



Creating a System DSN for Crystal Reports to Access a Sentinel Server Database

Configuration Guide Version 1.0

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PREAMBLES

Copyright

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Trademarks

All trademarks are hereby acknowledged.

Technical Prerequisites

This Configuration Guide assumes that the installer is familiar with the basic operation of the following:

- ❑ Microsoft[®] Windows[®] desktop operating systems (Windows 98/ME/NT/2000/2003/XP)
- ❑ Microsoft Windows[®] Servers (Windows NT/2000/2003/XP)
- ❑ SQL database structures
- ❑ Crystal Reports report-generating application
- ❑ Ethernet topology, TCP/IP protocols
- ❑ Ethernet routers, switches and hubs

Trademark Recognition

Windows[®] is a trademark of Microsoft Corporation.

Components Used

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration.

INTRODUCTION

Unlike many other access control products that are closed systems using proprietary interfaces, Ringdale's Sentinel Server employs an open-system architecture that allows the Sentinel SQL database to interface to open-system report writing applications such as Crystal Reports. This open-system approach provides the flexibility to generate tailor-made reports in-house using commercially-available resources, as opposed to proprietary, expensive and often hard to find resources.

Section (A) of this document describes how to configure a PC with Crystal Reports software installed to interface to the SQL Server that is hosting the Ringdale Sentinel server software. This connection will then enable data from the Sentinel database to be copied to Crystal Reports and subsequently used to generate company-specific reports.

Section (B) of this document describes how to configure Crystal Reports to interface with the Sentinel database.

DSN DEFINITION

The following is a direct quote from the Microsoft website:

"A Data Source Name (DSN) is the logical name that is used by Open Database Connectivity (ODBC) to refer to the drive and other information that is required to access data. The name is used by Internet Information Services for a connection to an ODBC data source, such as a Microsoft SQL Server database. When you use an ODBC DSN entry to store the connection string values externally, you simplify the information that is needed in the connection string. This makes changes to the data source completely transparent to the code itself".

Simply stated, DSN is a feature within the Windows operating systems that allows the contents of a database on one PC or Server (Sentinel Server in this example) to be shared with an application on another PC (Crystal Reports for example).

(A) CREATING A SYSTEM DSN FOR CRYSTAL REPORTS

This guide documents the procedure necessary to configure System DSN on the user PC to be able to communicate with the Sentinel SQL Server database.

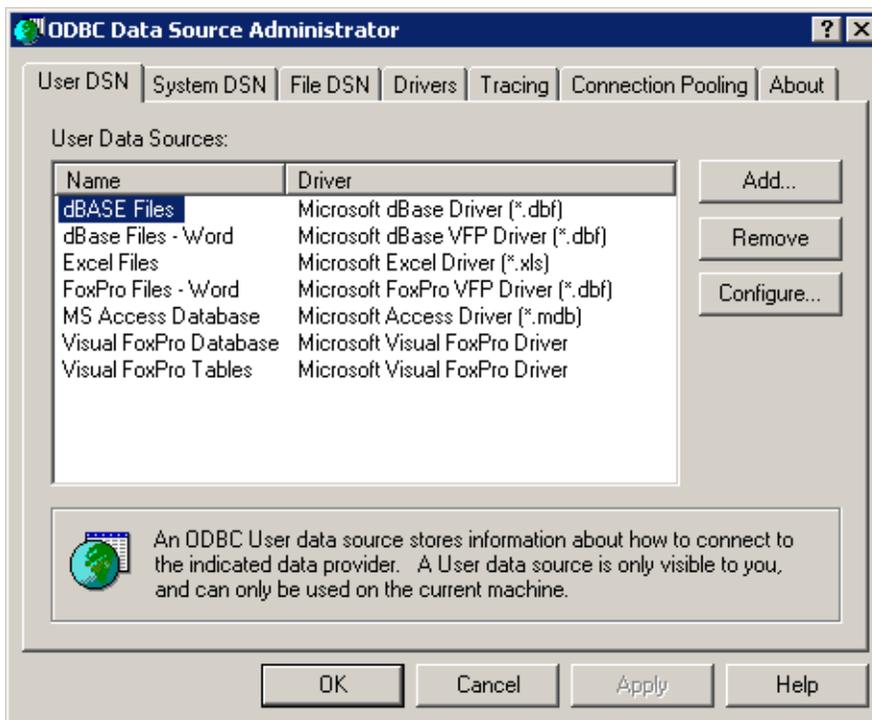
Assumptions

It is assumed that the SQL server is on an Ethernet network, is accessible to the user PC and has been configured to allow the two devices to communicate and share SQL data.

The Configuration Steps - System DSN

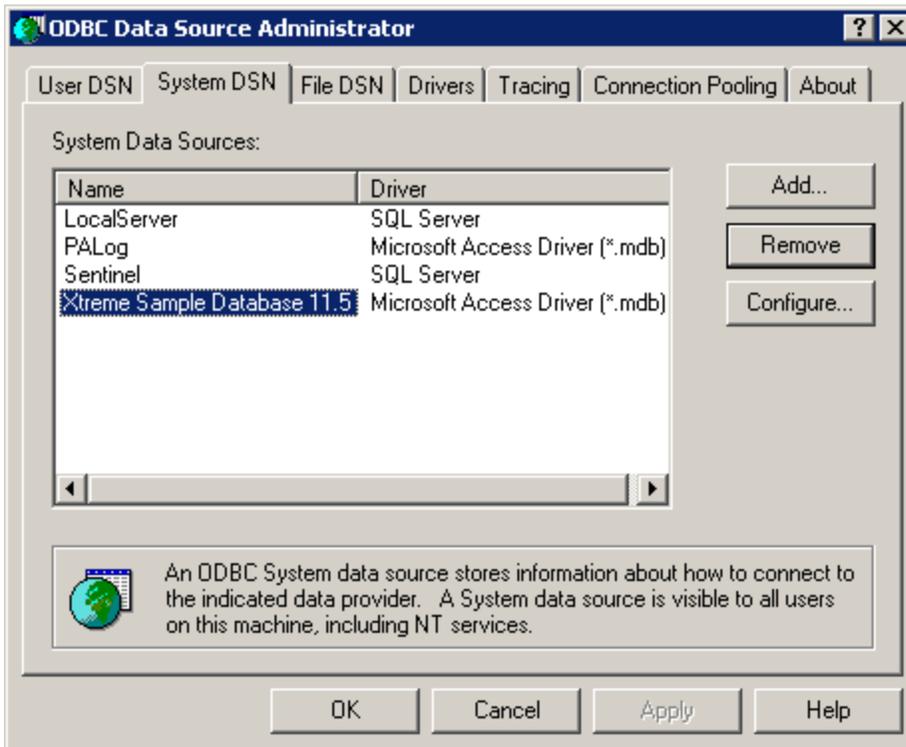
The layout of some of the screen-shots (dialog boxes) may vary slightly between different versions of the Microsoft Windows operating systems, but the concept is the same. The panels used in this guide are identical between Windows 2000 and Windows XP.

