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Introduction to R&R

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# Chapter 1

## Introduction to R&R

This chapter explains R&R reports and identifies the elements of a typical report. This information is presented in the following sections:

- What Is an R&R Report?
- How Does R&R Produce a Report?

R&R is a data access and reporting tool that enables you to produce custom reports to select, analyze, summarize, and present data from your tables in a variety of ways. After you have developed a custom report, you can display it on screen or print it with any combination of fonts and print styles that your printer supports.

The R&R Report Writer documentation contains information for both beginning and experienced users of R&R. Both the print and the on-line documentation assume that you have a working knowledge of standard Windows mouse and keyboard actions and that you know the directory location of your data files.

The documentation consists of three printed manuals and a complete on-line help reference:

- Getting Started* (the manual you are reading) contains installation and configuration instructions, a brief tutorial, and a selection of sample report layouts with accompanying explanations.
- Using R&R* is a task-oriented guide to all interactive R&R functionality.
- Developing Applications*, intended for developers, is a complete reference guide for the R&R Runtime and includes information about incorporating Runtime reports in database applications.
- On-line help is available at any time when you are running R&R. Depending on what you are doing, you can press F1, select Help from the Menu Bar, or select the Help button on a dialog.

### What Is an R&R Report?

An R&R report is a custom layout and presentation of data drawn from one or more tables. This layout can take the form of a customer list, sales analysis, invoice, form letter, mailing labels, or project schedule, to name just a few examples.

An R&R report is much more than a simple printout of the headings and data in your tables. As you create a report, you determine how the data will be arranged, analyzed, and formatted.

As you design a report, you can move text and data freely around the screen. You can create calculations to analyze your data. You can apply fonts and styles to selected areas of the report. You can add lines, boxes, and graphic images to improve the presentation quality of your reports. You can also preview the report on screen at any time, print it, and/or save the report output in a disk file. When you've completed the report, you can save the entire report definition so that you can run or modify the report at any time.

Chapter 4, "Sample Reports," contains examples of some of the many types of reports you can create with R&R. These reports include various types of columnar listings and mailing labels.

## How Does R&R Produce a Report?

R&R produces a report by selecting and presenting information from selected tables according to a *report definition* that you create. This report definition usually includes:

- The name of the *master table* that serves as the initial source of data for the report.
- A report layout that indicates where objects will be placed on the report. You can use R&R Wizards, a template, an Instant Report, or an existing report as the starting point for your new report.
- Print information to specify how to print the report, display it, or save it as a file.

Optionally, the report definition can also include additional information that controls how data is selected, analyzed, and presented.

The report definition can also include:

- Database relation information that indicates which other *related tables* will provide information for the report and how the information in these tables is related to the master table or to other tables;
- Sort and group information to specify the order in which to sort the data and categories in which to summarize it;
- Field definitions for calculations and totals derived from data in your tables;

- Selection conditions (referred to as a *query*) to specify which records you want to include in the report;
- Formatting information that specifies which fonts and/or styles will be used in the report;
- Imported bitmapped images for presentation quality;
- Lines and boxes added as graphic enhancements.

No matter how you structure your report, the data in your tables remains the same. R&R simply permits you to view the data from a variety of perspectives.

## Composite Records

When you run a report, R&R reads the specified tables and creates a *composite record structure* containing all the fields from the tables used in the report, as well as any total and calculated fields created in R&R. The information in these composite records is then presented in the layout specified in the report definition, with any sorting, grouping, and querying you specified. The report is displayed and/or printed using the fonts and styles you selected, along with any images you imported and any lines and boxes you drew on the report layout.

## Templates

A *template* is simply a report definition with a specialized purpose: to serve as the common starting point for a series of reports. You can create and modify templates the same way you do reports. By saving templates in libraries with **RT5** extensions, you keep your templates separate from your reports. As a result, you can easily save, retrieve, manage, and distribute templates.

## Instant Reports

If you create a report by selecting Instant Report on the File ⇒ New dialog, R&R generates an Instant Report layout for you automatically. The Instant Report layout includes the following items:

- All fields in the master table (or as many as will fit horizontally on the layout);
- Calculated fields for master table name, date, time, page number, and number of records printed;
- Grand totals of all numeric fields that have decimal places.

In many cases, you can use the Instant Report layout as a starting point for creating your own layouts.

### Report Wizards

Report Wizards provide the capability of creating three common types of instant reports (Labels, Basic Columnar, or Grouped Columnar) without having to navigate through R&R's menus and dialog boxes. The Wizard dialogs lead you through several simple steps in the preparation of each report type, giving you the opportunity to preview the report output.

To use the Report Wizards, select File ⇒ New and select "Report Wizards" on the New dialog. To see sample output for each of the report types, right-click on the appropriate illustration.

### Saving a Report

After you create a report definition, you can name it, save it, and use it to run the report at any time. R&R stores the report definitions you create in report *libraries*, DOS files with default extensions of **RP5**. These libraries, which you can create, delete, and rename, serve as a convenient method of grouping related report definitions in a single file. They also allow you to assign report names that can be as long as 30 characters and can contain spaces. Once you have stored a report definition in a library, you can copy, modify, or delete that report definition.

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# Chapter 2

## Installing R&R

This chapter explains how to install and set up Version 6.5 of R&R for Xbase, Windows Edition. This information is presented in the following sections:

- System Requirements
- Supported Software
- Stand-Alone Installation and Setup
- Network Installation and Setup
- Managing User Licenses
- Running R&R
- Quick Configuration

### System Requirements

To run R&R, you must have Microsoft Windows Version 3.1 (or later). To install R&R, you must have the following:

- A computer capable of running Microsoft Windows 3.1;
- A high-density diskette drive capable of reading a 1.44 MB diskette;
- Approximately 6 MB of disk space.

### Supported Software

You can develop R&R reports using tables created by or completely compatible with the following products:

- dBASE III, III Plus, IV, or V;
- Clipper Summer '87 or Clipper 5;
- FoxBase+, FoxPro for DOS, or FoxPro for Windows.

