

Crystal Reports XI and Crystal Reports XI Release 2

Troubleshooting Database Connectivity for Crystal Reports

Overview

This document suggests database connectivity troubleshooting methods for Crystal Reports XI and later. Read this document if you experience complications when connecting Crystal Reports to your database.

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Introduction

This document suggests basic guidelines to help you resolve database connectivity problems that may arise when using Crystal Reports XI and Crystal Reports XI Release 2 (CR). Often, it is necessary to perform several different tests and to answer a series of questions to isolate where the issue may exist.

The troubleshooting process recommended in this paper is intended to assist you in narrowing down and resolving the cause of the behavior that you are experiencing.

When troubleshooting, be sure to note where and when the problem occurs. The break point can indicate where the problem is happening. If an error message appears at login, this may suggest an authentication issue or the inability of the driver to obtain a listing of tables or fields. Unexpected database connectivity behaviors can occur when you initially design a new report, or when you preview/refresh an existing report in the Crystal Reports designer. In the latter case, an error message may suggest incorrect linking or design within the report itself.

External factors can affect a successful connection to your database. These factors may include database permissions, inability of third party drivers to perform specific queries, network conditions, and more.

Be sure to document the exact text from any error messages that appear, as they are the first hint at identifying the actual break point of the report.

This document frequently refers to supported platforms documents. These documents are available on our support site at http://support.businessobjects.com/documentation/supported_platforms/default.asp.

Connection Type Specific Troubleshooting

Crystal Reports is designed to connect to many different types of databases. Each database category has unique requirements for troubleshooting.

SQL-type Databases

SQL databases generally use a server and client configuration. For successful reporting when connected to SQL databases

- The database client software must be installed on the local computer drive.
- A connection through the database client software is possible.

Common SQL-type databases include Oracle, Microsoft SQL Server, Sybase, Informix, IBM DB2, and Pervasive. For SQL-type connections, you must be able to connect to the database outside of Crystal Reports. If this does not work, your systems administrator or database administrator may need to configure your computer.

PC-type Databases

PC databases are generally local to the computer where Crystal Reports are run so the troubleshooting steps required for PC connections are slightly different from with SQL-type databases. A PC-type connection requires

- The database to be installed locally on the computer
- You to be able to see all of the expected data within the database.

Common examples of PC-Type databases include Microsoft Access, Microsoft Excel, Dbase, Visual FoxPro, Act!, and Clipper. If you are not able to see all the data within the database itself, then you may not be able to see this data in Crystal Reports. The issue may be caused by insufficient database access permissions.

Verify with your Database Administrator that your logon information has sufficient permissions and rights.

ODBC Connections

ODBC connections are the most common types of connections used with Crystal Reports. Even if you are using a different type of connection, try changing to an ODBC connection to troubleshoot connectivity issues. Doing so will help you to identify where the break in the report is occurring.

For ODBC connections, the SQLCON32 testing utility allows you to determine if there is an issue with the access permissions or the ODBC driver, separately from Crystal Reports. SQLCON32 offers the ability to test the connection, to obtain a list of tables, views, and stored procedures, to get a list of fields, and to retrieve data.

SQLCON32 can be downloaded here:

<http://support.businessobjects.com/communityCS/FilesAndUpdates/sqlcon32.zip.asp>

Instructions on how to use SQLCON32 can be found here:

http://support.businessobjects.com/communityCS/TechnicalPapers/sqlcon32_how_to_use.pdf

OLE DB Connections

OLE DB connections can be tested by other means. If there is a possibility that an OLE DB connection is failing outside Crystal Reports, check

- The database permissions of your user name
- A third party product's ability to connect to the OLE DB driver
- The Microsoft Data Access Components layer

Your database administrator can advise you on your database permissions. Both permissions and the ability to retrieve data through the OLE DB driver can be verified with a third party application like QTADO which can be downloaded here:

<http://gpoulose.home.att.net>.

