

FINAL DRAFT



# **Documentation & Standards SQL Server Reporting Services (SSRS)**

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MS Govern  
Documentation & Standards for SSRS  
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## Disclaimer

MS Govern has taken due care in preparing this manual. However, nothing contained herein modifies or alters in any way the standard terms and conditions of the purchase, lease, or license agreement by which the product was acquired, nor increases in any way the liability of MS Govern to the customer.

## Preface

Welcome to Govern, a comprehensive and fully integrated transaction-driven system written exclusively for local governments. Govern includes a wide variety of database modules:

### **Computer-Assisted Mass Appraisal (CAMA)**

- Appeals & Grievances
- Appraisals / Property Valuations
- Comparables Sales Management

### **Financial Management**

- Account Receivable
- Cash Collection

### **Land Management**

- Business & Individual Licenses
- Complaint Tracking
- Leasing
- Permit Tracking & Inspection Scheduling
- Planning
- Violations

### **Revenue Management**

- Aircraft & Boat Excise Tax
- Miscellaneous Billing
- Personal Property Tax Billing
- Real Property Tax Billing
- Self-Reported Tax Billing
- Special Assessments
- Tax Title / Tax Lien / Tax Sales
- Utility Billing

Since 1980, MS Govern has worked hand-in-hand with State and Local Governments to simplify the implementation of software solutions that automate the flow of information related to their properties.

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## Standards for SSRS

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# How to Use Reporting Services



## Overview

**Note:** Users that intend to use SQL Server Reporting Services (SSRS) must ensure that the .NET Framework v4.0 or higher is installed on their computer systems.

## SQL Server Reporting Services (SSRS)

*SQL Server Reporting Services (SSRS)*, is a server-based report generation software system from *Microsoft™*. SSRS is administered via a web interface, and is used to prepare and deliver interactive and printed reports. SSRS is viewed as an alternative to *Crystal Reports* or any other tools that are used in gathering business intelligence.

The file extension that is used by SSRS is **.rdl**. *Report Dependent Language (RDL)* files may be created by the *SQL Server 2008* version of *Report Designer*.

The **.rdl** extension is created when the report is placed on a server. For example, the **.rdl** file will be located under the following path `http://localhost/reportserver`. An **.rdlc** file will be used when creating a report locally.

## The ReportViewer Control

To create **.rdl** reports, use the *ReportViewer* control found in *Visual Studio*. To view **.rdl** files located on a server, the *ReportViewer* control must be used in *Remote Processing Mode*. To view in *Remote Processing Mode*, the *URL* of the *ReportServer* and the path to the report must be supplied. In addition, if there are any additional parameters defined in the report, you will need to set these parameters in the *ReportViewer* which will then send the value of the parameters to the report.

# SQL Server Reporting Services Set Up

## Install SQL Server Express

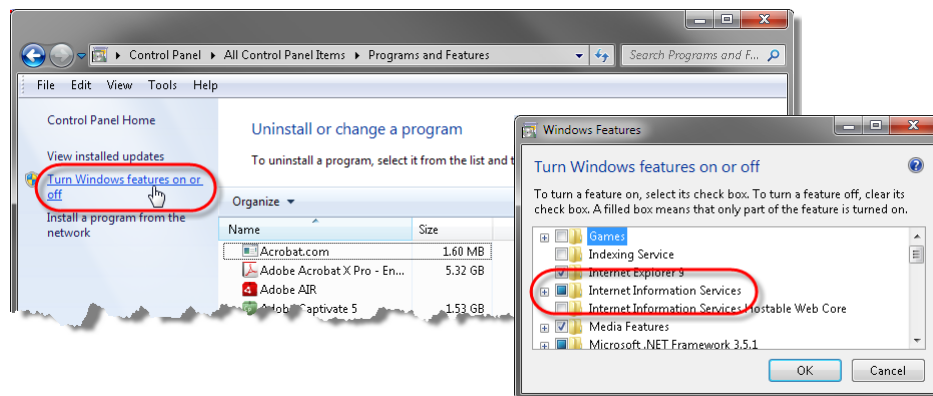
In order to obtain the tools to use SSRS, users can install the *Microsoft SQL Server Express* data management system. This can be obtained from the *Microsoft Web site*.

**Note:** TCP/IP port 1433 is the default port that is used to access the SQL database. If users are going to be accessing the database over the internet, ensure that the Windows firewall is configured to allow access through this port.

## Configure and Enable Internet Information Services (IIS)

**Note:** For comprehensive instructions on configuring and enabling IIS refer to *Microsoft Technical Support*.

1. If not enabled, activate *IIS* in the *Control Panel*; select *Start > Control Panel > Programs and Features*.
2. In *Programs and Features*, click the option to **Turn Windows features on or off**.



3. In the *Windows Features* screen, enable Internet Information Services (IIS).



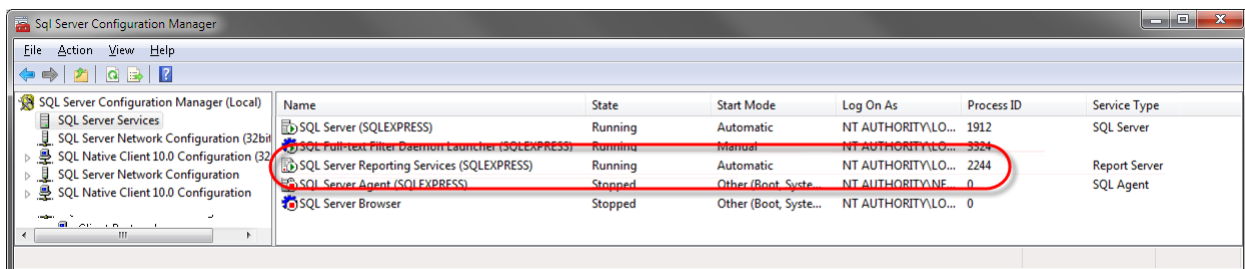
- With **IIS** enabled, perform a test to ensure that IIS is running; open a browser and enter the URL for the server that is running IIS, i.e. `http://computerName`. An IIS image should be displayed in your browser window.



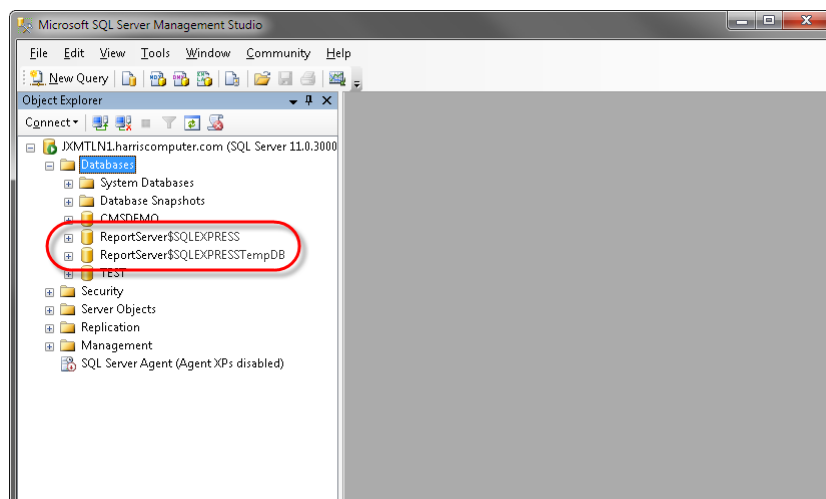
### Start SQL Server Reporting Services (SSRS)

In the next step, it will be necessary to start *SQL Server Reporting Services (SSRS)*. This will be done in the *SQL Server Configuration Manager*. The following example is using *SQL Server Express 2008 R2*.

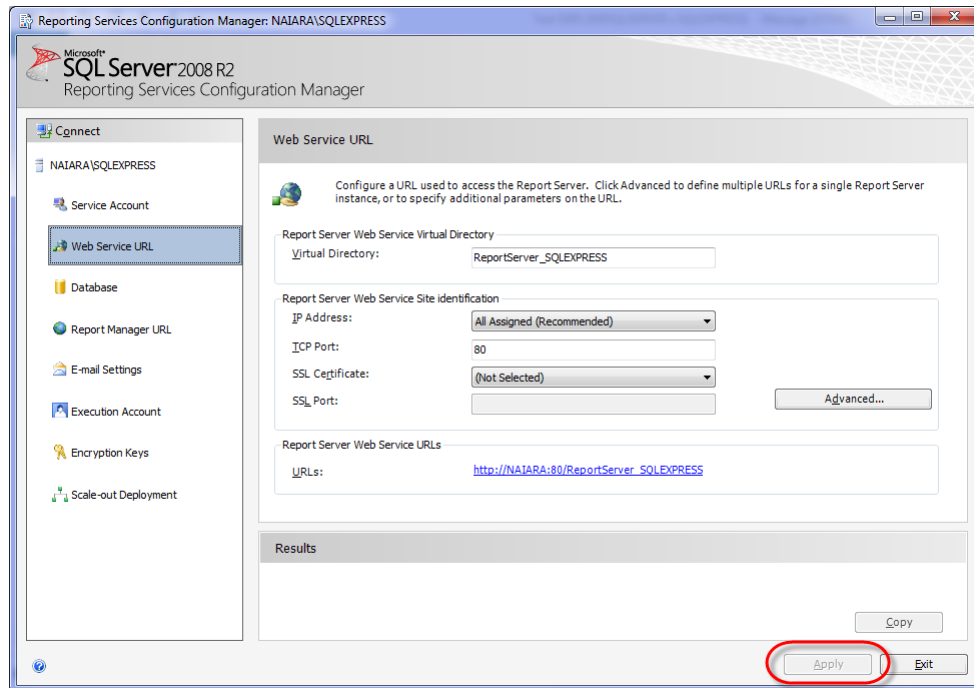
- In *SQL Server Configuration Manager*, start *SQL Server Reporting Services*.



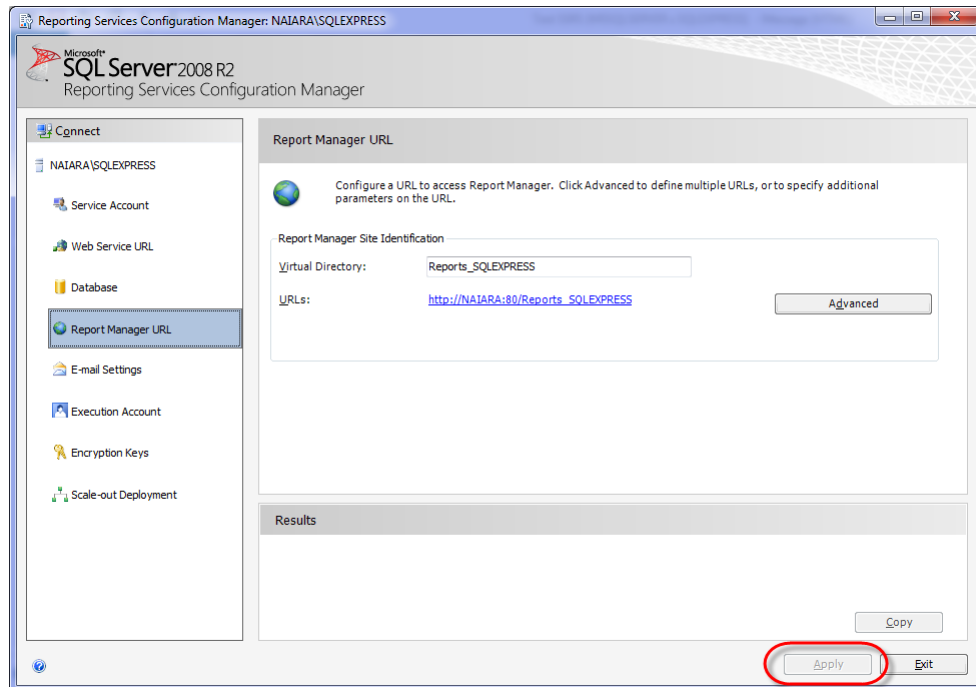
- Verify that the databases were created. This is done with *SQL Server Management Studio*.



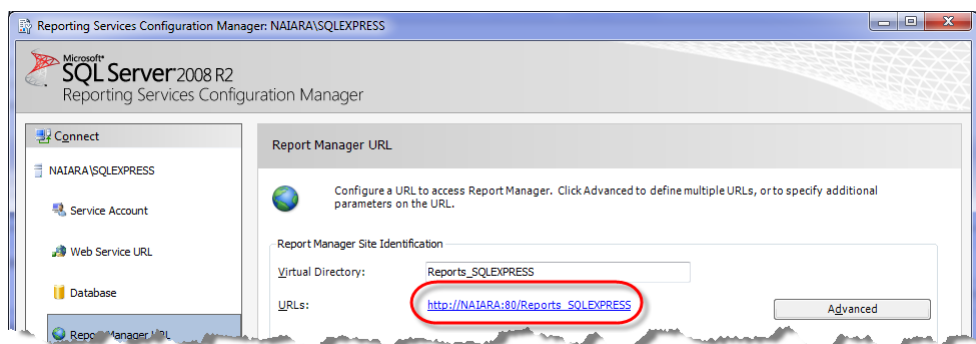
3. Verify that the *Web Service URL* is activated on *Reporting Services Configuration Manager*. If the service is not activated, configure it and click **Apply**.



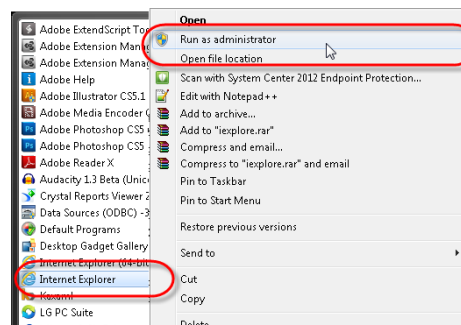
4. Verify if the *Report Manager URL* is activated on *Reporting Services Configuration Manager*, if not click **Apply**.