1. Go to the PC's Control Panel. In Windows 2000, click **Start**, go to **Settings, Control Panel**.
2. Double click on **Administrative Tools**.
3. Double click on **Data Sources (ODBC)**, and the **ODBC Data Source Administrator** dialog box will open.

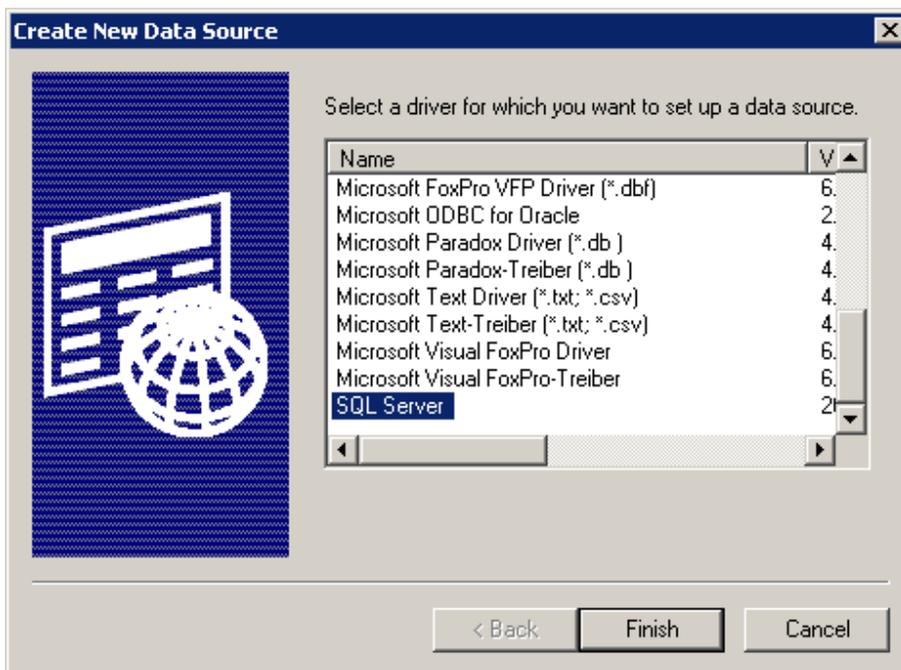


4. Select the **System DSN** tab.

- Click the **Add...** button on the right

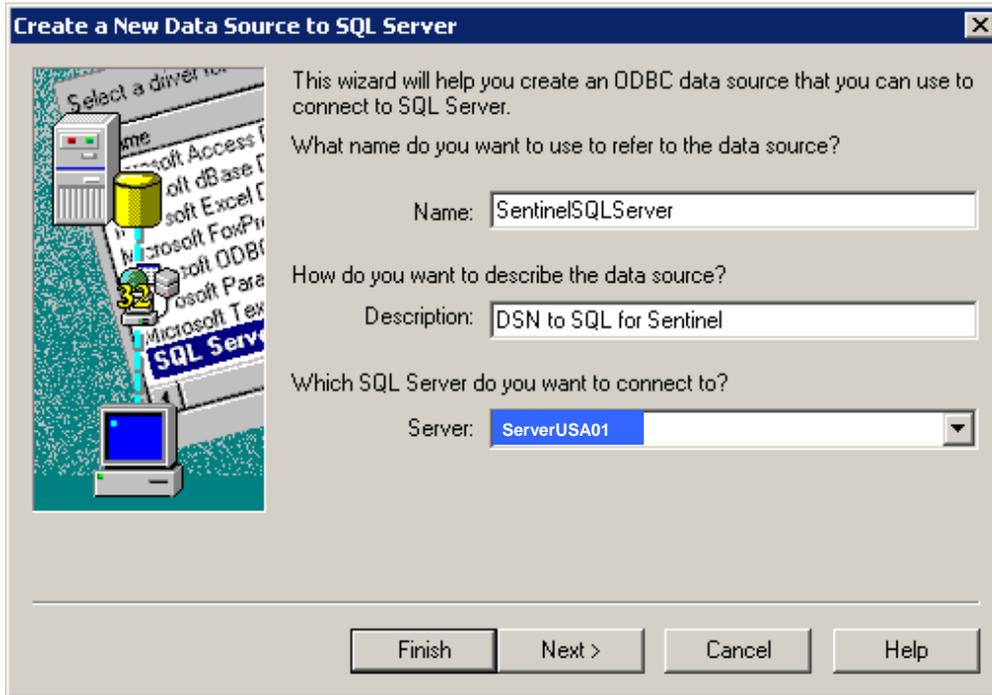


- The **Create New Data Source** dialog box will be displayed.



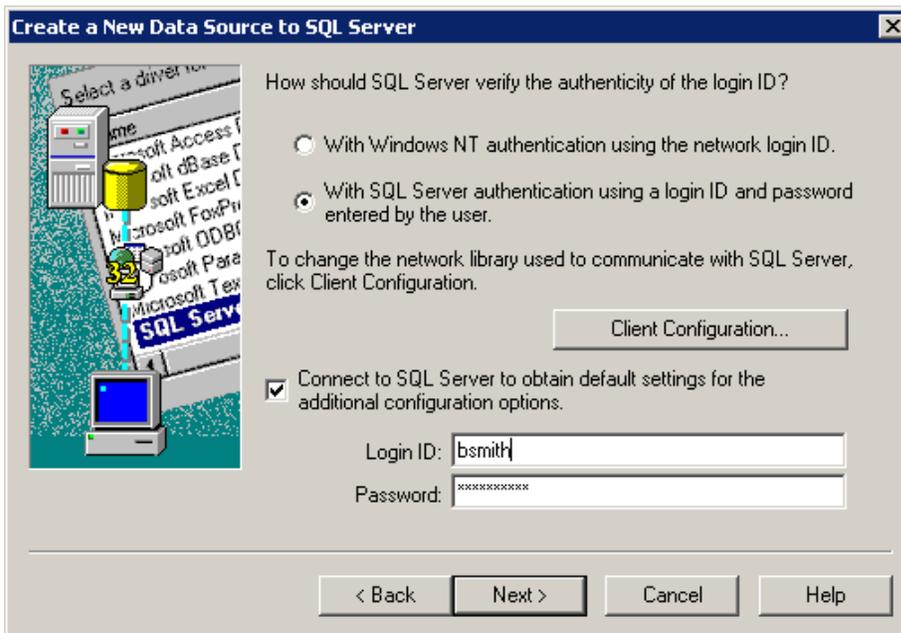
- In the **Name** (driver) selection box, scroll down until you find the driver named **SQL Server**.
- Select **SQL Server** by clicking on it, and click **Finish**.
- The **Create New Data Source** dialog box will close and the **Create a New Data Source to SQL Server** dialog box will appear.

