# R&R ReportWorks Version 12 Utility Programs

## Report Converter
## SQL Conversion Wizard
## Shortcut Maker

Liveware Publishing Inc.
1506 Society Drive
Claymont, DE 19703



# ReportWorks Report Conversion Utility

The ReportWorks Report Conversion program (RRCNVRT.EXE) allows you to convert existing R&R reports from and to a variety of report formats. A shortcut to the Report Converter is installed in the Utilities program group within the R&R Report Works choice in the Windows Start menu.

The following chart lists the default report file extensions that are associated with each R&R report version.

**Report library formats where a single file may contain multiple reports**

| *File Extension* | *R&R Report Version* |
|---|---|
| RP1 | R&R for DOS Xbase editions 1 through 6.0a |
| RP2 | R&R for DOS Worksheet edition |
| RP3 | R&R for DOS SQL edition (Oracle/NetwareSQL/XDB) |
| RP4 | R&R for DOS Paradox edition |
| RP5 | R&R for Windows Xbase editions 1 through 7 |
| RP6 | R&R for Windows SQL edition 2 |

**Compound file formats where a file contains a single report**

| *File Extension* | *R&R Report Version* |
|---|---|
| RRW | R&R for Windows Xbase editions 8 and later |
| RSW | R&R for Windows SQL editions Arpeggio and later |

Note that the current Report Works Version 11 Xbase Designer and Runtime can directly **read** reports in existing RP1 and RP5 library files without requiring conversion to .RRW format. If changes to existing reports are required, then the modified report must be saved as an individual .RRW file. The current Report Works Version 11 SQL Designer and Runtime can directly **read** reports in existing RP6 library files without requiring conversion to .RSW format. If changes to existing reports are required, then the modified report must be saved as an individual .RSW file.

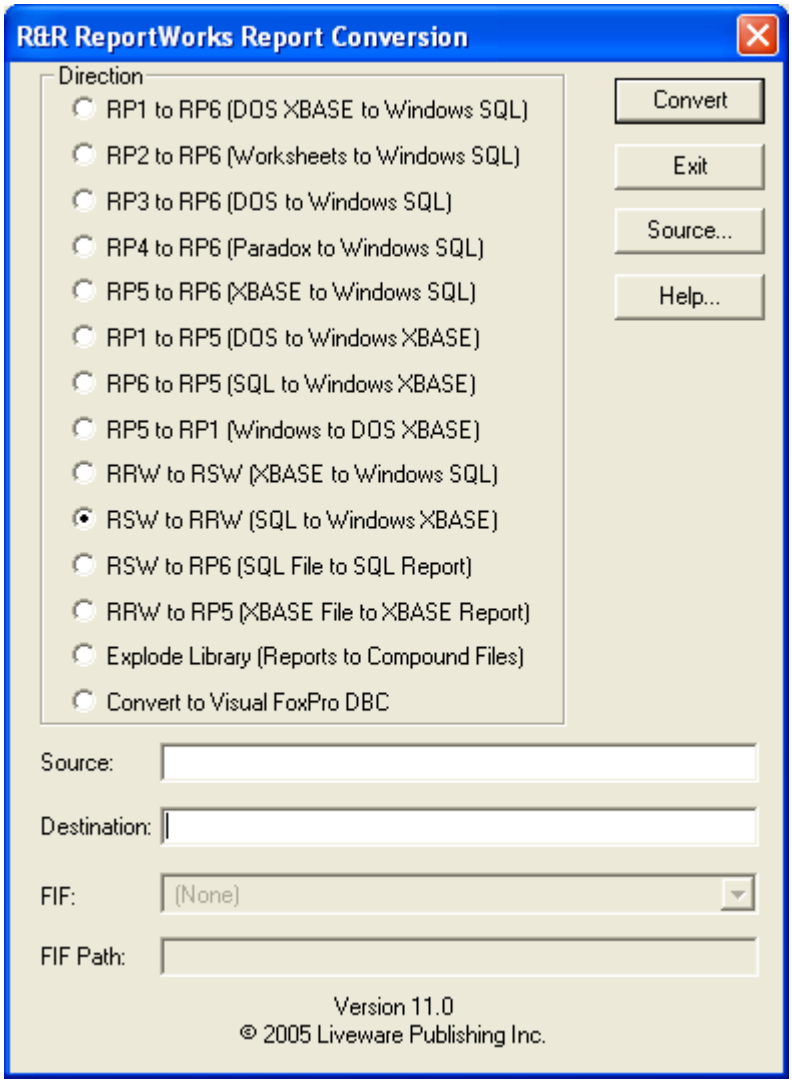



**Figure 1. ReportWorks Report Conversion Main Window**

## Important note on Conversion

Successful conversion of a report file does not always guarantee that the converted report will be able to be successfully opened and run in a version that supports that file format. Not all R&R functional is identical or supported across each release. Some converted reports may not be able to be opened successfully and some may require additional editing after conversion. The most general rule is that the file and field names and data types that were found in the source report must be available in the destination platform.

## Direction

The first step in conversion is selecting the source and destination file types. You do this by selecting the appropriate radio button from the direction list. The available conversion directions are explained below.

RP1 to RP6 (DOS XBASE to Windows SQL)

RP2 to RP6 (DOS Worksheets to Windows SQL) Conversion

RP3 to RP6 (DOS SQL to Windows SQL) Conversion

RP4 to RP6 (DOS Paradox to Windows SQL)

RP5 to RP6 (Windows XBASE to Windows SQL) Conversion

RP1 to RP5 (DOS XBASE to Windows XBASE) Conversion

RP6 to RP5 (Windows SQL to Windows XBASE) Conversion

RP5 to RP1 (Windows XBASE to DOS XBASE) Conversion

RRW to RSW (XBASE to SQL Windows) Conversion

RSW to RRW (SQL Windows to XBASE) Conversion

RSW to RP6 (SQL Windows to SQL Library) Conversion

RRW to RP5 (XBASE File to XBASE Library) Conversion

Explode Library (Report Library to individual RRW/RSW report files)

Convert to Visual FoxPro DBC

## Source

You can select the report you want to convert by either typing a full path and file name in the edit box or by clicking on the Source button to open the Select Report Source dialog.

## Destination

If you selected the source using the Source button, a destination name with the appropriate extension is created for you. Otherwise, type the full path and name of the destination file you want to create.

If you do not specify an extension, the conversion program will use the extensions given in the Direction group box: RP1 for DOS report libraries, RP5 for Windows XBASE report libraries, and RP6 for Windows SQL report libraries; RRW for XBASE compound file reports; and RSW for SQL compound file reports.

If you do not specify a destination, the conversion program will create one using the source name and the appropriate extension.

## FIF

If you are creating a DOS report library (RP5 to RP1), select the font information file you want attached to all the reports in the new library. The default is (none), which means that no font information file will be attached.

### FIF Path

If you have selected a font information file, type the full path of the directory in which it is located.

## RP1 to RP6 (DOS XBASE to Windows SQL) Conversion

This choice converts a report library produced by Version 4, 5 or 6 of R&R for XBASE into a library that can be used by R&R for Windows, SQL Edition. When you use this conversion option, you will be prompted to specify a data source for each report in the library. For quick conversion of large libraries, you can select one data source and select the "All" button to assign that data source to all the reports.

## RP2 to RP6 (DOS Worksheets to Windows SQL) Conversion

This choice converts a report library produced by Version 4, 5 or 6 of R&R for Worksheets into a library that can be read by R&R for Windows, SQL Edition.

## RP3 to RP6 (DOS SQL to Windows SQL) Conversion

This choice converts a report library created by Version 3 of R&R for Oracle, R&R for NetWare SQL, or R&R for XDB into a library that can be used by the Windows Edition of R&R for SQL. When you use this conversion option, R&R will prompt you to specify a data source for each report in the library. For quick conversion of large libraries, you can select one data source and select the "All" button to assign that data source to all the reports.