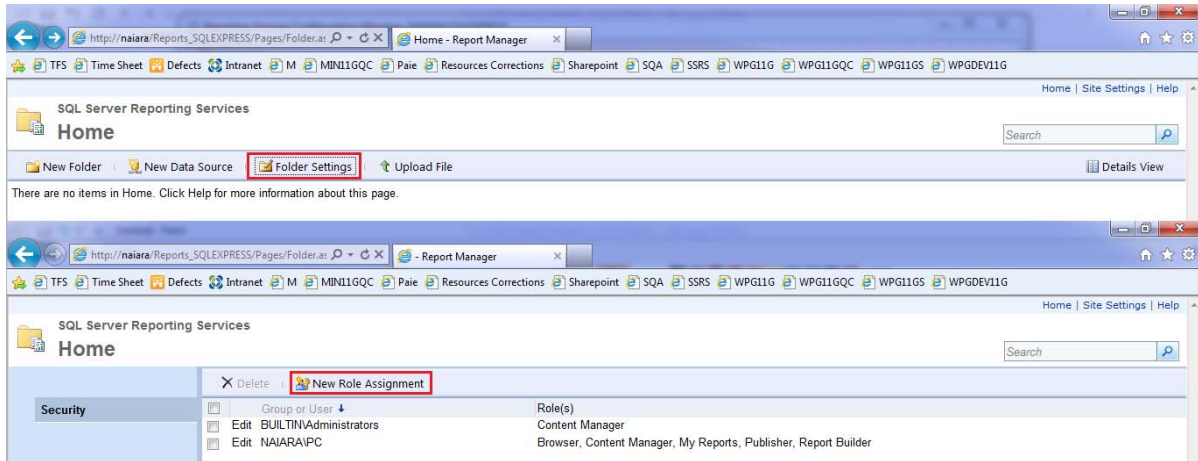
5. Copy the *URL* from *Reporting Services Configuration Manager*



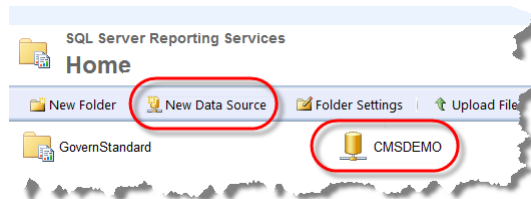
6. From the *Start* button, right click on *Internet Explorer*, or a comparable browser and run it as an *Administrator*.



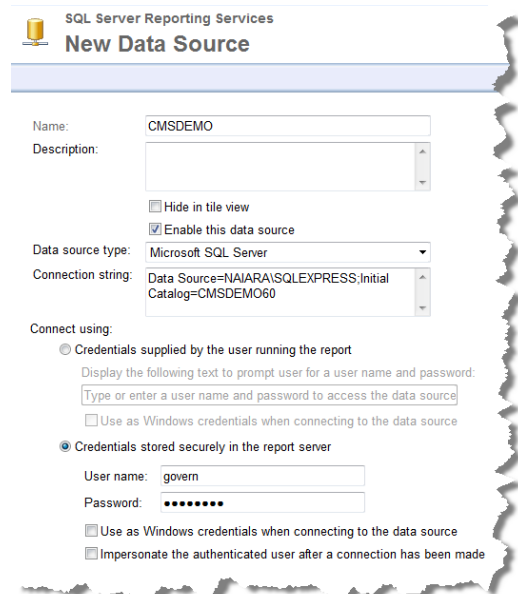
7. Paste the address into the browser and give permission to users.



8. Create a datasource; in the following the name *CMSDEMO* is used.



9. At the **New Data Source** screen provide access to the data source.



SQL Server Reporting Services  
**New Data Source**

Name: CMSDEMO

Description:

☐ Hide in tile view  
☒ Enable this data source

Data source type: Microsoft SQL Server

Connection string: Data Source=NAIARA\SQLEXPRESS;Initial Catalog=CMSDEMO60

Connect using:

☒ Credentials supplied by the user running the report  
Display the following text to prompt user for a user name and password:  
Type or enter a user name and password to access the data source

☐ Use as Windows credentials when connecting to the data source

☒ Credentials stored securely in the report server

User name: govern

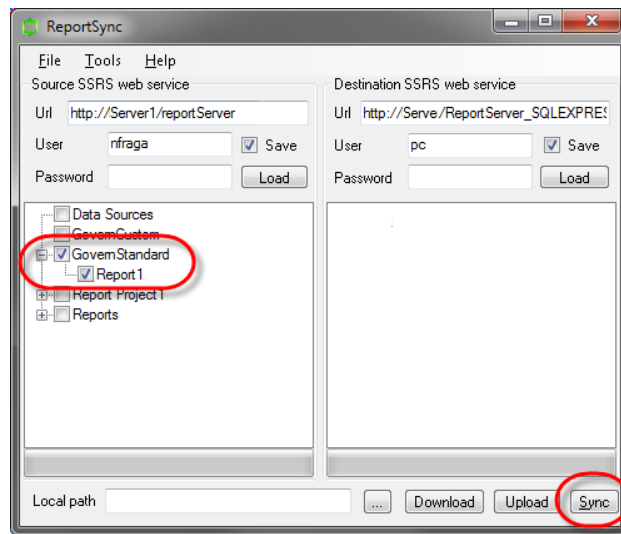
Password: .....

☐ Use as Windows credentials when connecting to the data source  
☐ Impersonate the authenticated user after a connection has been made

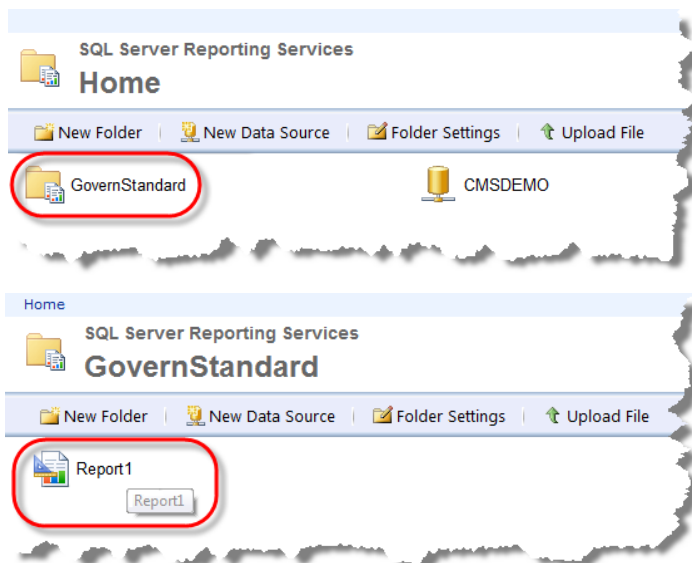
10. Now you will need to synchronize SSRS between 2 servers. This can be done with a utility called **reportsync**.

### Synchronizing the Database with the Server

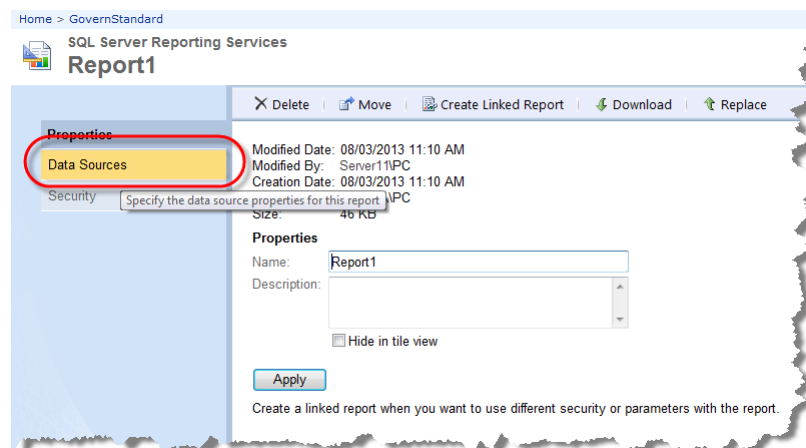
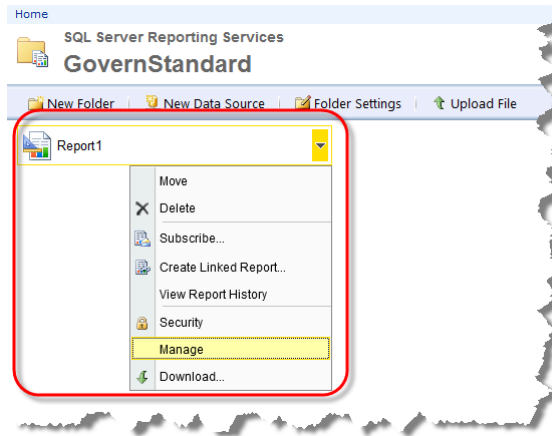
Download and run the *Open Source ReportSync* utility from the following link:  
<https://code.google.com/p/reportsync/>



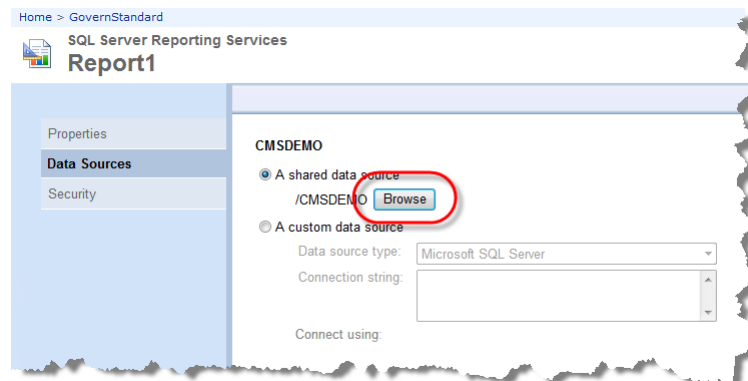
11. Use the utility to synchronize the database with the server; click **Sync**.
12. Verify the folder and the reports that were created.



13. Add the data source to the report.



14. Now the report can be run in a browser, click **Browse**.



The Report will be displayed in the browser.

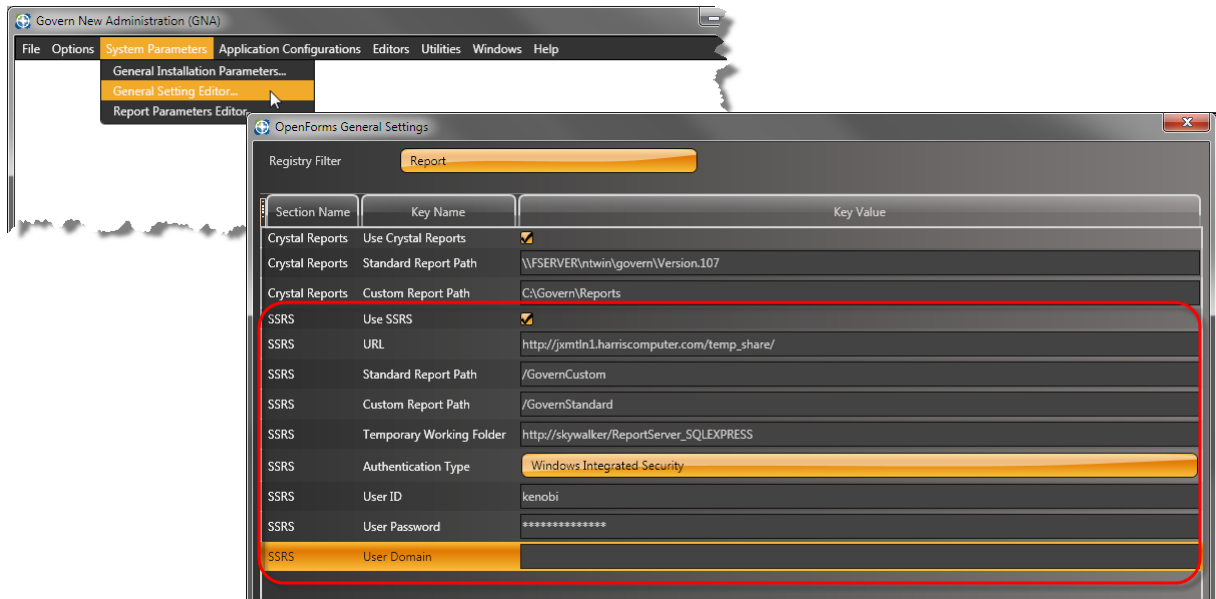
Home > GovernStandard > Report1

1 of 2 ? 100% Find | Next

### Parcel x Owner

<b>Id:</b>	11754	<b>Tax Map:</b>	103-104-400-5	<b>Status:</b>	Previous
	<b>Last Name</b>		<b>First Name</b>		
	Rubsamen		Caroline		
<b>Id:</b>	11755	<b>Tax Map:</b>	103-104-400-6	<b>Status:</b>	Previous
	<b>Last Name</b>		<b>First Name</b>		
	Rubsamen		Caroline		
<b>Id:</b>	11756	<b>Tax Map:</b>	103-104-400-7	<b>Status:</b>	Previous
	<b>Last Name</b>		<b>First Name</b>		
	Rubsamen		Theodore		
<b>Id:</b>	12699	<b>Tax Map:</b>	110-100-100-0	<b>Status:</b>	Previous

## Configuration in the Govern New Administration (GNA)



Now that the reports have been generated, the *Govern New Administration (GNA)* can be configured to work with them.

To give SSRS or *Crystal Reports* access to your database...

1. In the *OpenForms General Settings* form locate the *Registry Filter* and select the **Report** option from the drop down menu.

The parameters required are to be set here. The settings determine the default communication used. These settings would apply to, *Open Forms Standard Reports*, *User Custom Reports*, and *Govern for Windows* reports.

### OpenForms General Settings form - Report option parameters

*The following parameters are used for configuring SSRS.*

**Use SSRS:** Select this option to enable **SSRS** as a report option.



**Authentication Type:** The *Authentication Type* parameter defines the method that will be used to access the server. *Windows Integrated Security (WIS)* is the system default. The option are as follows:

**Predefined Credentials:** The account of the user must be added in the Report Server. This means the account must exist locally on the machine, i.e. the server with the SQL Server 2005 Reporting Services installed, in order to be able to connect to Reporting Services.

**Windows Integrated Security:** Use the current user account information i.e. the currently logged on user, to connect to *Reporting Services*.

**Report Path:** Server path where custom reports are stored.

**Standard Report Path:** Standard Report Path: Server path where standard reports are stored.

**Temporary Working Folder:** Server path where temporary Reports and data sources are deployed. This is a folder that is used for testing.

**Note:** The path must begin with a “/”. as per UNC convention

**URL:** This is the URL or network address for the SSRS server.

**Note:** This address can be obtained from the *Reporting Services Configuration Manager*. This is the Web service URL.

### When selecting “Predefined Credentials” as Authentication Type

The following is information required when the **Predefined Credentials** option is selected as an authentication type.

**Note:** For the *Batch Process Scheduler*, these parameters are also used because only a specific user may log in.

**User Domain:** If a Windows domain is required to be specified, indicate it in this parameter.

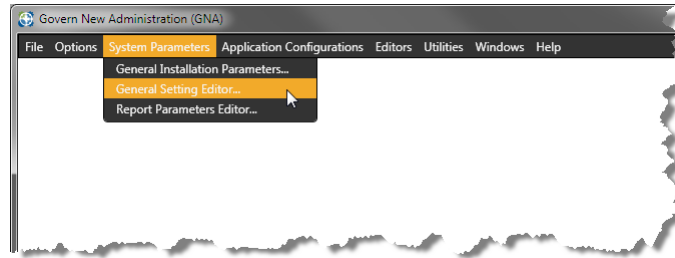
**User ID:** Enter the User ID or user name that is used to access the server.

