

# Crystal Reports

## Troubleshooting Tips for various types of memory errors

---

### Overview

This white paper will suggest various causes and resolutions for the various types of memory errors experienced in Crystal Reports.

### Contents

<b>INTRODUCTION .....</b>	<b>2</b>
<b>“MEMORY FULL” ERROR IN A DEVELOPMENT ENVIRONMENT .....</b>	<b>2</b>
Scenario 1 – Previewing a report that contains a User Defined Function produces an error.....	2
Scenario 2 – Using Report Creation APIs in Visual Basic produces an error .....	2
Scenario 3 – Exporting a report that contains subreports produces an error.....	5
Scenario 4 – Printing to window through a Delphi application produces an error .....	6
Scenario 5 – Installing Crystal Reports produces an error.....	6
<b>“MEMORY FULL” ERROR WHEN CONNECTING TO A DATA SOURCE .....</b>	<b>7</b>
Scenario 1 – Selecting a SQL/ODBC data type produces a "Memory Full" error .....	7
Scenario 2 – Creating a report using a Data Definition File produces an error .....	7
Scenario 3 – Attempting to connect to a database produces an error .....	8
Scenario 4 - Changing location of a .ttx file produces an error .....	8
Scenario 5 – Selecting an Informix byte field produces an error.....	9
Scenario 6 – Converting a physical database file to a .ttx file produces an error .....	10
Scenario 7 – SQL Server 7 RDO Unicode data types are not supported by P2smon.dll.....	10
Scenario 8 – Connecting to an Oracle stored procedure via OLE DB produces an error .....	11
Scenario 9 – Reporting on Outlook 97 produces an error if 3 pane window extension is used .....	11
Scenario 10 – Error: “The Library P2ssql.dll cannot be found” is produced.....	12
<b>FINDING MORE INFORMATION.....</b>	<b>12</b>
For Web Development: .....	12
For Connectivity: .....	13
For Report Designer:.....	13
<b>CONTACTING CRYSTAL DECISIONS FOR TECHNICAL SUPPORT .....</b>	<b>13</b>

## Introduction

This white paper will suggest various causes and resolutions for the various types of memory errors experienced in Crystal Reports.

Some of the topics that will be covered in this white paper brief are as follows:

- “Memory Full” error occurs in a development environment.
- “Memory Full” error occurs when connecting to Crystal Reports.

## “Memory Full” error in a Development Environment

The following section covers possible symptoms and resolutions for receiving the “Memory Full” error in a development environment.

### Scenario 1 – Previewing a report that contains a User Defined Function produces an error

**Symptom:**

A User Defined Function is creating in Microsoft Visual Basic 5. Previewing the report after inserting the User Defined Function returned the following error message:

"Memory Full".

Why does this happen?

**Resolution:**

The reason this occurs is because the User Defined Function contains a runtime error that is not getting trapped. Trapping for the error results in the error message displayed in the Preview window and the report previewing successfully.

Search for Error Handling in the Seagate Crystal Reports Developers help for further information on how this is done.

### Scenario 2 – Using Report Creation APIs in Visual Basic produces an error

**Symptom:**

A form (For example FrmViewer) containing a Crystal Report Viewer is called from another form in a Microsoft Visual Basic application. FrmViewer contains Report Designer Component API calls used to create a report at runtime and preview it in the Crystal Report Viewer. When FrmViewer is called a second time the following error is received:

"Memory Full"

**NOTE**

All Runtime Report Creation functionality requires licensing. For more information, please visit <http://www.seagatesoftware.com/products/crystalreports/license>.