Version 6.5 also supports the following:

- SuccessWare memo (.SMT) and index (.NSX) files;
- Flex-File II memo (.DBV) files;
- Clipper 5.2 index (.NTX) files.

Note that R&R does not support binary object data types.

## Stand-Alone Installation and Setup

When you run the R&R installation program, you select the portions of the R&R package that you want to install. You can also specify the drive and directory where the R&R files will be installed.

### Running the Installation Program

You can install R&R in any directory. If the directory you specify in the installation procedure does not exist, R&R will create it.

Each Setup dialog box after the first one contains a “Back” button. Select this button if you need to return to the previous dialog box to change a selection or setting.

Follow these steps to install R&R:

1. Start Windows. Insert Disk 1 in a diskette drive.
2. Select File ⇒ Run from the Windows Program Manager. In the Command Line edit box, type the following, substituting the correct drive letter for <drive>, and select OK:

**<drive>:\setup**

For example, if the R&R disk is in drive A, type **a:\setup** and select OK.

After a pause for initialization, the Welcome dialog box appears (see Figure 2.1).

3. The first option, “Install R&R Report Writer for Windows,” is automatically selected. Select Continue; the “R&R Report Writer Setup” dialog box shown in Figure 2.2 appears.
4. To install R&R in a directory named C:\RRW, simply accept the default entry in the “Program Directory” box. To install R&R in a different location, delete the default and type the drive and directory name in the “Program Directory” box.



Figure 2.1 Welcome Dialog Box

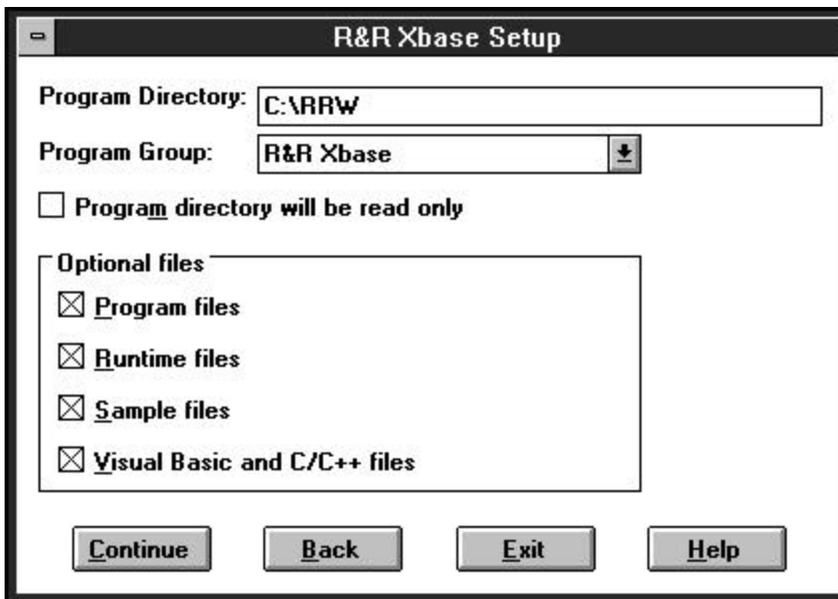


Figure 2.2 R&amp;R Report Writer Setup Dialog Box

5. If the program directory will not be read-only, skip the “Program directory will be read-only” check box. If the program directory *will* be read-only, click this check box. Storing the R&R program files in a read-only directory protects the R&R program files from accidental deletion and prevents users from saving their report library files in the

program file directory. When you select Continue to exit from the R&R Report Writer Setup dialog, you are prompted to enter a writable link directory where R&R will place files that users need read/write access to (see Step 7).

6. By default, all options in the “Optional files” box are selected. If you do not want to install any of these files, click the appropriate check box to deselect the files you don’t want.
  - The Program files are required to run R&R.
  - The Sample files include a set of sample tables in a subdirectory named *rrsample*. You need these files to perform the tutorial procedure in Chapter 3, “Creating Your First Report.” The sample files also include a report library, *RRSAMPLE.RP5*, which contains the reports described in Chapter 4, “Sample Reports.”
  - The Runtime files enable you to use the R&R Runtime to run reports from Windows or from within a Windows application.
  - The Visual Basic files (installed in a subdirectory named **VB**) and C/C++ files (installed in a subdirectory named **C**) enable you to access the Runtime through the R&R Runtime DLL or Custom Control, as described in Chapters 3 and 4 of *Developing Applications*.
7. Select Continue.

If you clicked the “Program directory will be read-only” check box, enter the name of a writable link directory where Setup will install files to which R&R must have write access (the installation program will create the directory if it does not exist). Note that you cannot make the program directory read-only until *after* installing R&R, since Setup must have write access to the program directory during installation. Select Continue again to exit the Writable Directory dialog box.

8. On the “Setup Complete” dialog, enter your name and company in the appropriate boxes. Then select OK.

When installation is complete, Setup creates an R&R program group that includes the following program item icons:

- The R&R program;
- User Management, which enables you to manage R&R serial numbers for multi-user access on a network (you must have a valid serial number for each concurrent user);

- ❑ R&R Convert, which allows you to convert report definitions to and from various R&R for Windows and R&R for DOS formats;
- ❑ The Runtime Sample (if you chose to install the Runtime and Sample files), which illustrates the basic operation of Runtime;
- ❑ R&R Dictionary Builder, which enables creation and maintenance of report dictionary files to provided descriptive information in R&R about database fields;
- ❑ Quick Runtime Icons, a utility that enables you to create Windows Program Items for your reports so that you can access them by double-clicking an icon in the Program Manager;
- ❑ Developing Applications, an on-line version of the *Developing Applications* manual.

Complete the installation procedure by reading the README text file in the R&R program directory and filling out and returning the Owner Registration Card included in your package.

## Network Installation and Setup

Installation of R&R on a network is a two-step process: first, the Network or System Administrator uses the R&R disks to install R&R into a shared network directory; then, users run R&R Setup from the network at individual workstations.

### Network Server Installation

The Network or System Administrator should perform this installation procedure for the network server.

