

## Creating Group Fields

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**Product:** ARPEGGIO™  
R&R Report Writer® for  
Windows®

**NIC:** N.A.  
**Interface:** N.A.  
**Oper Sys:** Microsoft® Windows® NT®

**Version:** All  
**Host:** N.A.

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### Summary

A wine and spirits distributing company has products organized in categories such as Vodka, Gin, Rum, Whiskey, Wine, Sherry, Champagne, Soda, and Tonic. The Data Processing department receives a request for a report that groups products by category within three product groups Spirits, Wine, and Other. How can this be done?

There are two problems that need to be addressed. First, the database does not contain information about which categories belong to which product groups. The second problem, which does not arise until you solve the first problem, is the words *Spirits*, *Wine*, and *Other* do not sort alphabetically in this order (O comes first.)

One way to solve both problems is to restructure the database, adding a field for product group code. This code would be keyed to a new product group description file so that 1=Spirits, 2=Wine, and 3=Other.

The disadvantage to this approach is the large amount of programming required to modify existing programs and to create a new product group file maintenance program. The company decides this approach is unacceptable.

Another way to produce the same report without modifying the database is to create the fields for product group code and product group description within R&R. The advantage of using R&R is that you can calculate the needed fields without modifying your database structure.

Let's assume the existing database includes a field named CATEGORY that contains one of the following names: Vodka, Gin, Rum, Whiskey, Wine, Sherry, Champagne, Soda, and Tonic. You will create two new fields, Prod\_Group and Group\_Name.

Prod\_Group will contain the number 1, 2, or 3, and will be used to sort our new product groups in the desired order. Group\_Name will contain the name Spirits, Wines or Other, and will appear in the product group header on the report.

From the Calculations menu, select Calculated Field. Enter the name Prod\_Group in the name box. Then enter the following in the expression box.

```
IIF( TRIM (CATEGORY) $ "VodkaGinRumWhiskey", 1,  
    IIF(TRIM (CATEGORY) $ "WineSherryChampagne" 2,  
        IIF(TRIM (CATEGORY) $ "SodaTonic", 3, 4)))
```

This expression assigns a 1 to all of the Spirits, a 2 to all Wines, and a 3 to the other items. Note that we have included a fourth group. This provides an error checking mechanism in case a record in the database has a blank, misspelled, or unknown category.

This error checking technique is not required, but it is generally good to include. If you are confident that your data entry program will trap all of these errors, you can omit the error check using the following expression.

```
IIF(TRIM (CATEGORY) $ "VodkaGinRumWhiskey", 1,  
    IIF(TRIM (CATEGORY) $ "WineSherryChampagne", 2, 3))
```

Next, from the Calculations menu, select Calculated Field and enter Group\_Name in the field name box. Then enter the following in the expression box.

```
IIF(Prod_Group=1, "Spirits", IIF(Prod_Group=2, "Wines", IIF(Prod_Group=3,  
"Other",  
"Error - category unknown"))))
```

To omit the error check, use this expression instead.

```
IIF(Prod_Group=1, "Spirits", IIF(Prod_Group=2, "Wines", "Other"))
```

Note that this expression references the other calculated field, Prod\_Group. R&R allows you to create calculated fields that depend on other calculated fields and automatically evaluates them in the correct order. This technique simplifies the expression for Group\_Name.

Once these fields have been created, use the Sort Order and Group Order selections from the Database menu to specify Prod\_Group as the level one sort and group field and CATEGORY as the level two sort and group field.

Next, create a group header - 1 by choosing Create Band Line from the Insert menu. This line will print the product group. Create a level-two group footer line for the category name and any category totals.

The final step is to use the Field Insert command to include the Group\_Name field in the level one header and the CATEGORY field in the level two footer. The resulting report could look similar to the following example.

## Sales Report

<u>Group/ Category</u>		<u>Quantity</u>
Spirits		
	<b>← Level One Header Line</b>	
	<b>← Level Two Footer Lines</b>	
	Gin	1058
	Rum	3827
	Vodka	2052
	Whiskey	5442
Wines		
	Champagne	247
	Sherry	43
	Wine	1532
Other		
	Soda	384
	Tonic	281

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