**RESOLUTION:**

The issue is with how the Application object is created in FrmViewer. Here is the code for FrmViewer:

```
'General Declarations
'Declare an application object
Dim CrxApp As CRAXDRT.Application
'Declare a report object
Dim CrxRep As CRAXDRT.Report
Private Sub Form_Load()
'Declare any objects for use in the report
'Dim .....
'Create the application object
Set CrxApp = CreateObject("CrystalRuntime.Application")
'Create a new report and set it to the Report object
Set CrRep = CrxApp.NewReport
'Code to add a data source, add fields, and format the
report.
'.....
'Code to View the report
'.....
End Sub
```

The Application object is declared in the General Declarations and then created in the Form\_Load event. When the report is viewed a second time the error occurs when another instance of the application object is created. To avoid the error try one of the following workarounds:

- Workaround 1

Early bind the application object in the General Declarations:

```
'General Declarations
'Declare and the application object using the New keyword
'CreateObject is not needed to create the Application
object
Dim CrxApp As New CRAXDRT.Application
'Declare a report object
Dim CrxRep As CRAXDRT.Report
Private Sub Form_Load()
'Declare any objects for use in the report
'Dim .....
'Create a new report and set it to the Report object
Set CrRep = CrxApp.NewReport
'Code to add a data source, add fields, and format the
report.
```

```
'.....
'Code to View the report
'.....
End Sub
```

- Workaround 2

Destroy all objects declared in the General Declarations in the Form\_Unload event:

```
'General Declarations
'Declare an application object
Dim CrxApp As CRAXDRT.Application
'Declare a report object
Dim CrxRep As CRAXDRT.Report
Private Sub Form_Load()
'Declare any objects for use in the report
'Dim .....
'Create the application object
Set CrxApp = CreateObject("CrystalRuntime.Application")
'Create a new report and set it to the Report object
Set CrRep = CrxApp.NewReport
'Code to add a data source, add fields, and format the
report.
'.....
'Code to View the report
'.....
End Sub
Private Sub Form_Unload(Cancel As Integer)
Set CrxRep = Nothing
Set Crxapp = Nothing
End Sub
```

- Workaround 3

```
Declare all objects in the Form_Load event
Private Sub Form_Load()
'Declare an application object
Dim CrxApp As CRAXDRT.Application
'Declare a report object
Dim CrxRep As CRAXDRT.Report
'Declare any objects for use in the report
'Dim .....
'Create the application object
Set CrxApp = CreateObject("CrystalRuntime.Application")
```

```
'Create a new report and set it to the Report object
Set CrRep = CrxApp.NewReport
'Code to add a data source, add fields, and format the
report.
'.....
'Code to View the report
'.....
End Sub
```

### Scenario 3 – Exporting a report that contains subreports produces an error

#### Symptom:

A report is created with subreports, which connect to the same ODBC data source as the main report. The Microsoft Visual Basic (VB) application sets the ExportOptions object's properties to export the report from code, and not prompt the user for any options.

In code, the LogOnServer method from the Application object is being set, as well as the SetLogonInfo for each table in the main report. When the report is exported, the following error is received:

"Out of memory"

When previewing the report (instead of exporting) the main report records are read, but when the subreport data is being read, the following error is received:

"20599 Cannot find SQL Server"

#### Resolution:

Do not use both methods for connecting to the data source.

LogonServer can be used if the data source connected to is exactly the same as one used to create the report and subreport.

SetLogonInfo connects from the table level and can be used to change the data source the report connects to.

## Scenario 4 – Printing to window through a Delphi application produces an error

### Symptom:

A report was run through the Delphi VCL on a development machine. The application first opened the database, then called a Crystal Report to print to window. This resulted in an error:

"Memory Shared Conflict".

### Resolution:

A search was made for the IDAPI32.DLL. Two instances of this DLL existed on the machine:

1. The 3.0 version that was in the \CRW\BDE directory that shipped with Crystal Reports;
2. The 4.5 version in the Visual dBase 7 \BDE directory.

The one installed in the CRW\BDE directory was removed which resolved the error.

## Scenario 5 – Installing Crystal Reports produces an error

### Symptom:

An installation of Seagate Crystal Reports 6.0 32 bit on Microsoft Windows NT 4 Workstation produces the error message:

'insufficient memory for setup'

The machine has 32 MB of RAM and 1.6 GB free on the hard disk.

### Resolution:

The Temp variable for Microsoft Windows NT 4.0 is incorrectly set.

