

Batch Data Synchronization

Use **Batch Data Synchronization** for synchronizing content of groups of tables, views, virtual tables or stored queries.

Key Points:

- Data synchronization of the selected pair of objects is one-way. In order to synchronize in both directions, it is necessary to execute two synchronization procedures.
- Batch Synchronization is used for synchronizing tables, views, virtual tables, and saved queries. Note that only database table or view can serve as the synchronization target object.
- The user is responsible for selecting the pair of objects meant for synchronization.
- Data synchronization consists of two stages:
 1. **Comparison** for finding the data differences
 2. Synchronization itself - generating the appropriate synchronization script and its execution.
- At the comparison stage, the program is using same rules and settings that are used for simple data-comparison.
- The execution of the generated synchronization script can be launched immediately following the conclusion of the synchronization procedure, or it can be postponed and launched later.
- The user is able to save the synchronization script into a file for further analysis and future use.

The Batch Data Synchronization Procedure:

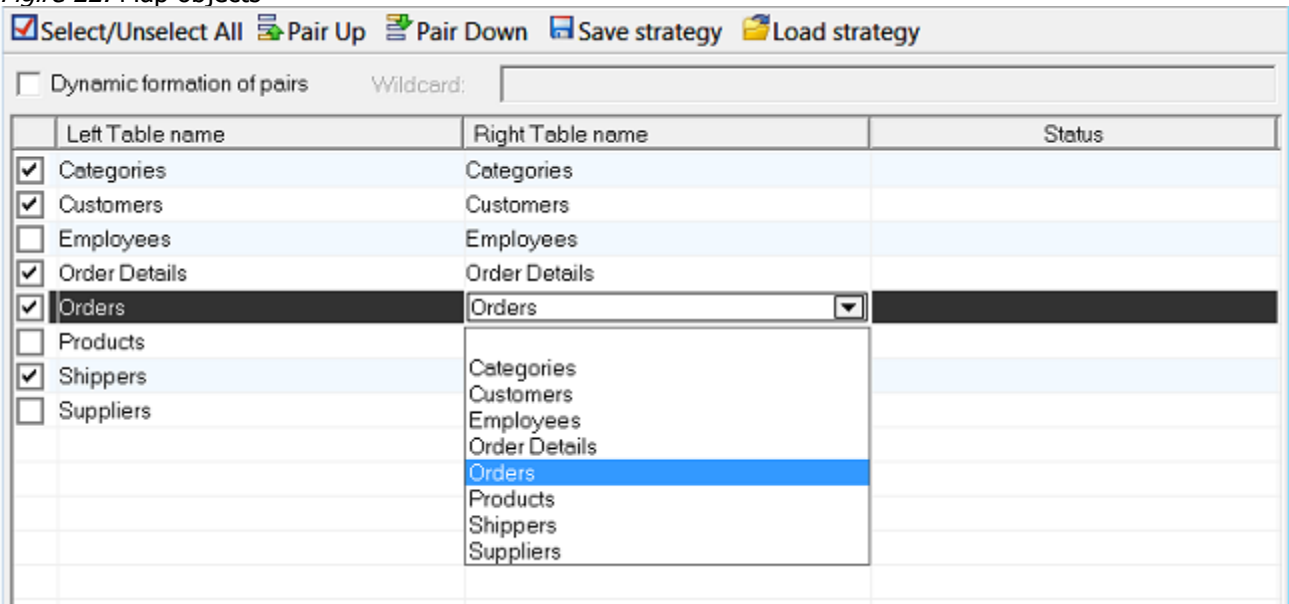
1. Select the groups of objects meant for comparison from the left and right panels (**Tables, Views, Virtual Tables, Stored Queries**):

Figure 21: Group selection



2. Use **Synchronize > Batch Synchronization** menu command
3. Select and map the objects intended for synchronization in the **Batch Synchronization** dialog. **NOTE:**The program maps the objects of the selected groups automatically, on the object names basis. However, the user can manually redefine any object pair for further synchronization.