10. Within the **Create a New Data Source to SQL Server** dialog box there are two text boxes and a drop down list

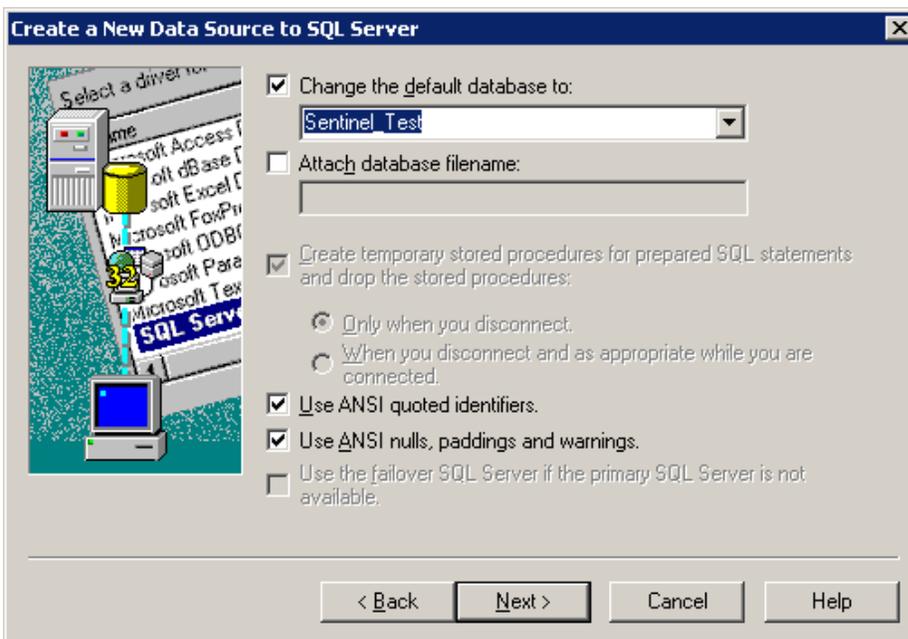


11. The first text box is the **Name** you would like to call the System DSN. The name can be anything you want but give it a logical name that corresponds with what the connection is to or the connection is for, such as **SentinelSQLServer**.
12. The second text box is a **Description** of the System DSN you are creating.
13. The drop down **Server** is a list of all SQL Servers that are available on the connected network, select the pertinent Server where Sentinel is installed, ServerUSA01 in this example.
14. Select the name of the server that is holding the database to which you want to be connected (**Sentinel access control** in this example).
15. Click **Next** and the next **Create a New Data Source to SQL Server** dialog box will appear.

16. This dialog box is used to select how the SQL Server should verify the authenticity of the login ID.

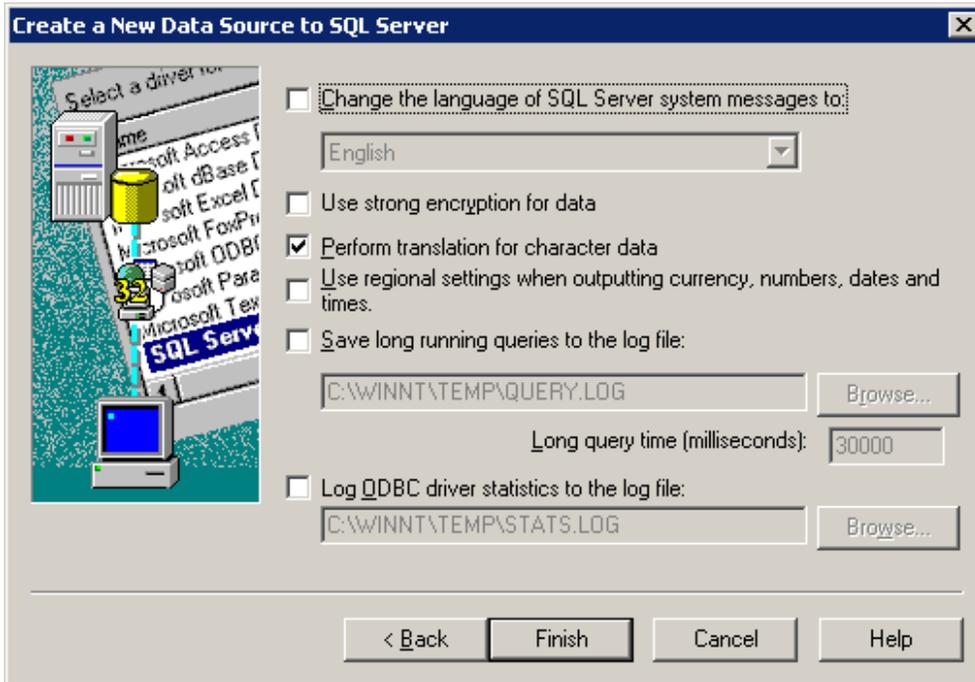


17. There are two radio buttons, one is for **Windows NT authentication using the network login ID** and the other is **With SQL Server authentication using a login ID and password entered by the user**. You will need to consult with your Network Administrator to find out which one is appropriate to your server. In this example we have used the second one, **SQL Server authentication**.
18. For the **Login ID** and **Password** fields use the username and password supplied to you from your Network Administrator that will allow you to log into SQL Server, then click **Next**.
19. On the next panel check the box that says **Change the default database to:**