To install R&R for Windows on a network server, do the following:

1. Log on to the network and start Windows.
2. Insert the copy of Disk 1 in a diskette drive. Choose File ⇒ Run.
3. Type **<drive>:\setup**, replacing <drive> with the letter of the diskette drive containing the R&R diskette. Press Enter. After a pause for initialization, the Welcome dialog appears.
4. Click the “Install R&R for Windows on a network server” option button and select Continue to display the R&R Report Writer Setup dialog.

5. The default Program directory is the first network drive, in alphabetical order. If necessary, change the default drive/directory destination to the drive and directory on the network server where you want to install R&R.

For example, to install into a directory called RRW on drive G, clear the default destination in the “Program Directory” box and enter **G:\RRW** (in either upper or lower case).

6. By default, the R&R program items will be installed as icons in a program group named R&R Xbase. To use a different program group, enter or select another name in the Program Group edit box.
7. If the program directory will not be read-only, skip the “Program directory will be read-only” check box.

If the program directory *will* be read-only, click this check box. When you select Continue to exit from the R&R for Windows Setup dialog box, you will be prompted to enter a writable link directory (see Step 9.)

8. By default, all options in the “Optional files” box are selected. If you do not want to install any of these files, click the appropriate check box to de-select the files you don’t want.
9. Select Continue.

If you selected the “Program directory will be read-only” check box, enter the name of a shared (i.e. public) link directory where Setup will install files to which R&R must have write access. The installation program will create the directory if it does not exist. Note that you cannot make the program directory read-only until after you install R&R, since Setup must have write access to the program directory during installation. Select Continue again.

10. Setup installs the R&R files. When installation is complete, select OK.

R&R is now installed on the network server. To enable users to access the shared R&R program from other workstations, follow the Workstation Installation instructions in the next section.

## Workstation Installation

After R&R has been installed on the server, you must run R&R Setup on each workstation that requires access to R&R. This second stage of the network installation copies several required files to each user’s Windows

system directory and creates an R&R program group and icons on each user's desktop.

To set up a workstation for access to R&R on the server, do the following:

1. At the workstation, log on to the network. Start Windows.
2. Choose File ⇒ Run. In the Command Line box, run Setup from the network by entering the full drive and directory location of the shared copy of R&R on the server. For example, if R&R was installed in the directory RRW on drive G: of the server, enter **G:\RRW\SETUP**. Select OK.
3. Select Continue. Setup creates an R&R program group containing these icons: R&R Report Writer, R&R Convert, Runtime Sample (if you chose to install the Runtime and Sample files), R&R Dictionary Builder, Quick Runtime Icons, and Developing Applications. Select OK to return to Windows.

## Managing User Licenses

When you install R&R, the installation program creates a file in the R&R program or link directory that includes the serial number(s) of the copy of R&R you installed. You must have a licensed serial number for each concurrent R&R user (R&R automatically keeps track of the number of concurrent users).

You can add serial numbers using either Setup or R&R's User Management program (which is available as an icon in the R&R program group). You can also use the User Management program to check the status of all installed serial numbers, to unlock any serial number that has become unavailable as the result of a system failure or a user reboot while R&R is running, and to remove serial numbers.

## Running the User Management Program

To maintain the serial number file — that is, to unlock, add, delete, or view the status of serial numbers — run the User Management program (RRWUSERS.EXE). This program is installed in the R&R directory and is available as an icon in the R&R program group.

## Adding Serial Numbers

To add one or more serial numbers for multi-user access, do the following:

1. Run the User Management program in either of these ways:
  - Double-click the User Management icon in the R&R program group;
  - Select File ⇒ Run and enter the path and name of the User Management program (RRWUSERS.EXE); then press Enter.
2. The R&R User Management dialog appears (see Figure 2.3). Select Add.
3. Insert R&R Disk 1 in a diskette drive. Select the drive letter; then select OK.
4. The User Management dialog lists the added serial number(s), which will now be available to R&R. Select Exit.

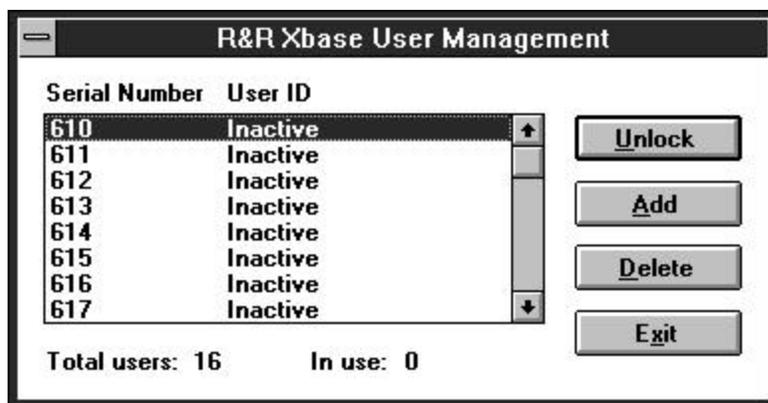


Figure 2.3 User Management Dialog Box

## Unlocking Serial Numbers

When any network user is running R&R, a serial number is assigned to that user. While the serial number is in use, it is unavailable until the user to whom it is assigned exits R&R.

If the network fails or a user boots or turns off a workstation while R&R is running, that user's assigned serial number will appear to be in use even though no one is using it. In this case, a workstation ID or "In Use" appears to the right of the serial number in the User Management dialog. To make the serial number available for use again, run the User Management

Program. Highlight the locked serial number and select Unlock. The serial number will then be available for use (indicated by “Inactive”).

## **Deleting Serial Numbers**

To remove serial numbers from RRWUSERS.DAT, run the User Management program. Insert the disk containing the serial number(s) you want to delete and select Delete. When you delete serial numbers, they are removed from the list in the User Management dialog and become unavailable to any user on the network.

## **Running R&R**

Use either of these methods to start R&R:

- Open the R&R program group and double-click on the R&R icon;
- Select File ⇒ Run and enter the path and name of the R&R program file (RRW.EXE); then press Enter.

As you create and modify reports, you can access on-line help by selecting Help or by pressing F1.