R&R for SQL can read reports either directly from DOS report libraries (RP3) or from libraries that have been produced by this conversion. To identify the source of the report, the user ID of each report in the new library is "Windows (from DOS)." After you open and save the report in Windows, the user ID will be changed to "Windows."

## RP4 to RP6 (DOS Paradox to Windows SQL)

This choice converts a report library created by Version 4 of R&R for Paradox into a library that can be used by R&R for Windows, SQL Edition.

You will have to modify any R&R for Paradox reports that contain memo fields with merged data (such as form letter or "mail merge" reports). To do so, create an unformatted text file containing the memo text and merged data and use the Insert ⇒ Text File command. (See Chapter 18, "Creating Form Letter Reports," for information about creating text memo files.)

When you use this conversion option, R&R will prompt you to specify a data source for each report in the library. For quick conversion of large libraries, you can select one data source and select the "All" button to assign that data source to all the reports.

## RP5 to RP6 (Windows XBASE to Windows SQL) Conversion

This choice converts a report library created by R&R for Windows, XBASE Edition, into a library that can be read by Version 6 of R&R for Windows, SQL edition. To identify the source of the report, the user ID of each report in the new library is "Windows (from XBASE)." After you open and save the report in Windows, the user ID will be changed to "Windows."

When you use this conversion option, R&R will prompt you to specify a data source for each report in the library. For quick conversion of large libraries, you can select one data source and select the "All" button to assign that data source to all the reports.

Files that are related in your XBASE report by an index file will be joined in the SQL report by the key expression in the index file (since the index file is opened to determine the key expression, R&R must be able to find this index file). If this expression is not a field in the related file, you will not be able to retrieve the report in R&R for SQL.

## RP1 to RP5 (DOS XBASE to Windows XBASE) Conversion

This choice converts a report library produced by Version 4, 5 or 6 of R&R for XBASE into a library that can be used by R&R for Windows, XBASE Edition. R&R for Windows can read reports either directly from DOS report libraries (RP1) or from libraries that have been produced by this conversion. To identify the source of the report, the user ID of each report in the new library is "DOS." After you open and save the report in Windows, the user ID will be changed to "Windows."

Note that the use of multiple UDF libraries in DOS reports has no counterpart in the Windows version of R&R.

## RP6 to RP5 (Windows SQL to Windows XBASE) Conversion

This choice converts a report library created by R&R for SQL into a library that can be read by R&R for Windows, XBASE Edition. You must run this utility to enable R&R for XBASE to read R&R for SQL reports. To identify the source of the report, the user ID of each report in the new library is "Windows (from SQL)." After you open and save the report in Windows, the user ID will be changed to "Windows."

Table names are converted to DOS-equivalent file names. Related files are assumed to be related by an index file named <table>.ndx. If such a table or index file does not exist, when you try to open the report in R&R for XBASE you will receive an error message prompting you to correct the name.

All table joins in the SQL report become exact lookups when converted to XBASE. As a result, you will need to edit any database relations in the converted report that should be R&R for XBASE scans instead of exact lookups.

Note that the following features of R&R for SQL have no counterpart in R&R for XBASE:

- Multi-column joins
- Queries using LIKE, NOT LIKE, NULL, NOT NULL

## RP5 to RP1 (Windows XBASE to DOS XBASE) Conversion

This choice converts a report library produced by R&R for Windows, XBASE Edition into a library that can be read by the latest DOS version of R&R for XBASE (Version 6). You must run this utility to enable R&R for DOS to read R&R for Windows reports.

If you want your DOS reports to use fonts similar to those used in your Windows reports, select a font information file (FIF) to attach to all the reports in the converted library. The FIF you select must correspond to the fonts available on the printer you will use to print your DOS reports. You must also enter the complete path of the directory containing this FIF.

Note that the following features of Windows reports have no counterpart in the DOS version:

- Windows alignment of numeric and date fields (alignment is converted to DOS-type alignment);
- Windows-specific date formats (converted to closest DOS equivalent);
- Queries longer than 512 bytes (warning is issued and query is deleted);
- AND, OR, and NOT operators used without periods (you must edit any calculated field or UDF expressions that use these operators to include the periods required by the DOS product);
- True, False, On, Off, Yes, No used as logical constants (you must edit any calculated field or UDF expressions that use such constants to include the valid DOS constants: .t. and .f.;
- Fields starting past column 254 (fields are moved to column 254)

## RRW to RSW (XBASE to SQL Windows) Conversion

This choice converts a compound file report produced by R&R for Windows, XBASE Edition into a compound file report that can be read by R&R for Windows, SQL edition.

## RSW to RRW (SQL Windows to XBASE) Conversion

This choice converts a compound file report produced by R&R Report Designer, SQL edition into a compound file report that can be read by R&R for Windows, XBASE Edition. When you convert a report, you will be prompted to select a data source.

All table joins in the SQL report become exact lookups when converted to XBASE. As a result, you will need to edit any database relations in the converted report that should be R&R for XBASE scans instead of exact lookups.

## RSW to RP6 (SQL Windows to SQL Library) Conversion

This choice converts a compound file report produced by R&R Report Designer, SQL into a report format that can be included in a report library.

If the destination library you specify does not exist, it will be created.

If the destination library exists, a dialog appears prompting you to choose one of the following:

- **Yes** adds the report to the existing library.
- **No** deletes the existing library, creates a new library with the same name, and adds the report to that library.
- **Cancel** cancels the conversion.

## RRW to RP5 (XBASE File to XBASE Library) Conversion

This choice converts a compound file report produced by R&R for Windows, XBASE Edition into a report format that can be included in a report library.

If the destination library you specify does not exist, it will be created.

If the destination library exists, a dialog appears prompting you to choose one of the following:

- **Yes** adds the report to the existing library.
- **No** deletes the existing library, creates a new library with the same name, and adds the report to that library.
- **Cancel** cancels the conversion.

## Explode Library (Report Library to individual RRW/RSW report files)

This choice converts each of the reports in the source library to a compound file report. File names for the destination compound file reports will be the same as the source report names.

Note that any of the following characters in a report name will be converted to a space when "exploded" to a compound file: colon (:), slash (/), backslash (\), question mark (?).

## Convert To Visual FoxPro DBC

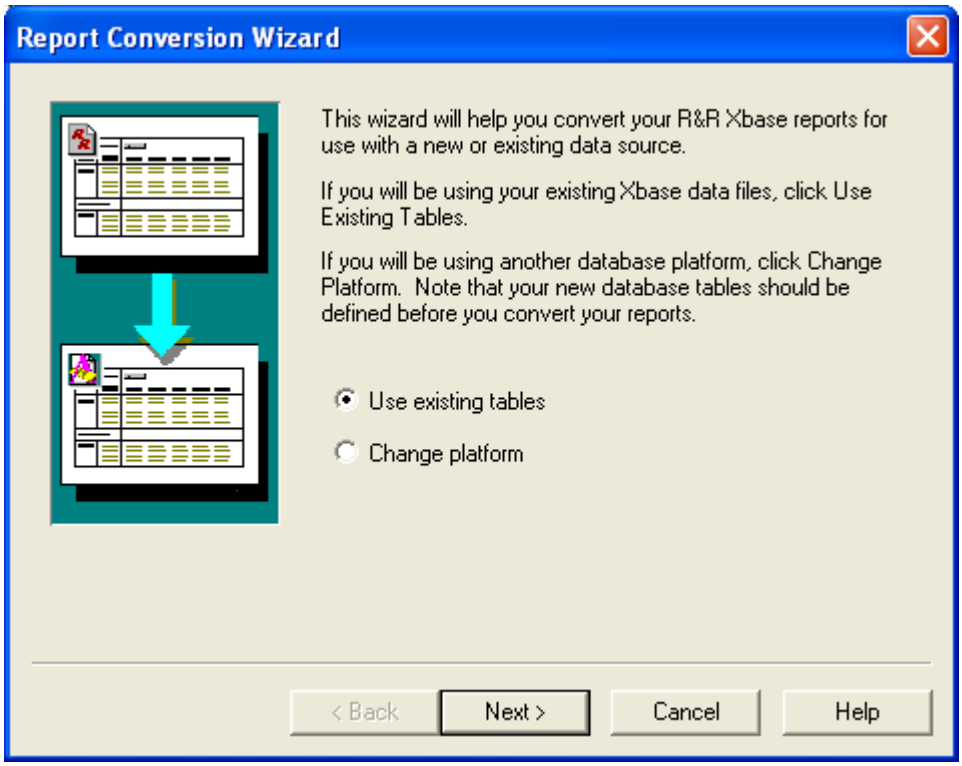
For an RRW report, allows you to select a Visual Foxpro DBC database whose tables will be used in place of the master and related files saved with the report.

