

# Parallel Crystal

**MULTITABLEDOR SAMPLE**





## Data Object Reporting

*Multiple table DOR sample instructions.*

---

Creating a report for use with Data Object Reporting is much like designing a report for any other Parallel Crystal application. The main difference is that the DOR report accesses data differently. Therefore the creation of the report template for Data Object Reporting requires some special consideration, extra analysis and utility work, as well as some system preparation, which requires constructing classes that implement the DORDataSet interface. It is essentially a four-step process.

## Preliminary Set Up

This sample requires JDK 1.2.2 or above to be installed. Please decompress the MultitableDOR.zip file to your C drive and please do not modify our directory structure in any way.

Add the following paths to your CLASSPATH variable:

<PATH TO DYNALIVERY>\Pcre\jars\PCREJavaClient.jar

<PATH TO DYNALIVERY>\Pcre\jars\PCREJavaClient\_SunStubs.jar

You must compile each of the .java files provided. You should be compiling at the javaapplications directory level so that the compiler sees all three of these packages:

```
dordataobject  
reportcreation  
reportrun
```

At the command prompt, change directory to the path to javaapplications:  
C:\MultiTableDORSample\javaapplications

Type in the following compile command:

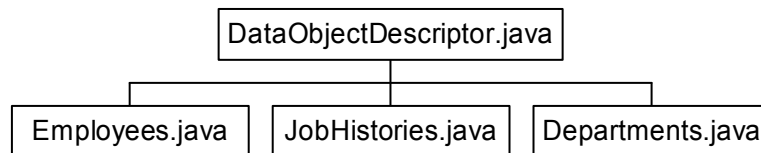
```
javac dordataobject\*.java reportcreation\*.java reportrun\*.java
```

## Step One: Create a data object

To illustrate for you the creation of a data object that conforms to the "DORDataSet" interface we have provided the file "DataObjectDescriptor.java" which implements all of the methods in the aforementioned interface.

In our sample we have taken the general class "DataObjectDescriptor.java" and subclassed it to include table specific functionality. The chart below illustrates the class hierarchy:





To run this sample you do not need to modify any of these files.

## Step Two: Create a .ttx file

The .ttx files are used to create a report file in the Crystal Designer. Steps two and three of these instructions detail how to create your own .ttx files in order to design your own report.

We have provided a .rpt file called EmployeesWithSalaryHistory.rpt and it can be found in the following directory: <<Path\_to\_Dynamalivery>>\PCRE\SampleReports. If you use the .rpt file that is provided please **SKIP TO STEP FOUR**. For proof of concept we recommend that you run the sample the first time using the .rpt file provided.

The Java program provided called "MultiTableWithSubreports.java" creates your .ttx files using the sample data hard coded into "Employees.java", "JobHistories.java", and "Departments.java" files. This file should be executed at the command prompt from the javaapplications directory:

C: \MultitableDORSample\javaapplications

To run this file enter the following command at the command prompt:

```
java reportcreation/MultiTableWithSubreports <Path_to_Outputdir>
```

The result of executing this code will be three .ttx files that will be placed in the: <Path\_to\_Outputdir> directory

## Step Three: Create a Crystal Reports .rpt file

If you would like to create your own .rpt file please refer to the one provided as a guide. The table numbers at runtime will be the same as the order in which they are added to the report. Therefore it is imperative that the tables be created exactly as in the sample file.

Open the Crystal Report Designer and create a new report using the ttx files as the data source description. Perform the following steps to select the .ttx files as the data source descriptor of the report:

1. On the "Standard Report Expert" dialog choose the "data" tab
2. Click the "Active Data" button from the list of data types.
3. Select the "Data Definition" radio button from the "Select Data Source" dialog

