



Relations Command

Used For

To establish a relationship between two or more tables. The relationship is maintained through a common field. Unlike the Join command, the Relations command links the tables together without combining them into a new physical table. The Relations command permits the access of data spanning multiple tables.

When Used

The auditor needs information from two or more related tables to permit additional audit testing. The Relations command permits the auditor to access multiple related tables.

Examples

- Recalculate commission expenses for the year by relating a commission expense table to a table containing commission rates by product number.
- Relate a sales transaction table to an inventory master file table, using product number as the key field. Recalculate sales amount for each inventory item sold by accessing the master file table sales price and multiplying it by the quantity sold from the sales transaction file table.





Requirements Before Running the Relations Command

1. **Decide which tables you want to relate.**
2. **Decide which table will be the parent table and which one or ones will be the child.** Normally the parent table is a transaction table and the child table is one that is related to the transaction file, such as a master file table. Note: The parent table is equivalent to the primary table in the Join command and the child table is equivalent to the secondary table. Each parent table can be related to up to seventeen child tables.
3. **Decide which field or fields you will use to relate the table or tables.** Any given field must be the same for the parent table and at least one child table. A second or third parent table field can be matched to a child table if there is a child table with the same field.
4. **Satisfy the five Relations command rules.** See “Five Relations Command Rules” later in this section.

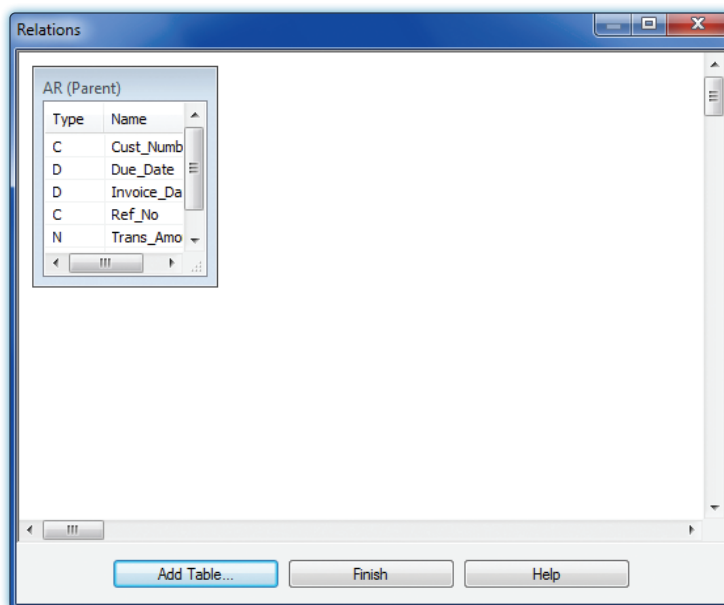
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Steps

After the four requirements are satisfied, you are ready to start the Relations command.

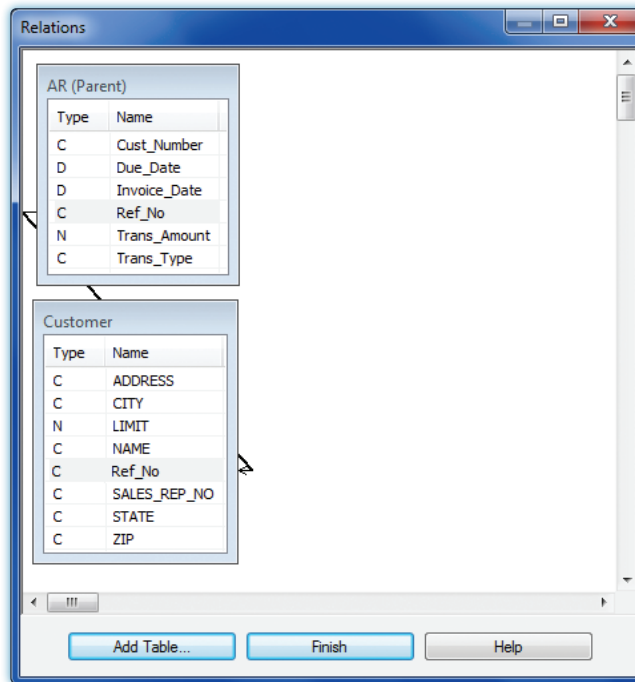
-   *Open the parent table.*
-   *Click Data → Relate to open the Relations command dialog.*

A box appears in the top left corner of the Relations command dialog. This box represents the parent table and each field in the parent table is listed in the box.



-  *Click the Add Table button. The Add Table window opens with a list of all tables in the current ACL project.*
-  *Double-click on the table you want to select as the child table.*
-  *Click the key field from the parent table and drag it to the key field of the child table.*

As shown below, a line appears that connects the two tables using the common key field. The common key field does not have to have the same name in each table, but each must contain the same information and be the same field type and size.



- ■ ■ Carefully review the relationship established in the previous step. To delete a key field relation, right-click on the line that connects the two tables and select the *Delete* option. To delete a child table box from the Relations command dialog entirely, right-click on the child table box, and then click *Remove Table*.
- ■ ■ Repeat the previous four steps for each child table you want to relate to the parent table.
- ■ ■ Click *Finish* to create the relationship(s) between the parent table and the child table(s).