# R&R SQL Report Conversion Wizard

## Introduction (Report Conversion Wizard)

The Report Conversion Wizard utility is designed for R&R Report Writer users who want to migrate their Xbase reports to the SQL version. Report Conversion Wizard is easy to use. It walks you through the steps of converting an R&R Xbase report (.RRW) to an R&R SQL report (.RSW). It will prompt you to select reports, help you create a data source for those reports, allow you to make any needed table or field name alterations, and give detailed information regarding any potential ambiguities in the converted reports.

## Report Conversion Wizard dialog box

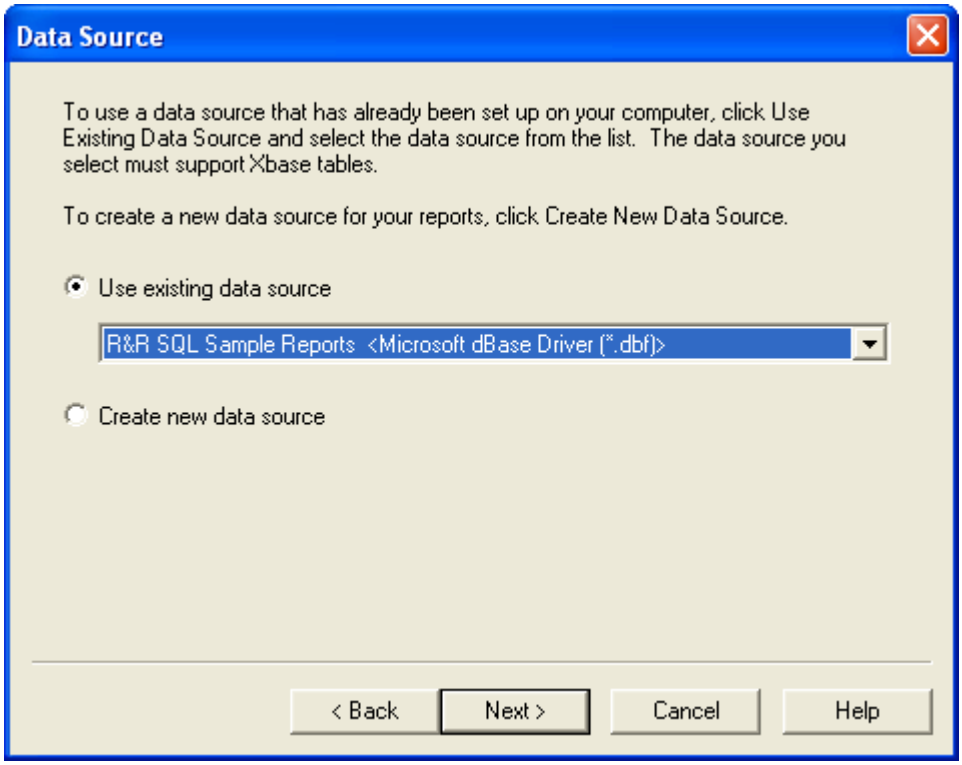



The Report Conversion Wizard helps you convert your existing R&R Report Writer (.RRW) reports to SQL (.RSW) reports. You have the choice of using existing tables or changing the platform.

- Select **Use existing tables** if you want the batch of reports to convert .RRW reports based on Xbase tables to .RSW reports that use an Xbase ODBC driver and data source to access the same tables.
- Select **Change platform** if you have tables in a different platform that match the Xbase tables your .RRW reports are based on and would like the .RSW reports to be based on these new tables. Change platform enables you to select the exact ODBC driver you would like your .RSW reports to be based on.

With either path you choose, the next step will be to choose an existing data source or create a new data source for your .RSW reports from the Data Source dialog box that displays.

## Data Source dialog box

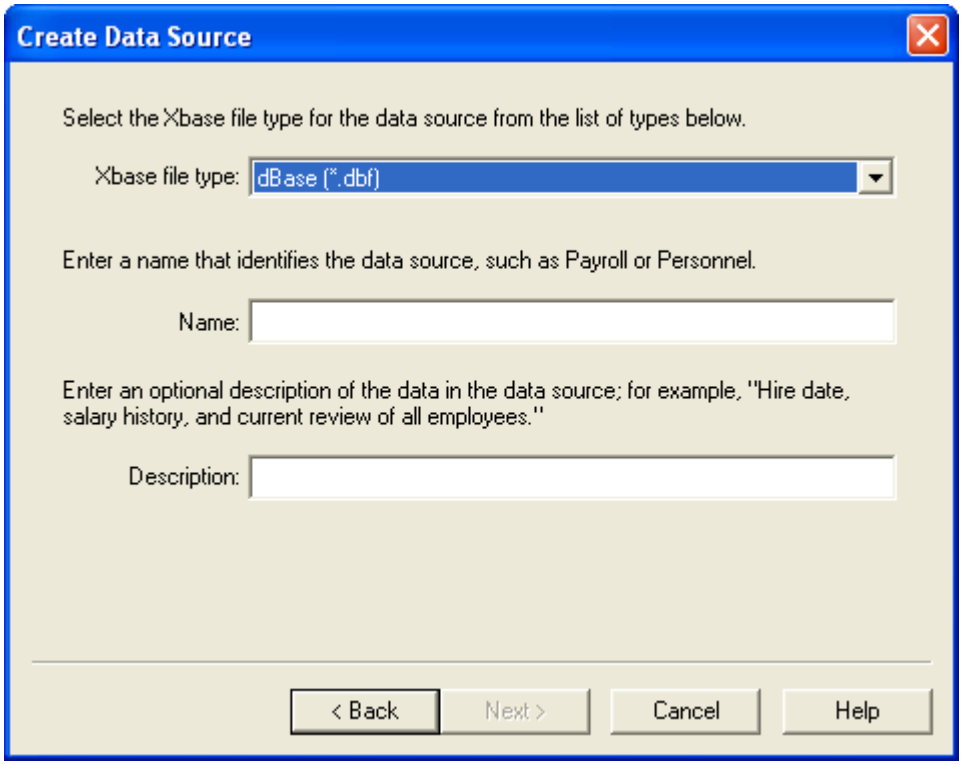



In the dialog box, do one of the following:

- Select **Use existing data source** if you have an existing data source set up already to use with the batch of .RRW reports you will be converting in this session, and then select the existing data source from the drop-down list box on the dialog. Your next step will be to select existing or change table and column names from the Table Names dialog box .
- Select **Create new data source** if you do not have an existing data source set up already to use with the batch of .RRW reports you will be converting in this session. The Report Convert Wizard displays the Create Data Source dialog box that will help you create a new data source to use with this batch of reports.

With either path you choose, the next step will be to provide a few simple details about the data source — a name, a description, table type, and where they are located.

# Create Data Source dialog box




The Create Data Source dialog helps you create a new data source to be used with this batch of reports.