R&R creates an empty report library named STANDARD.RP5. You can use this library as is, rename it, or create one or more additional report libraries as necessary.

To familiarize yourself with R&R’s commands and features, follow the instructions in Chapter 3, “Creating Your First Report,” for creating and saving a simple report.

## **Quick Configuration**

After installing R&R, you can begin creating reports immediately, without changing the initial configuration. However, you may want to change some of R&R’s default settings. For example, when you first run the program, R&R looks for and creates report library files in the R&R program directory. Using the Default File Settings dialog, you can change the default library directory so that you can retrieve your report library files more quickly.

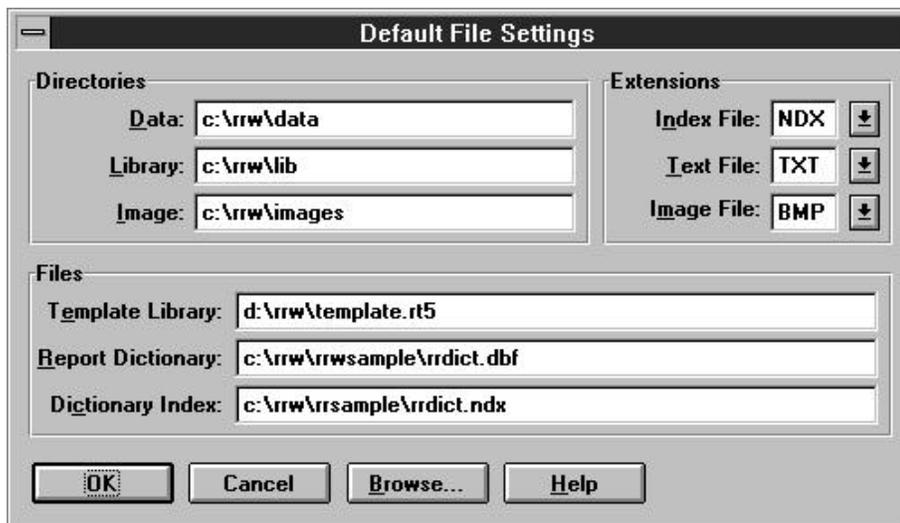
## Setting Default Directories and Extensions

To set default directories and extensions for your data files, report libraries, and image files, follow these steps:

### Setting Default Directories

The default directories specify where data files, report libraries, and image files are located and where new report libraries will be created.

1. Start R&R; select Cancel to close the New dialog.
2. Select Options ⇒ File Settings to display the Default File Settings dialog shown in Figure 2.4.



**Figure 2.4** Default File Settings Dialog

3. In the Data box, enter the name of the directory where you want R&R to look for the tables, indexes, and text memo files that supply the data for your reports.
4. In the Library box, enter the name of the directory where you want R&R to create and save report libraries.
5. In the Image box, enter the name of the directory where you want R&R to look for the image files you include in your reports.

## Setting Default Extensions

The default extensions control which files display in file selection dialogs (you can choose to display files with different extensions).

1. In the Index File box, enter or select an index file extension.
2. In the Text File box, enter or select the extension of the text files that you plan to use as the source of memo fields for your reports.
3. In the Image File box, enter or select the extension of the image files that you plan to use in your reports.

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# Chapter 3

## Creating Your First Report

In this chapter, you will create a report using an R&R sample table. You will then take a “quick tour” of the essential R&R skills and commands as you modify this simple report.

As you develop this report, you will gain experience in:

- Working with R&R menus and the report layout;
- Selecting sort fields;
- Typing, moving, and formatting fields;
- Drawing boxes on the layout;
- Displaying, saving, and retrieving reports.

The tutorial procedure in this chapter uses the R&R sample tables in the *rrsample* subdirectory. For these files to be available, you must have selected the “Sample Files” option when you installed R&R.

This chapter is divided into the following sections:

- Creating an Instant Report
- Modifying the Report
- Saving the Completed Report

### Creating an Instant Report

To begin creating the report, start R&R. Then do the following:

1. Select File ⇒ New and select “Instant Report” on the New dialog. The Master Table dialog box displays.
2. In the Directories list box, double-click on “rrsample” to open the subdirectory containing the sample files. (Note that if you selected “Program directory will be read-only” during installation, the *rrsample* subdirectory is in the link directory you specified.)
3. In the File Name list box, double-click on “rrprices.dbf” to select it as the master table for this report.
4. R&R displays a report layout that places all the fields from the selected table on the layout, with column titles inserted for each field.

As Figure 3.1 illustrates, the instant report layout also includes R&R calculated fields for master table name, date, time, number of records



## Previewing the Report

To see how the line types and their positions on the layout control how they will appear when printed, you can preview the report.

1. Select File ⇒ Print Preview (or the Preview button on the Standard Toolbar) to display the report.
2. To see a close-up display of the report page, click the Zoom In button (the third button from the left).

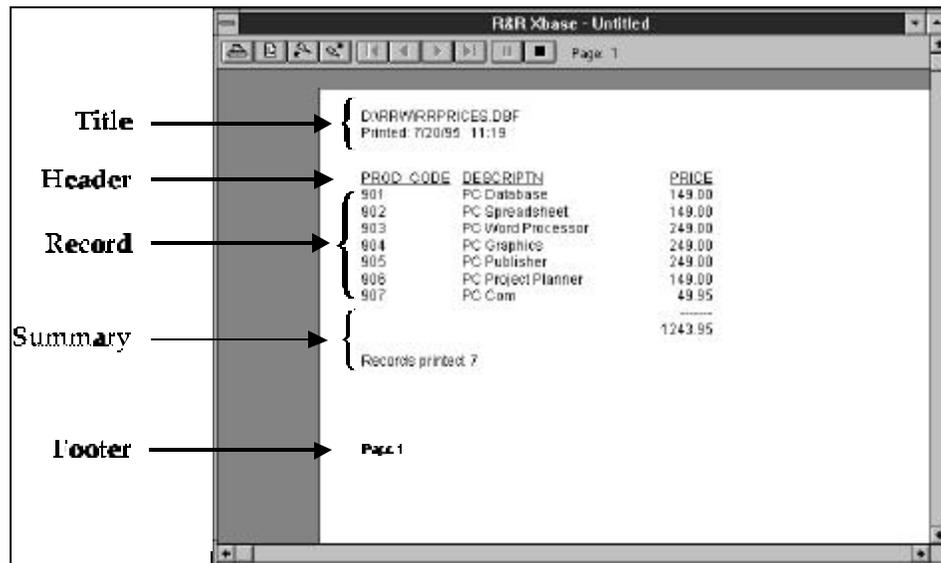


Figure 3.2 Zoomed Preview Display

3. To exit from Preview and return to the report layout, select the Close button (the solid black square) or press Esc.

## Modifying the Report

Although you can use the Instant Report “as is,” you can modify this basic report definition in many ways to suit the purposes of individual reports. In the following sections, you will make several changes to the report layout and change the order in which R&R sorts the data that it retrieves for the report.