It is also possible to determine if the OLE DB data provider is currently installed or configured properly on your computer by creating a universal data link file (UDL or .udl file). In a text editor, create a new file and save it as "filename.udl". Then double click the UDL file. This will launch an OLE DB Provider dialog, listing the driver being used in the report. If the driver does not appear, then it is possible there is something wrong with the database installation, or with the Microsoft Data Access Component (MDAC) layer that is installed with some Microsoft products. For more information about MDAC, refer to Microsoft article [842193](#).

JDBC Connections

Crystal Reports 10 is the first version able to make database connections using Java Database Connectivity (JDBC). Crystal Reports, however, is not able to make connections with all JDBC drivers. Supported JDBC drivers are listed in the *Supported Data Sources for Crystal Reports* section of the [supported platforms](#) document for each version of Crystal Reports.

Checking the JDBC Connection Outside of Crystal Reports

When trying to make a JDBC connection if it appears that the driver class is not being recognized or that the JDBC settings are not configured properly then try testing the JDBC connection outside Crystal Reports. A description of steps for testing the permissions and the ability to retrieve data through a JDBC connection outside Crystal Reports is described in knowledge base article [c2017533](#).

The test in article c2017533 will verify the settings for the driver class name, the JDBC URL, and the user permissions for running a query.

Checking the CRConfig.xml file

The CRConfig.xml file stores the JDBC connection information for Crystal Reports. Once a JDBC connection and query are successful outside Crystal Reports, compare the verified driver class name, JDBC URL, and user login information with these settings contained in the CRConfig.xml file.

- For Crystal Reports XI, the CRConfig.xml file is at
C:\Program Files\Common Files\Business Objects\3.0\java
- For Crystal Reports XI Release 2, the CRConfig.xml file is at
C:\Program Files\Business Objects\Common\3.5\java.

If the driver class name, JDBC URL, and user login information appear to be correct, check the <JavaDir> element in the CRConfig.xml file. The path for the <JavaDir> should reference the bin folder for your Java SDK or JRE. Ensure the path listed inside <JavaDir> actually exists.

If Only Command Objects are Available

Sometimes, only partial connectivity is possible with certain JDBC client driver versions and / or JDBC vendors. With your current JDBC connection, if you can log in to the database but tables, views, and stored procedures are not visible, try running a query through JDBC using a command object. After logging into the JDBC connection, look for the **Add Command** object under the **Connection** tab in the **Database Expert**. Double click the **Add Command** tab and enter a simple SQL statement such as "SELECT * from Table". If you are not sure what the syntax should look like you can obtain a sample of SQL syntax for your database by creating a report using an ODBC connection. Under the database menu, click **Show SQL Query** to display the SQL syntax behind the query. If you can retrieve data with a command object there may be an issue with that JDBC driver version or possibly even with vendor differences. First, check the [supported platforms](#) document for this driver to see if it is supported for use with Crystal Reports. The supported platforms document may suggest another version of the driver or it may not list any JDBC driver from this vendor. Next check if any other suitable versions for the JDBC driver are available. With certain databases, other versions of the client may work.

JNDI Connections

Usually Java Naming and Directory Interface (JNDI) connections make a connection through the same driver as Java Database Connectivity (JDBC). Crystal Reports will use many of the same settings for JDBC and JNDI so testing a JDBC with the driver can help to verify items such as permissions and driver class name. When troubleshooting JNDI, ensure that a JDBC connection is possible from the client where the JNDI connection is being made. Refer to the steps above under JDBC Connections for troubleshooting.

Native Connections

Native connections rely on the specific versions of the client to be present on the computer where the connection is being made. To ensure your version of the client is supported, check the [supported platforms](#) guide.

Few third party test utilities exist for native connections, thus testing options for native connections are somewhat limited.

To troubleshoot native connections

- Make sure it is possible to connect to the database server from the database client on a client workstation.
- Try switching connections to an ODBC driver or OLE DB driver to verify the server settings, permissions, and accessibility to the data.
- Verify that the connection works with another driver. If another driver works but the native driver does not, the result suggests that there is an issue with the specific driver, the database client version, or the authentication information given to the native driver.