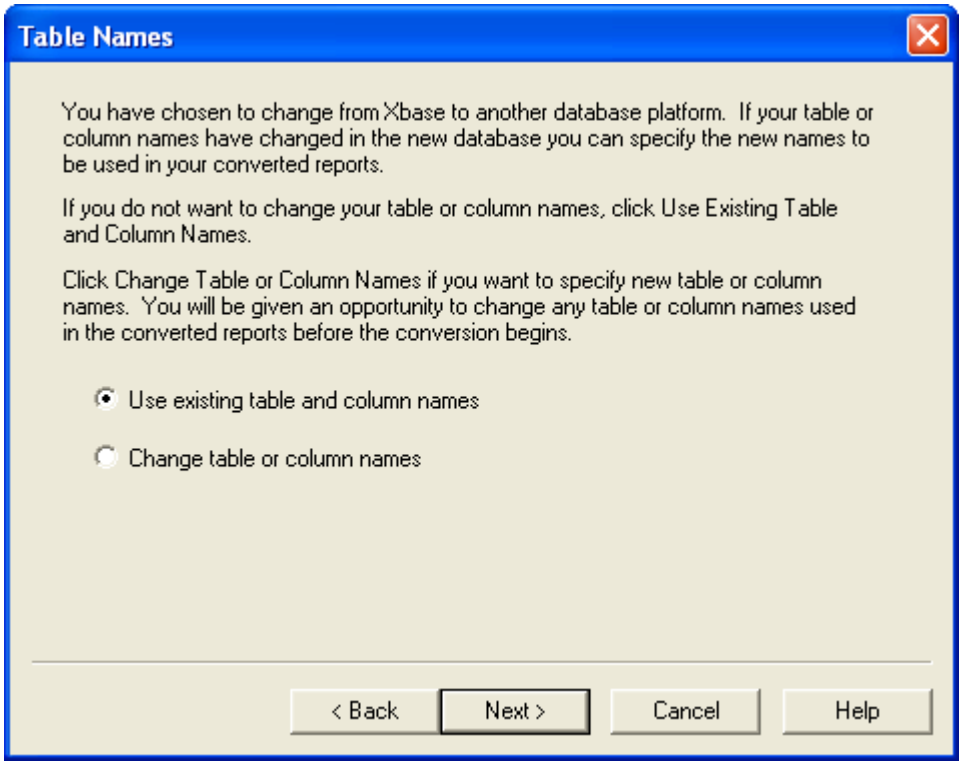
You will next be prompted to define the data source. The dialog will be the Setup dialog of the ODBC driver you select. It will be identical to the one you would see if you created a data source on your own through the ODBC Administrator found on the Control Panel which you can also get to from the R&R SQL Report Designer. You need to define the data source in this dialog, by giving it a name, a description, and often other information, such as what directory or database the tables reside in.

There are three *Xbase file type* options.

1. Select whether the batch of reports you will be converting in this session will be dBase (*.dbf), FoxPro (*.dbf), or Visual Fox Pro (*.dbc). If you aren't sure, go with the default. The Visual FoxPro option is provided for R&R Report Writer reports that are based on Microsoft's Visual FoxPro database container (DBC) files.

2. Provide a name and an optional description for the data source.

# Table Names dialog box




In most cases, the table and column names in your .RSW reports will be the same as in your .RRW reports. For those times when you are changing database platforms and you have a table or column names that does not exactly match what you have in your Xbase tables, you need to use this dialog box.

- Select **Use existing table and column names** to have the Conversion Wizard automatically name the table or column names.
- Select **Change table or column names** to manually provide the names.

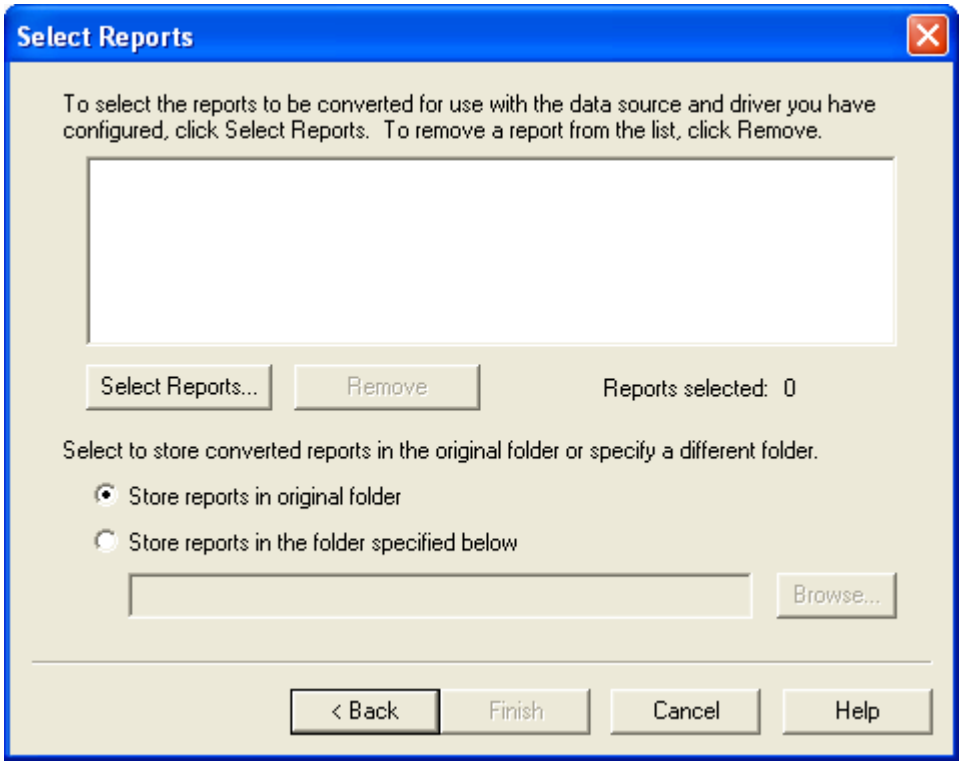
With either path you choose, the next step will be to select the reports in the Select Reports dialog box that displays. You will be prompted to make changes to any table or column names for which this applies.

# Driver Information dialog box

The Driver Information dialog box provides choices for specifying where the Xbase tables reside. You can have Convert Wizard do this automatically or you can do it manually. An Xbase data source includes a specification of the directory where the Xbase tables are located. R&R Report Writer puts full path information in the .RRW report definitions.

- Select **Automatic** to have the Convert Wizard create a data source with a table location based on the master table location in the first report it converts. This should be adequate in most cases. Note that R&R for SQL supports joining across directories in reports based on Xbase platforms, so your .RSW reports will be valid even if your .RRW reports were based on tables in different locations.
- Select **Enter or select data directory** and enter or choose the location or your Xbase tables, if you would like to be explicit about how the data source is defined.