## Replacing the Report Title

The first change you will make is replacing the default fields in the Title lines with a more descriptive title. Like many title fields, the one you will add is simply text typed on the report layout. Follow the steps outlined below to learn how to delete fields from the report layout and add a text field.

### Deleting the Default Fields

Before adding a new Title field, you delete the default fields on the first two Title lines. Two of these fields (Date\_rr and Time\_rr, which display the current date and time) are calculated fields. When you delete calculated fields from the layout, they are not removed from the composite record structure; you can re-insert them at any time. The other two fields are text fields; you can use Edit ⇒ Undo to replace a text field if you accidentally delete one.

1. To select all four fields on the Title lines, use the mouse to outline them: click in the upper left corner of the display area, drag the mouse down and to the right, then release the mouse button when the four fields have been outlined. Each field is enclosed in a box to indicate that it is selected.
2. Select Edit ⇒ Clear (or the Trashcan button). The fields disappear from the layout.

### Inserting a New Title

Follow these steps to insert a new title on the report:

1. Click on the second Title line (leave one blank line at the top), type **Product Price List**, and press Enter. If you make a mistake, press Backspace to erase the incorrect character; then continue.
2. To position the title field, first select it; then click and drag it to the right until the position indicator on the Ruler Line is at 1 inch.

## Formatting the Title

After you have typed or inserted a field on the layout, you can modify its size and format, erase it, or assign print styles and fonts to it. To apply formatting, you can use the Format menu choices, the Formatting Toolbar buttons, or the Field Properties dialog. You will now format the **Product Price List** field using each of these methods.

### Changing the Font

To apply a different font to the field:

1. Select the **Product Price List** text field that you typed on the first title line. Note that the field text appears on the Status Bar at the bottom of the window.
2. Select Format ⇒ Font and select any font that appears in the font list; in our example, we use Arial, one of the TrueType fonts available with Windows 3.1. Note that you can also select a font by opening the Font list box on the Formatting Toolbar or by opening the Field Properties dialog (right-click on the field and select Properties) and selecting Font.

### Changing the Point Size

To change the field's point size, follow these steps:

1. If the Product Price List field isn't still selected, click to select it.
2. Select a point size from the Size menu on the Formatting Toolbar (alternatively, you can use Format ⇒ Font or the Field Properties dialog). You can use any point size that is available for the font you applied to the field. In our example, we use 24-point Arial.

### Making the Field Bold

The last step is to assign a print style to the title use Field Properties:

1. Select the field and press F4 (or right-click on the field and select Properties).
2. Select Font; then select Bold in the Style box. Select OK.
3. Select Close.

The field now appears in boldface. (As a quicker alternative to using the Field Properties dialog, you can simply select the field and click the Bold button on the Formatting Toolbar).

### Creating a Box Around the Title

You can call attention to particular areas of a report by using the mouse to draw lines and boxes on the report. After inserting a box, you can control the thickness and color of the border, turn off one or more of the sides of the box, and add a shading pattern to the box background.

## Drawing a Box

Follow these steps to draw a box around the **Product Price List** field:

1. Click the Box button on the Standard Toolbar. The cursor changes to a crosshair and a box outline.
2. Position the crosshair at the upper left corner of the field. Click and drag the mouse so that the box outline surrounds the field. Release the mouse to position the lower right corner.

## Formatting the Box

By default, a new box has a black border on all sides and the thinnest available border. Using the Box Properties dialog, you can increase the border thickness. To do so, follow these steps:

1. Right-click on one of the box borders and select Properties; the Box Properties dialog opens.
2. Open the Thickness menu and select a medium-weight border from the five choices. Select OK. Your report layout should look like the one shown in Figure 3.3.

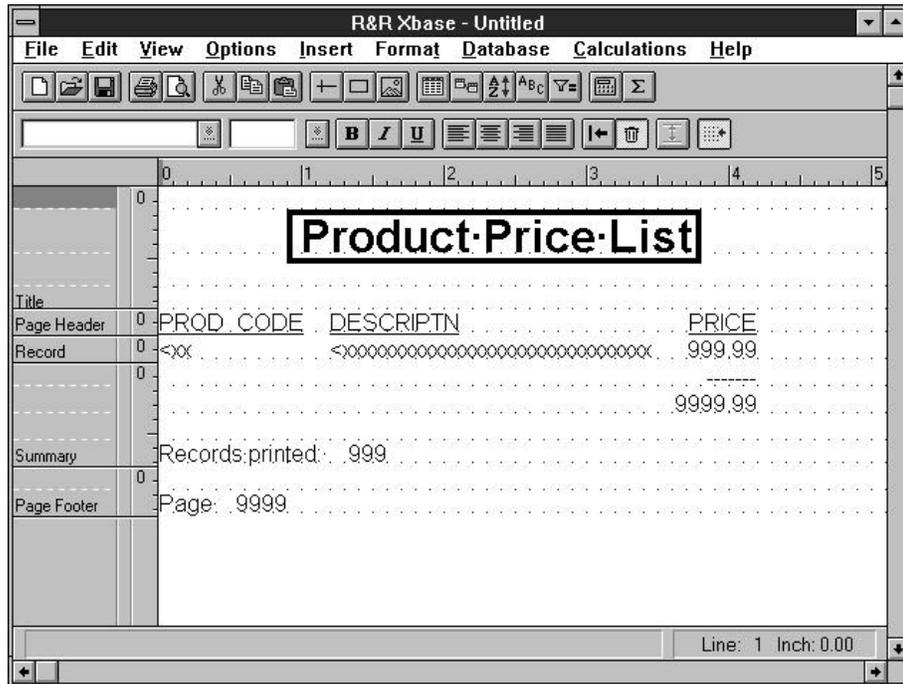


Figure 3.3 Report Layout with Formatting

### Sorting Data

Initially, R&R presents data in the order in which it is stored in the master table. You can use the Sort Order dialog box to select a different sort order that will override the master table order. The sort field(s) you select will determine the order in which the composite records will print or display. Sorting records in R&R does *not* change the order of the records in your table(s).

