

CAPITA

Attainment Manager Reports

last updated for the Spring 2013, 3.50 release

SSRS Report Designer

one



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Reporting In SQL Server Reporting Services Report Designer

*In this document we have provided screen shots and examples of how it is possible to create a report for **Attainment Manager** processing. In these examples we have used the previous Key Stage Manager terminology and used KSM instead of Attainment Manager simply for the sake of brevity. In this context the terms are synonymous.*

Interaction and Architecture

The Report Designer is accessible through the Microsoft Business Intelligence Development Studio toolkit, available from the SQL Server 2008 installation disk. Users with a license to access SQL Server 2008 have a license to install and use the Business Intelligence Development Studio.

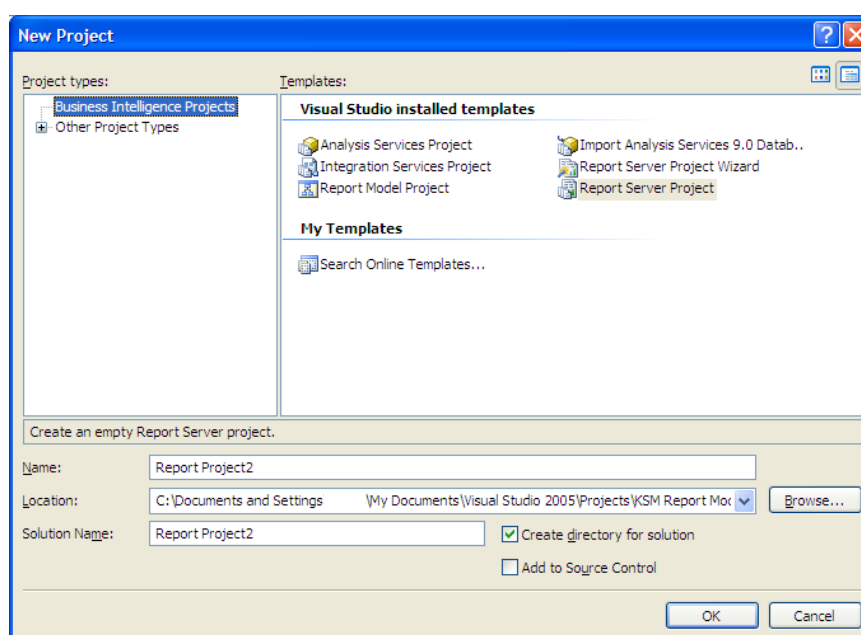
The Report Designer tool is intended for non-trivial reports which can use more than one Data Source (i.e. Database). The report designs generated from this toolkit are developed locally and uploaded to the Report Server once the designer has completed the reports. Practically any report layout and design can be achieved using this tool.

