Connecting Crystal Reports to HIFIS 4

In order to build a report for HIFIS 4 using Crystal Reports, there are **four prerequisites** that must exist for the computer being used:

- 1. SAP Crystal Reports version 2011 or later must be installed
- 2. Microsoft SQL Server Native Client 10.0 or 11.0 must be installed
- 3. The OLE DB connection information must be known
- 4. The computer must be able to connect to the database

1. SAP Crystal Reports version 2011 or later

Crystal Reports is paid software created by SAP that can be downloaded from <u>http://www.crystalreports.com/</u>. It's typically around \$500 for a license, but there are multiple pricing options, depending on how many computers will need to have Crystal Reports installed. Your organization might actually have some unused licenses, so that might be something to look into. Crystal Report version 2011 (14.0) or higher should work.

A free **30-day trial should be available**, so for the purposes of training, you could consider installing a free trial on everyone's computer and then ultimately buy a smaller number of licenses.

2. Microsoft SQL Server Native Client 10.0 or 11.0

HIFIS uses Microsoft SQL Server, which means that any computer that will be connecting directly to the server via Crystal Reports requires a SQL Server Native Client to assist with the connection.

You can download Native Client 11 from https://www.microsoft.com/en-us/download/details.aspx?id=50402 . If that doesn't work, you can also find it as part of the Microsoft SQL Server 2012 Feature Pack. Native Client 10.0 also works, which is part of the Microsoft SQL Server 2008 Feature Pack.

Once the file has downloaded, follow the prompts to install the driver.

Verify that SQL Server Native Client is installed correctly

To verify the installation of SQL Server Native Client, on your computer, open the **Control Panel** and search for **Windows Tools**. (Usually, this is found at Control Panel \rightarrow System and Security \rightarrow Windows Tools.) Look for **ODBC Data Sources**.



Click on **ODBC Data Sources** for either 32-bit or 64-bit, depending on your computer's processor. Next, click on the **Drivers** tab. If correctly installed, SQL Server Native Client should appear under the list of drivers. You can click Cancel once you have confirmed the presence of the SQL Server Native Client 11.0 (or 10.0).

| Name | | Version | Company | File | Date |
|-------------------------------|--------------------------|-------------------|-----------------------|-----------------|--------|
| ODBC | Divers 12 for COL Conver | 2017 140 1000 100 | Manual Company | MCODDCCOL 12 DU | 2017.0 |
| ODBC Driver 13 for SQL Server | | 2017.140.1000.163 | Microsoft Corporation | MSODBCSQL13.DLL | 2017-0 |
| 50060 | unver 17 für Suit Server | 10.00.22000.01 | Moment Corporation | SOLSRV22 DI | 2013-0 |
| SOL Se | rver Native Client 11.0 | 2011 110 7452 06 | Memorit Corporation | SOLNCLI11 DLL | 2021-0 |
| SOL C. | Native Cleast RDA 11/ | 2011 110 5069 66 | Monsoft Comporation | SOLNCURDA11 DU | 2017-0 |
| | | | | | |

3. Database Connection String

Crystal Reports connects to HIFIS 4 using the <u>Microsoft SQL Server Native Client 10.0 or 11.0</u>. However, in order to complete the connection, Crystal Reports needs to be told what database to connect to.

The following information is required in order to connect to the data source (HIFIS 4):

- The name of the server that hosts HIFIS
- The name of the database in which HIFIS is stored
- The user ID for a user that has the ability to access the server
- The password for the user ID

All of this information should be available from the database administrator (DBA) that installed HIFIS onto the server you are using to host HIFIS.

Write your community's connection information here. You will likely need to enter the password more than once, so you might want to keep it handy.

| Server | |
|----------|--|
| Database | |
| User ID | |
| Password | |

4. Connect the Computer to the Database

The computer needs access to the database. Sometimes, this is easy to accomplish but other times there are firewalls protecting the server that may require some special configuration or a virtual private network (VPN).

Connect to HIFIS in Crystal Reports

STEP 1: Create a new report

Using the File menu, select $New \rightarrow Standard Report...$ This will open the Standard Report Creation Wizard.

STEP 2: Create a new connection

In the Available Data Sources field, double click on **Create New Connection** to expand the list. Then double click on **OLE DB (ADO)**. <u>Important:</u> If you use another connection type, it may appear to work now but you will have trouble later. Be sure to use the OLE DB connection type!

Once you have connected to the database once, the connection will be remembered and be listed under My Connections. Future reports can be created simply by selecting the shortcut under My Connections.

| Choose the data you want to report on. | |
|--|------------------|
| Available Data Sources: My Connections Alie HIEIS Create New Connection Access Excel (DAO) ADO.NET (XML) Database Files Java Beans Connectivity JDBC (JNDI) ODBC (RDO) OLE DB (ADO) Cole DB (ADO) SAP BW MDX Query SAP BW MDX Query SAP BW MDX Query | Selected Tables: |
| | |

STEP 3: Select an OLE DB Provider

In the next window, scroll through the list of Providers until you find SQL Server Native Client 11.0 (10.0 will also work). Select it (either one will work), and then click on Next.

| LE DB Provider | |
|------------------------|--|
| Select a provider from | h the list or select a data link file. |
| Provider: | Microsoft OLE DB Provider for ODBC Drivers Microsoft OLE DB Provider for Oracle Microsoft OLE DB Provider for Search Microsoft OLE DB Provider for SQL Server Microsoft OLE DB Simple Provider MSDataShape OLE DB Provider for Microsoft Directory Serv SQL Server Native Client 11.0 |
| Ise Data Link File | |

The options that appear in the Providers field are a list of drivers that have been installed on the computer currently being used. If neither option appears, then the SQL Server Native Client driver was not installed correctly. See <u>Microsoft SQL Server Native Client 10.0 or 11.0</u>.

STEP 4: Enter the Connection Information for HIFIS

This information should be available from your database administrator. Enter the **Server** name, the **User ID** and **Password** to login to the server, and the **Database** name. Then click Next.

| OLE DB (ADO) | | | × |
|---|---------------------------|--------------------|------|
| Connection Information Provide necessary infor | mation to log on to the c | hosen data source. | |
| Server: | | | ~ |
| User ID: | | | |
| Password: | | | |
| Database: | | | ~ |
| Integrated Security: | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| < Back Next | > Finish | Cancel | Help |

The next screen contains advanced information about the OLE DB connection. Click on Finish.

STEP 5: You are now connected to the database

You should be returned to the Standard Report Creation Wizard, but under the Available Data Sources field, the database you just connected to will have a little icon next to it with a plug sticking out. This indicates that you are currently connected to that database. You can now proceed with creating your report.

