crystal decisions ™

Crystal Report Designer Component

Data Access Object

Overview

This module outlines how to create a report using the Report Designer Component Automation Server and uses Data Access Objects (DAO) as a data source. This section covers how to create a DSR using DAO, create the DAO Database object, create a DAO recordset and bind it to the main report then preview the report.

Contents

Microsoft's Data Access Object

DAO is the COM interface to the Jet database engine. It is primarily used to access ISAM (Indexed Sequential Access Method) databases and supports most common ISAM database techniques. This would be used for the Native Jet (MDB), or ISAM databases such as Btrieve, dBase, FoxPro, or Paradox. DAO 3.5 can be used as an interface with RDO (ODBC Direct) to access ODBC data sources; though it is limited in its abilities and functionality with ODBC. The first thing to do is to reference the Microsoft DAO 3.51 Object Library. If it is not listed, go under Project, References, browse and find the DAO350.DLL.

Creating the DSR (CrystalReport1.dsr)

Start a new standard project. You can Remove Form 1.

Go to Project | Add ActiveX Designer (Visual Basic 5) or Project | More ActiveX Designers (Visual Basic 6) and Select Crystal Report 6.0. This will bring up the Report Gallery window (Figure 1).

This is similar to the Report Gallery found in Crystal Reports.

Figure 1

Select Standard Report. This will bring up the Choose Report Expert window (Figure 2)

The Create Report window allows you to choose either Project or Other data. Project Data refers to active data and will be chosen for any active data DSR. Select Project. This will bring up the Select Data source window (Figure 3).

Figure 2

When the DSR is created using one of the methods in the Select Data Source window an "internal ttx" is generated from the SQL written by the method chosen. The method chosen to create the report does not bind the report to that method. IE: If the report is made by selecting DAO the report can still be passed a recordset created in RDO, CDO, ADO as long as the structure matches that of the report. If a recordset is not passed to the report then the report needs to be connected to the data source chosen in this process. If you created a report using ADO (ODBC) that connected to a SQL database via an ODBC connection then you would have to either pass the DSR a recordset or log on to the data source using LogOnServer or SetLogOnInfo.

For the purposes of this document connect to an access database with DAO.

Select DAO and browse to the xtreme.mdb. Click "Next" to bring you to the Select Recordset window (Figure 4).

Figure 3

Here you can create the recordset to be used by the report. If there is any security, fill in the User name and Password. For the Recordset you can choose from a list of database object types (Tables, Views etc) or enter a SQL statement to select the tables and fields. The SQL would be used to select a stored procedure. You are only able to choose one Object as the purpose of Active Data is to return one recordset. If you wanted to include several tables in the Recordset then use the SQL options and enter in a SQL statement that uses and links the tables.

For the purposes of this document choose the Customer table Object.

Click "Finish" to bring you back to the Create Report Expert window (Figure 2). Here you can now add the Fields for the report as well as the other options offered by the tabs.

Add a couple of fields to the report and click "Finish" to bring up the Report Expert (Figure 5).

Figure 4

Use the Report Expert to choose if you want to add a form containing the Crystal Report Smart Viewer control (this is the preview window for the DSR file) and if you want that form to be set to be the Start Up form.

Leave both options as yes and click okay to complete the creation of the DSR.

Figure 5

Adding Code to Set the Recordset to the DAO data source.

When the Smart Viewer form is created the general code is done for previewing the report. We will add the code to pass the DAO Recordset to the Main and Subreport in the Form Load Event (highlighted in Blue).

In the General Declarations of the form add this code:

```
Dim Report As New CrystalReport1
Dim DAOCustomer As DAO.Recordset
Dim DAODb As DAO.Database
Dim wrkJet As Workspace
```

Step 1: Setting the Database object and creating the recordset.

```
Private Sub Form_Load()
        'The DAOCustomer object is created and bound.
        'Create Microsoft Jet Workspace
        Set wrkJet = CreateWorkspace("", "admin", "",
        dbUseJet)
        'set the location of the database here
        Set DAODb =
        wrkJet.OpenDatabase("C:\crw6032\Xtreme.mdb")
        'code for creating recordset off Customer table.
        Set DAOCustomer= DAODb.OpenRecordset("Customer")


        'The Datasource for the main report is set.
        Report.Database.SetDatasource DAOCustomer


        'Set the Viewer's report source to the Report and
        Preview. This code already exists when the Viewer
        form is created.
        CRViewer1.ReportSource = Report
```

```
         CRViewer1.ViewReport
End Sub
```

Completing the Application:

Now that the basic application has been created, we must follow a series of steps to successfully generate reports.

1) Run the application. All the code is in the Form Load Event. The RDC has created most of the code for you. All you had to do was add the code to create and pass the recordset.

References

The following reference materials were used during the creation of this Tech Support document, or are recommended for further reading on subjects covered by the Topics of this Module Section.

For more information on using the Active Data Driver and DAO see the Crystal Reports 6.0 Technical Reference, Ch. 6, p. 92 (techref.pdf) "Working with Active Data" and Crystal Reports Developer's Manual.

The sample application DAOSampRDC.zip can be found in on our website at http://support.crystaldecisions.com/updates.

Contacting Crystal Decisions for Technical Support

We recommend that you refer to the product documentation and that you visit our Technical Support web site for more resources.

Self-serve Support:

http://support.crystaldecisions.com/

Email Support:

http://support.crystaldecisions.com/support/answers.asp

Telephone Support:

http://www.crystaldecisions.com/contact/support.asp