OLAP connections

Crystal Reports XI and later support access to OLAP data sources through direct connections. A direct connection requires an installed OLAP client on the same computer where Crystal Reports is installed. The types of OLAP connection supported are listed in the **Server Type** drop down of the **Connection Properties** dialog. Refer to the [supported platforms](#) document to determine if your OLAP server is supported.

Ensure that it is possible to login through the OLAP client. If the login fails, you may try logging in with a different account. OLAP servers such as Microsoft Analysis Services will typically be configured to use NT authentication so it is worth checking to ensure that the correct account information is given when logging in from Crystal Reports.

Microsoft SQL Server 2005 Analysis Services

Due to timing of product release dates, Crystal Reports XI was not tested with Microsoft SQL Server 2005 Analysis Services. The changes made to connectivity drivers for MS SQL Server 2005 Analysis Services are significant and have been addressed in Crystal Reports XI Release 2. Contact your sales representative to obtain a copy of Crystal Reports XI Release 2. A minor product update is required for CR XI Release 2 to enable reporting off MS SQL Server 2005 Analysis Services. This fix is detailed [here](#).

Hyperion Essbase

Differences between Hyperion servers and clients are significant. Crystal Reports can not report on all Hyperion clients. The [supported platforms](#) document lists supported clients.

Different DLLs are used to report on different versions of the Hyperion Essbase client. Article [c2018755](#) describes steps that can be taken to ensure the correct DLL is loaded by Crystal Reports XI Release 2.

Methods for Resolving Common Connectivity Issues

Renamed or moved databases

When a database is renamed or moved to a new folder or directory, existing reports that used an old database name or location may give errors when refreshed. These reports can easily be adjusted to recognize the new connection. Setting a connection to a new location or newly named database is also useful if someone sends you a report that uses a database from a different location. See the steps below for changing the connection under the title **Using Set Datasource Location**.

Tables, views, or stored procedures have been modified

When you create a new report, the report retrieves the tables and fields from the database as they are defined at the time the report is defined. Crystal Reports uses this database structure (number of fields, field position, data type, etc.) to identify and connect the fields that have been placed on the report.

If you change the structure of the database (by adding or deleting fields) after you create the report, Crystal Reports needs to update the report according to the new structure of the database.

Sometimes changes to tables, views, and stored procedures can cause error messages in the reports that run against the modified objects. The process of setting the data source to a different data source and then setting it back to the original connection can be performed to force Crystal Reports to update itself and recognize the changes in the table view, or stored procedure.

It is possible to switch a data source from one data source type to another type or even to the same data source type. Sometimes this is a more reliable method to force Crystal Reports to update itself as opposed to relying on the **Verify Database** feature. For example, you can change the data source location from one ODBC DSN to another ODBC DSN. If you need to have Crystal Reports use the original datasource you may point the connection back to the original one after the report has been updated after being set to the temporary connection. Using the **Set Datasource Location** command to change to a different DSN is required if the DSN has been re-configured with different server or authentication information.

Using Set Datasource Location

The steps for setting the datasource location are recommended if you suspect something in the database has changed and you want to ensure that the report recognizes the most current database structure. These steps are also recommended in the event that you need to test with a different driver to determine if your connection issue is not driver specific.

1. Navigate to the **Set Datasource Location** option under the **Database** menu.
2. Select the **Set Datasource Location on Next Refresh** check box in the Set Datasource Location dialog box.
3. The Current Datasource will appear in the top of the **Set Datasource Location** dialog box. In the **Replace With** section at the bottom of the **Set Datasource Location** dialog box, create a new connection by choosing the connection type and enter the new authentication information.
4. Select one of the tables, views, or stored procedures under the **Current Datasource**. Select the corresponding object under **Replace With**. Click the **Update** button. Repeat this step for each individual table, view, or stored procedure on the report. Subreport connections will need to be updated separately and may use a different connection type than the parent report if preferred.

The **From:** line indicates the type of connection that the report is currently using. The **To:** line has a pull-down menu with a list of drivers from which to select if you want to change the type of connection that the report is using.