Designing a Report – Attainment Manager

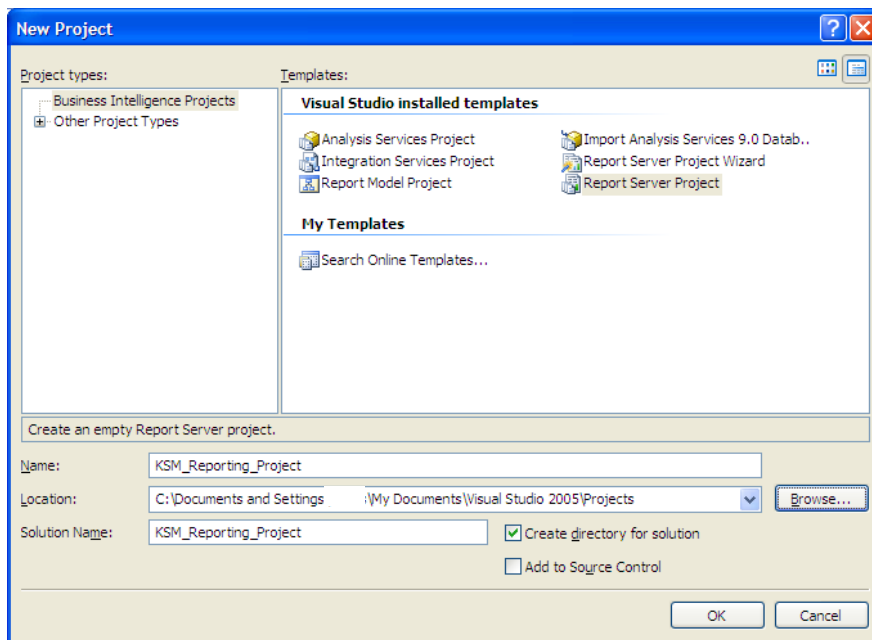
Database Access and Data Models

We do not recommend that the report designer is given access to the Oracle databases at the heart of the **One** system directly but should use the same data model that is available to users of the Report Builder. To create reports using this data source, start the Business Intelligence Development Studio and start a new Report Server Project. This will create a folder structure on your hard disk to work within. This project will contain a number of different files all of which combine to make a working report.

The purpose of this worked example is to illustrate the method used to create a report based on the Attainment Project focus. We begin by creating the project:

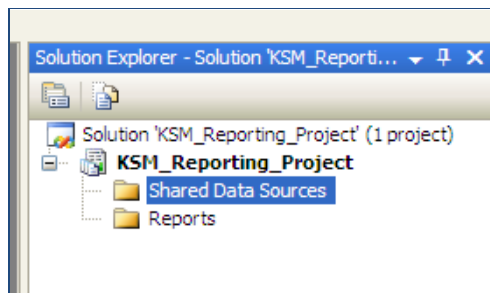


This is re-written as:

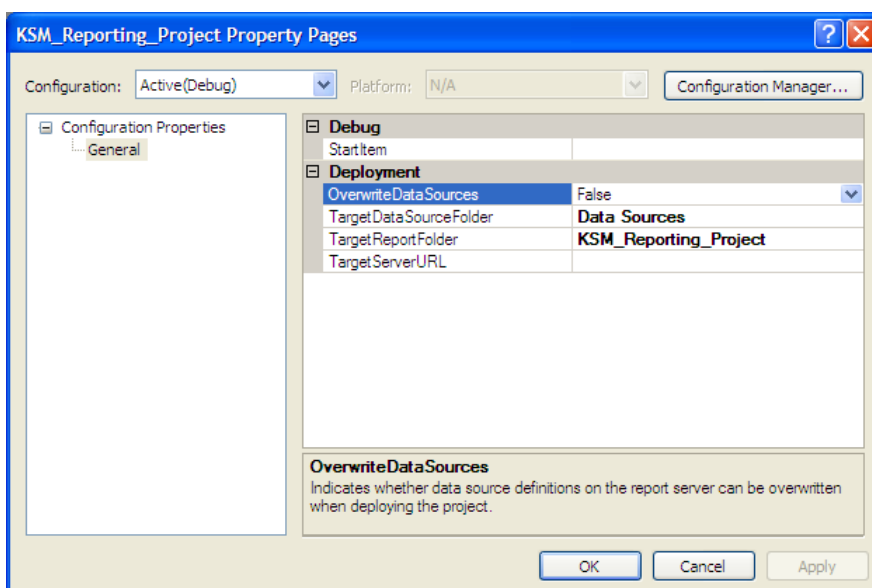


Once the **OK** button is selected the project should be created:

The initial project will be empty as shown below. The first task is to link it to the desired report server so that reports designed in the toolkit can be published. Right-clicking and select the Properties menu option on the Report project (called here "KSM_Reporting_Project" in bold).