#### Changing Sort Order

In the following steps, you will select a field to control the order in which the records will display or print.

1. Select Database ⇒ Sort Order (or the Sort button on the Standard Toolbar) to display the Sort Order dialog box.
2. Open the list box for the first sort field slot. This menu displays all data fields from the report tables, as well as certain R&R calculated and total fields.
3. Select PRICE as the first sort field. The “X” in the Ascending check box means that records will be sorted by price, in lowest to highest order. Select OK.
4. Select File ⇒ Print Preview (or the View button) to display the report. Note that the first record displayed is the one with the lowest price (49.95), and the other records are displayed by ascending price.
5. Click the Close button, then select Database ⇒ Sort Order again. Turn off the Ascending check box for the first sort level to change the order to Descending (see Figure 3.4). Select OK.

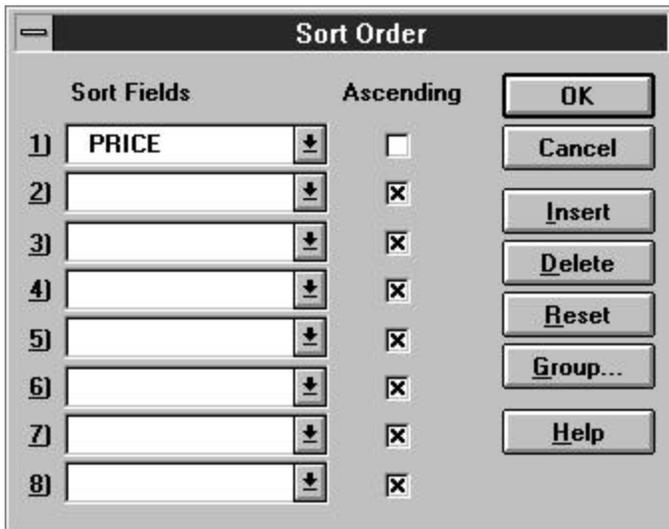


Figure 3.4 Sort Order Dialog Box

6. Select File ⇒ Print Preview again to display the report. Note that the first record displayed is now the one with the *highest* price (249.00), and the other records are displayed by *descending* price. Click the Close button to return to the report layout.

## Saving the Completed Report

Follow these steps to save the completed report layout in the current R&R library:

1. Select File ⇒ Save. The current report library name is displayed at the top of the Save As dialog box.
2. In the edit box, enter a report name up to 30 characters long. Select OK.
3. The report is saved in the STANDARD.RP5 library (or in the current report library), and R&R returns to the report layout. To exit to Windows, select File ⇒ Exit.



---

# Chapter 4

## Sample Reports

This section contains sample reports in five commonly used formats. Each report is accompanied by a brief explanation of the R&R features illustrated in the report. These explanations summarize the procedures for creating each report; they do not provide step-by-step instructions. After reading the explanation for a sample report, you can refer to the relevant chapters in *Using R&R* for more detailed information about commands, dialogs, and procedures.

The following reports are included in this section:

- Basic Columnar Report
- Multi-Line Columnar Report
- Grouped Columnar Report
- Summary Columnar Report
- Mailing Labels Report

If you chose the Sample Files option when you installed R&R, these reports are available in the RRSAMPLE.RP5 report library, which is installed into the *rrsample* subdirectory of the R&R program directory or link directory you specified. The reports use only the sample tables provided with R&R.

These reports use Times New Roman and Arial, two TrueType fonts available with Windows 3.1. These reports should preview and print correctly on any system on which these fonts are installed. All reports are saved with an HP LaserJet II printer as their destination. To change the print destination, select File ⇒ Print Setup and select any available printer.

Note that the examples of printed output provided for the sample reports simulate the printed appearance of each report. There may be minor differences in spacing and formatting between these simulations and the actual report output.

## Basic Columnar Report



Sales-By-Product			
Product-Description	Unit Price	Qty	Order Total
<ooooooooooooooooooooo	999.99	999	(99,999.99)
Grand Totals: 999 Orders		9999	(\$999,999.99)

### Page Header

Use Insert ⇒ Create Band Line to create five page header lines. Type the text fields on the layout. Select the title text field and use Format ⇒ Font to apply 18-point Arial bold to it; select the line and then select Format ⇒ Band Line Justify to center it. Click and drag to select the column headings; then use Format ⇒ Font to apply 12-point Arial bold to them. Click and drag fields to position them. To apply shading behind the column headers, use Insert ⇒ Box to draw a box around them. Then select Format ⇒ Field and click each of the “Show” boxes to remove the x. In the Shading group box, select the solid pattern, make the foreground black, and select a light background color.

### Record Band

A one-line Record band prints for each composite record, as many times as will fit between the page header and the bottom margin. Use File ⇒ Page Setup to set the margins. Use Calculations ⇒ Calculated Field to create a calculated field for the order total; its expression is PRICE\*QUANTITY. Insert fields in the Record band using Insert ⇒ Field. Use Database ⇒ Sort Order to sort on the product description field.

### Summary

A two-line Summary band prints at the end of the report. Create the Summary lines with Insert ⇒ Create Band Line. Select Insert ⇒ Line to draw the line above the summary fields. Type the text fields on the next line. Use Calculations ⇒ Total Field to create a count of the product description field and sums of the quantity and order total fields, all reset as grand totals. Insert these fields in the Summary band. Use Format ⇒ Field to apply a currency format to the order total sum.