Double-click on the System icon in the Control Panel. Click the Environment tab (or Advanced tab in Microsoft Windows 2000) and check the path set for the Temp and Tmp environment variables.

In this instance, the Temp variable is set to:

Temp= c:\temp

However the c:\temp folder does not exist on the machine. Once this directory is created the install proceeds without errors.

## “Memory Full” Error when connecting to a data source

The following section covers a possible symptom and resolution for receiving the “Memory Full” error when connecting to Crystal Reports.

### Scenario 1 – Selecting a SQL/ODBC data type produces a “Memory Full” error

**Symptom:**

In Crystal Reports version 6, launching the report designer and selecting the SQL/ODBC data type returns the following error:

“Memory Full”

However, when opening the Open Database Connectivity (ODBC) version 3 Administrator, from the Windows ‘Control Panel’ and clicking the ‘About’ tab, does not return the error. The contents of the ‘About’ tab reveal that all ODBC component files are the same version and are located in the Windows\System directory.

Why does this error occur in Crystal Reports when the ODBC Component files are the same version and are located in the same directory?

**Resolution:**

Checking the directory where Crystal Reports is installed it is discovered that this directory contained ODBC version 2.5 component files.

Upon removing these older ODBC version 2.5 files from the directory where Crystal Reports is installed, allow you to select SQL/ODBC data type in the report designer without error.

### Scenario 2 – Creating a report using a Data Definition File produces an error

**Symptom:**

A “Memory Full” error occurs if the .TTX file the report is based on is in a different location than it was when the report was first created. The error occurs if you select ‘Set Location’, from ‘Database’ or ‘Verify Database’ from ‘Database’.

**Resolution:**

This is a known issue with Crystal Reports 6 and has been assigned Track ID 10132. This error will occur with all versions of P2smon.dll or Pdsmon.dll up to version 6.0.0.35 Crystal Reports Designer. The current workaround is to re-create the directory structure and keep the .TTX file there.

This issue has been resolved in Crystal Reports 7 and higher.

### Scenario 3 – Attempting to connect to a database produces an error

**Symptom:**

When attempting to connect to a database, the following error message appears:

"Memory Full Error"

**Resolution:**

This error appears due to the number of tables in the database.

You can resolve this issue by completing the following steps:

1. From 'File', select 'Options'.
2. Click the 'SQL' tab.
3. Select "Allow Reporting on section" and add the table information to the Table name 'like' box.

For example, adding TR% will bring back only tables that start with the characters TR. As this limits the number of tables retrieved, the error will not appear.

### Scenario 4 - Changing location of a .ttx file produces an error

**Symptom:**

In Crystal Reports, a report is created based on a Field Definition file (.ttx). The file is originally stored in, for example, "C:\Test\Active.ttx" and now needs to be moved to, for example, "H:\Production\Active.ttx".

Attempting to 'Set Location', from 'Database', to the new location of the \*.ttx file returns the following error:

"Memory Full".

**Resolution:**

The versions of the Active Data Driver (P2smon.dll) in the CR 6.0 were not really designed to allow movement of the field-definition file. One of the reasons for this is that the .ttx file is only necessary at design-time and a design environment is unlikely to move, the active data driver would never really need to look for the file somewhere else than where it was created. Because of this, there are specific conditions and rules to follow to get the active data driver to find the file somewhere else. This has been changed in Crystal Reports 7.

With Crystal Reports 6 (P2smon.dll versions 6.0.0.15 to 6.0.0.46):

1. Make sure the report was created after version 6.0.0.15 of the P2smon.dll was on the computer.
2. Make sure the original .ttx file is still in its original location. (or at least a dummy file with the same name is in the original location).
  - For example: Keep the original or a dummy \*.ttx file in C:\Test\Active.ttx directory
3. Open the report.
4. From 'Database', select 'Set Location', and click the "Set Location" button



5. Click 'LogonServer'.
6. Click 'Active Data (Field Definitions Only)'.
7. Browse for the new .ttf file you want to point to.
8. Click 'OK'. Do not preview or verify the database at this point.
9. Save and close the report and exit Crystal Reports.
10. Open the report and from 'Database', select 'Verify Database'.

