

Star | System | Solutions

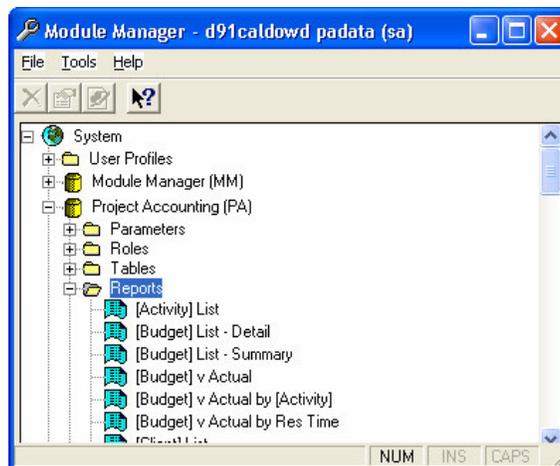
Report Manager / Module Manager

Introduction

Star Projects reporting is handled by a couple of separate applications. Behind the scenes there is the **Report Manager** application that acts as a user interface for database authentication, passing report parameters and generating the reports. To administer these reports there is the **Module Manager** application, which is where you will be adding any new reports. Often we will use the term “Report Manager” to collectively refer to both these applications since one is dependent on the other.

How to add a report to Star Projects

- 1) Open up and log in to **Module Manager** from the Windows start menu under “Star Projects”.
- 2) Double left click on **Project Accounting (PA)** to expand the menu and again on **Reports** to show a listing of all the reports installed in Star Projects as shown below.



- 3) Right click anywhere on or under the **Reports** menu to show the pop-up options to either add a new report, delete an existing report or see the properties of an existing report. Choose **New Report** to add so that the following screen is shown.

- 4) Complete the form using the following description of the entry fields to assist you.
- **Report ID** – automatically assigned by Module Manager (leave alone).
 - **Report Name** – the description that displays within Star Projects.
 - **File Name** – the filename of the Crystal report.
 - **Menu Grouping** – type the code for which reporting submenu the report falls under from the main **Reports** menu in Star Projects. The different choices can be found under **Parameters\Reports\Report Groups**.
 - **Allow Drill Down in Report** – not used.
 - **Parameter Type** – choose *Normal* for table based reports or *Stored Procedure* if the report uses store procedures.
 - **Type** – by default choose *User* for any custom made reports added and leave *System* for those reports that come installed as standard with Star Projects.
 - **Available Selections** – show all the parameter selections available that a report may use.
 - **Current Selections** – show the selections that the report currently uses. Use the buttons to the in between the two columns of Selections to move them in or out of use for the current report (similar to a ‘drag-and-drop’ mechanism).
 - **Increase Position / Decrease Position** buttons – use these buttons to change the sequence/order of the selections listed under the Current

Selections column. No longer relevant from version 6.20 onwards since selections are matched to their respective parameters by name regardless of their order.

How to Add Selections

- 1) Right click anywhere on or under the **Selections** menu to show the pop-up options to either add a new selection, delete a selection or see the properties of an existing selection. Choose **New Selection** to add so that the following screen is shown.

- 2) Enter the code using the same name given to the respective parameter in the Crystal report. The name is case insensitive but must include any spacing within the name exactly as it is with the Crystal parameter
- 3) The form is broken up into a series of subforms with tabs numbered 1 to 4. The first tab, **Main**, is mandatory, but the subsequent tabs only become active depending on the **Control Type** selected. The entry fields are explained below:
 1. **Caption** – descriptive title of the parameter to be displayed to the user in the report selection screen.
 2. **Control Type** – a dropdown box allows a choice of how the selection appears to the user (different types explained in the next section).
 3. **Data Type** – the type of the data being returned to the report from the selection (Text, Number, Date, Date/Time).
 4. **Format String** – define a format to display the parameter values in. For example: **dd/mm/yyyy** is a valid format for displaying dates, or **#,###.00** is a valid format for displaying numbers.
 5. **Max Length** – an integer value defining the accepted number of characters in the value entered for the selection.