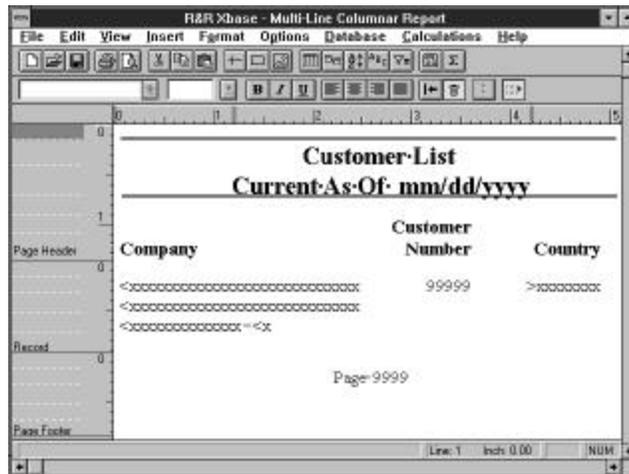
<b>Sales By Product</b>			
<b>Product Description</b>	<b>Unit Price</b>	<b>Qty</b>	<b>Order Total</b>
PC Com	49.95	5	249.75
PC Com	49.95	5	249.75
PC Com	49.95	5	249.75
PC Com	49.95	10	499.50
PC Com	49.95	20	999.00
PC Com	49.95	20	999.00
PC Com	49.95	20	999.00
PC Com	49.95	20	999.00
PC Com	49.95	25	1,248.75
PC Com	49.95	45	2,247.75
PC Database	149.00	10	1,490.00
PC Database	149.00	10	1,490.00
PC Database	149.00	10	1,490.00
PC Database	149.00	10	1,490.00
PC Database	149.00	15	2,235.00
PC Database	149.00	20	2,980.00
PC Database	149.00	25	3,725.00
PC Database	149.00	25	3,725.00
PC Database	149.00	30	4,470.00
PC Database	149.00	45	6,705.00
PC Database	149.00	45	6,705.00
PC Database	149.00	50	7,450.00
PC Database	149.00	50	7,450.00
PC Graphics	249.00	5	1,245.00
PC Graphics	249.00	5	1,245.00
PC Graphics	249.00	5	1,245.00
PC Graphics	249.00	20	4,980.00
PC Project Planner	149.00	5	745.00
PC Project Planner	149.00	5	745.00
PC Project Planner	149.00	10	1,490.00
PC Project Planner	149.00	10	1,490.00
PC Project Planner	149.00	15	2,235.00

## Chapter 4

---

Grand Totals: 32 Orders	600	\$75,566.25
-------------------------	-----	-------------

## Multi-Line Columnar Report



### **Page Header**

Type the text and insert the date field for the report title; use Format ⇒ Field to specify the mm/dd/yyyy date format. Use Format ⇒ Trim to print the date field at the end of the text field. Select the title lines and use Format ⇒ Band Line Justify to center them. Use Insert ⇒ Line to draw lines above and below the title. Use Format ⇒ Field to set the line thickness. Type the text for the column headings; then click and drag an outline around them (or Ctrl-click on each) and select Format ⇒ Font to apply 18-point Times Roman bold.

### **Record Band**

Insert additional record lines with Insert ⇒ Band Line. Multi-line columnar reports are useful when all of the information will not fit across the page on one line. This format also allows more flexibility for special formats such as a name and address layout. The single blank record line on the layout will leave a blank line before each record and make the report output more readable. To apply the Times Roman 12-point font to the fields on the record lines, click and drag an outline to select them and then select Format ⇒ Font.

### **Page Footer**

Create a calculated field to print the page number using Calculations ⇒ Calculated Field and the PAGENO() function. Use Format ⇒ Trim “Print at End of Previous Field” to print the page number immediately following the text field. Select the line and use Format ⇒ Band Line Justify to center it.

<b>Customer List Current As Of 07/07/1995</b>		
<b>Company</b>	<b>Customer Number</b>	<b>Country</b>
Bartholdi et Fils 450, rue de la Cité Avignon	10060	France
Business Productivity Center 490 Webster Avenue Austin TX	10026	U.S.A
Carson Associates 400 Summer Street Silver Spring MD	10011	U.S.A
Computer Consultants 234 Diamond Road Birmingham AL	10002	U.S.A
Computerware 100 Main Street Chantilly VA	10027	U.S.A
Discount Software 900 South Street Indianapolis IN	10030	U.S.A
Elektro-Flamme Kirchhofstr. 14 Berlin	10067	Germany
Ets. Lumière et Frères 12, rue de l'Etoile Paris	10045	France

Page 1



## Sales By Product With Subtotals

Product Description	Qty	Total Amount
PC Com	5	249.75
	5	249.75
	5	249.75
	10	499.50
	20	999.00
	20	999.00
	20	999.00
	20	999.00
	25	1,248.75
	45	2,247.75
	<b>Subtotals:</b>	175
PC Database	10	1,490.00
	10	1,490.00
	10	1,490.00
	10	1,490.00
	15	2,235.00
	20	2,980.00
	25	3,725.00
	25	3,725.00
	30	4,470.00
	45	6,705.00
	45	6,705.00
50	7,450.00	
50	7,450.00	
<b>Subtotals:</b>	345	\$51,405.00
PC Graphics	5	1,245.00
	5	1,245.00
	5	1,245.00
	20	4,980.00
<b>Subtotals:</b>	35	\$8,715.00
Jul-95		Page 1

# Summary Columnar Report

The screenshot shows a software window titled "R2R Xbase - Summary Columnar Report". The report content is as follows:

Product Sales by Customer With Subtotals and Grand Totals Printed On dd-mm-yy		
Product Description	Quantity	Order Total
Sales for <.....>	9999	999999.99
Company Subtotal:	99999	(\$99,999.99)
-----Year-To-Date-Totals-----		
Grand Totals	9999	(\$99,999.99)
Orders: Average	999	(\$9,999.99)
Largest	999	(\$99,999.99)
Smallest	999	(\$9,999.99)

## Title

Use Format ⇒ Font to apply bold, 12-point Times New Roman to the title lines. Set the left and right margins using File ⇒ Page Setup. Center the lines using Format ⇒ Band Line Justify. Draw a box around the title fields using Insert ⇒ Box. Set the thickness of the box borders using Format ⇒ Field.

