

How to compare structures of two tables?

Key Points:

- Structure comparison of the two selected tables is being performed on the basis of the **IDENTITY KEY**.
- The IDENTITY KEY can be:
 - Column name (by default)

In this case, the program automatically aligns the column lists of the compared tables so that the columns having the same name are lined up at the same level.

- Position of a column in a table or view.

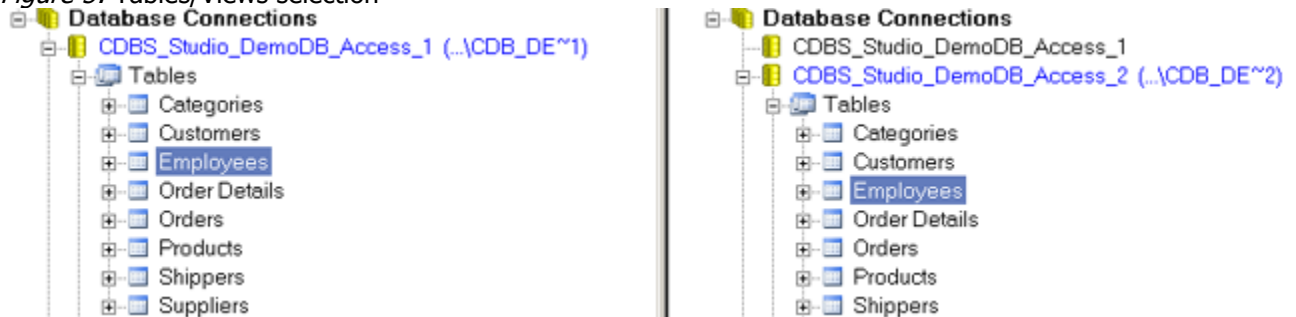
In this case, the program automatically aligns column lists of the compared tables so that the columns having the same position are lined up at the same level.

- The user can define structure comparison rules (e.g. case sensitivity, compare/not compare column names, compare/not compare column length, etc.) as well as rules regarding the creation of the comparison report (e.g. include identical rows, include different rows, and etc.).

The Comparison Procedure:

1. Select the tables (views) intended for comparison from the left and right panels.

Figure 5: Tables/Views selection



2. Use **Compare > Table/View Structure** menu command

The program will compare structures of the selected tables (views), displaying the results of the comparison on the screen in a separate window:

Figure 6: Comparison results window

Column Name	Data Type	Length	Precision	Scale	Allow Nulls	Default Value	Column Name	Data Type	Length	Precision	Scale	Allow Nulls	Default Value
Address	VARCHAR	60			Y		BirthDate	DATETIME	16			Y	
BirthDate	DATETIME	16			Y		City	VARCHAR	15			Y	
City	VARCHAR	15			Y		Country	VARCHAR	15			Y	
Country	VARCHAR	15			Y		EmployeeAddress	VARCHAR	70			Y	
EmployeeID	COUNTER	4	10	0	N		EmployeeID	COUNTER	4	10	0	N	
Extension	VARCHAR	4			Y		Extension	VARCHAR	4			Y	
FirstName	VARCHAR	10			Y		FirstName	VARCHAR	15			Y	
HireDate	DATETIME	16			Y		HireDate	DATETIME	16			Y	
HomePhone	VARCHAR	24			Y		HomePhone	VARCHAR	24			Y	
LastName	VARCHAR	20			Y		HomeRegion	VARCHAR	20			Y	
PostalCode	VARCHAR	10			Y		LastName	VARCHAR	25			Y	
Region	VARCHAR	15			Y		PostalCode	VARCHAR	10			Y	
ReportsTo	INTEGER	4	10	0	Y		ReportsTo	SMALLINT	2	5	0	Y	
Title	VARCHAR	30			Y		Title	VARCHAR	30			Y	
TitleOfCourte...	VARCHAR	25			Y		TitleOfCourtesy	VARCHAR	25			Y	

Column Name	Data Type	Length	Precision	Scale	Allow Nulls	Default Value
Left Side	FirstName	VARCHAR	10		Y	
Right Side	FirstName	VARCHAR	15		Y	

... \CDBSST~1\DemoDB\CDB_DE~1 Employees Identical - 10
 ... \CDBSST~1\DemoDB\CDB_DE~2 Employees Different - 3
 2 - Missed - 2

The window is divided into three panes:

- The left pane shows a list of columns (and their properties) of the table selected on the left pane of the main application window.
- The right pane shows a list of columns (and their properties) of the table selected on the right pane of the main application window.
- The bottom pane refines the differences found between the columns of the selected columns pair.