After a relationship has been established between the parent table and a child table, the following tasks are now possible:

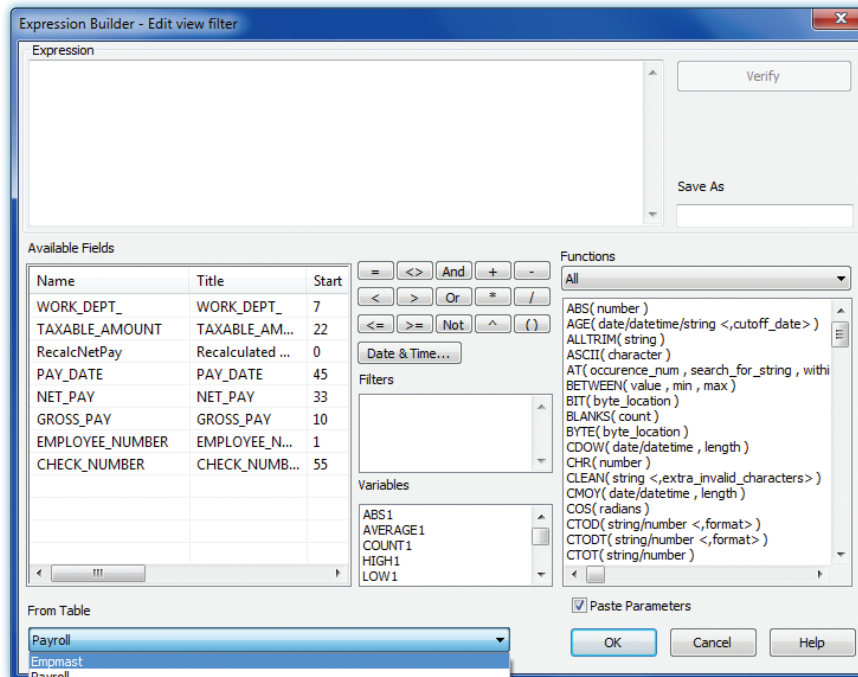
- Select fields from the child table for inclusion in the view of the parent table.
- Create a filter in the parent table using fields from the child table. You can use filters after relating the tables to create results equivalent to Matched Primary, Matched Primary; Includes All Primary, and Unmatched Primary.
- Issue commands in the parent table using fields from the child table.

An example of the use of the related tables is illustrated below:

- ■ ■ Follow the preceding steps to relate the Payroll table (parent) and the Empmast table (child). The common field is Employee_Number. Assume all five requirements are satisfied.
- ■ ■ After the relations command is completed, open the Payroll table and create a filter to determine if there are employee numbers on the Payroll table that are not included on the Empmast table. Do the following:

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1. Open the Edit view filter window by clicking on the Edit View Filter button (fx).
2. Click on the drop-down box under "From Table" on the bottom left of the screen. Observe that the two items in the table window are Payroll and Empmast.




3. Alternately click on each table name in the From Table box and observe the change in the Table layout. When the Payroll table is in the From Table drop-down box, the fields in the Payroll table are in the Table Layout. The Table Layout changes when the Empmast table is in the From Table drop-down box. This is the way ACL relates tables using the Relations command.
4. Make sure the Payroll table is in the From Table drop-down box. Then create the first part of the expression in the filter window by double-clicking Employee_Number, then the operator <>. Now click on Empmast in the From Table drop-down box. Complete the expression by double-clicking on the employee number. The expression should look as follows: Employee_Number <> Empmast.Employee_Number. Then click OK. Your results should look like the illustration that follows.

Payroll							
EMPLOYEE_NUMBER <> Empmast.Employer_Number							
	EMPLOYEE_NUMBER	WORK_DEPT_	GROSS_PAY	TAXABLE_AMOUNT	NET_PAY	PAY_DATE	CHECK_NUMBER
8	000108	E21	2179.17	435.83	1743.34	09/15/2018	12353
9	000109	E21	2179.17	435.83	1743.34	09/15/2018	12354
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Five Relations Command Rules (Requirement 4)

Each of the following must be satisfied before running the Relations command. The way to satisfy each rule, except the first two, is shown in italics.

1. All tables being related must be in the same ACL project.
2. The parent table must have a key field in common with each child table. The link does not need to be the same for each child.
3. The key field in the parent table must have the same length, justification, and case (upper, lower, or proper) as the common field in a child table. *Use Table Layout in both tables.*
4.  Key fields in all tables should be tested for blanks. If blanks exist in both the parent table and a child table, they will be linked together, but might not actually represent comparable data. *Use a filter on the key field in both tables.*
5. Key field in all tables should be tested for duplicates. If duplicate records are found in a child table, only the first record will be selected. Duplicates in the parent table are acceptable, but still need to be noted for analysis. *Use the Duplicate Command on both tables. If there are extensive duplicates use the Summarize command and save the summarized data into a new table.*