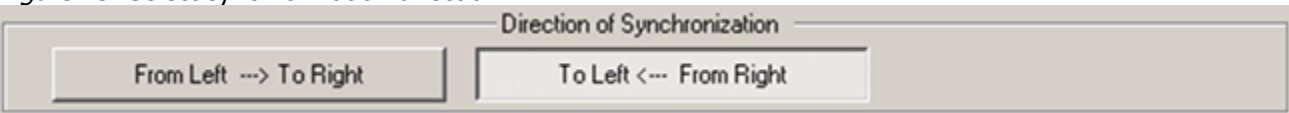
Figure 22: Map objects



Left Table name	Right Table name	Status
<input checked="" type="checkbox"/> Categories	Categories	
<input checked="" type="checkbox"/> Customers	Customers	
<input type="checkbox"/> Employees	Employees	
<input checked="" type="checkbox"/> Order Details	Order Details	
<input checked="" type="checkbox"/> Orders	Orders	
<input type="checkbox"/> Products		
<input checked="" type="checkbox"/> Shippers		
<input type="checkbox"/> Suppliers		

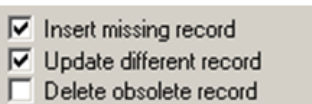
4. Select the direction of the synchronization (**From Left -> To Right** or **To Right <- From Left**)

Figure 23: Select synchronization direction



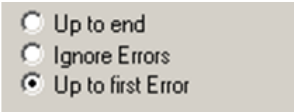
5. Select the allowable synchronization actions:
- **Insert missing records** - Insert/do not insert records that are present in the source table and are absent from the target table.
 - **Update different record** - Change/do not change field values in differing records.
 - **Delete obsolete records** - Delete/do not delete records that are present in the target table but are absent from the source table.

Figure 24: Allowable Synchronization Actions.



6. Select desired error handling option:
- **Ignore Errors** - Ignore any errors, continue the procedure and save the successfully completed changes in the target table.
 - **Up to first Error** - At the detection of the first error, stop the procedure without saving any changes in the target object.
 - **Up to end** - Continue the procedure regardless of any errors; however, do not save any changes in the target table if even one error occurs.

Figure 25: Error handling options



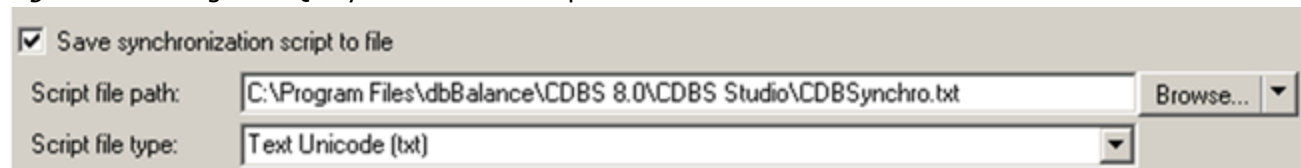
Up to end
 Ignore Errors
 Up to first Error

7. In order to save the generated SQL synchronization script into a file – check the **Save synchronization script to file** option and set the parameters of the saved file.

NOTE: *the program supports three formats of the synchronization script file:*

- **BSQ** – binary format
- **Text ASCII**
- **Text Unicode**

Figure 26: Storing the SQL Synchronization Script.



Save synchronization script to file

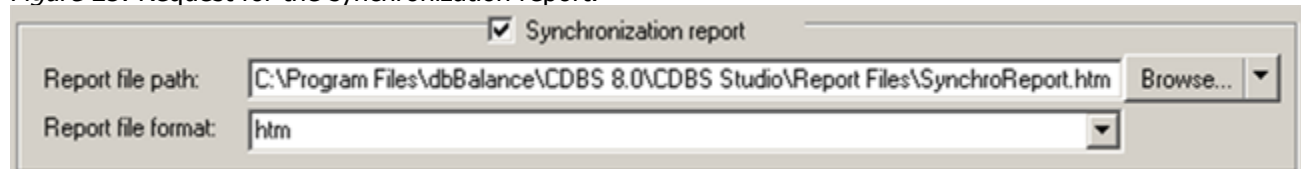
Script file path: Browse... ▼

Script file type: ▼

8. In order to create a report on the synchronization procedure – check the **Synchronization report** box and set the parameters for the report file.

The program supports two report-file formats: **XML** and **HTML**.

Figure 25: Request for the synchronization report.



Synchronization report

Report file path: Browse... ▼

Report file format: ▼

9. Start the synchronization procedure by clicking the **Run...** button

The program will execute the procedure and create a report (if the appropriate option was selected).

Figure 27: An example of a synchronization report

Action report (synchronization)		created: 10:57:47 December 18, 2010
Action Error Handling Error handling: Up to first Error (commit or rollback)		
+ Connection info		
Details	Expand all	Collapse all
+ Customers -> Customers (success)		
- Order Details -> Order Details (success)		
source object name	Order Details	
target object name	Order Details	
found new	0	
found different	13	
found missing	0	
total synchronized	13	
- Orders -> Orders (success)		
source object name	Orders	
target object name	Orders	
found new	0	
found different	38	
found missing	0	
total synchronized	38	