Seagate Crystal Reports Automation Server

Seagate Crystal Reports Automation Server:

Part III -Subreports

Overview

This module outlines how to access, format and use a subreport with the SCRAS in Microsoft Visual Basic. At the completion of this module you will understand how to use the subreport object, working with them like other reports. An understanding of the Seagate Crystal Reports Automation Server is expected as this is only intended to be an introduction to Subreport Objects if you need to review the basics of the SCRAS, please review the Automation-Native and Automation-ODBC documents. This application will use the following SCRAS objects and collections:

Application
Report
Sections
Section
ReportObjects
Database
DatabaseTables
DatabaseTable

Contents

Finding and previewing a subreport.

1. Create a new "Standard EXE" project in Visual Basic.

2. Add a command button to Form1

3. In the References Dialog box, choose the Crystal Report Engine 6.0 Object Library.

Add the following code in the General Declarations section:

```
Dim CrystalApplication As CRPEAuto.Application
Dim CrystalReport As CRPEAuto.Report
Dim CrystalSubReport As CRPEAuto.Report
Dim CrystalSections As CRPEAuto.Sections
Dim CrystalSection As CRPEAuto.Section
Dim CrystalReportObjecst As CRPEAuto.ReportObjects
Dim IsThereSubreport as Boolean
Dim I as Integer, x as Integer
'These objects are declared here so that they will not go
out of Scope during the
'project
```

Now that we have declared the Application and Report objects, they need to be set.

```
Private Sub Form_Load()


IsThereSub = False


Set CrystalApplication =
CreateObject("Crystal.CRPE.Application")
Set CrystalReport =
CrystalApplication.OpenReport("c:\temp\subreport.rpt")
'Note that the report should match the name and path of the
report you created.
```

It is possible to write code that will preview the Subreport ONLY:

Step 1: Inserting a Command Button

1. Insert a Command Button onto the form.

2. Click F4 to go to the Properties box.

3. Change the following properties for the command button:

   Caption - Print Report 'This is the title of the object that you will see on the form

   (Name) - cmdPrintReport 'This is the name of the object

4. Double-click onto the command button. Add the following code in the Click event:

```
Private Sub cmdPreviewReport()

'First we need to set the Sections collection and the
Section object. We will search through the

'individual sections of the report for subreports.

Set CrystalSections = CrystalReport.Sections


'Set up a loop that will move us through all sections of the
report ie Report Header,

'Group Header.

For I = 1 to CrystalSections.Count

       Set CrystalSection = CrystalSections.Item(I)


       'Once we have a specific section set, we set the
       Report Objects - which allows us to

       'work with all of the Report Objects in that section.

       Set CrystalReportObjects =
       CrystalSection.ReportObjects


       'Create a loop that will move us through the report
       objects in the section.  We can

       'then compare this object to the constant:
       crSubreportObject.  We use the constant for

       'ease of programming.  If a Subreport Object is found
       then set the CrystalSubreportObject

       'to it and Preview.

       For x = 1 to CrystalReportObjects.Count


              'This line tests the report object

              If CrystalReportObjects.Item(x).Kind =
              crSubreportObject Then


                     'If it is a subreport, then set our
                     report object called: CrystalSubreport
                     to it.

                     Set CrystalSubreport =
                     CrystalReport.OpenSubreport_

                     (CrystalReportObjects.Item(x).Name)


                     'Set our flag to true, so we know
                     whether or not there is a subreport to
                     preview.

                     IsThereSubreport = True
```

```
                    Exit For
                End If
            Next x
            If IsThereSubreport = True Then
            Exit For
        Next I
        'Now we can preview the Subreport.
        CrystalSubReport.Preview
```

This is a simple application that only grabs the first Subreport in a report and previews it. Once it is set to the CRPEAuto.Report object, it can be used the same as a regular report. The application will move through every section in the report testing for subreport objects.

Changing the database location for a subreport

The first thing to do is reference the Crystal Report Engine 6.0 or 7.0 Object Library.

In the General Declarations section of the form add this code:

```
Dim CrystalApplication As CRPEAuto.Application
Dim CrystalReport As CRPEAuto.Report
Dim CrystalSubReport As CRPEAuto.Report
Dim CrystalSections As CRPEAuto.Sections
Dim CrystalSection As CRPEAuto.Section
Dim CrystalReportObjects As CRPEAuto.ReportObjects
Dim CrystalDatabase As CRPEAuto.Database
Dim CrystalTables As CRPEAuto.DatabaseTables
Dim CrystalTable As CRPEAuto.DatabaseTable
Dim I as Integer
Dim x as Integer
Dim y as Integer
```

Step 1: Creating the Application object and setting the Report object.

```
Private Sub Form_Load()
'here we are setting the Application and Report objects
Set CrystalApplication =
CreateObject("Crystal.CRPE.Application")


Set CrystalReport =
CrystalApplication.OpenReport("c:\temp\subreport.rpt") 'or
match the location path on your machine.
```

```
End Sub
```

Step 2: Put a command button on the form.

Rename command button 1 to "Change Location of Subreport"

```
Private Sub Command1_Click()
'First we need to set the Sections and Section objects, we
will search through the
'individual sections of the report.
Set CrystalSections = CrystalReport.Sections

'Set up a loop that will move us through all sections of the
report i.e. Report Header,
'Group Header.
For I = 1 to CrystalSections.Count
        Set CrystalSection = CrystalSections.Item(I)

        'Once we have a specific section set, we set the
        Report Objects - which allows us to
        'work with all of the Report Objects in that section.
        Set CrystalReportObjects =
        CrystalSection.ReportObjects

        'Create a loop that will move us through the report
        objects in the section.  We can
        'then compare this object to the constant:
        crSubreportObject.  We use the constant for
        'ease of programming.

        For x = 1 to CrystalReportObjects.Count
        'This line tests the ReportObject object and
        'if it is a subreport, then sets our report object
        called: CrystalSubreport to it.

        If CrystalReportObjects.Item(x).Kind =
        crSubreportObject Then
                Set CrystalSubreport =
                CrystalReport.OpenSubreport
                (CrystalReportObjects.Item(x).Name)

                'we loop through all the database tables and
                set the database location of the subreport
                'and close the IF statement. Since you have
                now found a subreport and bound it to a Report
                object, you 'can now use any of the Report
```

```
                  object properties and methods and affect the
                  subreport(s).
                  'we will need to make a copy of the CRAZE.MDB
                  and place it in a "c:\temp" directory (if you
                  have 'Seagate Crystal Reports 7.0, use
                  Xtreme.mdb)


                  Set CrystalSubReport = CrystalReport.Database
                  Set CrystalTables = CrystalDatabase.Tables
                  For y = 1 to CrystalTables.Count
                        Set CrystalTable = CrystalTables.Item(y)
                        Msgbox "Location of table " & y & ": " &
                        CrystalTable.Location
                        CrystalTable.Location =
                        "c:\temp\craze.mdb"
                        MsgBox "Location has changed to
                        c:\temp\craze.mdb"
                  Next
            End If
            'Close the first and second For Loops
            Next
      Next


      'Now we can preview the Subreport.
      CrystalSubReport.Preview


      'Or you can preview the main report
      CrystalReport.Preview
```

References

The sample application Autodbc.zip demonstrates how to use a subreport with the SCRAS. Autodbc.zip can be found on the Seagate Software Community Web site at www.community.seagatesoftware.com.

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.

Seagate Crystal Reports Technical Reference Manual (Techref.pdf) p.92

Seagate Crystal Reports Developer's Help (Developr.hlp)