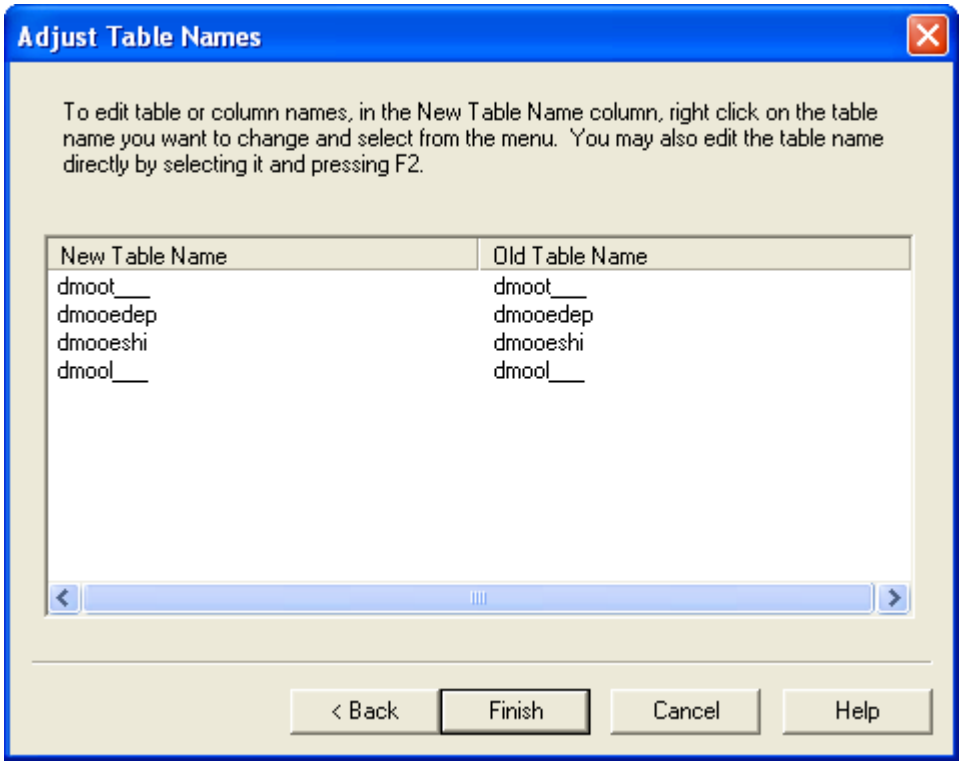
# Select Reports dialog box




In the Select Reports dialog box,

1. Select the batch of .RRW reports that you would like to convert to .RSW reports with the data source you just selected or defined. Choosing reports that are all based on tables that are in the same location is recommended.
2. Click the **Select Reports** button to select reports to add to the list. (If you change your mind, select reports from the list and click **Remove**.) The .RSW reports will have the same names as the original .RRW reports, but with a new extension. You can specify whether you would like the .RSW reports stored in the same location as the .RRW reports they were based on, or you can indicate a folder in which to store all reports converted in this batch.
3. If you elected to map table or field names, you have one more step. Otherwise, it is now time for the conversion, click Finish to get your new SQL reports.

# Adjust Table Names dialog box



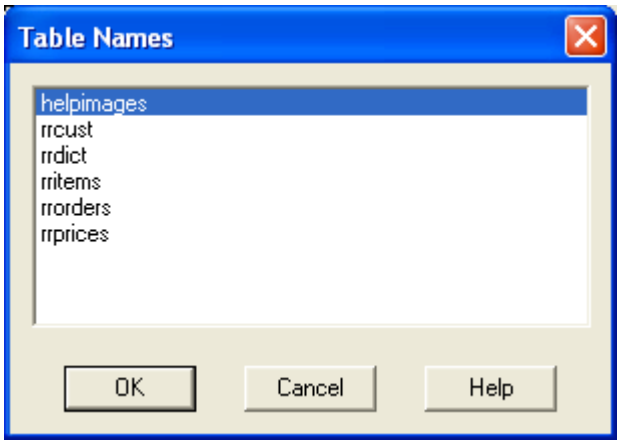

The Adjust Table Names dialog box displays if you selected Change Table or Column names in the Table Names dialog box. All of the tables used in the selected reports are listed in the *Old Table Name* column on the right. The original table names are also listed in the *New Table Name* column on the left, but you can edit the table names in this column.

If you have table names that are different in the database platform that you have chosen for this batch of .RSW reports, you must specify the new names here.

**To make changes:**

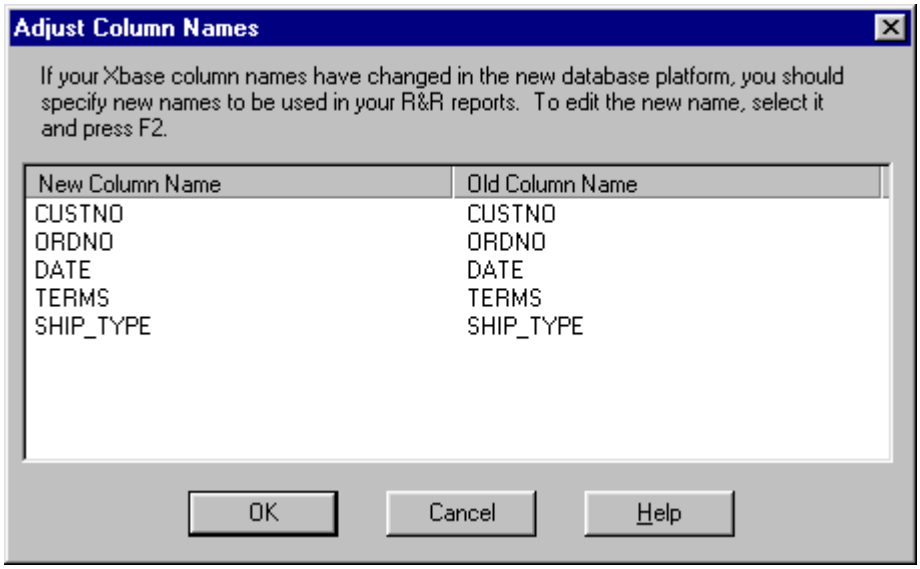
1. Select a table, hit F2, and enter the name of the table as it appears in the destination platform. You can also right-click on tables in the *New Table Name* column and choose **Edit Table Name, Select Table**, or **Adjust Column Names**.
   - *Edit Table Name* has the same affect as hitting F2.
   - *Select Table* allows you to choose a new table name by navigating to it and selecting it.
   - *Adjust Column Names* if there are columns in the destination table that do not exactly match the column names in your Xbase tables.
2. Now it is time for the conversion. In Adjust Table Names, click Finish to get your new R&R SQL reports.

## Table Names dialog box




In the Table Names dialog box, select the table that you would like the converted .RSW report to reference. This will replace the table indicated in the Old Table Name column on the Adjust Table Names dialog. This table should have an equivalent structure to the one you are replacing.

## Adjust Column Names dialog box

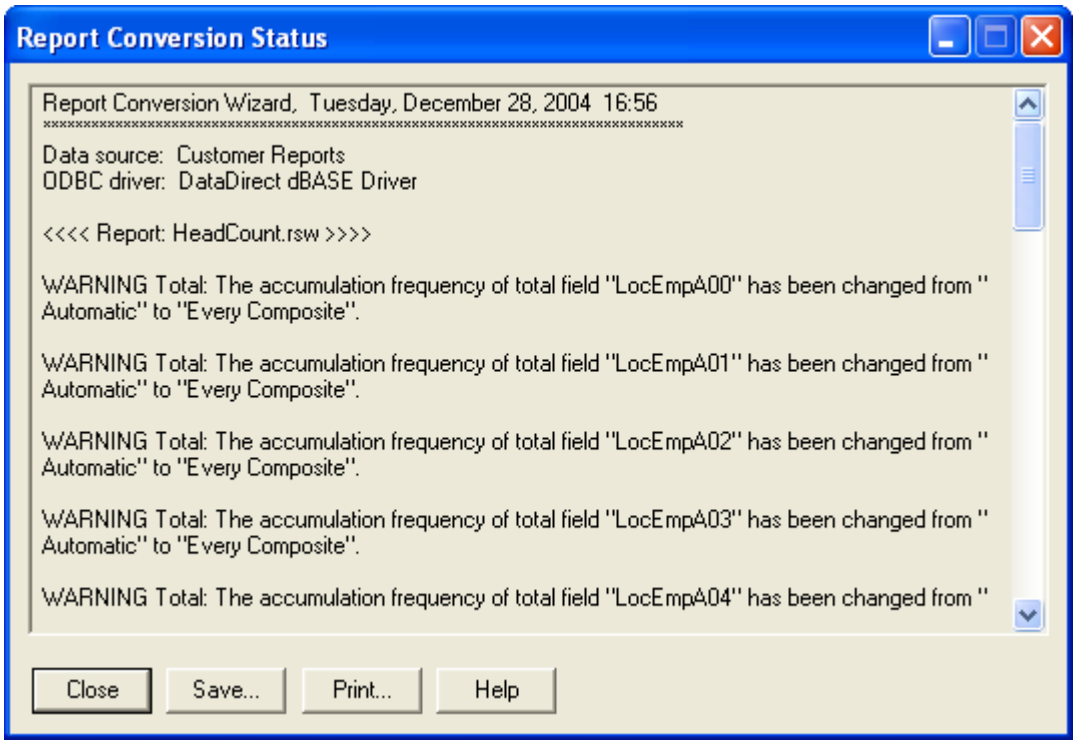



Adjust Column Names works much like the Adjust Table Names dialog. The original column names as they appear in your Xbase tables are in the *Old Column Name* column on the right.