**User Password:** Enter the password associated with the user name that is used to access the server.

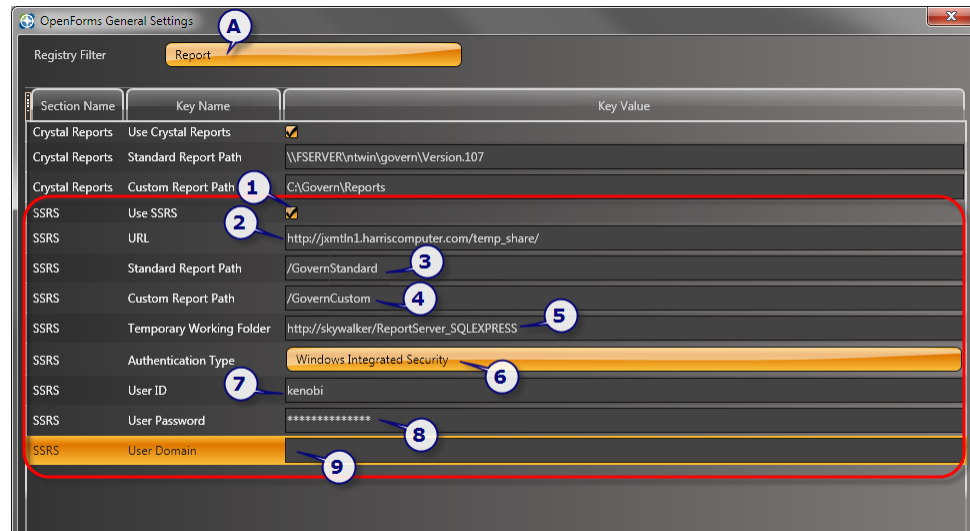
## Configuring GNA for use with SSRS Reports

To configure *GNA* for use with the SSRS reports...

1. In *GNA*, select *System Parameters* > **General Settings Editor...**



2. In the *OpenForms General Settings* form, select **Reports** from the *Registry Filter* parameter (A).



3. Click to select the **Use SSRS** option (1).
4. In the **URL** parameter (2), enter the *URL* to the *Report Server*.
5. Enter the path to standard reports in the **Standard Report Path** (3) parameter.
6. When using custom reports, enter the path in the **Custom Report Path** (4) parameter.
7. Enter a path for a temporary working folder (5).

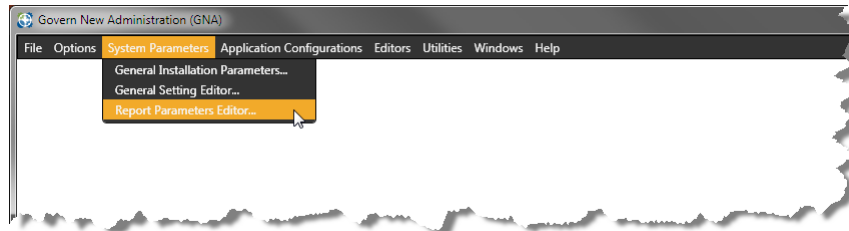
It will be necessary to provide credentials to authenticate the user that is trying to use *Reporting Services*. Setting must be correct, or else an error message

like “Permissions are Insufficient” is displayed. This message indicates that the user is authenticated, but not in Reporting Services role.

8. Select a method of authentication from the **Authentication Type** drop down menu.
9. Enter the access credentials for the server in the **User ID** and **User Password** parameters.
10. If applicable, a **User Domain** can be specified.
11. Click **Save** to save the SSRS parameter settings.

Once all required configuration parameters have been specified and saved in GNA, the reports will now need to be configured in the *GNA Reports Parameter* editor.

## Configuring Reports in the Reports Editor

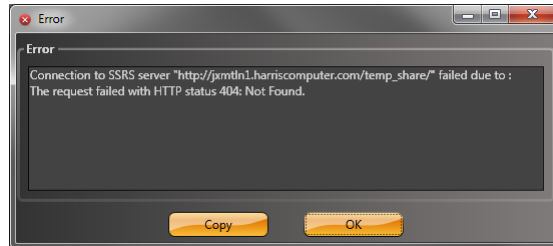


The *Report Editor* form is used to configure reports on an individual basis. The SSRS reports, as with *Crystal Reports*, will be used to display the contents of fields in queried tables. The report designer will lay out the results in a manner that is of value to the user. *Refer to the Report Parameter section in the Govern New Administration (GNA) Release 5.1 user guide for full details about using the Report Parameter Editor.*

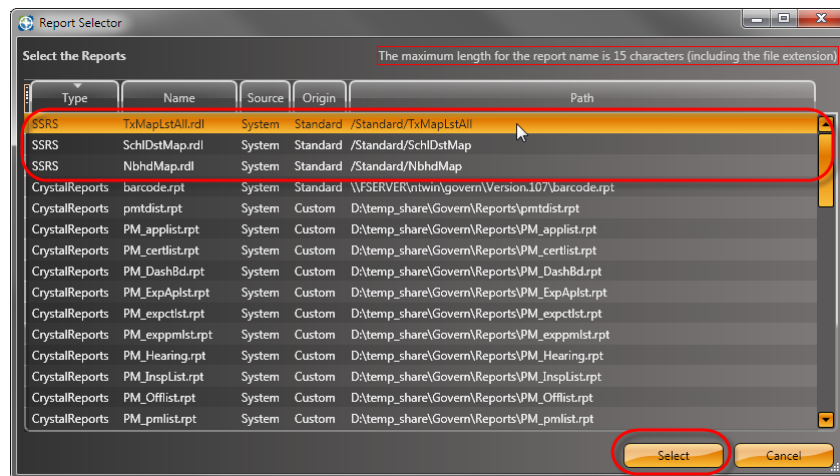
Configure the SSRS report in GNA...

1. In GNA select *System Parameters* > **Report Parameters Editor...**
2. Click **New** configure a new report.
3. Enter a name in the **Report Name** parameter or click “...” to browse the path to the SSRS server containing the reports. If there is an error with the path, click **OK**. You will need to return to the *General Settings* editor and

re-enter a path to the SSRS server in the **SSRS URL** parameter. See *Configuration in the Govern New Administration (GNA)* on page 10.



4. In the *Report Selector*, select a report from the list; click **Select**.



5. Complete the remaining parameters, i.e. *Record Set key, Report Criteria, Criteria Key, Alternate Connection Key Properties*, etc.

#### Note:

6. Click **Save** under the *Report* tab.

### For example...

In the following example, we want to configure a report that will filter a list of values for a selected key.

The variables are as follows:

**Record Set Key:** Report Dataset will be filtered with a list of values for the selected key.

**For example:** `SELECT * FROM pc_parcel WHERE p_id = '123' OR p_id = '456' etc.`

**Criteria Key:** The *Report Dataset* will be filtered with a unique value for the selected keys.

**For example:** `SELECT * FROM pc_parcel WHERE p_id = '123'`

**Alternate Connection Key Properties:** List of Report datasources that can assigned a *Connection Key*. It will overwrite the DataSource by the given Connection Key at the runtime. If no Connection Key is selected, it will take the Default/Current one.

**Note:** SSRS can have a different alternate connection key for each DataSource found in the Report; Crystal Reports will overwrite all DataSources with the selected Connection Key

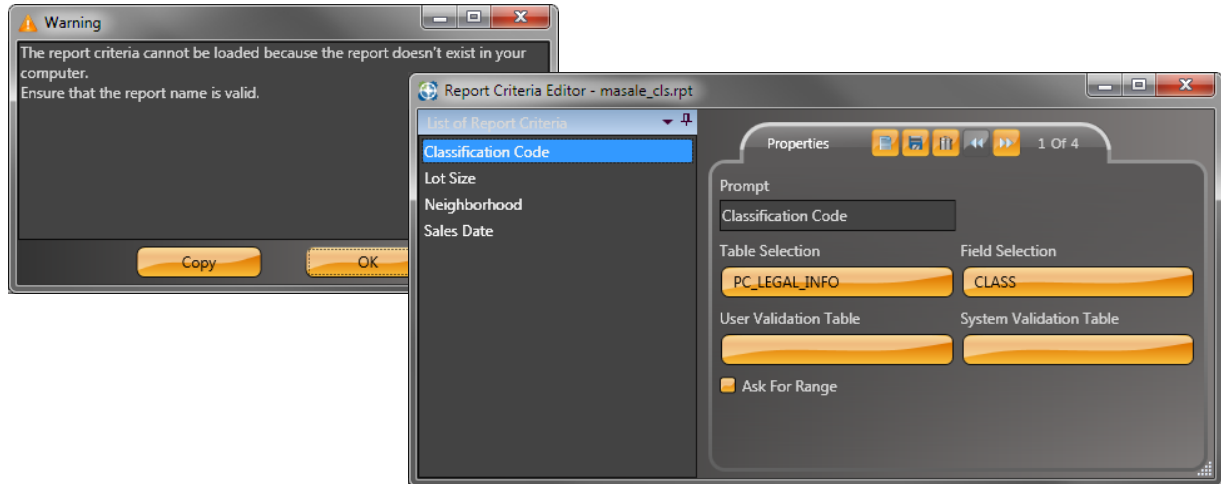
**Report Group:** *Report Grouping* for the *Report Explorer* in Govern for .NET.

## Using the Report Criteria Editor

Depending on the design, reports are generated from data obtained from a specified data source. At times user input requested by a prompt is required to filter the data, e.g. entering a date range, specifying a fiscal year, and so on. In other instances the data must first be extracted and “preprocessed”. For these types of reports, it is necessary to configure the preprocessing for input from the user.

**Report Criteria editor:** Click **Report Criteria** to display the *Report Criteria* editor. In the *Report Criteria* editor you can add a filter on a specific *Report Field*.

**Note:** If a report is not present on the client computer, an error window will be displayed .



**Dataset Selection:** Select the Dataset to apply filter on.


**Field Selection:** Select the field to apply filter on.

**User & System Validation Table:** Define if available values come from a table. Will be representing as a Combobox selection.

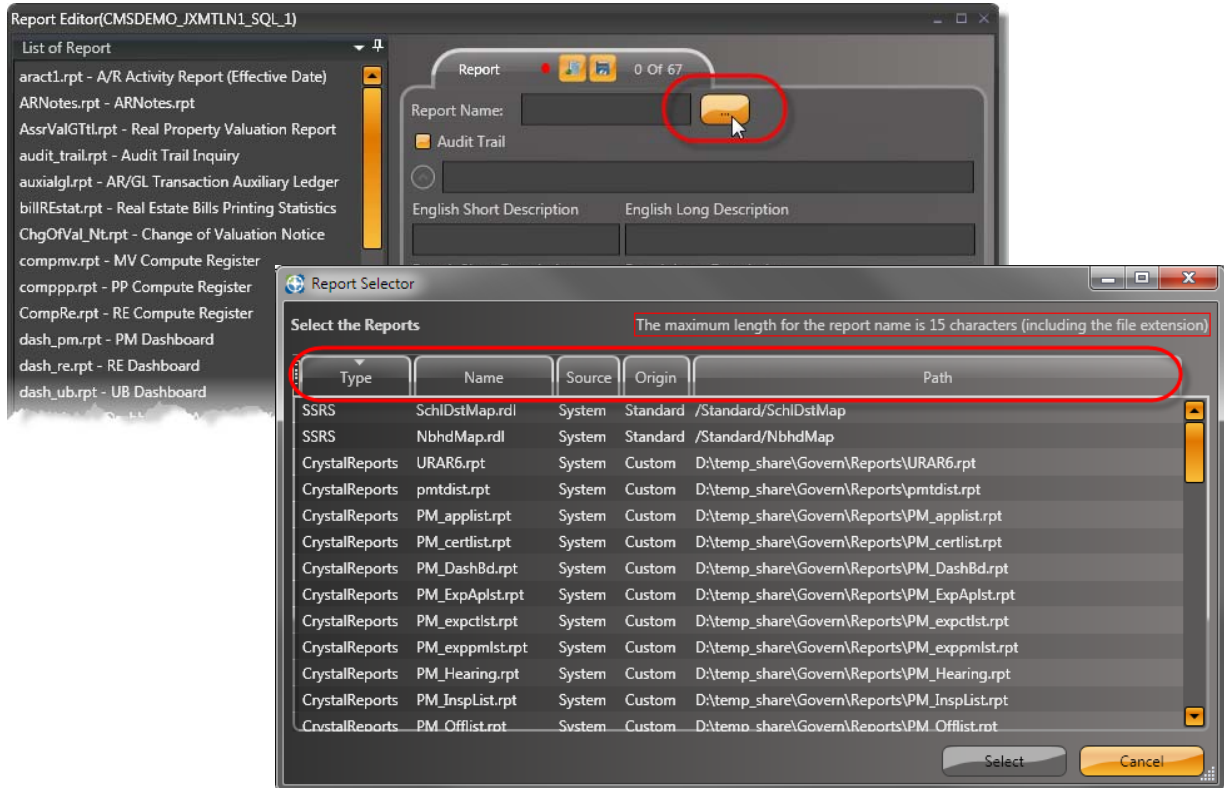
**Ask for Range:** Define if it's a range filters.

## Adding a Report to the List

To add the SSRS .rdl report...

1. In the *Report* tab, click **New** to begin the process; a red dot will appear on the *Report* tab to indicate that modifications have been made but not saved.
2. Click  to display the **Report Selector**.
3. Select an SSRS report from the list. In the list

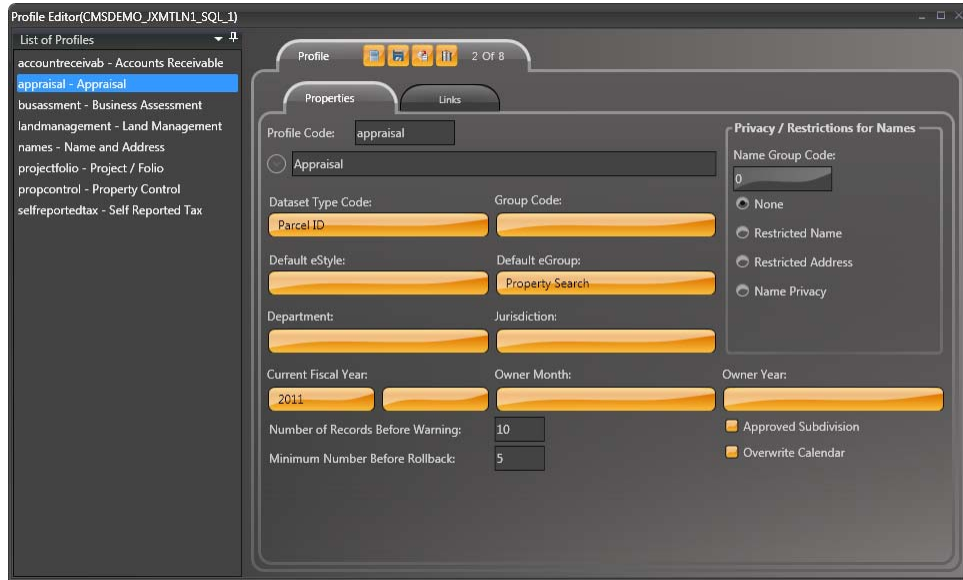
## Report Selector “...”