6. **Min Value** – the minimum value defined for this selection
7. **Max Value** – the maximum value defined for this selection
8. **Default Value** – stores a value to be returned by default which the user can then override if they wish.
9. **Mandatory** – force users to enter a value for this selection before allow them to continue to generate the report.
10. **Force Uppercase** – forces the text entered by the user into uppercase as the user is entering it.
11. **Type** – just as with the reports themselves, if you are adding a new parameter for a custom report then choose *User* and leave *System* for the standard selections installed with Star Projects.

Selection Control Types

The following diagram shows each of the different selection control types as they appear to the user in the Report Selection screen.



1. Text Box

A standard text field for data entry. Enter a *Caption*, before the control type, to be displayed on the report selection screen and choose a *Data Type* matching the report's parameter requirements. The other fields on the *Main* tab are optional.

2. Find Box

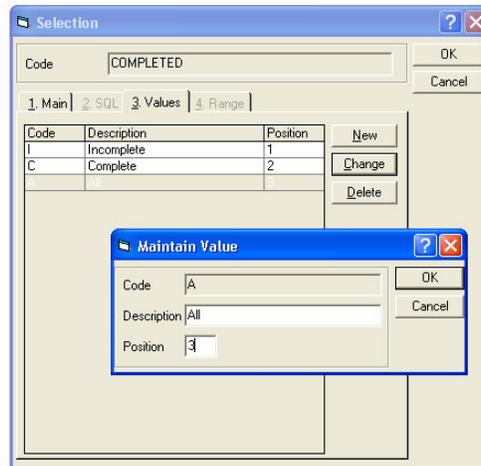
This will provide a lookup query so that users can choose a value from records within a database table. Fill out a caption and data type like with a text box and then go to the second tab, *SQL* which is now enabled, where the lookup is defined.

- **Key** – enter the column name of the database table used for the lookup that contains the value you wish to be returned as the selection value. Enter a user friendly description for this value in the *Heading* field to the right.
- **Description** – enter the column name from the same database table used for the **Key** field that shows a narrative of each of the values to choose from. For example a lookup for *Client* may have “client_code” as the key field and “client_name” as the description field.
- **Other Fields** – if there is a need for more than the single **Description** column to provide for record descriptions in the lookup, then more table column names can be entered here separated by commas.
- **Table** - enter the database table name from where the **Key** and **Description** field values are obtained from.
- **Where** – enter any valid SQL “where” condition to limit the scope.
- **Automatically populate results** – tick this checkbox to make the lookup return values immediately when the ‘find’ icon is clicked by the user. By default this option is ticked on.
- **Select only distinct records** – tick this checkbox to limit the range returned to only show unique values. (i.e. eliminate subsequent duplicate values).
- **Test SQL** – use this button to test that the query functions successfully.

3. Radio Group

For use where the selection is limited to a few predetermined choices. The Radio Group uses the third tab, *Values*, where the list of choices is defined.

Click the *New* button to add a choice. Enter into the *Code* field, the value to be returned to the report, a description into the *Description* field to explain the choice to the user and the sequence of the entry into the *Position* field (starting with "1"). Use the *Change* or *Delete* buttons to edit existing entries.



4. Drop Down Combo (List)

When the list of choices becomes too large to handle in a Radio Group, then a Drop Down Combo (List) does a similar job but using a dropdown list. Tab 3, *Values*, is used exactly the same way as it is used for Radio Groups described above.

5. Drop Down Combo (Database)

Similar to a Find Box, this control type runs a query to get a list of selection choices and displays them in a dropdown list. Complete the *SQL* tab just as described for the Find Box.

6. Text Box – Range

An extension to the standard Text Box, this control type really is two selections in one. Complete the *Main* tab as you would for a standard text box, then go to the *Range* tab (fourth and last tab). Unlike all the other Control Types, the *Range* tab in this control type rather than the name of the Selection itself, defines the link to the actual parameter names in the Crystal report.