You can specify how these columns are named in the new tables in the *New Column Name* column on the left. Select a column name in the list, press F2, and specify the new name.

Note that in order to adjust column names, the original table name that was saved with the report MUST also be contained in the selected data source. This restriction will be corrected in a later release.

# Report Conversion Status dialog box




Report Conversion Status shows status of the conversion. The data source and driver and all converted reports are listed. Also listed are any notes, warnings, and errors from the conversion process. There are aspects of some .RRW reports that do not have exact translations in .RSW reports. If any of these warnings or errors occur during the conversion, they are reported in the log. The status log can be printed or saved.

# Multiscan Workaround

The following scenario illustrates how an R&R Report Writer-style multiscan report converts in R&R SQL edition. The example shows the basics of the procedure. It can be used as the basis of the solution to a more complex case.

We have a master table, JOBS with these fields:

**JOBS**

**JOBNO character job id**

**CUSTNO numeric customer id**

We have two tables, SERVICES and MATERIALS, with the following fields:

**SERVICES**

**JOBNO character job id**

**SCODE character service id code**

**CATEGORY numeric service category**

**HOURS numeric hours spent providing service**

**MATERIALS**

**JOBNO character job id**

**MCODE character materials code**

**QTY numeric units of material**

In R&R Report Writer, one would set one scan from **JOBS** to **SERVICES**, and a second from **JOBS** to **MATERIALS** to set up the multiscan. Composite records returned would show first, say, all the **MATERIALS** records for the first **JOBS** record along with empty values for the fields from the **SERVICES** table. Next, the composites returned would show all the **SERVICES** records for that first **JOBS** record along with empty values for the fields from the **MATERIALS** table. After this, composites would be returned for the next **JOBS** record, and so on. Note the key point that for composites with data in the **MATERIALS** fields, the **SERVICES** fields are empty, and vice versa.

In R&R SQL, if you set a join from **JOBS** to **SERVICES** and then one from **JOBS** to **MATERIALS**, a very different set of composites would be returned. For each **JOBS** record, each matching **MATERIALS** record would be returned with data from every one of the matching **SERVICES** records. So, far more composites could be returned for each **JOB** and each **SERVICE** or **MATERIAL** could be returned multiple times rather than simply once.

In R&R SQL, a multiscan report must be simulated with a fairly complex user SQL report. It is done by doing the SQL **UNION** of two **SELECT** statements. The first **SELECT** return all the **MATERIALS** records for each **JOB** along with empty

values for the **SERVICES** fields. The second **SELECT** returns all the **SERVICES** records for each **JOB** along with empty values for the **MATERIALS** fields. In addition, each **SELECT** returns a constant value that indicates which of the two **SELECTS** returned a given composite. The **UNION** of these two **SELECT** will return all the records from the first **SELECT** and all the records from the second **SELECT**. We call for the returned records to be sorted so that the records for a given **JOB** are grouped together, and within that grouping, all **MATERIALS** records are grouped together and then all **SERVICES** records. That is what the user SQL does in English. The following is how to say it in SQL:

```
select J.JOBNO, J.CUSTNO, M.MCODE, M.QTY, "", 0, 0, 1 from
JOBS J, MATERIALS M where J.JOBNO  = M.JOBNO


union


select J.JOBNO, J.CUSTNO, "", 0, S.SCODE, S.CATEGORY,
S.HOURS, 2 from JOBS J, SERVICES S, where J.JOBNO =
S.JOBNO


order by 1, 8
```

The **ORDER BY** clause refers to the **J.JOBNO** field of each of the two **SELECT**s by its position in the column list; i.e., position 1. The second **ORDER BY** field is in position 8 and is the constant value 1 for the first **SELECT** and 2 for the second. This is the value the R&R report can test to decide which related table's data is being returned in any given composite record. Note that this numeric field can be used by report calculations in the same way the R&R Report Writer **SCANNING()** function's value can be used.

Note that for **SELECT**s to be combined this way with a **UNION**, the columns of the **SELECT**s must be consistent in data type and each select must return the same number of columns. Also, some databases allow for the keyword **NULL** to be used in place of the empty values we list explicitly in each of the **SELECT**s. If your database allows this use of **NULL**, that is the best choice for specifying an empty value.

There is one more step needed to finish the user SQL simulation of multiscan. R&R requires that every field of the composite in a user SQL report have a unique name. To do this, we make use of the RSW **DEFINE REPORTVIEW** construction, as follows:

```
define reportview JOBJOIN (JOBNO, CUSTNO, MCODE, QTY,
SCODE, CATEGORY, HOURS, SOURCE) as


select J.JOBNO, J.CUSTNO, M.MCODE, M.QTY, "", 0, 0, 1 from
JOBS J, MATERIALS M where J.JOBNO  = M.JOBNO


union
```

```
select J.JOBNO, J.CUSTNO, "", 0, S.SCODE, S.CATEGORY,
S.HOURS, 2 from JOBS J, SERVICES S, where J.JOBNO =
S.JOBNO


order by 1, 8
```

# Report Conversion Status dialog box messages

The Report Conversion Status dialog box provides details about the conversion process in the form of warnings, notes and errors.

## Warning Messages

WARNING INDEX: The report uses a master index. The report may need to be modified to specify the order in which records are processed

WARNING INDEX: The report uses an index file. The key expression for this index will be converted to an SQL join condition.

WARNING RELATION: All lookup relations will be converted to scan relations

WARNING RELATION: The "Terminate" failure action is not supported in R&R SQL; it has been changed to "Skip."

WARNING SCOPE: The beginning/ending <field type>/record number scope cannot be converted. Scopes can be implemented in R&R SQL using filters.

The low/high scope value <value> cannot be converted. Scopes can be implemented in R&R SQL using filters .

WARNING TOTAL: The accumulation frequency of total field "<field name>"has been changed from "Automatic" to "Every Composite".

WARNING TOTAL: Total field "<name>" may have an incorrect accumulation frequency. You should verify the new total accumulation frequency settings for this field. Total accumulation frequency changed from "Automatic".

## Notes

NOTE DATA: One or more tables is not in the data source's default data directory

NOTE INDEX: The index file <filename> contains an unknown file extension

NOTE QUERY: "Wildcard" comparisons in the report query have been converted to the proper syntax

# Report Conversion Status ERROR messages

**ERROR CALCULATION: The function "<function>" used in calculated field "<field name>" cannot be converted.**

Some R&R Report Writer functions do not have equivalents in R&R SQL. The DBF() function, for example, which returns the name of the master DBF in R&R Report Writer. Calculations that use such functions must be edited in R&R SQL Report Designer before running the report.

**ERROR INDEX:The following index file was not found. You must open the report and adjust the relation that uses this file. *File: <filename>Field: <field name>Tag: <tag name, if any>***

The .RRW report had a join (to a related table) that was based on an index file. Index files are not used in SQL, so the convert wizard attempts to read such files to find the significant field so that it can use that field in an equivalent SQL select statement. If you get this error, it means the convert wizard could not find the listed index file. Convert created a join expression in the .RSW report anyway, but it is based on a non-existent dummy field so that you can retrieve and fix the report. Your other option is to find the index file and put it in the appropriate place and convert the report again.