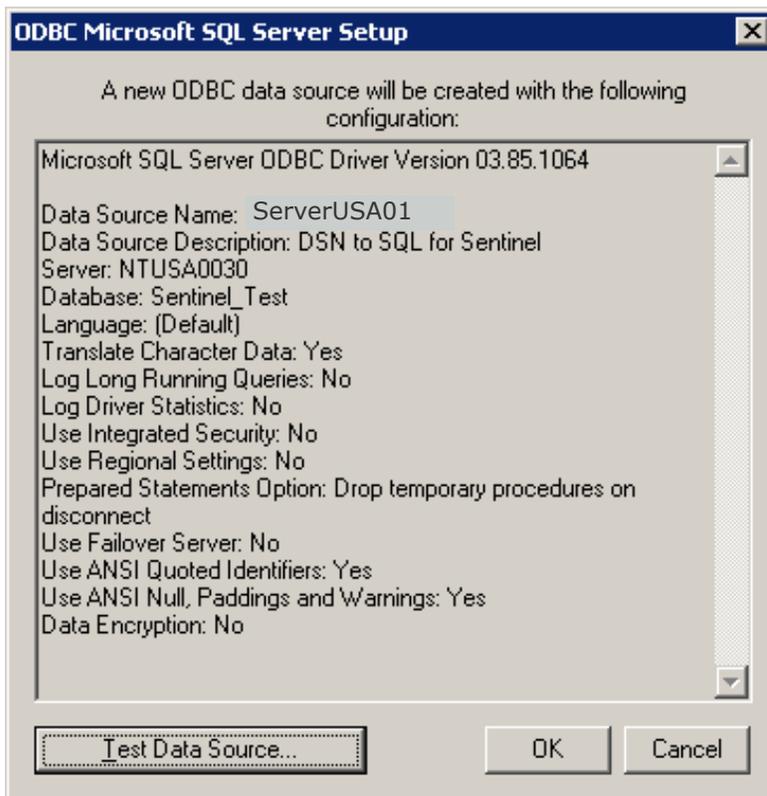


20. From the drop down box that is now enabled select the database that has the information you need. In this example it is **Sentinel_Test**. Click **Next**.

- On the next panel review the options and select any that are applicable. In this example there are no changes and the defaults were used. Click **Finish**.



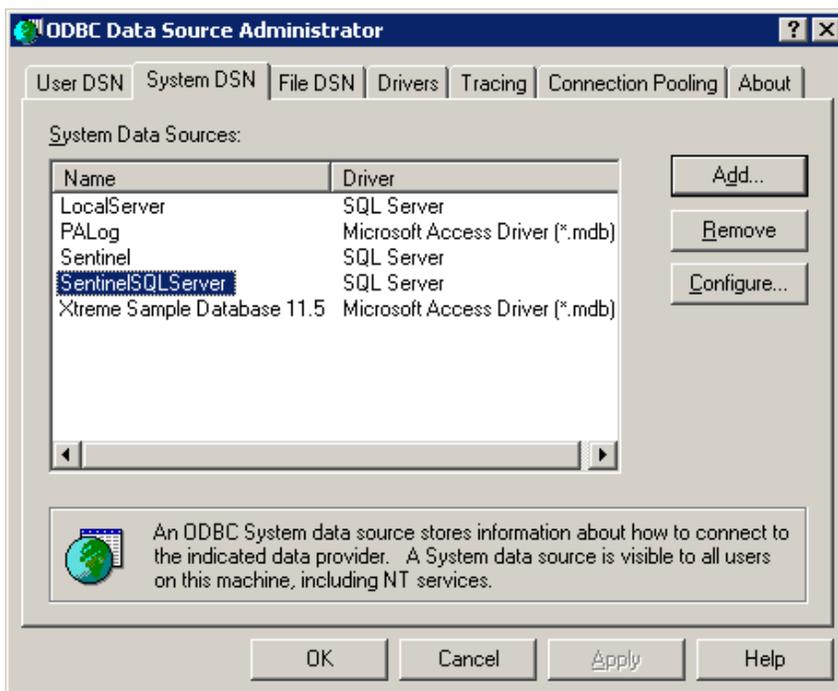
- The **ODBC Microsoft SQL Server Setup** dialog will appear. It displays all the information that you entered in the previous screens and three buttons. Click the **Test Data Source...** button to make sure that the connection you just set up is active. Click **OK** to close the screen.



23. If the test was successful the dialog box will appear with the message TESTS COMPLETED SUCCESSFULLY. Any errors will be flagged and you will need to go back a few steps to verify the settings and fix any applicable errors. Click **OK**.



24. This will bring you back to the screen with the **System DSN** tab and the new **Data Source Name** that you have just configured should show in the list of **System Data Sources**



You have now successfully configured a DSN to allow Crystal Reports to interface to the Sentinel database. Click **OK** to close the dialog box and exit to the PC's Control Panel.

