

Crystal Reports Automation Server

ADO sample application

Overview

This module outlines how to report off ActiveX Data Objects (ADO) using the Seagate Crystal Report Automation Server. This section covers how to return an ADO recordset at runtime, display the data you are going to report off in a list box, create the report at runtime and preview the report.

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Microsoft's ActiveX Data Objects

The first two things to do are to reference the Microsoft Ado 1.5/2.0 Object Library and the Crystal Report Engine 6.0 Object Library. If it is not listed, go under Project, References, browse and find the msado15.dll.

Add a module to the Project, in the General declarations add this code:

```
Declare Function vbEncodeIPtr Lib "p2smon.dll" (X As Object) As String
```

```
Declare Function CreateReportOnRuntimeDS Lib "p2smon.dll"  
(X As Object, ByVal reportPath$, ByVal fieldDefFilePath$,  
ByVal  
bOverWriteExistingFiles%, ByVal bLaunchDesigner%) As Integer
```

```
Declare Function CreateFieldDefFile Lib "p2smon.dll" (X As  
Object, ByVal fieldDefFilePath$, ByVal  
bOverWriteExistingFiles%) As Integer
```

In the General Declarations of the form add this code:

```
Dim CrystalApplication As CRPEAuto.Application  
Dim CrystalReport As CRPEAuto.Report  
Dim CrystalDatabase As CRPEAuto.Database  
Dim CrystalTables As CRPEAuto.DatabaseTables  
Dim CrystalTable As CRPEAuto.DatabaseTable  
Dim adoRs As ADODB.Recordset
```

Step 1: Setting the database and creating the recordset.

```
Private Sub Form_Load()
```

```
'this section binds an Application object to the  
CrystalApplication
```

```
'variable. Also the recordset object is created and bound  
to adoRs.
```

```
Set CrystalApplication =  
CreateObject("crystal.crpe.application")
```

```
Set adoRs = CreateObject("adodb.recordset")
```

```
'code for creating the recordset. Uses the ODBC datasource
name
'Craze Sample Data. Make sure that this DSN is properly
set up If you have Seagate Crystal Reports 7,
'use XtremeSample Data (xtreme.mdb).
adoRs.Open "select * from customer",
"database=craze.mdb;uid=;pwd=;dsn=Craze
Sample Data", adOpenKeyset, adLockBatchOptimistic
End Sub
```

Step 2: Put five command buttons, a list box and a label on the form.

Rename the command button 2 to “Populate Recordset”

```
Private Sub Command2_Click()
    'this fills a list box with the third column, which
    for
    'Craze Sample Data happens to be Customer Name from
    Craze.mdb
    adoRs.MoveFirst
    Label1.Caption = adoRs(2).Name
    Do Until adoRs.EOF
        List1.AddItem adoRs(2)
        adoRs.MoveNext
    Loop
    MsgBox "RecordSet Populated"
    Command3.Enabled = True
    Command1.Enabled = True
    Command4.Enabled = True
End Sub
```

Rename command button 3 to “Create Field Definition”

```
Private Sub Command3_Click()
    'call to the function that creates the field
    definition file(ttx)
    'only. If successful it will return a 1, if it fails
    it returns
    'a 0
    If CreateFieldDefFile(adoRs, App.Path & "\ado.ttx",
    True) <> 0 Then
        MsgBox "Field definition successfully
        created"
    Else
```

```
        MsgBox "Failed to create field definition
file"
    End If
End Sub
```

Rename command button 1 to “ Create Report”

```
Private Sub Command1_Click()
    'call to the function for creating a report on the
    ADO RecordSet

    If CreateReportOnRuntimeDS(adoRs, App.Path &
"\test.rpt",
App.Path & "\test.ttx", True, True) <> 0 Then
        MsgBox "Field definition created, continue
creating
report.  Save report before previewing"
    Else
        MsgBox "Failed to create Field Definition"
    End If

    'if the call returns 0 it failed to create the field
    definition file (.ttx)
    Command4.Enabled = True
End Sub
```

Rename command button 4 to “ Preview Report”

```
Private Sub Command4_Click()
    On Error GoTo ErrHand:

    'Now that the report has been created, we can set the
    Report object to it (open the report)
    Set CrystalReport =
CrystalApplication.OpenReport(App.Path & "\test.rpt")

    'We need to set the database, database tables and
    database table to get to the method that we need:
    `SetPrivateData

    Set CrystalDatabase = CrystalReport.Database
    Set CrystalTables = CrystalDatabase.Tables
    Set CrystalTable = CrystalTables.Item(1)
```

```
'SetPrivateData sets the recordset data to the report
in memory
Call CrystalTable.SetPrivateData(3, adoRs)
CrystalReport.Preview

Exit Sub

ErrHand:

If Err.Number = 20507 Or Err.Number = 20525 Then
    MsgBox "Error opening report, please create report
then preview"
    Call Command1_Click
Else
    MsgBox Err.Description & Err.Number
End If
```

Rename command button 5 to "EXIT"

```
Private Sub Command5_Click()
    Unload Me
End Sub
```

Completing the Application:

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

We begin first by running the project.

1. Push the button labeled "Populate Recordset". By doing so, we are simply populating the list box and enabling the remaining buttons.
2. Next, we have the option of, either, pressing the "Create Field Def" or "Create Report" button. In this instance, however, we will press the "Create Report" button. By pushing the "Create Field Def":

We are creating the field definition file (TTX file) only.

By pushing the "Create Report":

We are not only creating the TTX file but, also, bringing up the Seagate Crystal Reports designer so that the report can be created at that time.

3. Proceed to create a report and Save it as test.rpt.
4. Finally, we push preview. It generates the report that we just created based off the ADO recordset.

Congratulations!! You just created an application that reports off an ActiveX Data Object.

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>