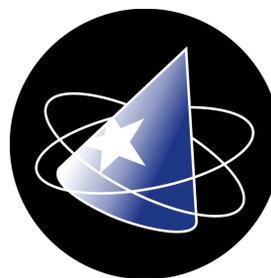




How To Guide...

Reports: Linking Tables

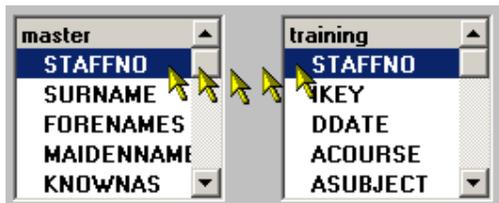
**Wiztec Business Suite
& WizHR 5**



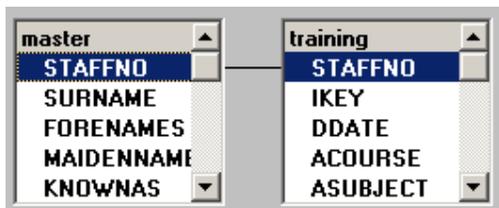
Linking Tables

Database information is usually saved in groups of tables, each with unique information. These tables are related to each other using common fields. The master table, for example, contains the employees number (STAFFNO) that had had training. Shazam Report Wizard provides a graphical way to link related tables together. You simply drag and drop the related field from one table to another, as follows:

1. Point to and press the left mouse button over the left table's linking field.
2. Drag your mouse over the right table's linking field.
3. Release the left mouse button.



Above: Table linking in progress.



Above: A completed table link.

You can have up to 40 table links in a single report, and a single field can participate in up to 10 links. Most database management systems cannot efficiently process more than four tables at a time

REMOVING TABLE LINKS

Removing table links from a report is a two-step process:

1. Select the table link to delete by pressing your the left mouse button over the selected table link. This will highlight the selected table link.
2. Press the toolbar button  to remove the table link, or use the "Edit | Unlink Tables" menu.

The following question will be displayed:



If you answer [Yes], the links between master.STAFFNO and training.STAFFNO will be removed. If you answer [No], the link will be unchanged.

Make certain that you replace a table link or remove the table before executing your report. Otherwise, you may generate an error if a table has not been linked. You can also remove table links by removing their associated tables from the report.

8.5 Changing Link Mode

Normally, you can link two tables together and accept the defaults characteristics of the table link without doing anything else. If you need change the default settings, simply double-click on a table link to display the "Link Tables" dialog:



The "Link Tables" dialog consists of the following elements:

8.5.1 LINK OPERATOR

The upper-left hand portion of the "Link Tables" dialog displays the currently selected link operator. The example above would be read as:

The NAMES table's NameID field Is Equal To the COLORS table's NameID field

The "Is Equal To" phrase determines how the comparison will be made between the two linking fields. Available choices include:

Link Operator	Symbol
Is Equal To	=
Is Greater Than	>
Is Greater Or Equal To	>=
Is Less Than	<
Is Less Or Equal To	<=
Is Not Equal To	<>.

Link operators other than "Is Equal To" are quite useful when your report needs to compare the values of two columns and choose records based on the comparison. In this case, you are actually using a table link as a search filter. Link Operators should only be changed when you are quite familiar with relational databases, and the affects these operators will have on your report.

8.5.2 LINK TYPE

The bottom portion of the "Link Tables" dialog determines the Link Type. This controls how records that do not exist in one of the tables are handled. We will use a simple illustration to explain this concept. Suppose you have the following two tables:

Names	Name	NameID
1	Lisa	1
2	Mark	2
3	Jana	3
4	Dan	4
5	Lynn	5
6	Mike	6

Colors	NameID	Colors
1	1	White
2	2	Red
3	3	Pink
4	7	Black
5	8	Purple
6	9	Blue

The NAMES table contains a list of people. The Colors table contains each person's favorite color. Notice that some colors do not have corresponding Name IDs in the Names table. Likewise, notice that some Names do not have corresponding colors in the Colors table. This represents a common database situation where related tables do not contain related data.

The first Link Type includes all records from both tables "with matching records only," resulting in the following selection:

Matching	Name	NameID	Colors
1	Jana	3	Pink
2	Lisa	1	White
3	Mark	2	Red

This is the most common database link, where the records displayed must have corresponding records in both tables. This is also the default setting when you first link tables together. The problem with this link is that it does not let you know who has not been assigned a favorite color, or which colors have not been assigned a name.

The second Link Type includes all records from the Names table and only matching records from the Colors table. This produces the following results:

Left	Name	NameID	Colors
1	Dan	4	
2	Jana	3	Pink
3	Lisa	1	White
4	Lynn	5	
5	Mark	2	Red
6	Mike	6	

Notice that all names from the original Names table are included in this result set even though some have no corresponding entry in the Colours table. You can add normal search filters to the Names table to suppress the names that would otherwise be included. Any filters added to the colors table would only display the matching colors (thereby overriding the Link Type).

The third Link Type includes all records from the Colors table and only matching records from the Names table. This produces the following results:

Right	Name	NameID	Colors
1			Black
2			Blue
3			Purple
4	Jana	3	Pink
5	Lisa	1	White
6	Mark	2	Red

Notice that all colors are included in this result set even if they have no corresponding names. You can add normal search filters to the Colors table to suppress the colors that would otherwise be included. Any filters added to the names table would only display the matching names (thereby overriding the Link Type).

As you can see, Link Type is a powerful tool. You should experiment with small records sets before using it on large databases. Once you understand the power available from Link Types, you'll be using them quite often.

OK

The [OK] button accepts the changes you have made to the Link Operator and Link Type, and closes the "Link Tables" dialog.

Delete

The [Delete] button removes the current link and closes the "Link Tables" dialog.