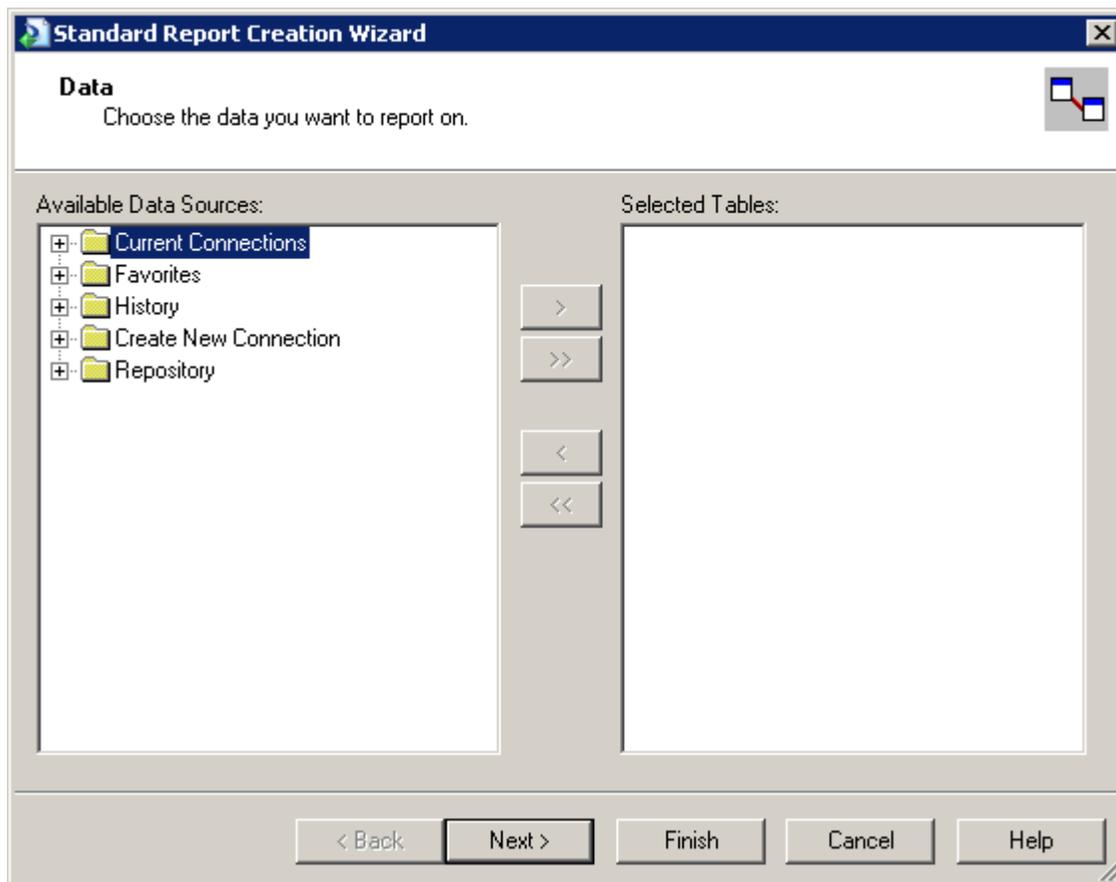
(B) CREATING A NEW REPORT IN CRYSTAL REPORTS

Assumptions

This section assumes that the target PC already has Crystal Reports installed and that the Sentinel Server has been configured to enable the target PC to access the SQL database.

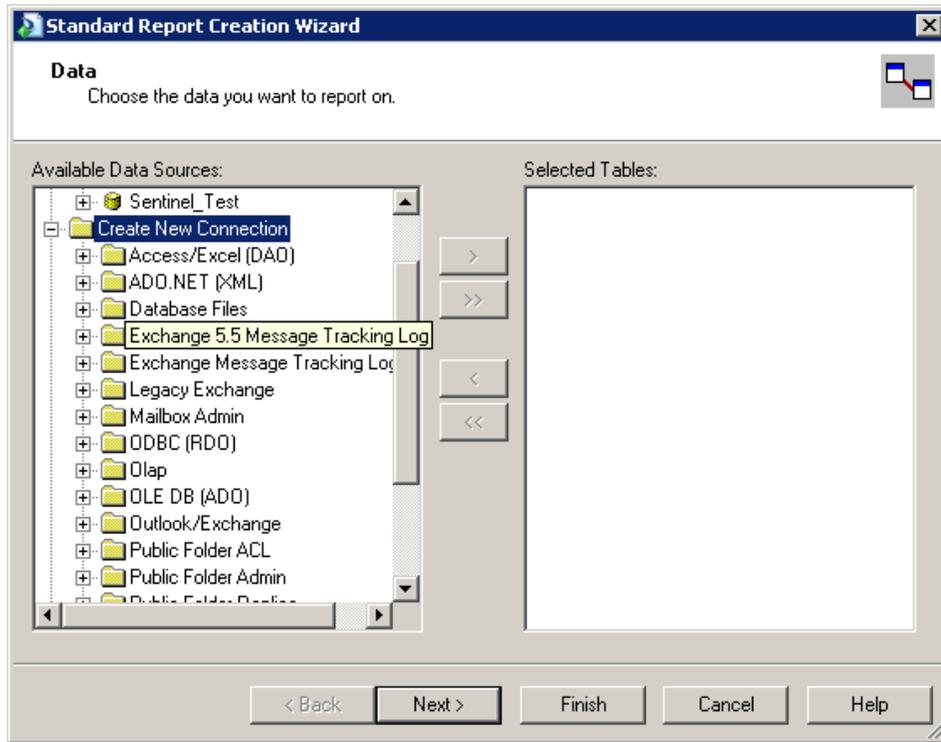
The Configuration Steps

1. From Crystal Reports, click the **New Report** button in the upper left hand part of the screen, underneath the **File** menu item, or use the **File** menu to go to **New** then to **Standard Report**.

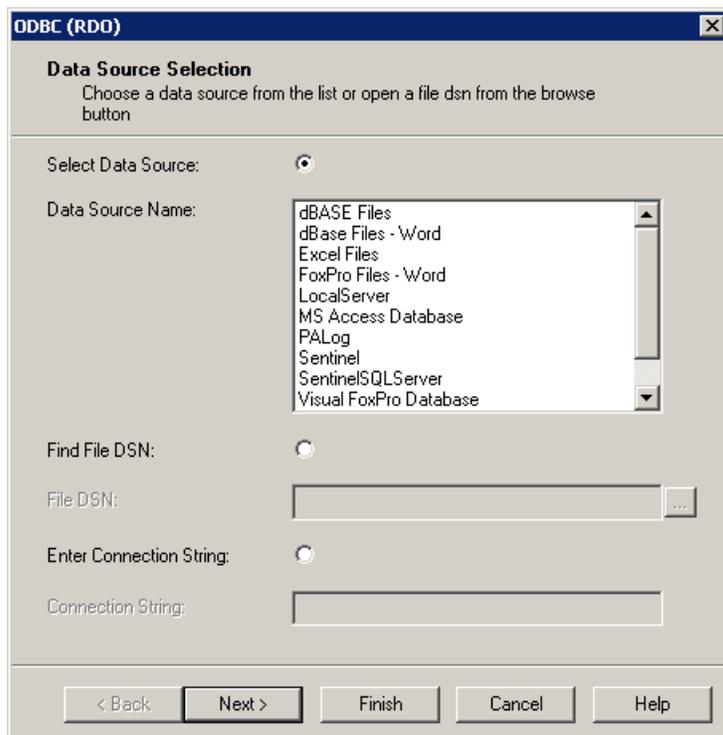


2. The **Standard Report Creation Wizard** dialog box appears. Click the **Plus (+)** icon next to the folder that says **Create New Connection** to display a full list of the available connection types.

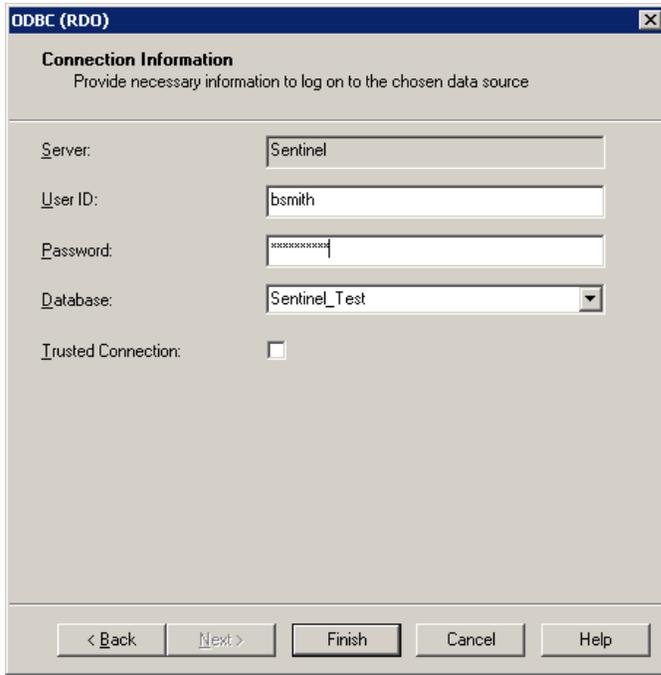
3. Scroll through the list of **Available Data Sources** until you find the folder icon named **ODBC (RDO)**. Select **ODBC (RDO)** and click the plus (+) icon to select this data source. Click **Next** and the **ODBC (RDO)** dialog box will appear.