The report should now point to the .ttf file in its new location.

**Limitations:**

The aforementioned steps apply only to reports based on only one .ttf file and have no subreports. If your report has a subreport or is based on multiple .ttf files, it will need to be recreated.

Using Crystal Reports 7 (P2smon.dll version 7.0.0.61):

1. Delete or move the file from its original location.
2. Preview the report, or from 'Database', click 'Verify Database'.
3. When the 'Select Data Source' dialog box appears, click "Browse" from 'Data Definition' and select the file in its new location.

If the file needs to stay in its original location also, then follow the steps for CR 6.

### Scenario 5 – Selecting an Informix byte field produces an error

**Symptom:**

Selecting a field in the Crystal Reports (CR) Designer defined as a "byte" field that contains text results in the following error:

“ERROR: Memory Full”

- OR -

Selecting a field, defined as a 'byte' field, that contains text does not result in error. However, when previewing the report no text displays in the field.

**Resolution:**

A report is created in CR 7 or 8 using a native connection to an Informix database. One of the fields used in the report is defined as a "byte" field and contains text rather than an image (.bmp). Selecting this field and attempting to add it to the report generates the error message. CR version 6 will display text contained in a byte field.

The native Informix driver (P2sifmx.dll) for CR 6 references the native Informix library Isqlt07c.dll. The native Informix driver shipped with CR 7 and 8 references the Informix native library Isqlt09a.dll. This file (Isqlt09a.dll) will not properly display text in a byte field and generates the error message.

If the byte field in CR 7 or 8 contains an image (.bmp), it will be properly displayed.

This is known in Crystal Reports and has been assigned to Enhancement ID 8770.

### Scenario 6 – Converting a physical database file to a .ttx file produces an error

**Symptom:**

An attempt is made to convert a report's data source from a physical database file to a .ttx field definition file.

When converting the database driver from 'Database', and selecting 'Convert Database Driver' to Pdssmon.dll or P2smon.dll, a "Memory Full" error message appears.

**Resolution:**

Crystal Reports (CR) 6.0 cannot convert a physical database-based, for example, P2sodbc.dll, report to a TTX file-based report. However, a report based on a .TTX file can be converted to report off a physical database.

### Scenario 7 – SQL Server 7 RDO Unicode data types are not supported by P2smon.dll

**Symptom:**

Using RDO to connect to a SQL Server 7 table, calling CreateReportOnRuntimeDS results in a "Memory Full" error and returns 0 signaling a failed call. The table reported off was found to be made up of Unicode data types such as nchar, nvarchar, and ntext. These are new data types to SQL Server 7. RDO returns a unicode "rdTypeWVARCHAR" field that the Crystal Reports P2smon.dll cannot handle.

**Resolution:**

ADO will return a unicode "adVarWChar" field and will work.

Fixed in maintenance release 1 for Seagate Crystal Reports version 7. New field types have been defined to support SQL Server 7 Remote Data Object (RDO) Unicode data types:

- rdTypeWCHAR
- rdTypeWVARCHAR
- rdTypeWLONGVARCHAR

## Scenario 8 – Connecting to an Oracle stored procedure via OLE DB produces an error

### Symptom:

Creating a report based on a stored procedure from Crystal Reports (CR) version 8.0.0.371 using an OLE DB connection to an Oracle database returns the error message:

"Memory Full"

This error will be returned regardless of the version of Oracle when connecting using OLE DB.

Connecting to Oracle using a native driver (Pdsora7.dll) from CR 8 to a stored procedure will not return any errors.

### Resolution:

CR cannot connect to Oracle stored procedures through OLE DB. This is a known issue and has been assigned Track ID 19726.

## Scenario 9 – Reporting on Outlook 97 produces an error if 3 pane window extension is used

### Symptom:

There is an "extension" for Outlook 97 that can be downloaded from Microsoft. It is called the "Three-Pane Preview Extension for Outlook 97". Crystal Reports (CR) version 6.0 seems to have a problem with reporting on an email folder that has over 250 records in it when this extension is turned on.