**ERROR RELATION: The related file <filename> is linked on record number, which is not a valid R&R SQL relation. A *substitute join field has been assigned. You must open the report and adjust the relation settings*.**

There is not a concept of record numbers in SQL tables, so record-number relations are not supported in R&R SQL. You must edit the join in R&R SQL to set a reasonable field link for the join.

**ERROR RELATION: The relation contains a partial join, which is not directly supported in R&R SQL.**

See "Partial Joins" for ways to modify the report to support this feature.

A relation in the .RRW report made use of a partial join. Partial joins are not directly supported in R&R SQL. You should try and edit the join in R&R SQL to achieve the desired report.

A partial join is a join on a character linking field where the "key match comparison" is done for a fixed length as opposed to the full length of the key. The SQL way to do something like it would be:

```
select * from TableA, Table B where left( TableA.linkfield, 4 )  =
left( TableB.linkfield, 4 )
```

You can create a new User-SQL report and form your select statement similar to the one above. However, if the driver or platform supports the `LEFT()` function, the procedure that follows can help you get close to that in an auto-SQL report (which is what convert creates).

1) Create the report on `TableA`.

2) Create a calculation of `shortlink=left(TableA.linkfield,4`. Since the driver/platform support this calculation, it would be translatable and available as a join field.

3) Set a join to `TableB` using link field "`shortlink`." Because of the nature of joins in auto-SQL, this has to be set to join to a column of `TableB`. (i.e., you

can't set the join to a `TableB` expression.)

You should have a report based on this statement:

```
     select * from TableA, TableB where left(TableA.linkfield,4) =
TableB.linkfield
```

This would be the equivalent of the first **`select`**, above, if **`TableB.linkfield`**'s length were **`4`**. If its length were not 4, then you will need to create a user-SQL report. If the driver/platform does not support a **`LEFT`** or **`SUBSTR`** type function, you will not be able to get a partial join.

**ERROR RELATION: This report contains multiple scan relations.**

For information on how to implement this report in R&R SQL, please refer to "Multiscan Workaround

Reports that contain multiple scan relations do not convert well to R&R SQL reports. However, the reports get converted because it is easier to observe the issue than to describe it.

See Multiscan Workaround for a workaround for this type of report.

**WARNING INDEX: The report uses a master index.**

The report may need to be modified to specify the order in which records are processed

The .RRW report used an index file to read the master table. Index files are not used in SQL select statements. If the purpose of the index file was to sort the records (as opposed to speeding table access), you may need to edit the .RSW report to add the appropriate sort field.

**WARNING INDEX: The report uses an index file. The key expression for this index will be converted to an SQL join condition.**

The .RRW report used an index file to join related tables which had a key expression to filter records. Index files are not used in SQL select statements, so the convert wizard read the index file and turned it into an equivalent Where clause in the select.

**WARNING RELATION: All lookup relations will be converted to scan relations**

The .RRW report used at least one "lookup" relation. In SQL, all relations are "scan" relations by definition. In most cases, turning a lookup into a scan is fine. When this changes a report, the evidence will be that there are additional records when a scan produces additional matches where a lookup would find just the first. In some cases the solution is to fix the database if the additional matches are unexpected. If your database is structured such that this is expected, the solution could be to make the field that produces the additional matches a group field and use the Print Once group field option.

**WARNING RELATION: The "Terminate" failure action is not supported in R&R SQL; it has been changed to "Skip."**

Sometimes there will be no match for a join field in a related table. In R&R Report

Writer, you have the option of configuring this join such that such an error terminates the report. In R&R SQL, the error will be ignored and R&R SQL will continue processing the report.

**WARNING SCOPE: The beginning/ending <field type>/record number scope cannot be converted.**

Scopes can be implemented in R&R SQL using filters.

There are several messages of this nature. They all indicate that there is no equivalent in SQL selects of the "Scope" feature in R&R Report Writer. A scope is a way of reducing the number of returned rows based on record number rather than record data. This feature is usually used in .RRW reports during report development only and taken out for the production version of the report. If the scope was indeed required by the report, it can usually be replaced by an equivalent statement in the Filter dialog or an equivalent SQL Where clause in the .RSW report.

**WARNING SCOPE: The low/high scope value <value> cannot be converted. Scopes can be implemented in SQL using filters.**

There are several messages of this nature. They all indicate that there is no equivalent in SQL selects of the "Scope" feature in R&R Report Writer. A scope is a way of reducing the number of returned rows based on record number rather than record data. This feature is usually used in .RRW reports during report development only and taken out for the production version of the report. If the scope was indeed required by the report, it can usually be replaced by an equivalent statement in the Filter dialog or an equivalent SQL Where clause in the .RSW report.

**WARNING TOTAL: The accumulation frequency of total field "<field name>"has been changed from "Automatic" to "Every Composite".**

"Automatic" is not a supported accumulation frequency in R&R SQL. Totals that use this are changed to use an accumulation frequency of "every composite."

**WARNING TOTAL: Total field "<name>" may have an incorrect accumulation frequency. You should verify the new total accumulation**

If your .RRW report has a total of a calculated field, that in turn is based on another total field, Report Conversion Wizard cannot detect what the accumulation frequency should be. You should check the total in the converted .RSW report to confirm that its accumulation frequency is correct.

**NOTE DATA: One or more tables is not in the data source's default data directory**

The converted report used one or more tables that are not located in the folder specified as the data directory for the data source. R&R SQL supports this scenario, the report should be fine. This is just a note in case it is unexpected.

**NOTE INDEX: The index file <filename> contains an unknown file**

**extension**

When the converted .RSW report uses an Xbase ODBC driver and the original .RRW report made use of index files, the convert wizard writes a file that the ODBC driver uses to take advantage of the index files. This note indicates that the index file indicated has an extension that was not known to be supported by the ODBC driver when this software was written. The entry was written anyway. The ODBC driver may be able to read the index file anyway. Otherwise, the potential affect is a performance degradation.

**NOTE QUERY: "Wildcard" comparisons in the report query have been converted to the proper syntax**

Wild card characters are supported in queries in R&R Report Writer. These are translated into "like" clauses in the SQL Selects in R&R SQL.

**No driver**

The ODBC driver for the Xbase file type you selected has not been installed.

**Bad data source name**

The data source name you have entered uses characters that are not valid in a data source name.

**No table**

Unable to create table list - no tables were found in the specified database or default data directory. Confirm the validity of your data source.

**Cannot create data source**

Unable to create the data source. Confirm that the ODBC driver was installed properly. The possibilities are the dBase driver from Microsoft, the FoxPro driver from Microsoft, or the Visual FoxPro driver from Intersolv. One way to do this is to try creating a data source using the appropriate driver through the ODBC Administrator in the control panel. Also check the validity of the data source name and data directory or database.

**Automatic table path error**

The convert wizard was unable to automatically identify a path to set as the default data directory for the data source. Step back and specify a default data directory for the data source rather than using the "Automatic" option.

**Status on memory resources**

System resources are low. Close other applications to free memory.

**Need file**

A folder name was supplied but a file name is needed. The Microsoft Visual FoxPro ODBC driver requires the name of a database container (DBC) file

# ReportWorks Shortcut Maker Utility

The ReportWorks Shortcut Maker (RRICON.EXE) allows you to quickly create windows shortcut that will automatically run the selected ReportWorks report when the shortcut icon is double-clicked using the Report Works runtime engine. A shortcut named Quick Runtime Shortcuts is installed in the Utilities program group within the R&R Report Works choice in the Windows Start menu.

You can select from a variety of options that will control what will happen when the shortcut is executed. For example you can prompt for the report destination or allow for the selection of a query/filter condition when the report is run.