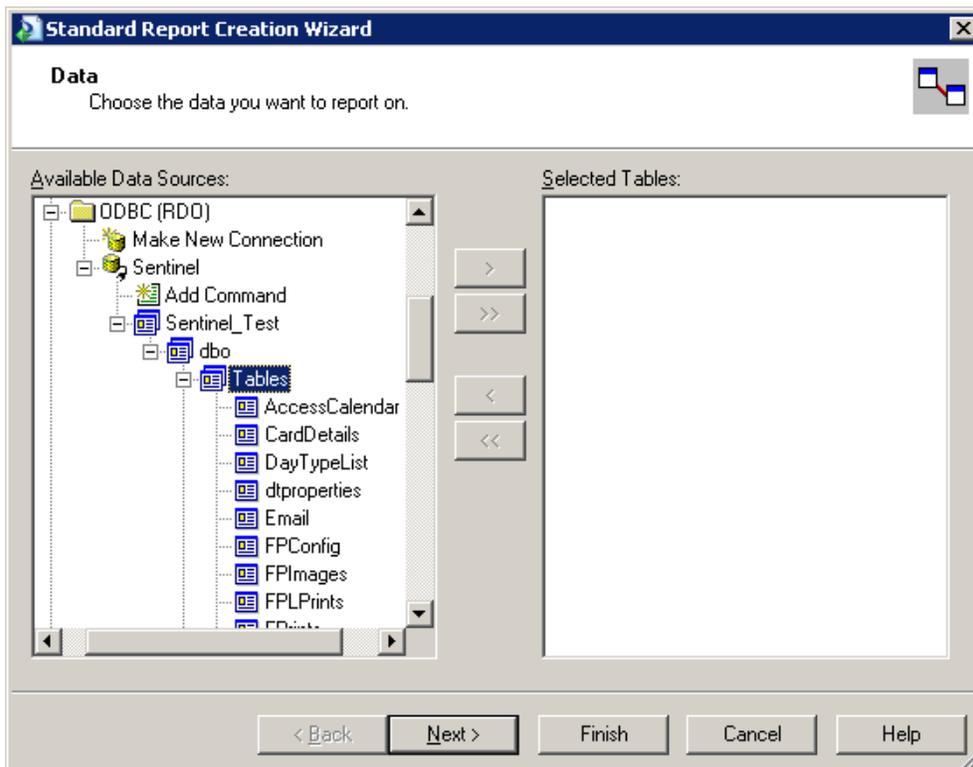
4. From the **ODBS (RDO)** dialog box find the System DSN connection that you would like to use with this report (**SentinelSQLServer** in this example) and click **Next**.



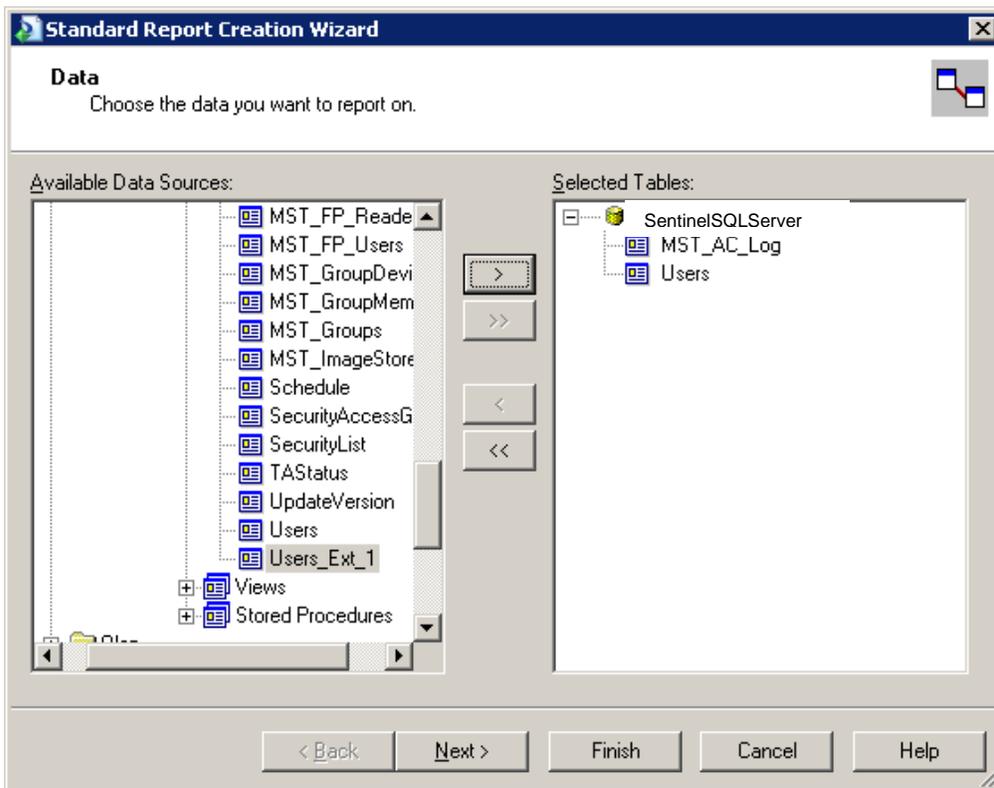
- At the next **ODBC (RDO)** screen, fill in the username and password that you need for the database connection, or select the **Trusted Connection** box if the username and password are not needed. The username and password will be the same as used to setup the System DSN connection. Click **Finish** to exit the dialog.



- Once the connection has been made, all the tables available in the database will be available to add to the report via the **Standard Report Creation Wizard**.