The *Report Selector* form displays a list of all reports that are available in the system. Click *Report Selector* to list the *Crystal* and *SSRS* reports and their respective paths.

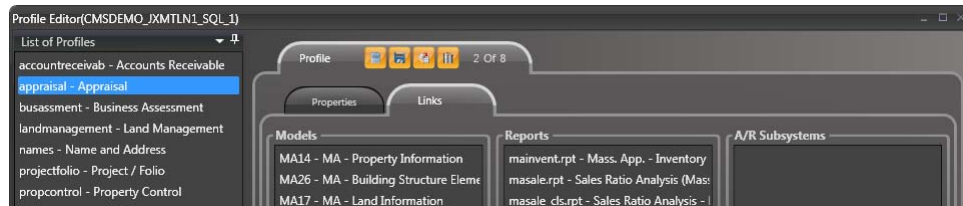
**Note:** For convenience and ease of view, the list can be sorted in ascending or descending order, with a click on a column heading.

## Adding Reports with the Profile Editor



The *Reports* section let you link to or remove reports from a *Govern* profile. Users will note that the report must have been previously defined, i.e. created in the *Report Editor* for its description to appear in the list.

## Adding the Report to a Profile



In order for a report to appear within a *Govern* profile, it will need to be linked to the profile.

To link the report...

1. In *GNA* select *Editors* > **Profile Editor...**
2. In the *Profile Editor*, select a Profile from the **List of Profiles** list.



- Under the *Profile* tab, click to select the **Links** sub-tab (A).



- Under the Reports column, click Add (1) to display the list of available reports.

For details regarding configuration of *Profiles*, refer to the *Profile Editor* section of the *Govern New Administration (GNA) Release 5.1* user guide.

The Report can be verified in Govern by selecting the profile that was configured with the report.

## Linking Reports to a Batch Process

Reports may be used in conjunction with a Batch process. The *Batch Process Definition* editor is used to define how batch processes appear and run in Govern. When a report is required in the batch processes, the *Batch Process Definition* editor, is used to link the report to a Batch Process; this is done under the **Reports** tab.

### Report Details form

The *Report Details* form is used to define the file format of the report that is to be exported. The file format is selected from the *Export Format Type* drop down menu. In addition, on this form are a list of report parameters that can be

assigned default values, and an specification of whether the values can be overridden at runtime.



To display the *Report Details* form...

1. In the *Batch Process Definition* form, under the **Reports** tab, select a report.
2. Click *Open Report Details window* to display the **Reports Properties** form.

## Reports Properties parameters

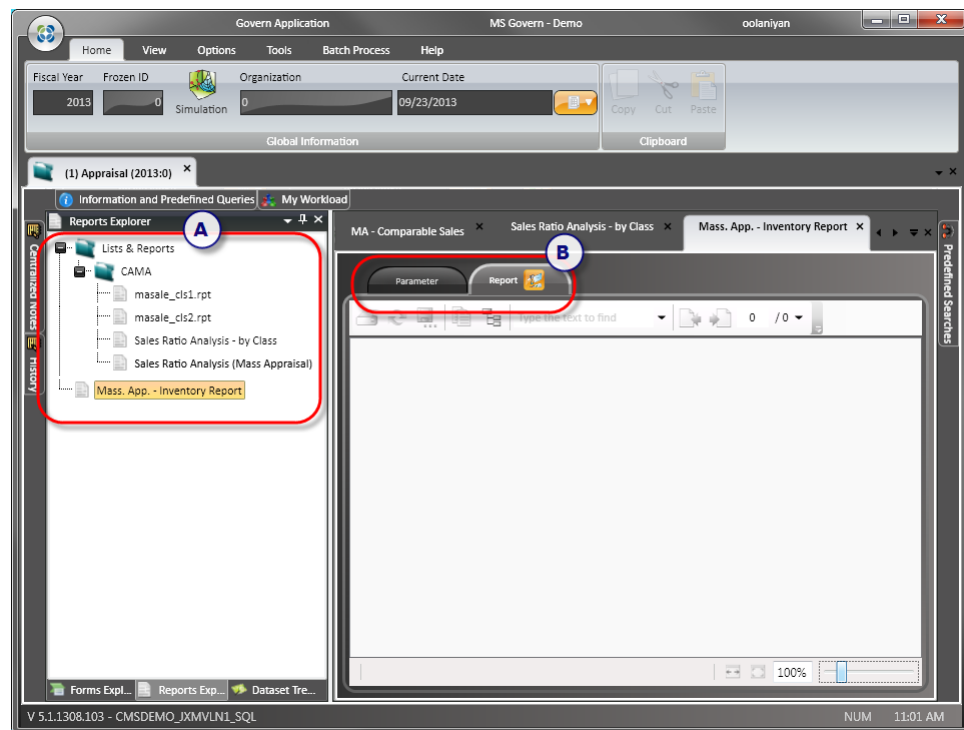
**Export Format Type:** Define the export Format Type (CSV, DOC, PDF, XLS, and others...)

**Note:** Users should note that the list of available export format type For Crystal Reports will be different from those of SSRS.

**Can Override:** Select this option if the user will be allowed to override the parameter value when the process is being run.

## The Reports Explorer in MS Govern

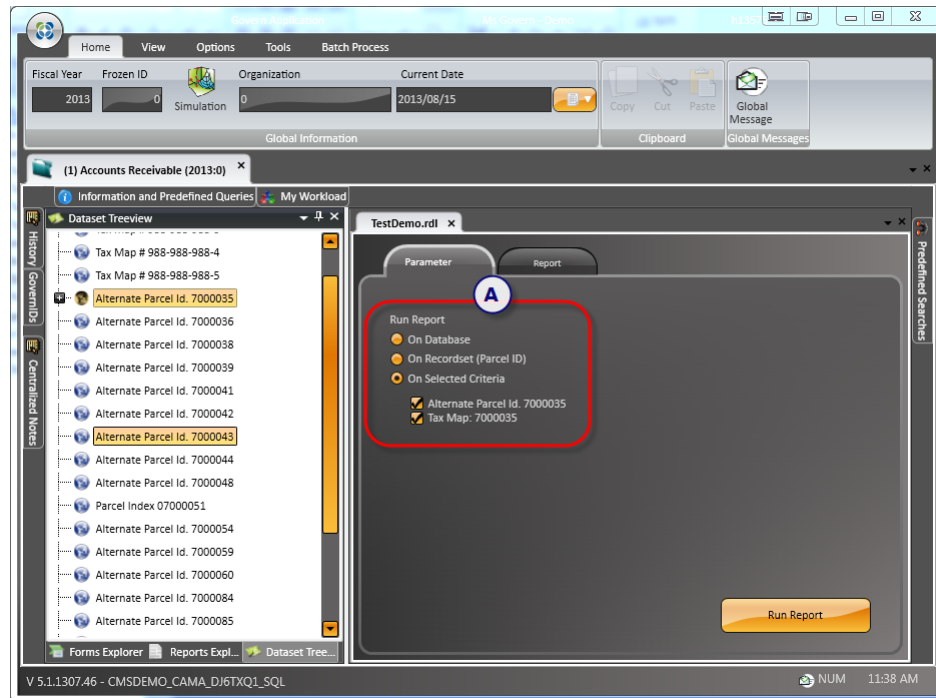
After the necessary configurations have been made, the reports in the profile can be viewed in the *Reports Explorer* pane in *MS Govern*. This pane lists all reports that are linked to the profile.



To view the report in *MS Govern*...

1. Click to select the **Reports Explorer** pane on the left hand side of the interface (A).
2. Locate a report and double click on it; this will display the *Report* window (B); note a **Parameter** tab to access any report associated parameters.

## Parameter Tab - Run Report Section



Under the *Parameter* tab are filters that will allow the user to specify how the report will be run, e.g. *On the Database*, *On a Recordset*, or *On a Selected Criteria*. There are multiple report options that can be implemented in a report. When they are used, they are displayed under the Parameters tab based upon whether:

- No additional parameters required at runtime - see *Report options - No user parameters required below*.
- User parameters are required to be input at runtime - see *Report options - Report Parameters required below*.
- User criteria are required to be specified at runtime - see *Report options - Report Criteria required below*.

### Report options - No user parameters required

**On Database:** Select this option to run the report without applying any specific filter, i.e. on the whole database.

**On Recordset (Key name):** When selected, this will apply recordset filters on the report dataset. With this option all key values will be passed from the dataset to the report filter.

This filter is the equivalent of the following query example:

**Example:** `SELECT * FROM pc_parcel WHERE p_id = '123' OR p_id = '456' etc.`

**On Selected Criteria:** Selecting this option will apply a criteria filter on the report dataset.

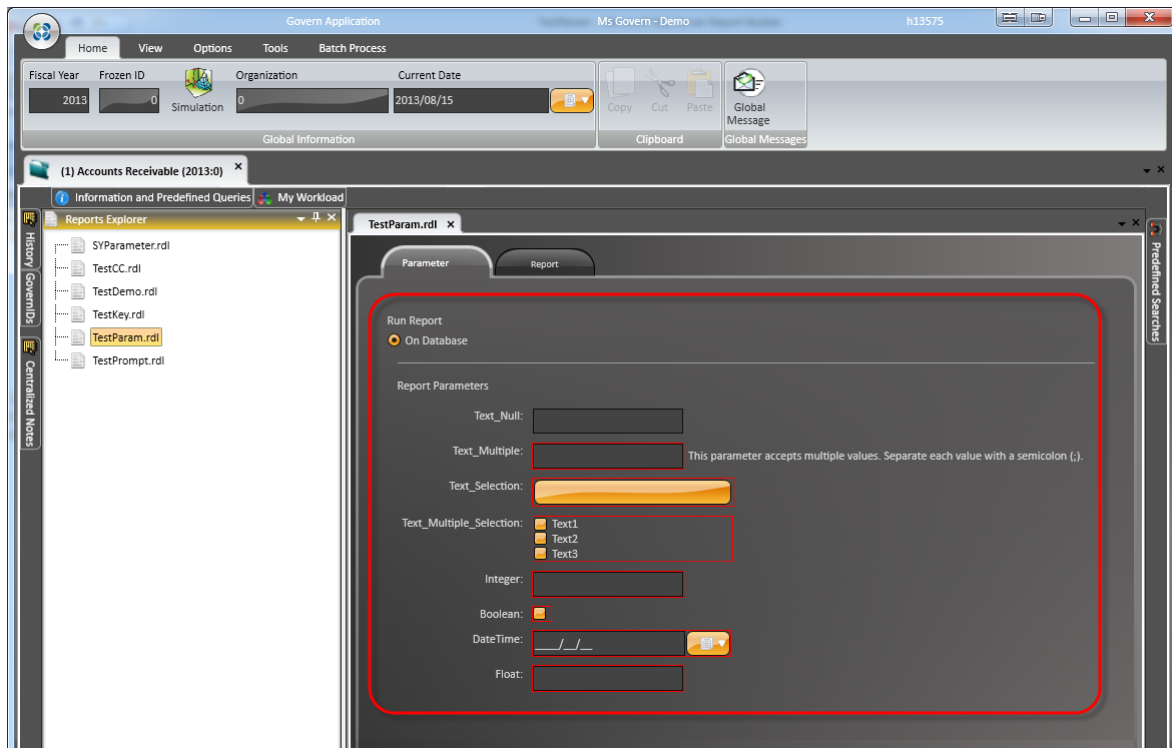
The above filter will be the equivalent of the following query example:

**Example:** `SELECT * FROM pc_parcel WHERE p_id = '123'`

## Report options - Report Parameters required

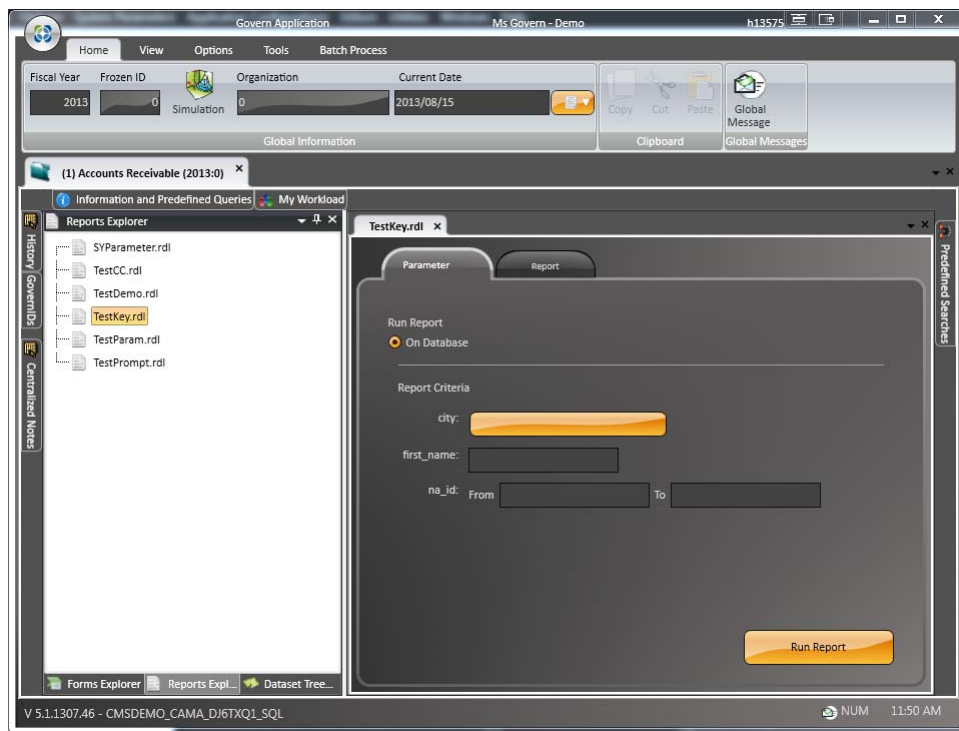
When parameters are specified in the report to be filled by the user, this section will display the parameter values from the Report.

**Note:** These parameters are defined within the Report, i.e. when the report is being designed, and not in the *Govern New Administration (GNA)*. Parameters displayed with a red border are mandatory.



## Report options - Report Criteria required

When criterion are required to be specified by the user in the report, they will be displayed in the **Report Criteria** section of the *Parameter* tab.



In this section you will find all *Report Criteria* that are defined in the *Govern New Administration (GNA)*. These are criteria that are added as filters to the selected dataset and parameters.