The screenshot shows a dialog box titled "Selection" with a blue title bar and standard window controls. The "Code" field at the top contains the text "DATE RANGE". Below this is a tabbed interface with four tabs: "1. Main", "2. SQL", "3. Values", and "4. Range", with "4. Range" currently selected. The "Range" tab contains two columns of fields. The first column is labeled "From" and has a "Code" field containing "DATE FROM" and an empty "Default" field below it. The second column is labeled "To" and has a "Code" field containing "DATE TO" and an empty "Default" field below it. "OK" and "Cancel" buttons are located in the top right corner.

In the diagram above, the most commonly used Text Box – Range, is the report date range. Here, in the *Code* field, the parameter names from the report are defined and in the fields below are default values to be used if the user enters nothing.

7. Special - Not used.

Crystal Report Set-Up

Star Projects automatically creates an ODBC Data Source named “Report Manager” if one does not already exist in the list of User Data Sources. Star Projects specifically uses this DSN for connecting to the database hence all crystal reports for Star Projects should use it.

When creating or modifying a crystal report, the parameters included in the report must have their names matching the names given to the selections in Report Manager.

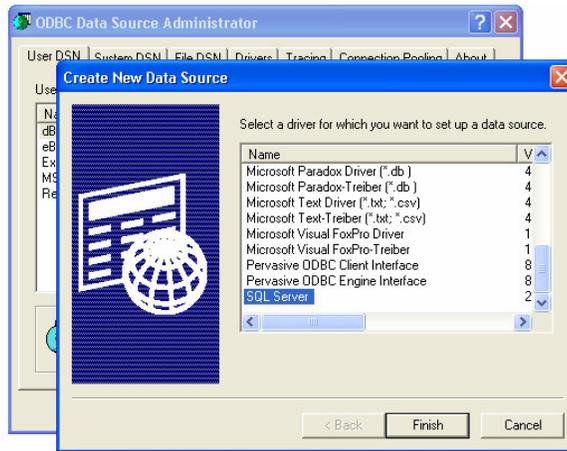
The one exception is with reports based on SQL stored procedures that will have Crystal parameter names with a leading “@” symbol to match the parameter name in the stored procedure itself. In Report Manager, the “@” symbol is ignored so that selection names do not require this symbol.

Another consideration when using SQL stored procedures rather than tables directly is to create date parameters in your procedure as a *varchar* data type rather than using datetime, otherwise you are likely to get a “Type mismatch” error. The stored procedure can then use the *convert* or *cast* function to revert the parameter back to a datetime. Hence you would also set up the date parameter in your Crystal report as a *string* where you can then use the *Date* or the *DTSToDate* function to convert values to proper dates if needed. As a rule, we use *varchar(32)* in our stored procedures so that even if we are expecting a date only, there is room for time data as well.

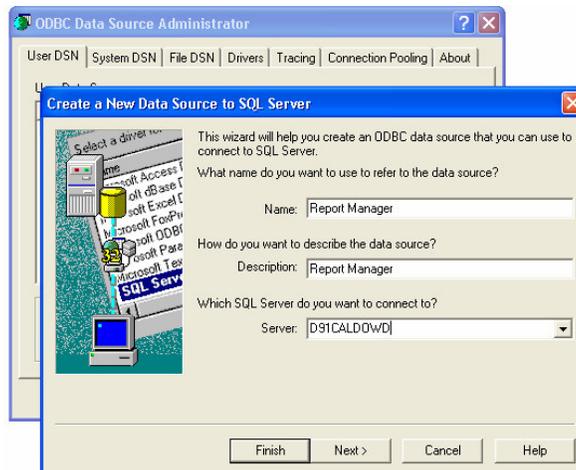
ODBC DSN Set-up

To create a new DSN for Report Manager follow these steps.