NOTE	<p>The Map Fields dialog box appears if changes have been made to the fields in the report database. Mapping fields is required to link the report fields to the correct database field.</p> <p>For more information on how to map fields, refer to the Crystal Reports Online Help. From the Help menu in CR, click Crystal Reports Help (or press the F1 key) and type "Map Fields dialog box".</p>
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How to use the Verify Database command in CR

To a lesser extent, you may be able to use the Verify Database option to update the database references in your report. This is the easiest method to update the report when there are minimal changes to the database. Here are the steps to update the report:

1. In Crystal Reports, open the file in Design mode.
2. Click **Verify Database** from the **Database** menu. A dialog box appears asking you whether you want to verify all the files in the report including those that are not being used.
3. Click on either **Yes** or **No**.
 - Click **Yes** to verify all the files in the report, used or unused.
 - Click **No** to verify only those files used in the report.

You are then prompted with “The database file ([filename]) has changed. Proceed to fix up the report?”

- If you click **Yes**, the program revises the report to the current version of the database.
- If you click **No**, the program attempts to print the report without first adapting it to the current version of the database.

Command object connections need to be updated

In earlier versions of Crystal Reports, the new command must be added to the repository. The article [c2012566](#) describes how to set the datasource for Crystal Reports 9. For Crystal Reports 10 and later a more direct method for resetting the datasource is described in article [c2016958](#).

Missing tables, views, or stored procedures

You may discover missing tables, views, or stored procedures in the database expert or you may receive a message, “No Items Found” for the following reasons

- The display options for Data Explorer are set incorrectly.
- The appropriate database permissions to view tables, views, system tables, synonyms and/or stored procedures have not been assigned to your logon information.
- The NTablesMax registry setting is too low. This setting regulates the total number of database objects that are visible to the user and occasionally will be too low for database deployments like Oracle.

How to set the display options in Data Explorer

1. Select the **Options** button in Data Explorer.
2. Select the check boxes under the **Show:** options according to the data that you want to report off. For example: Tables, Views, System Tables, Synonyms, and Stored Procedures.
3. Click **OK** to exit the Options dialog box.
4. To see the list of data options, collapse and re-select the folder representing your connection selection.

The message, “No items found”, should now be replaced with a list of your data options.

TIP	In Data Explorer, select the Options button and place the cursor in the field box to ensure that there are no unintentional spaces or unwanted text in the “Table Name LIKE:” or “Owner LIKE:” fields.
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How to verify that your logon information has the appropriate database permissions to view the table, view or stored procedure.

1. Attempt to create your report using a different logon. We recommend that you attempt to use the Administrator logon information. Usually, the Administrator logon information has the highest level of database permissions.

NOTE

Contact your Database Administrator to verify that your logon information has the appropriate database permissions to allow you to connect to the tables, views, system tables, synonyms and/or stored procedures.

How to ensure your client computer is able to retrieve all available tables, views, and stored procedures using the NTablesMax setting

The NTablesMax setting regulates the total number of database objects that are visible to the user. A reasonable maximum reduces the time required to list objects whenever a connection is made from Crystal Reports. For databases like Oracle, many objects are automatically generated when other user defined objects are created in a schema. Occasionally, the total permitted visible objects is below the total objects in the database or schema. The result from this is that some stored procedures, views, and tables are not visible. In this situation, the issue can be corrected by adjusting the NTablesMax setting in the registry. Using regedit, navigate to the key:

- Crystal Reports XI

HKEY_CURRENT_USER\Software\Business Objects\Suite 11.0\Crystal Reports\FetchOptions

- Crystal Reports XI Release 2

HKEY_CURRENT_USER\Software\Business Objects\Suite 11.5\Crystal Reports\FetchOptions

Right-click the **NTablesMax** key and click **Modify**. Change the value from decimal 8000 to "50,000". If this fails, you may consider trying a larger value for total objects displayed.

Reports no longer open properly

Your existing report may no longer open successfully because the ODBC data source is corrupt.