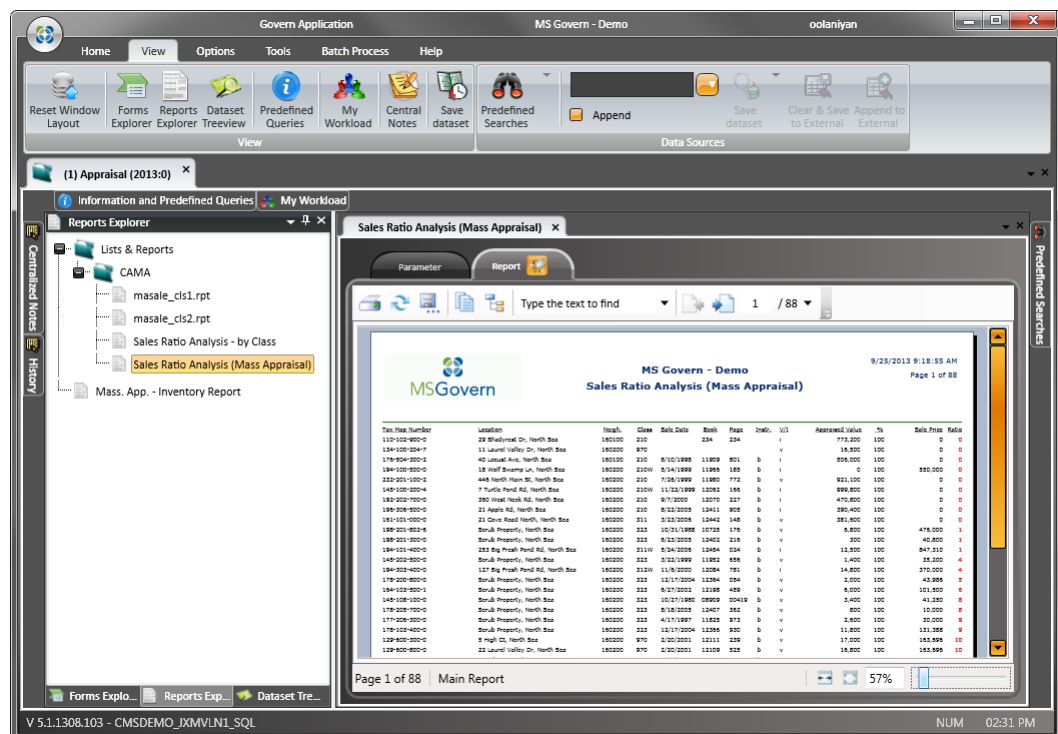
## Report options - Report Parameters received from MS Govern

When required, there are report parameters that automatically receive their value from the *MS Govern* application. These parameters will represent a *Govern ID*. When the name of the *Report Parameter* is a *Govern ID*, the application will not display the parameter in the *MS Govern* user interface (**UI**). The parameter will automatically pass the value of the *Govern ID*.

## Report options - Command buttons

**Run Report Button:** Refresh the Report with the parameters and execute it. Than select the Report tab.

## The ReportViewer Custom Control



The *MS Govern* report viewer is a *Winform* custom control used to view reports located on a *Report Server*, or a local file system. Reports are rendered in the embedded custom control under the **Report** tab.

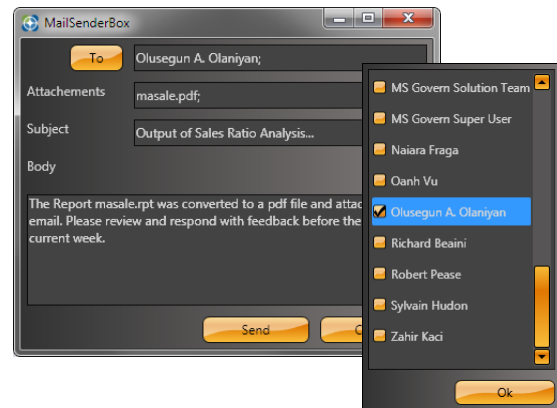


Optionally, a **.PDF** file of the report can be sent as an E-mail message attachment with a click on the **Send the report by E-mail** button on the tab header.

**Note:** When generating the report, the system will use any modifications made to parameters before the last time the “Show Report” button was selected.

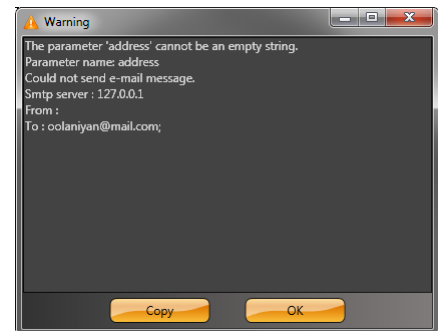
To generate and send a report as an *E-mail* message attachment...

1. Render the report with a click on **Run Report** under the Parameter tab.
2. When the report has been generated, click the **Send the report by Email** button under the report tab.
3. Rendering speed is dependent on the complexity of the report, or the level of network traffic; the report will be rendered in the file format that was preselected.  
*See Export Format Type in Reports Properties parameters on page 20.*
4. In the e-mail message form that appears, select a recipient from the **To** field; click **To**, to display a list of recipients for the message. Click the *Check Box* beside the name.
5. If the default **Subject** and message in the **Body** parameters are not adequate, enter a *Subject* description and an appropriate message in the *Body* section.



### Errors Sending the Message

Should there be issues with the sending of the message, an error message screen is displayed to provide assistance with resolving the issues.



## Configuring the Custom Control in the MoD

**Note:** The following section requires use of the *Govern Model Designer (MoD)*; refer to the MS Govern Model Designer (MoD) release 5.0 user guide for details about using the application.

Prior to using the custom control, it must first be configured in the *Govern Model Designer (MoD)*. The *Custom Control* that is used for *Crystal Reports* is



also used for **SSRS**, as a result the Viewer may be embedded in a window or presented as a pop up in a “**modal**” window.

**Note:** If there are *Report Parameters* that match **Govern ID's**, they are automatically passed to the report.

As stated above, there are two (2) display options or Methods that can be used when viewing a report in Govern through the embedded custom control.

## Important Custom Control Flags

The following are important flags that need to be set in the MoD when the custom control is being configured in the *Model Designer (MoD)*.

**Start in New Window:** To open the *Viewer* in a new window; i.e. a pop-up window.

**OpenInModalWindow:** To open the *Viewer* in a modal window; i.e. embedded under a tab in a profile.

To set up and display the report in Govern for .NET the following flag settings are required in the *MoD*...

## Configuring the Control for a Tabbed Window

In the following example, the *Custom Control* will be configured to appear embedded in a window. If that window is to be tabbed, it will need to be configured. Refer to the *Govern Model Designer user guide* for details.

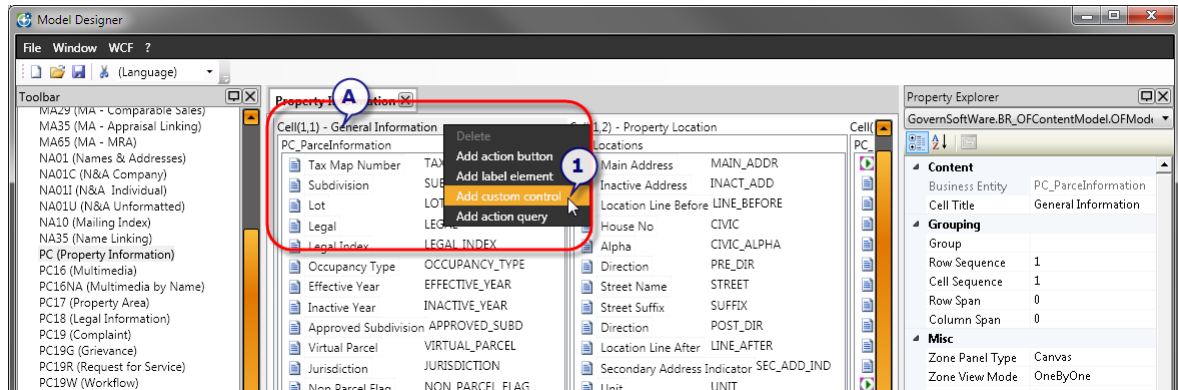
### Setup the Custom Control in the MoD

The Custom Control is added and configured in the *MoD*. It is here that the method that the *Custom Control* presented in a form is defined. For our example the display method will be a modal window, i.e.

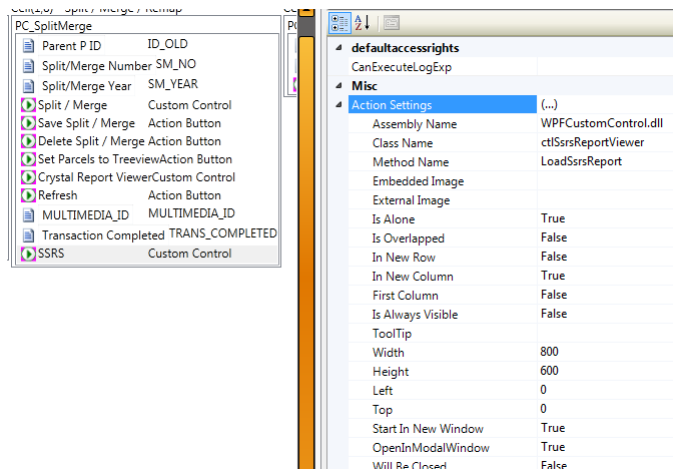
**OpenInModalWindow.**

In the *Model Designer (MoD)*...

1. At the *Cell* level, right click and select the **Add custom control** option.



2. Locate the newly created *Custom Control* entry; , and click to select it.



3. On the right hand side in the *Property Explorer* pane modify the controls flags as follows:

Section	Flag Name	Settings	Comments
defaultaccessrights	CanExecuteLogExp		
Misc	DividerTabSequence	1	The tab number that the control button will appear in
Action Settings	(...)		
	Assembly Name	WPFCustomControl.dll	
	Class Name	ctlSsrsReportViewer	

## Configuration in the Govern New

Section	Flag Name	Settings	Comments
	Method Name	<i>LoadSrsReportViewer</i>	Method indicating that popup window is to be used for SSRS
	Embedded Image		Image for button
	External Image		
	Is Alone	True	
	Is Overlapped	False	
	In New Row	False	
	In New Column	True	
	First Column	False	
	Is Always Visible	False	
	ToolTip		Optional Tool tip description of button
	Width	800	Display width of area
	Height	600	Display height of area
	Left	0	
	Top	0	
	Start in New Window	False	Indicates that new window is required
	OpenInModalWindow	False	Will open embedded
	Will Be Closed	False	
	Will Be Opened in New Window	False	
	Arguments		
	Return Property		
	Return Property		
	Special Feature	None	
	Query		

Section	Flag Name	Settings	Comments
	Report	AnySSRSrept.rdl	use the name of the SSRS report  <b>NOTE:</b> There is no filter for separating SSRS (.rdl) and or Crystal Report (.rpt) reports, therefore use care to select <b>SSRS</b> reports.
	Connection		
	Activate Force Refresh	False	
	Call Without Data	False	
	Show Label	False	
	To Be Audited	False	
<b>Label Text</b>		SSRS	Label for the window

- Click **Save** to save the modifications that have been made to the *Model*.

As the *OpenForms Model* has been modified, a synchronization process will be required in the *Govern Security Manager (GSM)*. Refer to the *Synchronize All* section of the *Govern Security Manager Release 5.1* guide for details about the synchronize process.

## Configuring the Control for a “Popup” Window

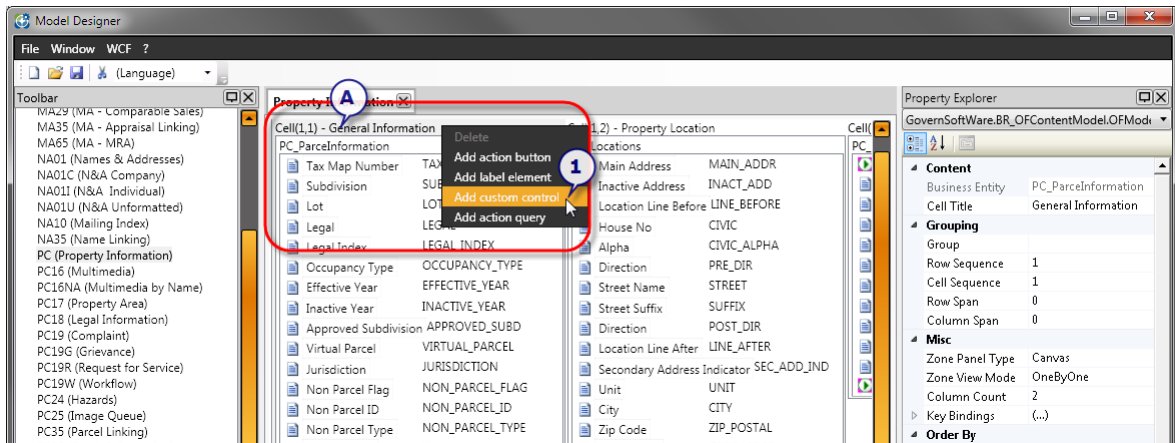
In the following example, the *Custom Control* will be configured to appear embedded in a window that will be presented as a “popup”.

### Setup the Custom Control for a Popup in the MoD

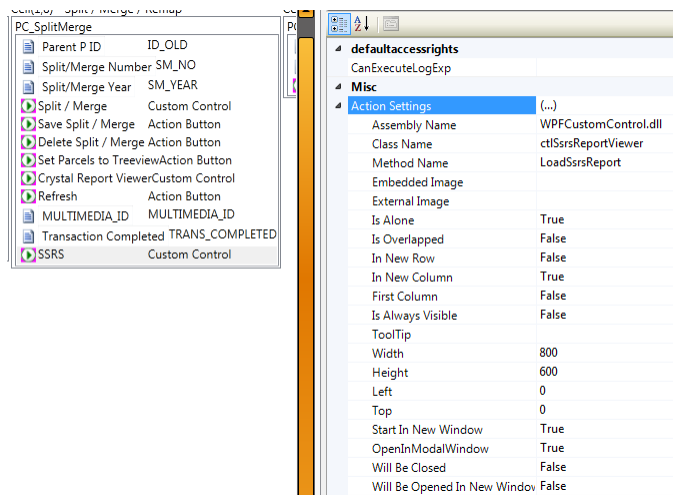
The Custom Control is added and configured in the *MoD*. It is here that the method that the *Custom Control* presented in a form is defined. For our example the display method will be a popup window, i.e. **OpenInModalWindow**.

In the *Model Designer (MoD)*...