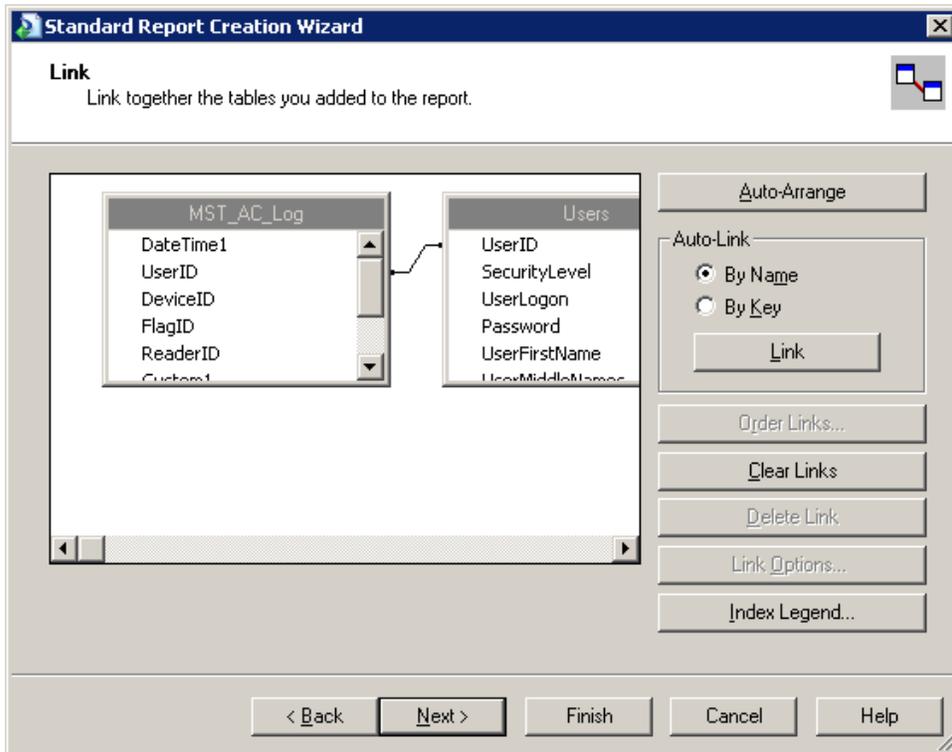


7. Select the tables you would like to use for creating the new report and click on > to move them to the right hand panel.

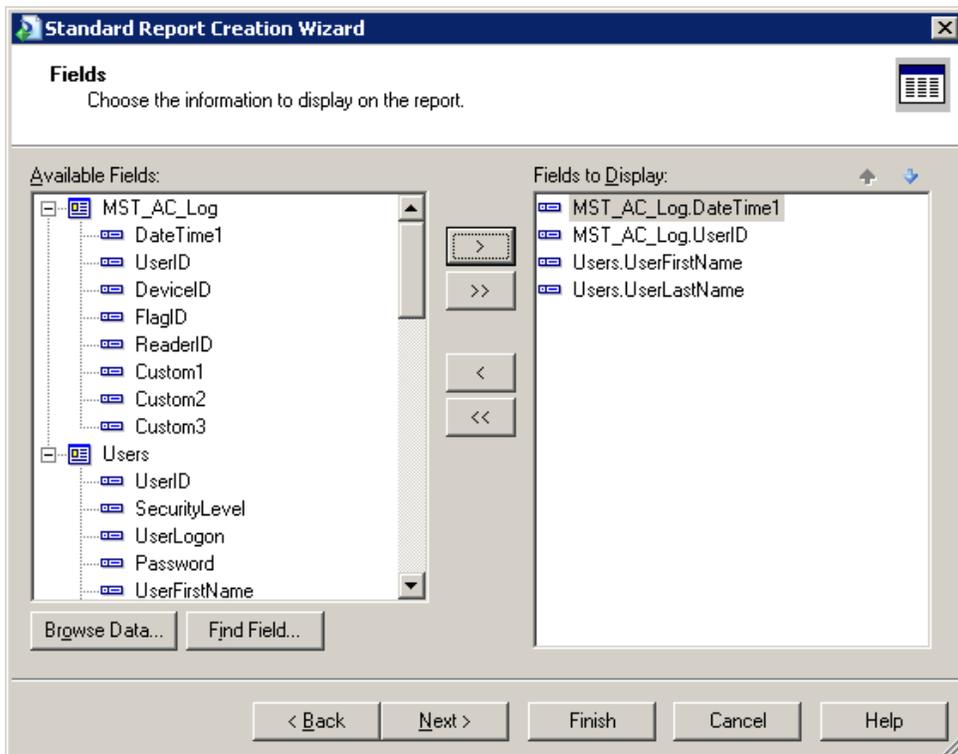


8. Clicking **Next** will bring up the **Link** section of the dialog box.

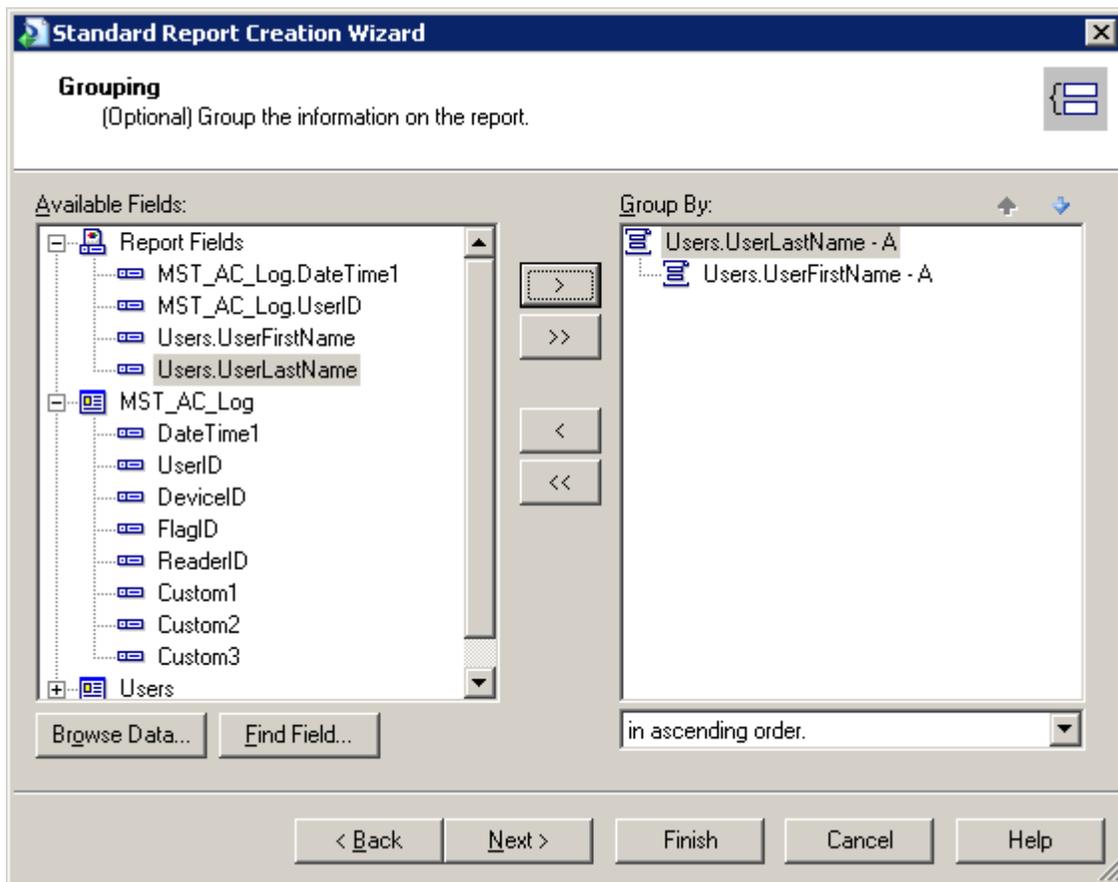
- From the **Link** dialog box (unless you would like to change how the tables are linked together), click **Next** to move to the **Fields** section.