How to correct a corrupt ODBC data source

1. In the ODBC Data Source Administrator, create a new DSN (Data Source Name). Be sure to use a different name to force Crystal Reports to update itself against the database.
2. In the Crystal Reports designer, complete the **Set Datasource Location** command. Refer to the *Using Set Datasource Location*

section of this document for information on how to use the **Set Datasource Location** command.

3. In the Crystal Reports designer, complete the **Verify Database** command. Refer to the *How to use the Verify Database command in CR* section of this document for information on how to use the **Verify Database** command.

NOTE	If there are subreports in the main report, complete the Set Datasource Location and Verify Database commands for each of the subreports.
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CAUTION	If your report fails to connect to its data source at runtime, then verify that the report connects successfully in the Crystal Reports (CR) designer. If a report fails to connect in the CR designer, it will always fail to connect at runtime. Continue to troubleshoot the database connection issue first in the CR designer.
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1157 and 126 ODBC Errors

Refer to article [C2005338](#) on our support site for these error messages.

Join Errors

Additional errors can occur due to linking within the report. This may be due to linking that is not permitted by the database or by linking that does not generate the desired results. For troubleshooting linking in complex reports, remove as many tables as possible to focus on the key tables and fields. If possible, remove half of the fields and formulas and run the report. If the report still fails, halve the fields and formulas again. Repeat these steps until the break point is found.

You may also consider using subreports to reduce the complexity of the linking.

Links can be adjusted manually on the **Links** tab of the **Database Expert** dialog that can be launched from the **Database** menu.

For information on left outer join errors, please refer to article [c2007974](#) on our support site.

Report Migration Issues

Connectivity issues may arise from migrations of Crystal Reports from earlier versions of the product to XI. The following article summarizes changes and suggests practices for successful migrations:

http://support.businessobjects.com/communityCS/TechnicalPapers/cr_xi_connectivity_migration.pdf

Business View Connectivity

Since Crystal Reports 10, it is possible to create reports off Business Views to bundle collections of tables, views, and procedures and select fields from them along with an assortment enterprise permissions and filters. Business views use the same database drivers as Crystal Reports so most of the methods to troubleshoot Crystal Reports data connections also apply when troubleshooting connectivity from Business Views. However, business view connectivity troubleshooting should also consider

- Business view security
- BusinessObjects Enterprise issues
- Linking and filtering from within the foundation and element

Data Connection or Driver Issues

Business views use the same database drivers as Crystal Reports so most of the methods to troubleshoot Crystal Reports data connections also apply when troubleshooting connectivity from Business Views.

To determine if the issue is specific to the data connection, create a one field Crystal Report directly off one of the tables that is referenced in the business view. Create the connection from Crystal Reports using the same connection type as the one that is used in the business view. If the direct connection to the database fails this suggests that there is an issue with the connection. In this case, methods for troubleshooting the connection explained above would apply.

You may also try creating a one field report off the same business view that fails in the original report. This will help to determine if the connection is failing because of the business view connection or because of something in the view or report itself.

Business View Security

Business view security can be applied at many different levels. Security settings can be issued for the connection, the foundation, the element, the view, or even a specific field or filter. These possibilities may seem overwhelming at first but there are troubleshooting methods that can quickly help to focus on the most important areas.

An Enterprise user may belong to many groups and may even have their own user-specific security settings. A user who belongs to multiple groups will be restricted to the group setting that has the least privilege for accessing each object. If the user belongs to the Administrator group but is not the named Administrator, they must be explicitly granted access in at least one of the groups and they must not be denied access in any of their groups.

Here are some suggestions to determine if security is an issue. Log in to Business View Manager using the affected person's account to check the following:

Check the Data Access Rights for the Connection

Denied data access for any of the user's groups will prevent the user from seeing any data from the business view in Crystal Reports even if the user has view rights. When in Business View Manager, to check the data access permissions, right click the data connection and choose **Edit Rights**. In the Edit Rights dialog that appears, if any groups for the affected user are missing be sure to add them to the list using the **Add Groups** button. Select **Preview** and examine the **Data Access** column. If any of the user's groups have been denied data access rights this user will not be able to view business view data in Crystal Reports. If the user is not the named Administrator explicitly grant data access for at least one group.