Each line of the displayed grid represents a pair of the corresponding (i.e. having same value of IDENTITY KEY) columns of the compared tables.

- The lines representing two different columns are marked by red color.
- The lines representing two identical columns are marked by black color.
- The lines representing one column only - no corresponding column is found in the other table - are marked by blue color.

In order to generate comparison report file, select the *Report comparison result into file* mode using the appropriate button on the toolbar of the main application window: 

If this button is used, the comparison results of ALL of the comparison procedures will be stored into a file.

Figure 7: An example of a comparison report

Comparison Report. Created by Cross Database Software created: 2010-11-29 14:05:47

Trial version www.dbbalance.com

Expand all Collapse all Legend: Missed records: ■ Different records: ■ Different cells: ■

+ Connection info

- Differences of Tables Structures (Employees --- Employees) Different - 3 Missing - 4 Identical - 10

Table - 'Employees'							Table - 'Employees'						
Column Name	Data Type	Length	Precision	Scale	Allow Nulls	Default Value	Column Name	Data Type	Length	Precision	Scale	Allow Nulls	Default Value
Address	VARCHAR	60			Y		EmployeeAddress	VARCHAR	70			Y	
BirthDate	DATETIME	16			Y		BirthDate	DATETIME	16			Y	
City	VARCHAR	15			Y		City	VARCHAR	15			Y	
Country	VARCHAR	15			Y		Country	VARCHAR	15			Y	
EmployeeID	COUNTER	4	10	0	N		EmployeeID	COUNTER	4	10	0	N	
Extension	VARCHAR	4			Y		Extension	VARCHAR	4			Y	
FirstName	VARCHAR	10			Y		FirstName	VARCHAR	15			Y	
HireDate	DATETIME	16			Y		HireDate	DATETIME	16			Y	
HomePhone	VARCHAR	24			Y		HomePhone	VARCHAR	24			Y	
HomeRegion	VARCHAR	20			Y		HomeRegion	VARCHAR	20			Y	
LastName	VARCHAR	20			Y		LastName	VARCHAR	25			Y	
PostalCode	VARCHAR	10			Y		PostalCode	VARCHAR	10			Y	
Region	VARCHAR	15			Y		Region	VARCHAR	15			Y	
ReportsTo	INTEGER	4	10	0	Y		ReportsTo	SMALLINT	2	5	0	Y	
Title	VARCHAR	30			Y		Title	VARCHAR	30			Y	
TitleOfCourtesy	VARCHAR	25			Y		TitleOfCourtesy	VARCHAR	25			Y	

Setting comparison options

In order to alter the comparison settings of the tables (views) structures, use the **Tools > Comparison Options...** command of the main application window menu.

Switch to the **Structure Comparison** tab in the **Comparison options** dialog box and confirm or cancel the needed options for the comparison of the tables (views) structures.

Figure 7: Comparison options available

Comparison options X

Foreign Keys Comparison Data Comparison Stored Procedures Comparison Packages Comparison

Columns Comparison **Structures Comparison** Primary Keys Comparison Indexes Comparison

- Case sensitive comparison
- Include identical rows in comparison report
- Include different rows in comparison report
- Include missed rows in comparison report
- Compare tables/views columns' names
- Compare tables/views columns' data types
- Compare tables/views columns' length
- Compare tables/views columns' precision
- Compare tables/views columns' scale
- Compare tables/views columns' allow null
- Compare tables/views columns' default value
- Use conversion settings while comparing
- Sort columns by name before comparison