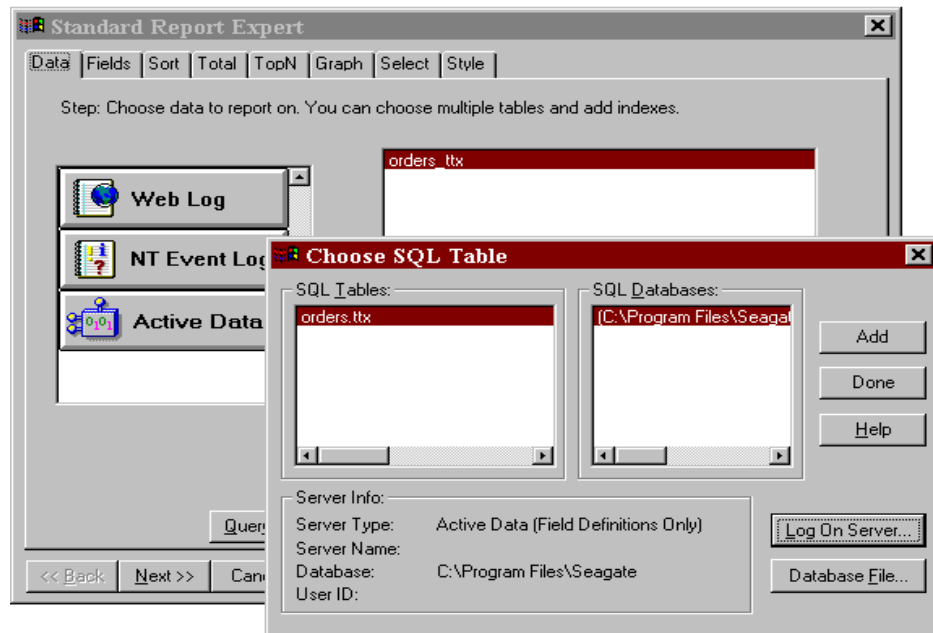




4. Click the "Browse" button and then browse to the location of the ttx files created in step 2. Remember that you must add the ttx files in exactly the correct order for the sample to work.
5. The first ttx file will automatically have been added to the list of tables and will be table 0 at runtime, but all other ttx files will have to be selected from the list of "SQL databases" and added by clicking on the "Add" button. The table numbers at runtime will be the same as the order in which they are added to the report.

The report has a main report with the employees as table 0 and departments as table 1 as well as a subreport with employees as table 0, jobHistories as table 1, and departments as table 2. The report that is used in this sample must be structured in this way, including the order of the tables in order to work. The subreport must also be located in the details section of the main report. Also, the report must be named EmployeesWithSalaryHistory.rpt and must be located in the SampleReports directory of the server machine.

6. Click the "Okay" button.
7. For selecting additional ttx files, perform steps 2 through 5 except click on the "Log On Server" button in the window, which is popped up after clicking "Active Data" button again.



8. When all ttx files have been added as tables, click the "Done" button.
9. It is extremely important to verify that the tables are all linked in order to prevent any runtime dialogs requesting linking information from popping up on the server during runtime.
10. Finish designing the report and be sure to save it as "EmployeesWithSalaryHistory.rpt" in the <PATH\_TO\_DYNALIVERY>\Pcre\SampleReports directory.



**MultiTableDOR Sample**  
Modified 06/19/02

## Step Four: Run a report in Parallel Crystal

At this point verify that Parallel Crystal is running on the report server.

To run the sample, execute the class file `MultipleTableWithSubreportRun.class` on the report server. This class file should be executed at the command prompt from the `javaapplications` directory:

```
<<PATH_TO_MultitableDORSample>>\javaapplications
```

by typing the following command:

```
java reportrun/MultipleTableWithSubreportRun <REPORT SERVER NAME> <OUTPUT DIR>
```

This will generate a PDF file in the `<OUTPUT DIR>`.



Filename: MultipleTable DOR\_Readme.doc  
Directory: S:\PCRE 2.6.0.5 Samples and Documentation\SampleREAD ME  
docs  
Template: C:\WINNT\Profiles\mpierce\Application  
Data\Microsoft\Templates\Normal.dot  
Title:  
Subject:  
Author: rsen  
Keywords:  
Comments:  
Creation Date: 6/19/02 10:40 AM  
Change Number: 24  
Last Saved On: 7/1/02 11:21 AM  
Last Saved By: lakshmi  
Total Editing Time: 64 Minutes  
Last Printed On: 7/1/02 12:57 PM  
As of Last Complete Printing  
Number of Pages: 6  
Number of Words: 900 (approx.)  
Number of Characters: 4,863 (approx.)