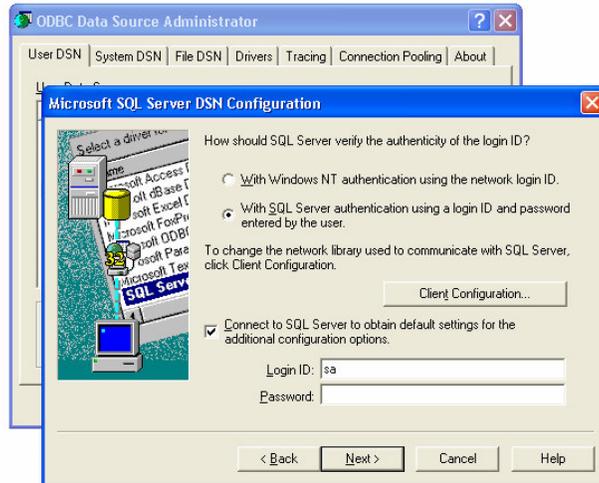
- 1) Workstation must have Microsoft SQL Server's "Client Network Utility" installed and a Server Alias created.
- 2) From the ODBC Data Source Administrator, left click "Add".
- 3) From the following screen choose "SQL Server" from the list of drivers.



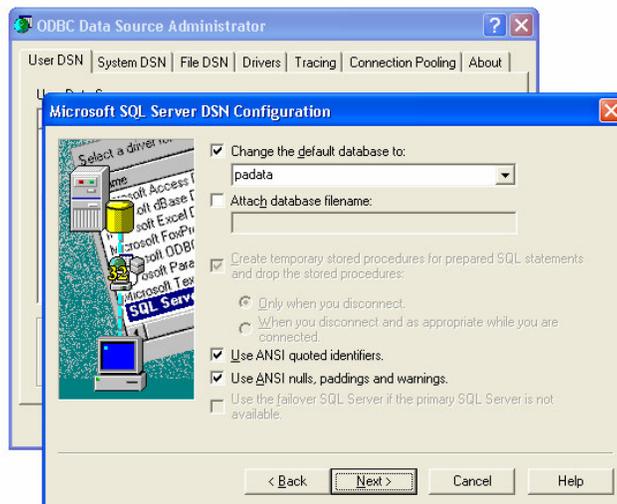
- 4) Enter "Report Manager" for *Name*, a description and choose the appropriate server alias from the *Server* dropdown list in the third field. Left click *Next*.



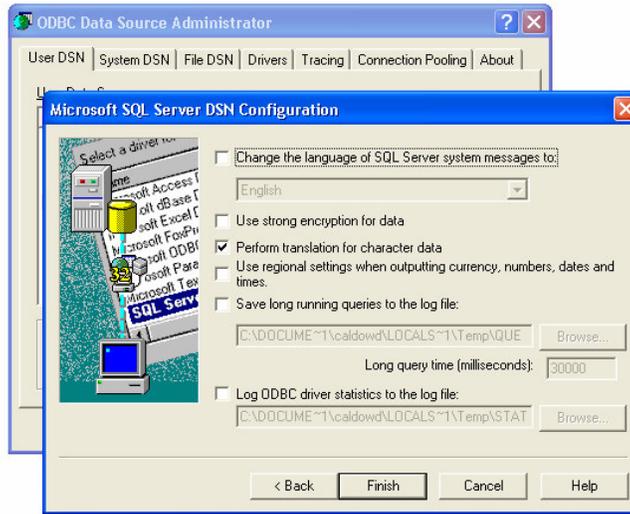
- 5) In the next screen there is a choice of authentication. **Note:** you must choose the same method of authentication as is used by users logging into Star Projects. Either method requires a valid Login ID with permissions to the Star Projects database. By default Star Projects uses SQL Server authentication as shown below.



- 6) Tick the **Change the default database to:** checkbox and select the Star Projects database name from the dropdown list. Star Projects will automatically set this, each time it prepares a report, to the current database and standard reports are written without database name references and rely on this DSN to point to the appropriate database. Hence this setting is not crucial if you are only using one Star Projects database and this database name is hard-coded into your crystal report. When done click **Next**.



7) The next screen should require no changes, so click **Finish**.



8) Click **Ok** in the final screen below, or you can choose to test the data source.