- From the **Fields** dialog box you can select from the available selections which fields you want displayed in the report. Select (click on) a specific field and then click the > button to move the field to the right hand panel.



11. Click **Next** to bring up the **Grouping** section. From here you can select how the report is to be grouped. Select the field to group and click the > button to move to the right hand panel.



When you have completed the Grouping selections click **Finish** to view the report.

(C) CONNECTING A CRYSTAL REPORT TO SYSTEM DSN.

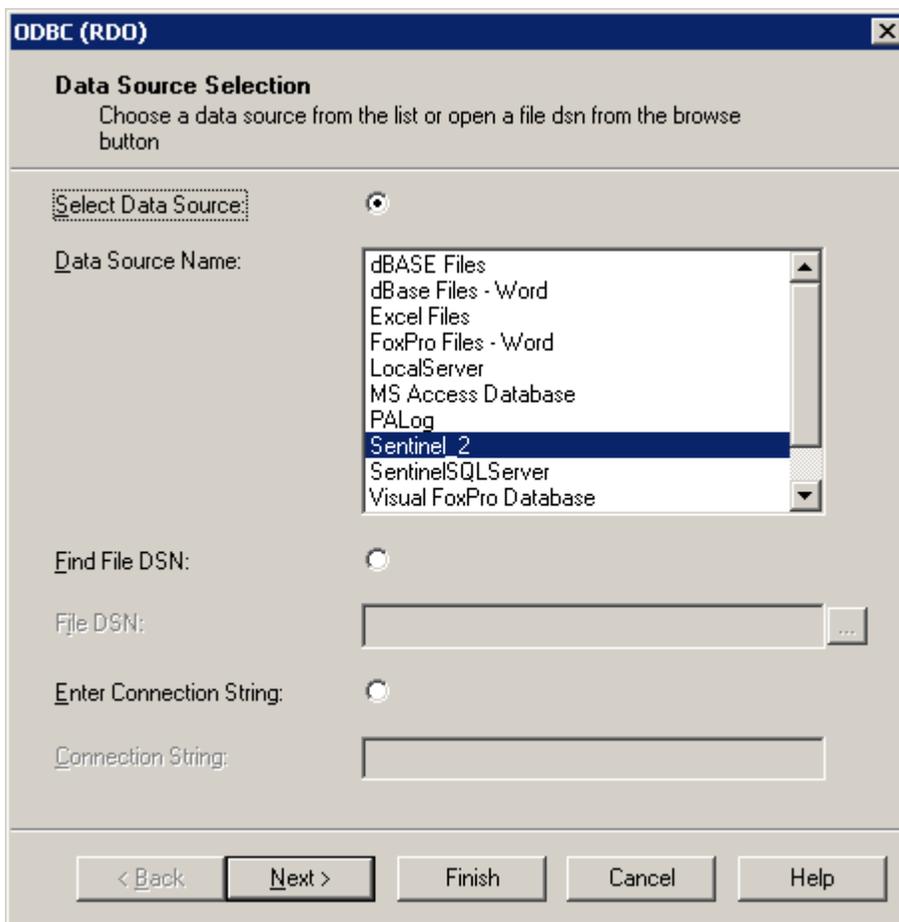
Assumptions

This section assumes that you have completed the following tasks:

- a) Installed Crystal Reports on the target PC.
- b) Configured the target PC with a System DSN
- c) Configured the Sentinel Server to enable the PC to share the database
- d) Generated a new report template in Crystal Reports

Connection

- 1) Open the relevant report in Crystal Reports (**Sentinel_2** in this example). A screen will either show right away or as soon as the **Refresh** button is pressed.



- 2) Select the connection to be used with this report and click **Finish**. The report is now connected to the selected **System DSN**.

TECHNICAL SUPPORT

Ringdale Technical Support Overview

Ringdale Technical Support services help to ensure that Ringdale products and pertinent networks operate efficiently and benefit from the most up-to-date system and application software. Ringdale offers a flexible suite of support services designed to meet individual business needs and assists in effectively installing and maintaining products and networks to maintain high-quality network performance.

Telephone Technical Support for Ringdale Access Control Systems is available for the Ringdale subject matter items covered in this installation guide and is provided free-of-charge for the duration of the original warranty period.

Technical Support from Ringdale is also available for all of the prerequisites listed at the beginning of this manual. The current terms, conditions and rates for Technical Support are available on request. The minimum Technical Support time is two hours.

Ringdale Inc.

(8:00 a.m. to 5:00 p.m. CST, Monday to Friday)
Phone: 512-288-9080
Fax: 512-288-7210
Toll-free: 888-288-9080
support@ringdale.com

Ringdale (UK) Ltd

(0900 to 1700 GMT, Monday to Friday)
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support@ringdale.com

Ringdale GmbH (Germany)

Phone: +49 (0) 621 7186-0
Fax: +49 (0) 621 7186-20
support@ringdale.com

Before you call Technical Support

Please have the following information ready

- ✓ Product Model type.
- ✓ Serial number of the unit.
- ✓ Pertinent network Information.
- ✓ If relevant, IP addresses of any hardware, Server and Default Gateway.
- ✓ What options are installed, if any?
- ✓ The symptoms of the problem.
- ✓ History of the Problem;
 - * Did the device work for a period of time or fail immediately after installation?
 - * Was any PC option changed (hardware / software) prior to the problem occurring?

Where to address any comments about this manual

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Texas 78628, USA

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URL: www.ringdale.com
Contact: support@ringdale.com