Check the View Rights for the Business View

If view rights for the business view are denied for any of the user's groups this user will not be able to see data from the business view in Crystal Reports. To check the user's view rights, right-click the business view in the Repository Explorer and click **Edit Rights**. All of the user's groups must be visible to successfully determine accessibility. If any of the user's groups are missing they must be added by selecting the **Add Groups** button. Once all of the user's groups are listed, select the **Preview** button so see the view privileges. Ensure the **View** setting is not explicitly denied for any of the groups otherwise this user will not be able to view data from the business view in Crystal Reports.

Narrow the focus to One Field and Troubleshoot it

Sometimes focusing on one field in the business view and examining it more closely can help to simplify the search for security issues when investigating the connection, foundation, element, and view. It is possible that the view rights for individual fields are denied. To ensure that the individual fields are not denied, open the business element that contains the field, right click the field and choose **Edit Rights**. Be sure that all groups for the user are present and that none is denied view rights. If any of the user's groups have been denied the user will not be able to see data for this field in Crystal Reports. Once it appears that the field has view permissions for all of the user's groups, try creating a one field Crystal Report based on a field from this business view to see if any data is returned. If data is returned, you may consider examining linking within the foundation or filters that might be preventing data retrieval as explained below.

Check the Data Filters

Filters can be applied at the foundation and element level of the business view which can affect data view access. Filters can be examined in

Object Explorer at both the foundation and element level within Business View Manager. To determine if any of the user's groups have been restricted by a filter, right click the filter and preview the settings for **Applied** or **Not Applied** to ensure that none adversely affects the expected data.

BusinessObjects Enterprise Server Issues

Business Views are hosted on the BusinessObjects Enterprise server which also regulates authentication. You can test the servers with the repository samples that can be installed from Business View Manager. In Business View Manager click **Tools** and choose **Install Repository Samples**. Create a report using the Xtreme business view that is included with the samples. If this report gives the same error as your original report then there is a possibility the problem is occurring with the server configuration.

Linking in the Foundation

Complex foundations can be difficult to troubleshoot even for the most experienced business view users. To help simplify this task, if linking is suspected to be incorrect try creating a simplified foundation that contains the fewest possible key tables, views, and stored procedures. Then create one element with all fields from this foundation. Then create a business view off this element. Finally, create a one field Crystal Report off this test business view and examine the SQL from the database menu under **Show SQL Query**. If this report does not return the expected data you might consider adjusting the links in the foundation.

If tables are left unlinked in the foundation, you may get Cartesian joins (infinite loops). For this reason, including unlinked objects in the foundation is strongly discouraged.

Dynamic Cascading Parameters

Dynamic cascading parameters build on business view troubleshooting steps which in turn may also require connectivity troubleshooting for different types of data connections. Even so, there are additional parameter specific methods that can be applied to help identify the connection problem. Below are some additional suggestions for troubleshooting List of Values (LOV) specific issues.

Test the List of Values Feature with the Xtreme Sample

If the problem occurs with a list of values that has been created in Business View Manager, try creating a simple list of values with the Xtreme business view sample that is installed with the repository samples. These samples can be installed in **Business View Manager** from the **Tools** menu. Then create a blank Crystal Report and add the dynamic parameter based on the Xtreme list of values. Place the

parameter in the report header and run the report. If the report fails with the same error, this suggests there could be a configuration issue on the client or server.

If the list of values is created in the report, try creating a simple report using the Xtreme database sample. A DSN for Xtreme is created when Crystal Reports is installed. In a report off the Xtreme database, create a list of values off one of the tables that is accessible from the Xtreme connection. If this fails, there may be an issue with the Crystal Reports configuration.

Simplify the Foundation, Element, and Business View used to Build the List of Values

Simplifying the foundation and element used in the list of values can help to identify if there are issues with filtering or linking that might prevent proper record retrieval in the prompt.

Test Scheduled Versus Non-Scheduled Lists of Values

Using a simple list of values, test it as a scheduled and non-scheduled parameter in Crystal Reports. On demand lists of values use the report application server. Be sure that all servers are enabled and are working properly.