The error that will be received is:

“The add-in "<path>\addins\ol3pane.dll" could not be installed or loaded. Out of memory or system resources. Close some windows or programs and try again.”

Why does this occur?

### Resolution:

There are 3 solutions to this problem:

1. Disable the Three-Pane Preview Extension by completing the following steps:
  - a. Open Outlook 97, from 'Tools', select 'Options'.
  - b. Select the 'General' Tab, and click 'Add-In Manager'.
  - c. Clear the Preview add-in, and then click 'OK'.
  - d. Re-start Outlook 97, and CR.
2. Upgrade to Outlook 98 - it has this preview ability built right in, so doesn't rely on this extension. CR 6.0 doesn't have any problem reporting on folders from Outlook 98.
3. Upgrade to CR 7.0. It doesn't have the problem with reporting on folders, even if the Three-Pane Preview Extension is used.

## Scenario 10 – Error: “The Library P2ssql.dll cannot be found” is produced

### Symptom:

A report was successfully created on a development machine connecting to a Microsoft SQL Server 6.5 database.

The report was created using Crystal Reports version 5, 32-bit and the Microsoft Server native driver (P2ssql.dll). The report previewed correctly.

A copy of the same report is opened from a different computer that has Crystal Reports 5, 32-bit installed. The following error occurs when the report is opened:

“The Library "P2SSQL.DLL" Cannot Be Found. Continue To Open Report For Viewing?”

Choosing YES would result in the program hanging. Choosing NO, resulted in the following errors:

"User Canceled." followed by "Failed To Open Document" followed by "Memory Full".

After clicking OK to clear the error messages, Crystal Reports does not shut down. You are simply returned to Design View.

Why does this happen?

### Resolution:

A drive search revealed the presence of the file P2ssql.dll in the windows\crystal directory.

A Microsoft SQL Server 32-bit CLIENT was not installed on the computer where a copy of the report is opened. The native driver (P2ssql.dll) is looking for component dlls, which come with the SQL client and cannot be found on the computer.

Once the 32-bit SQL Server client is installed on the machine, it will correct the above error.

## Finding More Information

For more specific information on Memory Errors, you can look at the following knowledge base articles available on our website at

<http://support.crystaldecisions.com/kbase>

### For Web Development:

- C2009434 - Error "Out of Memory" - When calling ADO reports using ASP and the RDC
- C2001024 - CRAXDRT error occurred on server -2147206398 "memory full"

- C2006940 - Error - "Craxdr.dll error: Memory Full" When Using DTC to Create Web Reports
- C2008168 - Netscape Navigator "Error: Referenced error memory could not be written."
- C2007745 - Error: "The memory could not be read" Calling a Report with Subreports from WCS -
- C2007638 - Error - "Out of Memory" Calling a Report Based on a Remedy Database Through ASP
- C2008259 - Error: Unhandled exception IExplore.exe(crviewer.dll) 0xC000005 Access Violation
- C2005927 - Resource Issues Surrounding Subreports in the Details Section with Web Reporting
- C2003016 – Printing Causes Printer to Continually Spool until Machine runs out of memory

#### For Connectivity:

- C2004148 – Connection to Oracle 8 causes application error when running report through CRPE
- C2000365 – Connecting to Btrieve causes a “the data buffer is too small” error
- C2005142 – Unable to Create a Report on Pervasive 7 SQL Stored Procedure

#### For Report Designer:

- C2005854 – Selecting ‘No Lower Bound’ produces “The memory could not be read” error
- C2005707 – Disk Full error message when trying to save or preview report
- C2001027 – Exporting to RPT format gives “Unable to save document” error message

## Contacting Crystal Decisions for Technical Support

Along with this document, and the *Crystal Reports User's Guide*, we recommend that you visit our Technical Support web site for further resources and sample files. For further assistance, visit us at the web sites below.

Technical Support web site:

<http://support.crystaldecisions.com/homepage/>

Answers By Email Support:

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

Phone Support:

Tel: (604) 669-8379