

# Creating a Multi-Column Report in R&R Report Writer for DOS

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**Product:** R&R Report Writer® for DOS® **Oper Sys:** DOS

**Version:** All

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## Summary

Many users have asked our support staff whether R&R Report Writer can format a multi-column directory. An example of this format is the telephone book. Names are printed in alphabetical order in four columns per page. Unlike a report that prints names in a single column per page, the directory format lists names down the first column, and then down the second column, etc.

There are six steps to creating a multi-column report:

1. Format the first column.
2. Compute the number of entries per column.
3. Set a relation to the second column.
4. Format the second column.
5. Query out duplicates.
6. Optionally, create more columns.

## Requirements

While R&R Report Writer normally prints only single-column reports, there is a trick you can use to print in a multi-column format. However, there are a few restrictions. In most applications, these restrictions are acceptable.

The first restriction is that you cannot sort or group records. If you want records sorted, you must sort the database in dBase® before running the report.

The second restriction is that you cannot use a query. If you want to print only a subset of the records in the database, you will have to extract the desired records into another database file using the dBase COPY command.

The third and final restriction is that each column on the page must contain the same number of entries. This means you cannot use the word-wrap format, compress blank body lines, or insert blank lines at the end of the body section.

## Formatting a Multi-Column Directory

The following six steps show you how to format a multi-column directory.

- 1. Format the first column.** Insert fields in the body area to create the desired format of a directory entry. These fields will produce the first column on the page. At this time you may also create a page header and footer, if desired.
- 2. Compute the number of entries per column.** You must compute the number of entries that will fit in one column on a page. First use the /Print command to set the desired page length. Then print a test pattern to see how many entries fit on a page.
- 3. Set a relation to the second column.** The fields used to format the second column come from relating the database to itself. This creates two record pointers into the same file. The second pointer must be  $n$  records ahead of the first pointer, where  $n$  is the number of entries per column.

For example, if there is enough space for thirteen entries per column, then the first record in column one is record 1 and the first record in column two is record 14. (Record 14 is thirteen records ahead of record 1.)

Sample Two Column Directory	
Thirteen Entries Per Column	
Record #1	Record #13
Ace Computer	Boston Computer Company
123 First Street	413 Congress Street
Cambridge, MA 02142	Boston, MA 02128
Acme Algorithms, Inc	Computer Commuter Corp.
8826 B Street	37 Oak Street
Burlington, MA 01803	Natick, MA 01760

To set this relation, you must first create a calculated field to calculate the desired record number. Select the /Field Calculate Create command and enter the name Col\_2\_Link. Then enter the following expression, assuming the master database is named LIST.

RECNO(LIST) + 13

Now you can set the relation with the /Database Relation Set command. Use Col\_2\_Link as the link field, select Exact-Lookup, select the master database, enter COL2 as the alias, select <<Recno>> as the index, and then select Blank as the failure action.

- 4. Format the second column.** Now you can format the second column by inserting fields from the COL2 database to the right of the first entry. Your screen should now look something like this.

Field: COL2->COMPANY	Line: 1 Col: 32	READY
Type / for command menu.	Press F1 for help, F10 to insert field.	
Header	Sample·Two·Column·Directory	
Header	Thirteen·Entries·Per·Column	
Header		
Header		
Header		
Body	'XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	'XXXXXXXXXXXXXXXXXXXXXXXXXXXXX X
Body	'XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	'XXXXXXXXXXXXXXXXXXXXXXXXXXXXX X
Body	'XXXXXXXXXXXXX, 'X' · 'XXXX	'XXXXXXXXXXXXX, 'X' · 'XXXX
Body		
	LIST->COMPANY	COL2->COMPANY

- 5. Query out duplicates.** In our two column example, there is a need to eliminate every second group of thirteen records from the master file. The reason for this is that when a group of thirteen records from the master file is printed in the first column, the next thirteen records from the related file are printed in the second column.

For example, page one will include records 1-13 in the first column, and records 14-26 in the second column. Then you want page two to print records 27-39 in the first column and records 40-52 in the second column. So, you need to read records 1-13 from the master file and then skip to record 27 on page two.

How can you tell R&R Report Writer to read thirteen records and then skip the next thirteen records? The trick is to create a calculated field that contains one value for the wanted records and another value for the unwanted records. Then you can use a query to select the wanted records.

Select the /Field Calculate Create command and enter the name Wanted. Then enter the following expression.

MOD(INT((RECNO(LIST)-1)/13),2)

The best way to see how this works is to build a table of values for each part of the formula. Then you can see why the query will work.

In the following table, note the pattern in the last column. The thirteen wanted records contain a 0, while the next thirteen unwanted records contain a 1.

As you can see, this pattern repeats every thirteen records.

RECNO(LIST)	RECNO(LIST)-1	INT(RECNO(LIST)-1/13)	MOD(INT((RECNO(LIST)-1)/13),2)
1	0	0	0
2	1	0	0
3	2	0	0
.	.	.	.
.	.	.	.
.	.	.	.
13	12	0	0
14	13	1	1
15	14	1	1
16	15	1	1
.	.	.	.
.	.	.	.
.	.	.	.
26	25	1	1
27	26	2	0
.	.	.	.
.	.	.	.
.	.	.	.

To finish this step, select the /Query command and create the query:

Select all records where (Wanted is equal to "0").

**6. Optionally, create more columns.** You can keep adding columns as long as there is enough room on the page. To create another column, just repeat steps 3 through 5.

In step 3, add another calculated link field changing the expression to skip an extra thirteen records for each additional column. For example, on a three column report create a field named Col\_3\_Link defined by the expression RECNO(LIST) + 26.

In step 5, change the second number in the MOD function to the number of columns in the report. For example, on a three column report change the expression to MOD(INT((RECNO(LIST)-1)/13),3).\

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