348	0

View Diff Report

Export Diff Results...

Selected Table

TORLABSQL05\_1.FranklynA.dbo.Customer

...	Customer ID	First Name	Last Name
	734	James	Battiste
	735	Samual	Philpott
	736	Noel	Arra
	737	Gaston	Amesqui

TORLABSQL05\_2.FranklynA.dbo.Customer

...	Customer ID	First Name	Last Name
	734	Gxibk	Yxssfmrst
	735	Jaciab	Fvwzfiac
	736	Nqel	Eaee
	737	Okeybx	Oaseqfw

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