## Page Header

Type the column heading text fields and apply bold, 12-point Times New Roman to the page header line.

## Group Header

Records are grouped by company name and then by product description. Use Database ⇒ Sort Order to select the company and description fields as sort and group fields. Use Insert ⇒ Create Band Line to create the group header and group footer lines. Apply 10-point Times New Roman to the lines.

## Second Group Footer

To produce a summary report, delete the Record band. The second group footer band will contain subtotals for each group of records with the same product description. Use Calculations ⇒ Total Field to create the item quantity field. Select Sum as the total type, QUANTITY as the field to total, and the product description field as the reset level. Use Calculations ⇒ Calculated Field to create an order total field that multiplies the item quantity by PRICE.

## First Group Footer

A three-line group footer prints after every group of records for the same company. Create subtotals of the item quantity and order total fields with Calculations ⇒ Total

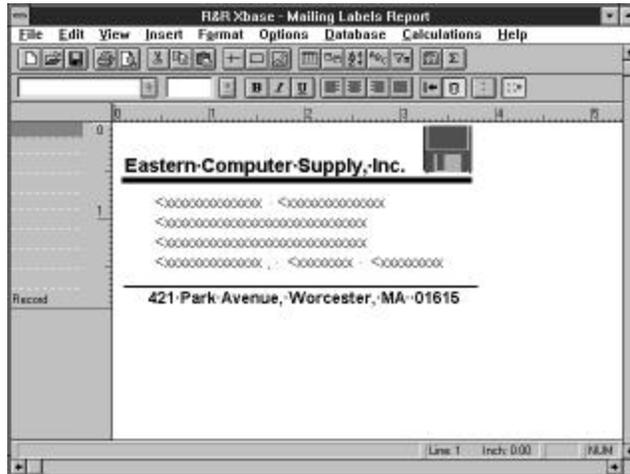
Field (Sum). Select COMPANY as the reset level. Type text to label these subtotals and insert the fields on the second company group footer line. Leave the last group footer line blank so there is space between each group.

**Summary**

A five-line Summary band prints once at the end of the report. Create grand totals of the company subtotals with the Calculations => Total Field Sum, Average, Minimum, and Maximum options. Type the labels and insert the fields; then right-align the labels and fields.

<b>Product Sales by Customer With Subtotals and Grand Totals Printed on 23-Jun-1995</b>		
Product Description	Quantity	Order Total
Sales for: Business Productivity Center		
PC Com	45	2247.75
PC Database	45	6705.00
	ÄÄ	ÄÄÄÄÄÄ
Company Subtotal:	90	\$8,952.75
Sales for: Computer Consultants		
PC Graphics	5	1245.00
PC Publisher	5	1245.00
PC Word Processor	5	1245.00
	ÄÄ	ÄÄÄÄÄÄ
Company Subtotal:	15	\$3,735.00
	•	
	•	
	•	
ÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ <b>Year-To-Date Totals</b> ÄÄÄÄÄÄÄÄÄÄ		
	ÄÄÄÄÄÄÄ	
<b>Grand Totals</b>	840	\$124,826.25
<b>Orders:</b> Average	16	\$5,427.23
Largest	50	\$14,658.75
Smallest	5	\$1245.00

## Mailing Labels Report



### **Label and Page Dimensions**

The label and page dimensions are determined by the Avery label you select. To choose a label, select **Format** ⇒ **Record Layout**; open the **Label Type** drop-down menu and choose a label type. Width and height for the selected label are shown in the **Dimensions** box. For this report, Avery Product #5163 (Address/Shipping) was selected; label dimensions are 4.19 by 2 inches.

### **Company Name**

Type the company name directly onto the report layout. Insert the line beneath using **Insert** ⇒ **Line**, then set the line's thickness using **Format** ⇒ **Field**. To insert the logo on the line, select **Insert** ⇒ **Picture**, draw the image area, then select the image file to insert. As necessary, size and reposition the image using the mouse.

### **Mailing Address**

Insert the name and address fields with **Insert** ⇒ **Field**; type commas and spaces as necessary. Use **Format** ⇒ **Trim** to eliminate blank space between the first and last names and between the city, state or country, and code. The **Format** ⇒ **Record Layout** "Compress Record/Group Lines" setting eliminates blank lines within the address.

### **Test Pattern**

Before printing the labels, use **File** ⇒ **Print** and select **Test Pattern** from the "Print" list box to check their alignment.

The illustration on the next page shows a portion of the report as it might appear when printed on labels.

<p>Eastern Computer Supply, Inc. </p> <hr/> <p>David Adams PC Products 489 Main Street Phoenix, AZ 85014</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>	<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Gregory Anderson Discount Software 1900 South Street Indianapolis, IN 46260</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>
<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Ernest Bartholdi Bartholdi et Fils 45, rue de la Cité Avignon, France</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>	<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Gisela Beck Trachten-Beck GmbH Münchenerstr. 88 Ottobrunn, Germany</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>
<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Patrick Binet Union des Programmeurs 88, rue de Tourcoing Nice, France</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>	<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Roger Britten Micro Supply 12 Exchange Street Birmingham, AL 35244</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>
<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Steven Carson Carson Associates 400 Summer Street Silver Spring, MD 20904</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>	<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Carter Clayburn Software House 345 Lincoln Avenue Hanover, NH 03755</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>
<p>Eastern Computer Supply, Inc. </p> <hr/> <p>Frank Cleary Business Productivity Center 490 Webster Avenue Austin, TX 78757</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>	<p>Eastern Computer Supply, Inc. </p> <hr/> <p>George Empain Ets. Lumière et Frères 12, rue de l'Etoile Paris, France</p> <hr/> <p>421 Park Avenue, Worcester, MA 01615</p>

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