The shortcut maker creates two files. The first is the Windows shortcut file itself. The second is the text control file which is a plain text file that can be read and edited in utilities like WordPad and NotePad.

The ***Developing Applications*** section of the Help file/documentation provides more information in Chapter 1 on Using the Viewer Executable with a text control table.

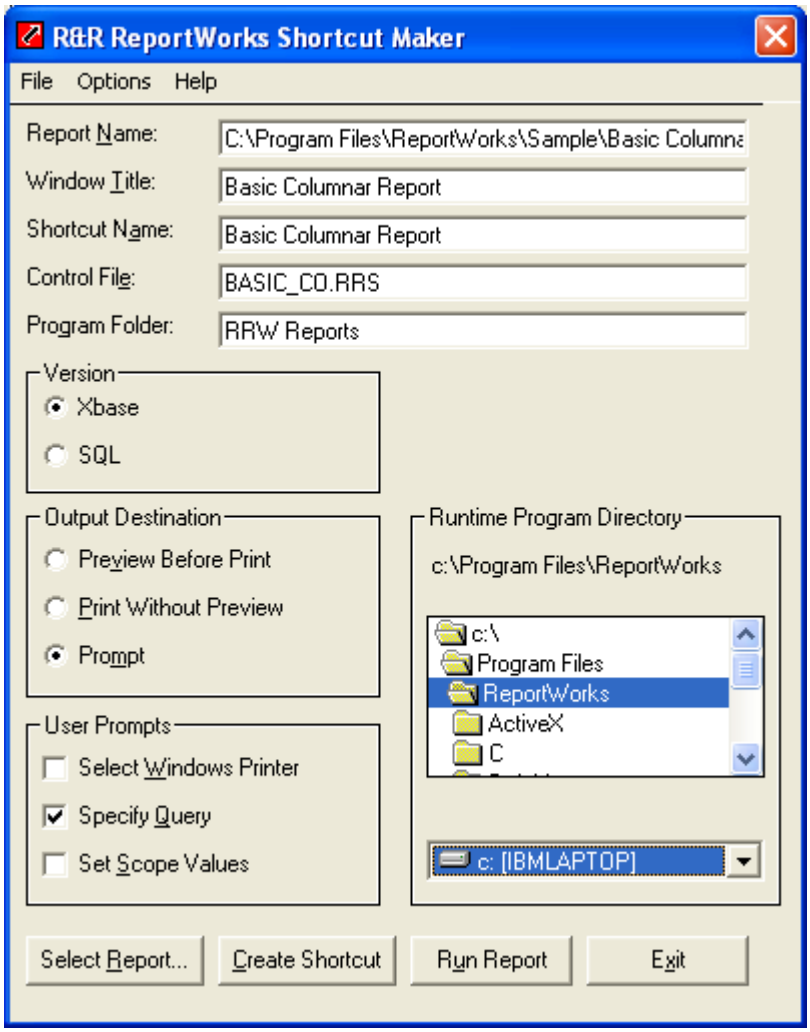



**Figure 1. ReportWorks Shortcut Maker Main Window**

### *File Menu Choices*

**Restore Settings**

Restores settings to those current the last time settings were saved or when the Icon Maker utility was last executed.

**Save Settings**

Saves the current settings in RRICON.INI in the Windows Program directory.

**Exit**

Exits the Shortcut Maker Utility, discarding any changes.

### *Options Menu Choices*

**Change Name and File on New Report**

If this setting is On (the default), the Window Title, Shortcut Name, and Control File settings will be changed appropriately if you select a different report; if this setting is Off, the previous Window Title, Shortcut Name, and Control File settings will be used when you select a different report.

**Save Settings On Exit**

When this setting is On (the default), Shortcut Maker settings are automatically updated in RRICON.INI when you exit the utility; when this setting is Off, RRICON.INI is not automatically updated on exit.

**Restore Settings At Startup**

When this setting is On (the default), the Shortcut Maker will use the current RRICON.INI settings at startup; when this setting is Off, RRICON.INI settings are not restored.

### *Report Specific Settings*

**Report Name**

Either enter the name of the report to be run or select a report using the Select Report button.

Note that the Select files of type list will depend on the Version radio button selection (Xbase or SQL).

This setting will be saved as RI_REPORT in the control file.

**Window Title**

Enter a title to be displayed in the Title Bar of the Viewer window, the print status window, and any dialog box prompts that appear when a report is executed with the Viewer.

This setting will be saved as RI_WTITLE in the control file.

**Shortcut Name**

Enter text for the caption that will appear as the name of the shortcut that created by the Shortcut Maker utility. The name defaults to the Report Name; however, you can change it simply by replacing the default in the edit box.

**Control File**

The name of the text control file created by the Icon Maker.

The default file extension is .RRS for Xbase reports.

The default file extension is .RSS for SQL reports.

**Program Folder**

The name of the Program Folder in which the shortcut will be created.

***Version***

**Xbase**

Create shortcut for an Xbase (.RRW) report using RRWRUN.EXE

**SQL**

Create shortcut for a SQL (.RSW) report using RSWRUN.EXE

***Output Destination***

**Preview Before Print**

At Runtime, the report will be displayed in a Preview window before the user prints it.

Sets RI_PRINTER =D in the control file.

**Print Without Preview**

At Runtime, the report will be printed on the printer saved with the report or specified by the Runtime user (if the "Select Windows Printer" setting is on).

Sets RI_PRINTER =P in the control file.

**Prompt**

At Runtime, the user will be presented with a prompt asking whether the report should be previewed or sent directly to the printer.

Sets RI_PRINTER =? in the control file.

***User Prompts***

### Select Windows Printer

When this setting is On, the user will be allowed to select a Windows printer for the report; when this setting is Off (the default), the report will be printed on the printer saved with the report.

If checked, sets RI_WPTR=? in the control file.

### Specify Query

When this setting is On, the user will be able to enter a query/filter or edit the query/filter saved with the report. When this setting is Off (the default), the report will be run using the saved query/filter (if any).

If checked, sets RI_QUERY=? In the control file for XBase and RI_INCLUDE=? For SQL.

### Set Scope Values

Available only when Xbase Version is selected.

When this setting is On, the user will be able to specify beginning and ending scope values; when this setting is Off (the default), the report will be run with the saved scope values (if any).

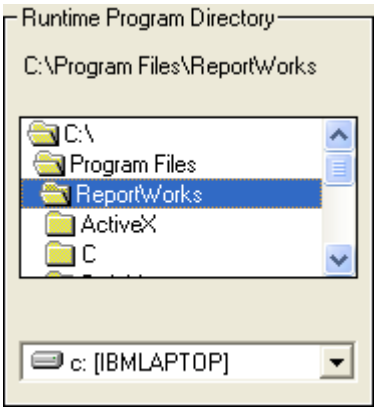
If checked, sets RI_SCOPE=? In the control file.

## *Runtime Program directory*

### Runtime Program Directory

Directory location for the Viewer executable, RRWRUN.EXE for Xbase reports or RSWRUN.EXE for SQL reports.

Make sure that a valid path is both selected and displayed.




## *Action Buttons*

### Select Report

Displays the Open Report dialog to enable selection of a report.

### Create Shortcut

After specifying all desired settings, select this button to create the Shortcut.

he command line for the Program Item will be in the form:

For **Xbase**:
<RunPath>\RRWRUN.EXE /T <RunPath>\<Control File>

where <RunPath> is the location of RRWRUN.EXE and <Control File> is the generated name of the text control file.

For **SQL**:

For Xbase:
<RunPath>\RSWRUN.EXE /TT <RunPath>\<Control File>

where <RunPath> is the location of RSWRUN.EXE and <Control File> is the generated name of the text control file.

**Run Report**

Immediately executes the specified report using the settings on this dialog.

**Exit**

Closes the Shortcut Maker dialog.