

Command Reference: CompareTables()

Compare tables

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The `CompareTables()` command compares columns from two tables, saving the results in a new table. Comparisons are made using the data values formatted as strings based on the precision shown in tables. If the table was read with `ReadFromDelimitedFile()`, the precision for floating point numbers is set based on the largest number of digits after the decimal encountered in the input. Optionally, a precision and tolerance can be specified to control the comparison of floating point values. Values that are the same are shown in the new table without modification. Values that are different result in both table values being shown (as strings) to allow comparison. The command also allows the comparison table to be output to an HTML file, in which case different values are shown as red.

The following dialog is used to edit the command and illustrates the syntax of the command.

Edit CompareTables() Command

This command compares two tables and optionally creates a new comparison table.
By default, all columns (and rows) from the specified tables are compared; however, the columns to compare can be specified.
The table is compared by formatting cell values as strings. If necessary, specify precision and tolerance for floating point comparisons.
The results table, if written as HTML, indicates differences as colored cells (the simple table view will not color the differences).

Table1 ID: Required - first table to compare.

Table2 ID: Required - second table to compare.

Table 1 columns to compare: Optional - default is to compare all.

Table 2 columns to compare: Optional - default is to compare all.

Precision: Optional - digits after decimal to compare (default=use precision set for column).

Tolerance: Optional - tolerance(s) to indicate difference (e.g., .01, .1, default=exact comparison).

Allowed # of different values: Optional - when checking for differences (default=0)

New table ID: Optional - unique identifier for the comparison table.

Output file to write:

Action if different: Optional - action if tables are different (default=Ignore).

Action if same: Optional - action if tables are the same (default=Ignore).

Command:
`CompareTables (Table1ID="table1", Table2ID="table2", Precision=2, Tolerance=.2, NewTableID="comparison", OutputFile="Results/Test_CompareTables_DifferentTables_Precision_Tolerance_IfDifferentWarn_out.html", IfDifferent=Warn)`

CompareTables

CompareTables() Command Editor

The command syntax is as follows:

```
CompareTables (Parameter=Value, ...)
```

Command Parameters

Parameter	Description	Default
TableID1	The identifier for the first table to be compared.	None – must be specified.
TableID2	The identifier for the second table to be compared.	None – must be specified.
CompareColumns1	The names of columns to be compared from the first table, separated by columns.	All columns will be compared.
CompareColumns2	The names of columns to be compared from the second table, separated by columns.	All columns will be compared.
Precision	The number of digits after the decimal to consider when comparing floating point values. If values are different to the specified (or default) precision, both values are shown in the comparison table.	Format floating point numbers as strings for comparison according to the table column precision.
Tolerance	A value indicating the allowed difference between floating point values. The tolerance should be consistent with the precision (i.e., don't specify a coarse precision and fine tolerance). If the difference is less than the tolerance, the values will not be marked as different.	Floating point values must exactly match, according to the precision.
AllowedDiff	The allowed number of differences before triggering a Warn/Fail message (see IfDifferent). A value ≥ 0 indicates that the number of differences must be the same as the specified value. A negative value indicates that the number of differences can be less than or equal to the specified value. This parameter is useful for constructing tests where a specified number of differences is expected.	0
NewTableID	The identifier for the new comparison table.	Table1ID- Table2ID- comparison
OutputFile	If specified, an HTML table will be created for the comparison table, in which different values are highlighted in red.	No HTML output file will be created.
IfDifferent	Indicates the action to be taken if the tables are different: <ul style="list-style-type: none"> Ignore – do not generate warning Warn – generate a warning message Fail – generate a failure message 	Do not generate a warning if the tables are different.
IfSame	Indicates the action to be taken if the tables are the same: <ul style="list-style-type: none"> Ignore – do not generate warning Warn – generate a warning message Fail – generate a failure message 	Do not generate a warning if the tables are the same.