1. At the *Cell* level, right click and select the **Add custom control** option.



2. Locate the newly created *Custom Control* entry; , and click to select it.



3. On the right hand side in the *Property Explorer* pane modify the controls flags as follows:

Section	Flag Name	Settings	Comments
defaultaccessrights	CanExecuteLogExp		
Misc	DividerTabSequence	1	The tab number that the control button will appear in
Action Settings	(...)		
	Assembly Name	WPFCustomControl.dll	

## Standards for SSRS



Section	Flag Name	Settings	Comments
	Class Name	<i>ctlSsrsReportViewer</i>	
	Method Name	<i>LoadSsrsReportViewer</i>	Method indicating that popup window is to be used for SSRS
	Embedded Image		Image for button
	External Image		
	Is Alone	True	
	Is Overlapped	False	
	In New Row	False	
	In New Column	True	
	First Column	False	
	Is Always Visible	False	
	ToolTip		Optional Tool tip description of button
	Width	800	Display width of area
	Height	600	Display height of area
	Left	0	
	Top	0	
	Start in New Window	True	Indicates that new windows is required
	OpenInModalWindow	True	Will open embedded
	Will Be Closed	False	
	Will Be Opened in New Window	False	
	Arguments		
	Return Property		
	Return Property		
	Special Feature	None	
	Query		

## Configuration in the Govern New

Section	Flag Name	Settings	Comments
	Report	AnySSRSrept.rdl	use the name of the SSRS report  <b>NOTE:</b> There is no filter for separating SSRS (.rdl) and or Crystal Report (.rpt) reports, therefore use care to select <b>SSRS</b> reports.
	Connection		
	Activate Force Refresh	False	
	Call Without Data	False	
	Show Label	False	
	To Be Audited	False	
<b>Label Text</b>		SSRS	Label for the window

- Click **Save** to save the modifications that have been made to the *Model*.

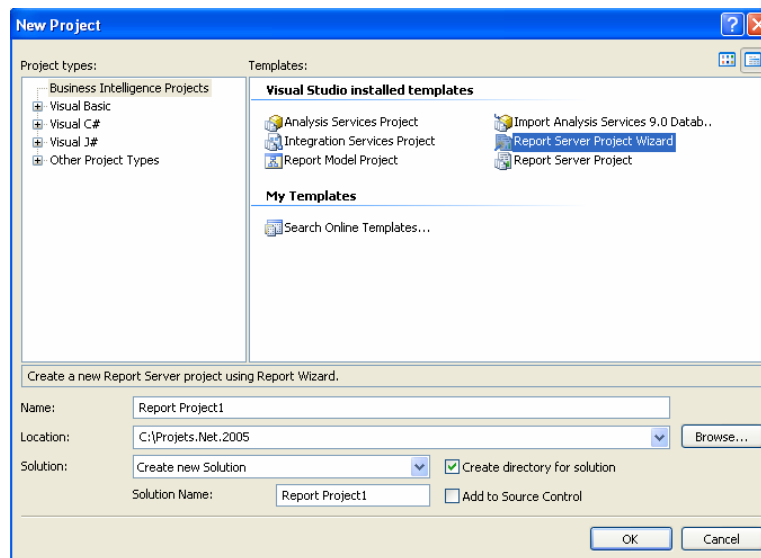
As the *OpenForms Model* has been modified, a synchronization process will be required in the *Govern Security Manager (GSM)*. Refer to the *Synchronizations All* section of the *Govern Security Manager Release 5.1 guide*.

# Creating a Server Report with the Report Wizard

**Note:** There are other ways to create a Server Report. The following is merely one example

The following is an example of creating a Server Report using the Report Wizard in Microsoft SQL Server Express 2008 R2.

1. Create a new *Report Server* project using the *Report Wizard*.

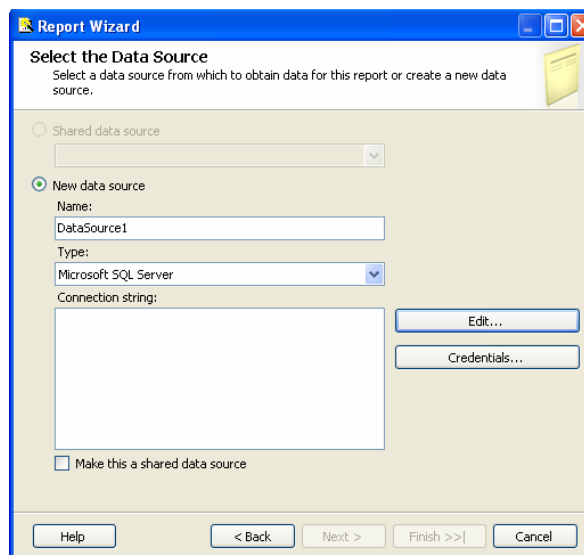




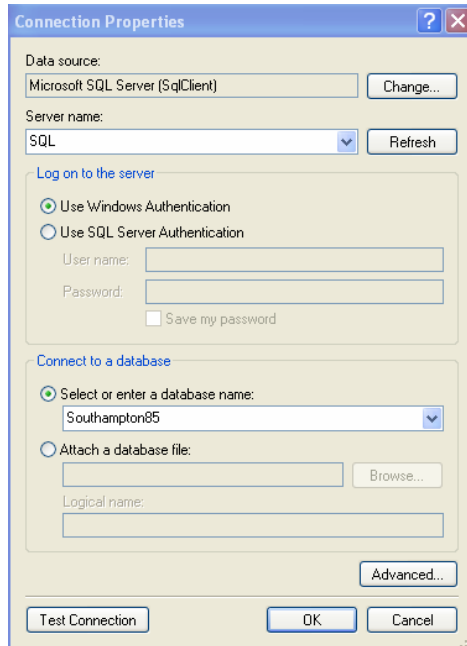
2. At the *Welcome Screen* of the **Report Wizard**, click **Next>**.



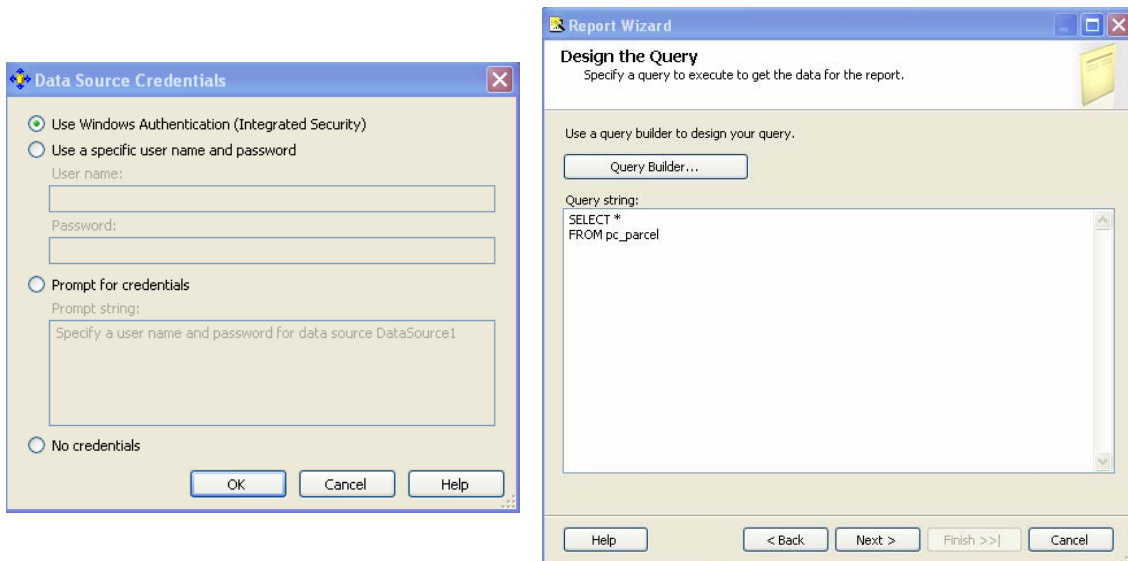
3. Select a **DataSource**; click **Edit...** to connect to the database.



4. In the "Log on the server" section of the *Connection Properties* window, select the type of authentication that you wish to use. Click **OK**.

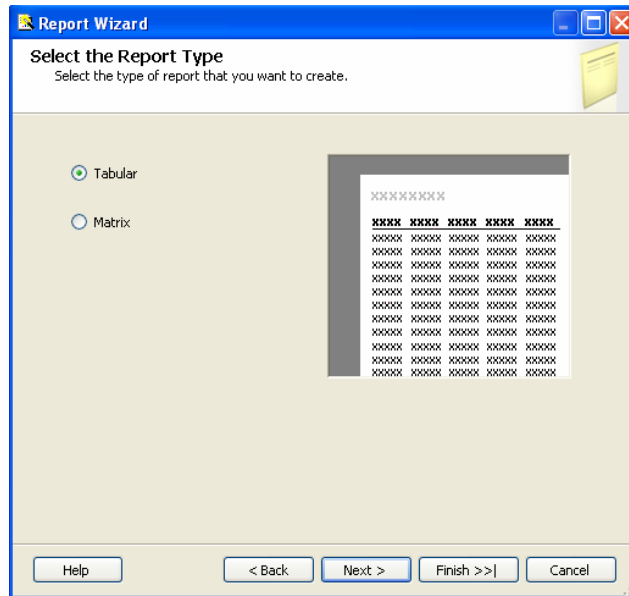


5. Enter the appropriate User name and Password. When a connection is established, you can enter your query.

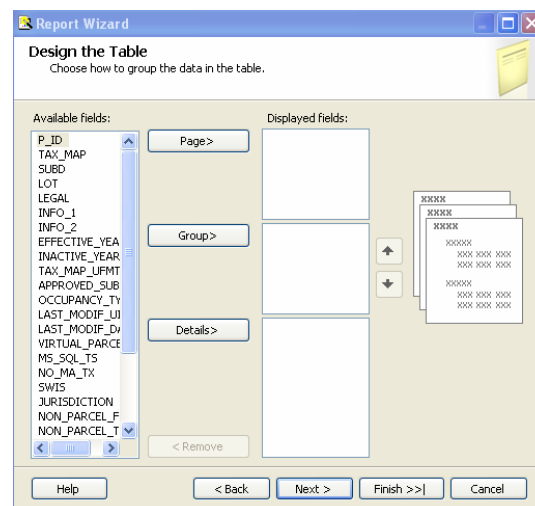


## Creating a Server Report with the Report Wizard

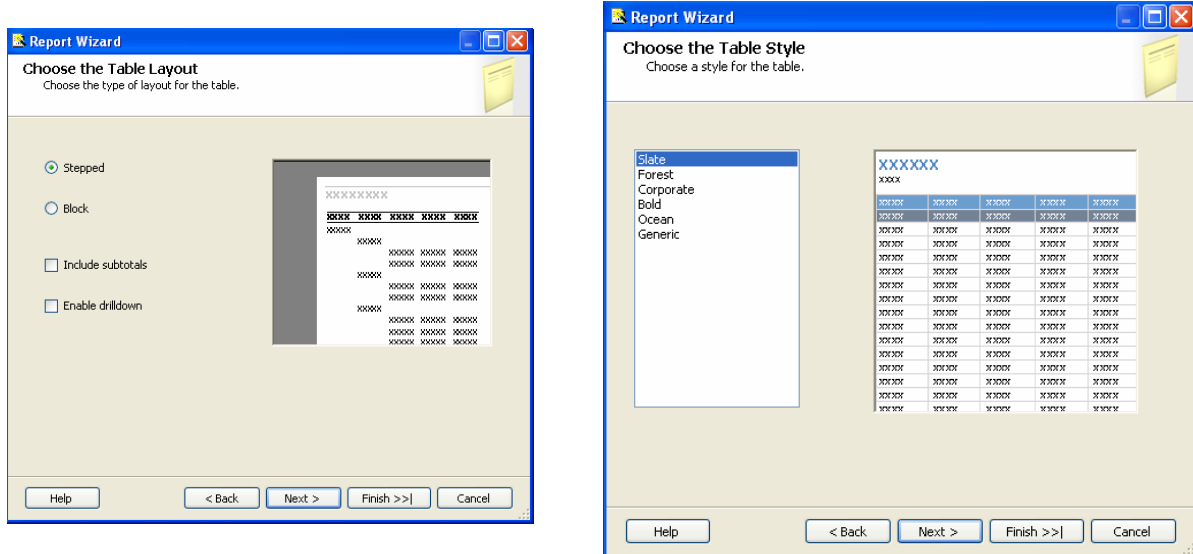
6. After entering a valid query, you will need to select the type of report you want to create.



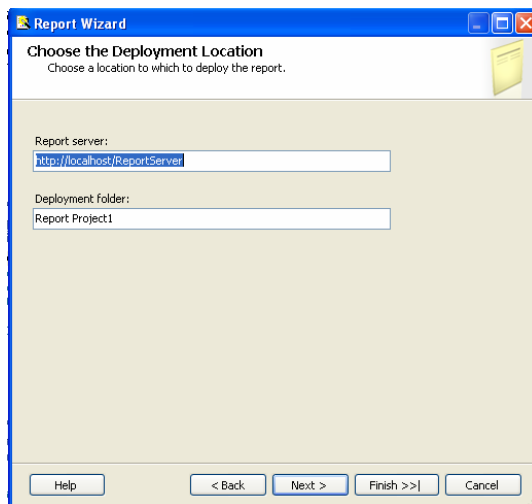
7. At the **Design the Table** window, choose the fields that you want to add to your report. Select fields from the *Available fields:* section and click **Page>**, **Group>**, or **Details>** to add them to your report. Click **Next>**.



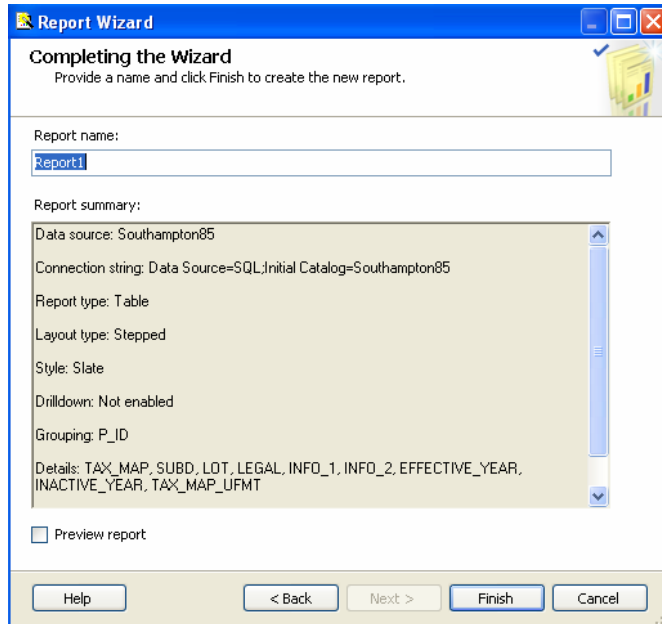
8. Now select a layout and style for your report. Click Next>.