Truncation of Records Retrieved by the List of Values

If the data in the list of values is truncated you may try the steps outlined in the articles [c2017489](#) and [c2017238](#).

If this fails to produce results for on demand lists of values, you may consider adjusting the batch size in the RAS server from the Central Management Console of BusinessObjects Enterprise XI.

Universe Connectivity

When troubleshooting connectivity issues with Universes, it is possible that the issue resides within the Universe. This section presents items that can be investigated in Designer and in Crystal Reports.

Troubleshooting the Data Drivers

Most Universe connections are created from drivers that are native to Designer. For these drivers to work properly, the database client must be installed

- on the client where Crystal Reports runs, and
- on the BusinessObjects Enterprise server.

To ensure that the version of your database client and server are supported, please view the [supported platforms](#) document.

After verifying that the database client is installed on both the client computer and server, and the connection is still not possible, try creating a one field report off the Universe on both the client and BusinessObjects Server to see if the connection works there. If this one field Crystal report against the Universe works on the client where Crystal Reports runs but the original report fails, this test verifies that the connection is fine and suggests that there could be an issue with

- The Universe joins or structure
- Filters within the Universe, or
- The original Crystal Report design.

If the one field report off the Universe runs on the server only this suggests there could be an issue with the connection on the client. If the one field report fails on both the client and enterprise server this suggests there is a problem with the data connection on both computers.

If the database client and server do not appear on the supported platforms guide you may consider changing the datasource in the Universe to an ODBC connection for further testing.

Changing the Connection to ODBC

If you suspect the native driver is not working properly, try creating a DSN using the database client's ODBC driver, if one is available. You can change the connection in the Universe to use the **generic ODBC datasource** which will allow you to select the DSN as the datasource for your Universe. The Universe connection can be changed under the **File** menu by clicking **Parameters** and choosing the **Edit** button on the **Definition** tab of the **Universe Parameters** dialog. An identical DSN must be set

- On the client where Crystal Reports runs, and
- On the BusinessObjects Enterprise server.

If a Universe that uses the ODBC connection appears to work then the issue is driver specific. Check the [supported platforms](#) guide to ensure that the database being used is supported.

Examining the SQL Syntax

If the connection appears to succeed but the record retrieval does not function as expected, you may consider examining the SQL syntax. The SQL for the query can be obtained from the original Crystal Report under the **Database** menu by clicking **Show SQL Query**. This SQL can be copied and tested in the database client on the same computer as Crystal Reports to determine if the record retrieval is possible and if it returns records as expected. If the database client returns the correct record set and Crystal Reports does not, try running the same SQL query in SQLCON32 as described in the section on *ODBC connections* section of

this document. Running the query in SQLCON32 provides an unbiased test for querying the database through a third party application. If the SQLCON32 utility returns the data as expected, it does suggest there could be a problem with the Universe linking, structure, filters, or with the report design. If SQLCON32 does not return the data as expected it suggests there could be a problem with the query syntax or with permissions at the database level.

Changing Filters in Designer

It is possible that filters exist in the Universe that may prevent the user from retrieving data. These filters can be viewed from Designer from the **Tools** menu and selecting **Manage Security**. You can also try running the report against the Universe while logged in with a different user account that has more access permissions.

Changing Rights to View the Universe

If you suspect there are BusinessObjects Enterprise rights issues with accessing the Universe, you could examine the individual rights for this Universe by logging into the **Central Management Console (CMC)** and selecting **Universes**. When viewing the **Universes** page of the CMC, select the Universe being used in troubleshooting. For this Universe, access the **Rights** tab and examine the rights for each of the user's groups to ensure they have proper view access for all groups in which they belong.

Finding More Information

There are many other issues to consider when experiencing database connectivity issues. Our knowledge base reports many more issues that are also database specific. If your issue remains unresolved after reading through this document, try searching our knowledge base using the error message given when experiencing the connectivity issue.

<http://technicalsupport.businessobjects.com>

Contacting Business Objects 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://technicalsupport.businessobjects.com>

 www.businessobjects.com

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