9. Enter a path and specify a folder to place your report in.



10. At the window below, specify a name for your new report.

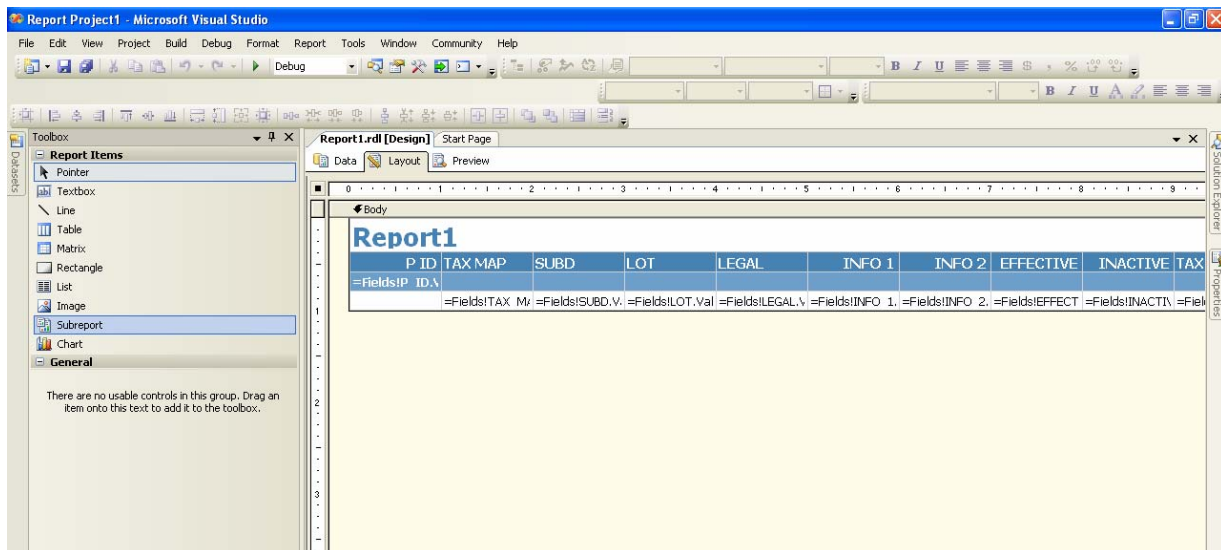


The 'Report Wizard' dialog box is shown, titled 'Completing the Wizard'. It prompts the user to 'Provide a name and click Finish to create the new report.' The 'Report name' field contains 'Report1'. The 'Report summary' section lists the following details:

- Data source: Southampton85
- Connection string: Data Source=SQL;Initial Catalog=Southampton85
- Report type: Table
- Layout type: Stepped
- Style: Slate
- Drilldown: Not enabled
- Grouping: P\_ID
- Details: TAX\_MAP, SUBD, LOT, LEGAL, INFO\_1, INFO\_2, EFFECTIVE\_YEAR, INACTIVE\_YEAR, TAX\_MAP\_UFMT

There is an unchecked checkbox for 'Preview report'. At the bottom are buttons for 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

11. Click Finish, to view your report in Visual Studio.



The Visual Studio interface shows the 'Report1.rdl [Design]' view. The 'Report Items' toolbox on the left includes Pointer, Textbox, Line, Table, Matrix, Rectangle, List, Image, Subreport, Chart, and General. The design area displays a table titled 'Report1' with the following columns: P ID, TAX MAP, SUBD, LOT, LEGAL, INFO 1, INFO 2, EFFECTIVE, INACTIVE, and TAX. The table body contains data rows with field references like '=Fields!P ID.V', '=Fields!TAX MAP.V', etc. The 'Properties' window on the right is visible.

---

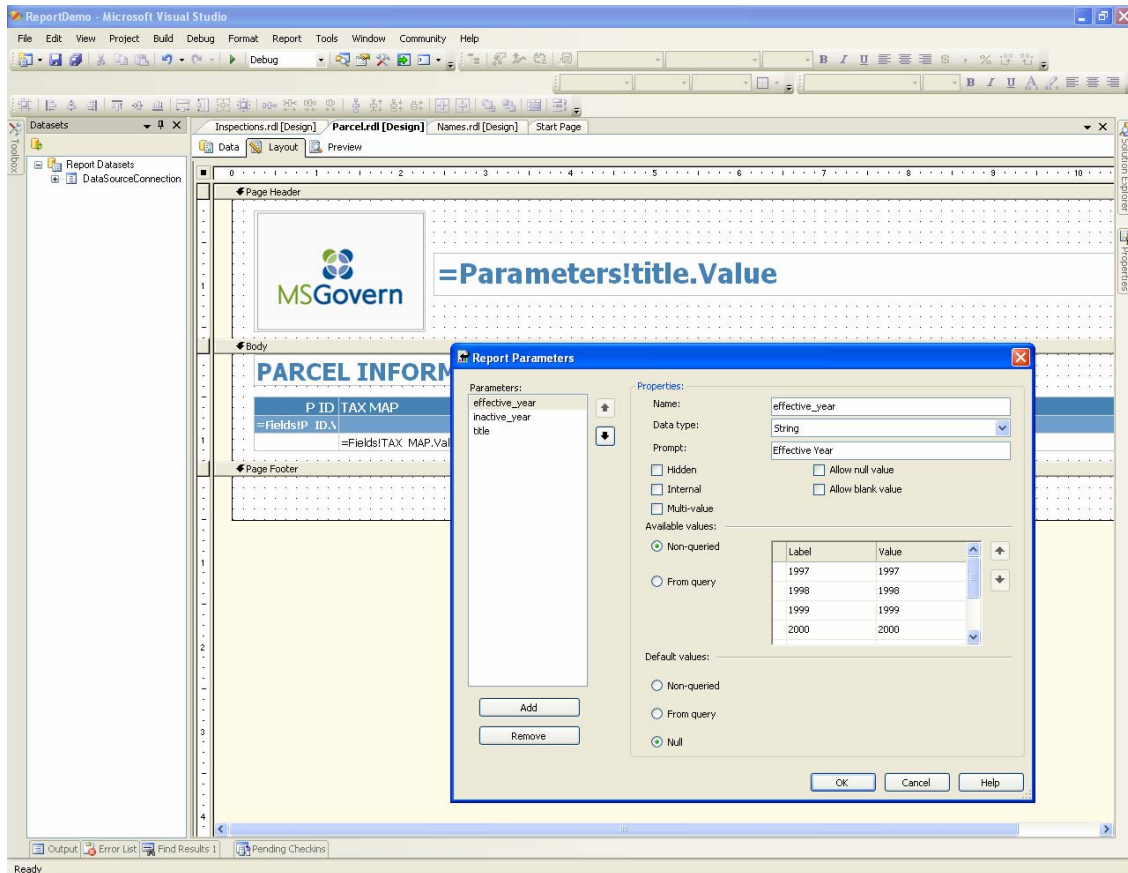
## Creating a Server Report without the Report Wizard

Should you not want to create a report with the *ReportWizard*, using Microsoft Visual Studio 2008, the following steps can be followed:

1. Create a *Report Server Project*.
2. When the project opens, you will see a Shared Data Source folder and a Reports folder. You will need to create a DataSource to be able to connect to the database and all the necessary reports.
3. From the menu select, Build ' Deploy Report to see the report in the `http://localhost/Reports` or `http://localhost/ReportServer`.

### Adding Parameters

To add parameters while in the design mode of a report on *Visual Studio 2005*, right click on the report and go to "Report Parameters".



When adding a report parameter, you can set the following properties:

- **Parameters properties**
  - **Hidden:** This will hide the parameter on the prompt (of the Report Viewer). Hidden parameters cannot be set at the ReportViewer prompt, but can be set on the URL link.

*Internal:*

- **Multi-value:** Allows the user to select an unlimited number of values.
- **Allow null value:** Permits the user to set "Nothing" in the parameter.
- **Allow blank value:** Allows the user to set the parameter with an empty string.

- **Values**
  - **Non-queried:** These are the available values of the parameter provided by the designer of the report.
  - **From query:** The values of the parameter obtained as a result of the query.
- **Default values**
  - **Non-queried:** A value provided by the designer of the report.
  - **From query:** A value returned as a result of the query.
  - **Null:** No default value provided

**Note:** When executing a report, if default values are set, parameters will not need to be set. Default values are automatically detected and the report will be executed with these values.

## Query Parameters

Query parameters are automatically added when a query is constructed as follows:

*Select \* from table\_name*

*Where field1 = @parameter1 and field2 = @parameter2*

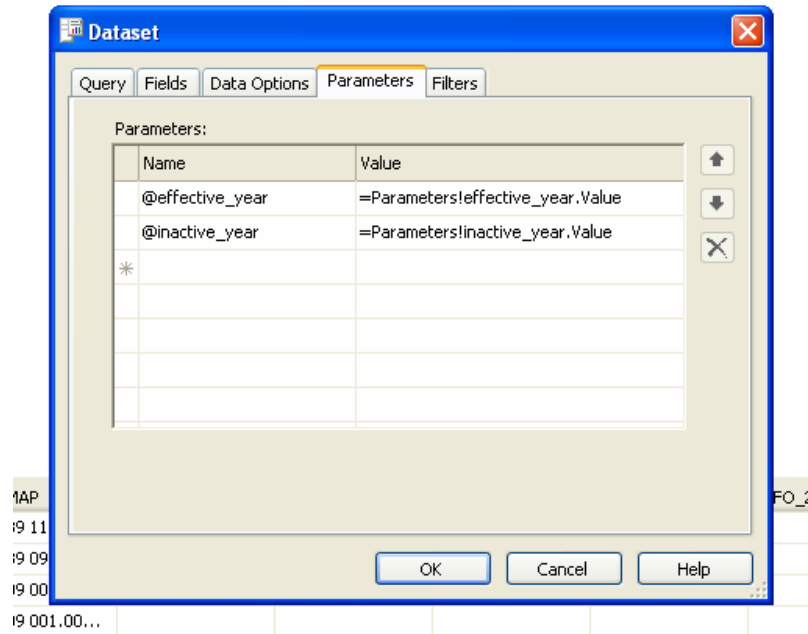
The *parameter1* and *parameter2* values are added in the query parameters; you can always change the setting of these parameters.

To change the *parameter1* and *parameter2* values...:

1. Click the "...\" button.



2. Select the *Parameters* tab.

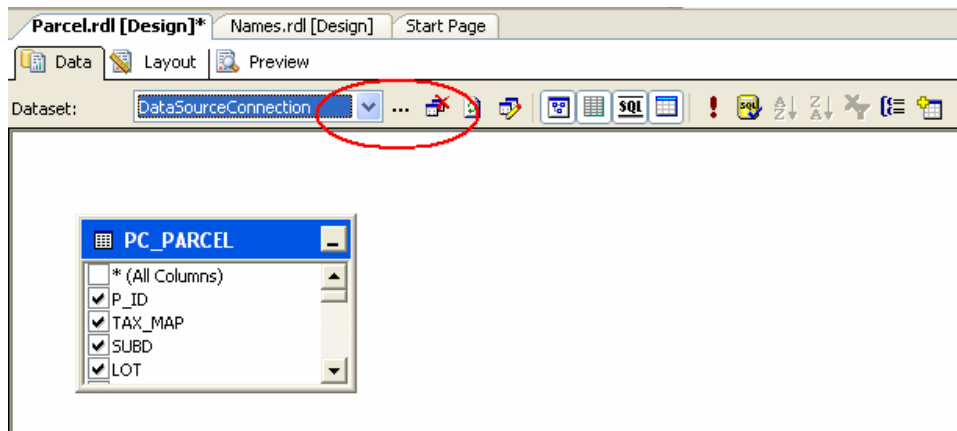


3. Enter the values. Click **OK**.

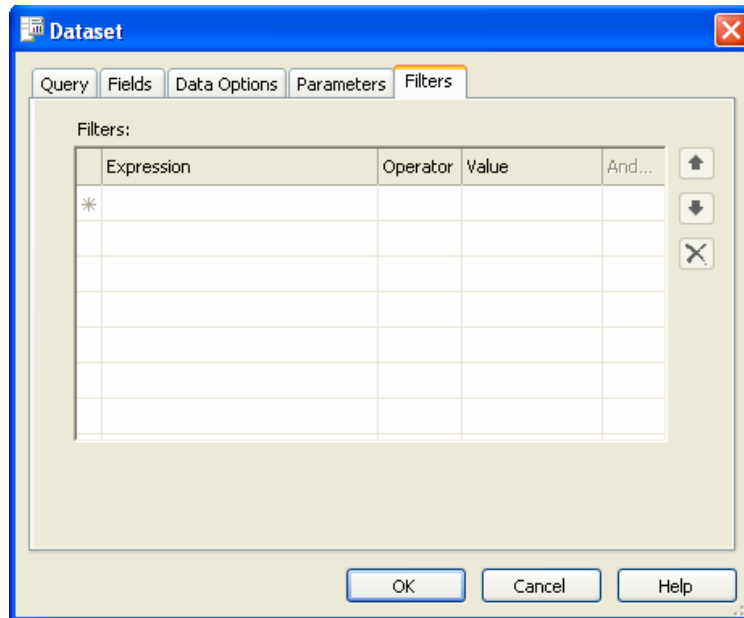
## Creating a Filter

To create a filter, you will need to open the project that was used to generate your report.

1. Select the Data tab of the report.
2. Click "..."/>



3. In the Dataset window, select the Filter tab and fill in the report information.



**Note:** The **And...** column is inaccessible and always disabled. This will automatically change to **Or...** if you have defined 2 filters with the same fields.

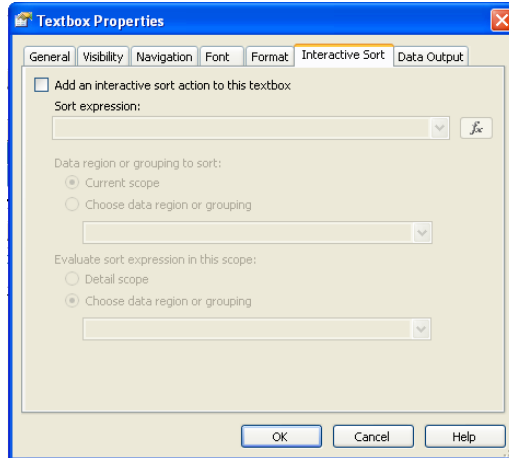
If you do not wish to do an **OR** operation, you must create one filter with an expression which uses the **OR** operator. If an **OR** is required for 2 different fields in the filter, you will need to create one filter which will include all the conditions required by using an expression.

## Sorting By Header

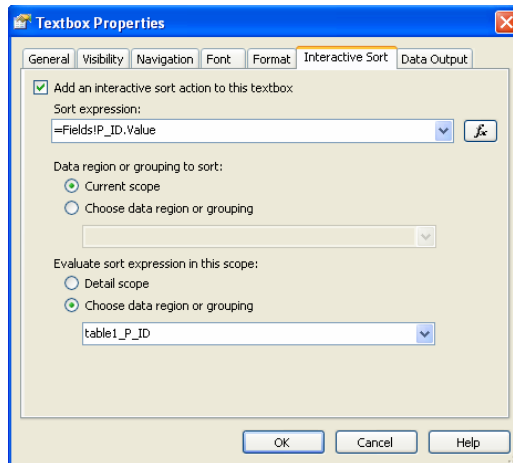
When your user wants to sort the data in the report, you will need to add sorting features on each column of the report.

Adding a sort function to a report:

1. Open the report and right click on the cell of a header and select Properties ' Inactive Sort. The following window will appear:



2. On the **Interactive Sort** tab, click "Add an interactive sort action to this textbox". Fill the combo boxes labeled Sort expression: and Choose data region or grouping as indicated below.

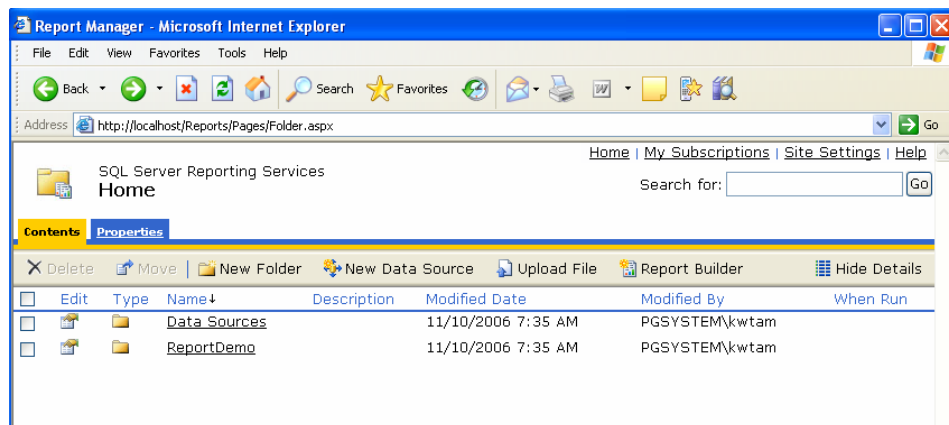


## Management

**Note:** Users of SSRS should note that although the following instructions use SQL Server Express 2008, they may also be performed using SQL Server 2012. Consult the Microsoft Web site for any changes required for SQL Server 2012.

### Report Properties

The settings of *Reporting Services* or some reports can be changed at the following link <http://localhost/Reports>.



Various tasks can be performed on this page. For instance, you can add a new data source; this data source is exactly the same as the one needed when creating a report. The only difference here is that this data source is on the server.

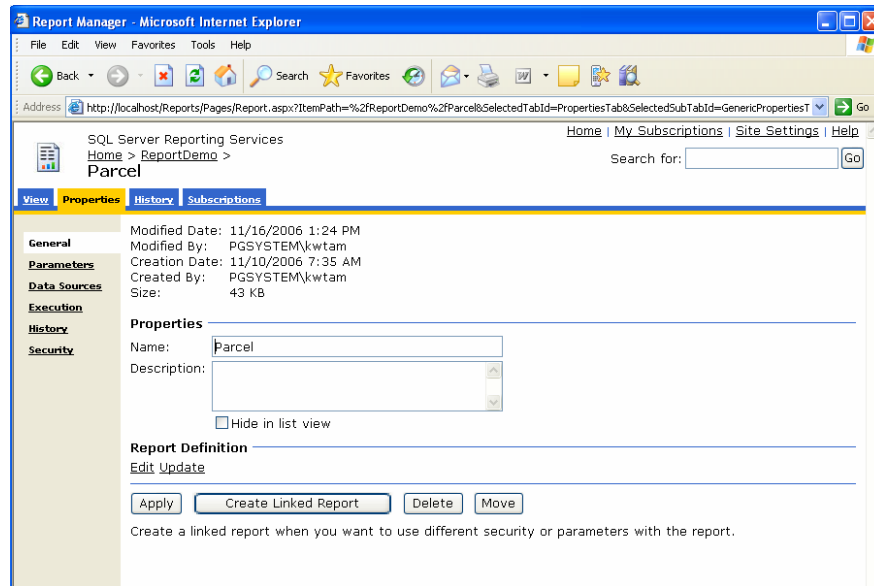
With the report manager, you can upload a file on the server by browsing on your computer. You can also upload additional items (known as resources) to the Report Server. These items will be stored in the Report Server database. Resources are not only images, you can also upload items that may not necessarily be used in a report like Microsoft Excel files, Microsoft Word files, etc. When a user opens a resource, Reporting Services will download the resource for saving or viewing.

### Modifiable Report Properties

After the creation and deployment of a report on the server, some of the properties of the report can be modified.

To change *Report Properties*:

1. Go to `http://localhost/Reports`
2. Click to select the report.
3. Select the *Properties* tab.



The following Properties can be modified:

- **Parameters**
- **Data Sources**
- **Execution**
- **History**
- **Security**

### 1. General

Here you can modify General information such as, the name and description of the report. You can create a linked report which helps you create variations of the report without having to physically duplicate the report. This means, you have the original master report (same design and same data source), but each copy will have its own settings with different parameters, execution, securities, etc.

### 2. Parameters

Allows changing of parameters of the report, i.e. choosing a default set of parameters.

### 3. Data Source

You can change the Data Source used in generating the report.

### 4. Execution

Display all the settings to manage execution of the report.

### 5. History

Allows the saving of a snapshot for future reference.

### 6. Security

Control users access to the Report Server and its contents. Likewise define what the user can see and do on the Report Server.

**Note:** For more information, refer to Chapter 9 and Chapter 10 of the book *SQL Server 2005 Reporting Services Step by Step*.

## Security

In order to be able to view a report, in Reporting Services there are three types of security access which the user needs to set.

### Authentication

It will be necessary to provide credentials to authenticate the user that is trying to use Reporting Services. Setting must be correct, or else an error message like "permissions are insufficient" is displayed. This message is indicating that the user is authenticated, but not in Reporting Services role.

Authentication levels are as follows:

1. **Basic:** The account of the user must be added in the Report Server. This means the account must exist locally on the machine, i.e. the server with the SQL Server 2005 Reporting Services installed, in order to be able to connect to Reporting Services.
2. **Digest:** Use a valid account on the domain.
3. **Windows integrated:** Use the current user account information i.e. the currently logged on user, to connect to Reporting Services.

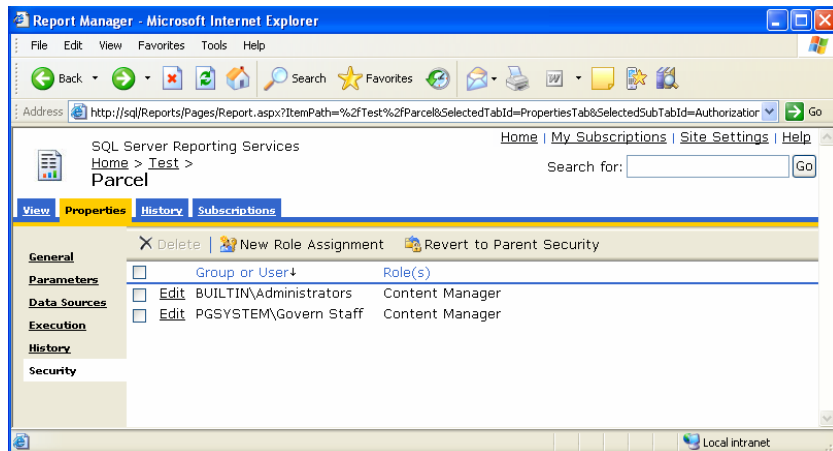
### Authorization

Configure Role-based security to access reports by users. Each report must be configured in Report Manager to allow a group or a certain user to use a report. An unidentified group or user who tries to open a report without having access rights to view the report will not be able to access the report.

In the *Report Manager*, you must assign access rights for each report to allow users to view them.

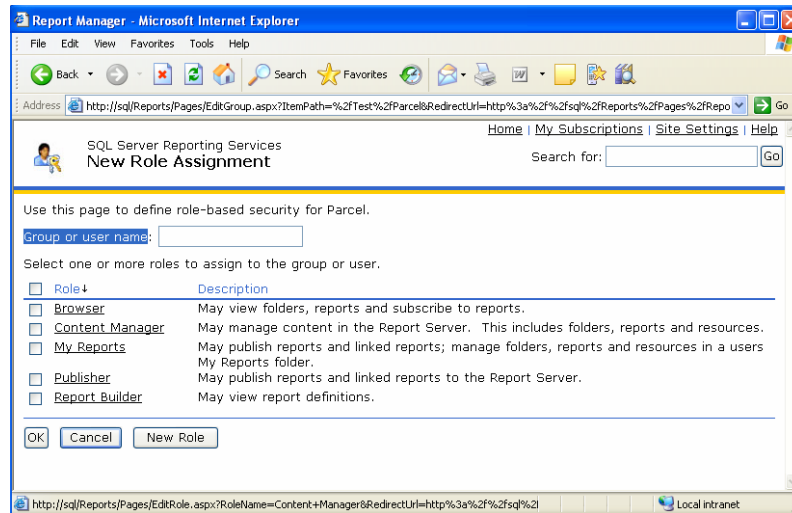
To assign access rights to reports:

1. Click on a *Report*
2. Go to Properties ' Security
3. Click "New Role Assignment"



4. Enter a group or user name in the textbox.

5. Choose the roles you wish to assign to the user or group. Click **OK**.



### ***Connect to the Database***

There are four (4) possible options to set:

1. **Use Windows Authentication (Integrated Security):** This option is usually used when the Kerberos is enabled or when the servers are all located on the same computer with Kerberos disabled. It will pass the login of the current user accessing the report on the server. While using this option, the windows account must exist on the SQL Server machine in order to be able to access the database.
2. **Use a specific user name and password:** Store a specific username/password for all the users who use the report. The username/password must be a valid account on the SQL Server machine.
3. **Prompt for credentials:** Only use this option when reports are run on demand. This option provides good security for reports with confidential data. The username/password can be either a Windows account or a database login. The Report Viewer control will prompt the user with a username/password request when they try to access a report. The prompt must be completed, or else an error message will appear on their screen.



4. **No credentials:** Configure a data source connection without credentials. In order to be able to use this option, SQL Server must be set free access.

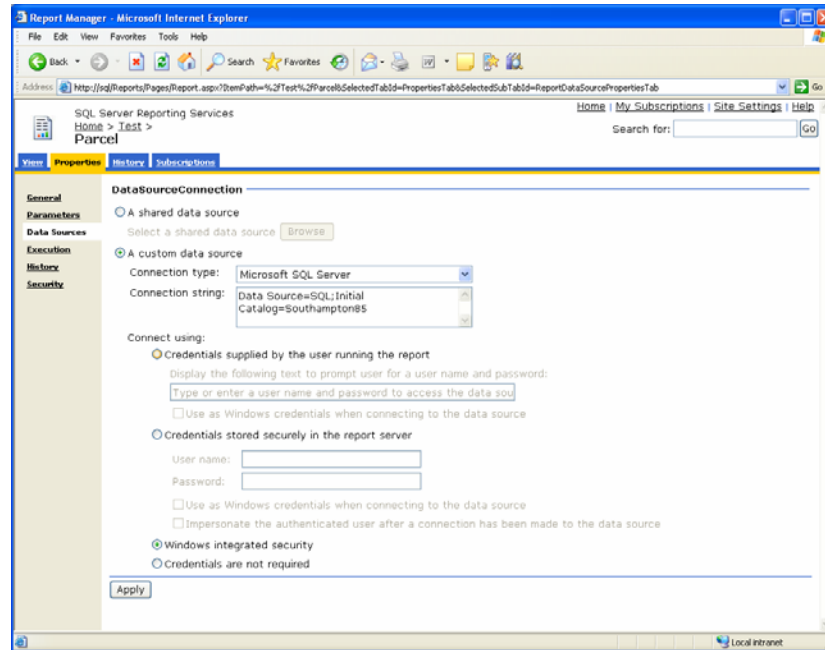


Credentials can always be changed once the report has been deployed on the server:

To change access credentials after a report has been deployed:

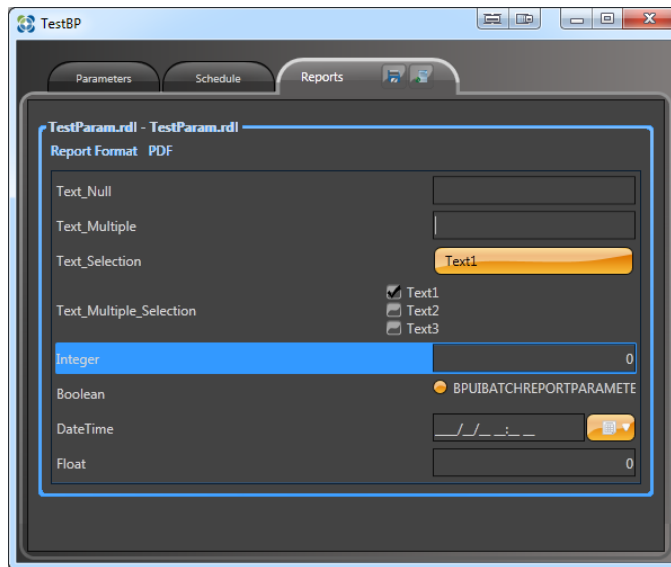
1. Open the *Report Manager*
2. Click on the Report
3. Go to the *Properties* tab then *Data Sources*
4. Under Connect Using, select one of the following...
  - **Credentials Supplied by the User Running the Report** option if you need a prompt to ask the username/password from the user executing the report.
  - **Credentials stored securely in the report server** option by entering the username/password as per the default without having to ask the user to enter his own login information.
  - **Windows integrated security** option if the database to which the data source connects uses Windows authentication. This will take the username/password of the window account when connecting to the Data Source.

- **Credentials are not required** option if you don't need to give a username/password.



## Batch Processing

A *Batch Process* can contain reports that are also executed as part of the process. The results of the process can then be attached to the Batch Process results.



The Batch process form will list all reports that are linked to the Batch Process and its associated parameters. If the parameter had been specified with the “Can Override” option, the assigned value can be changed by the user. See the “Can Override” option in *Reports Properties parameters* on page 20.

### Govern ID parameters in the Batch Process

When a *Govern ID* Parameter is used in the report, and the Batch Process contains the required ID, values will be passed automatically.

### Report Behavior in the Batch Process Scheduler

An *SSRS Report* in the *Batch Process Scheduler* will exhibit the same behavior seen in the process. Once the report has been exported it will be added as an attachment. This attachment can be viewed with a click on the icon near its name.



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