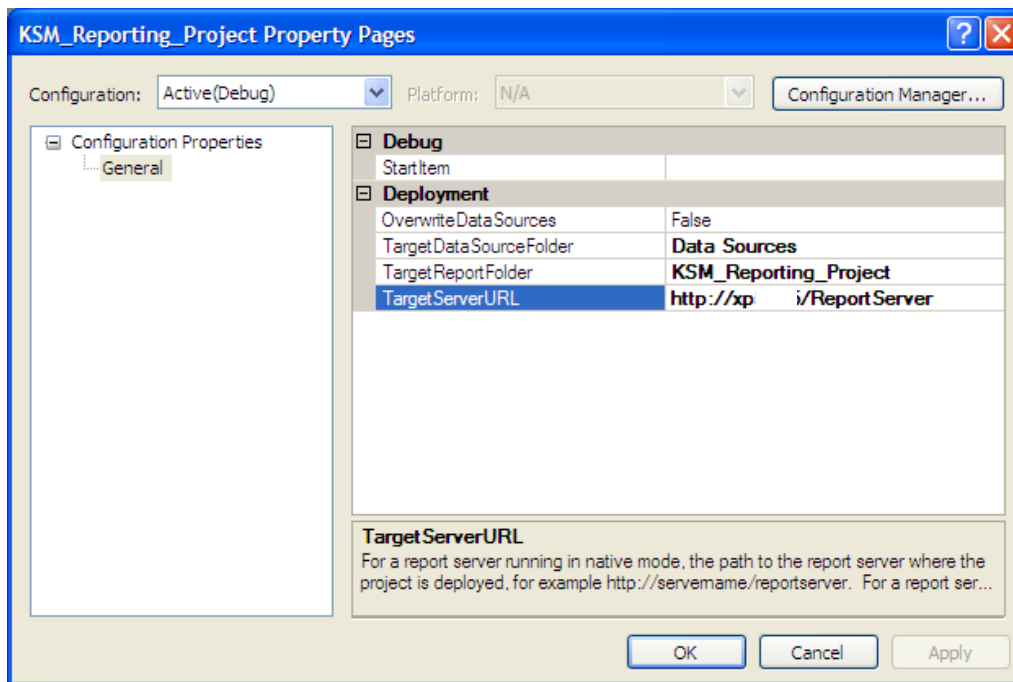


Setting the publication properties:



Note that the 'TargetServerURL' is blank.

It is necessary to add the TargetServerURL in order to deploy any subsequently raised reports. For instance:

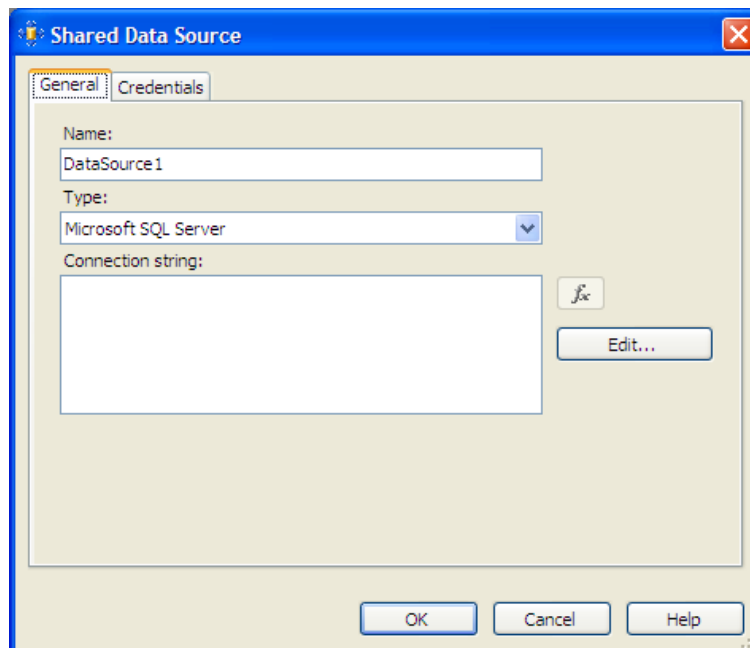


The TargetServerURL is the location of the **One** Report Server.

Adding a Shared Data Source

In order to use the published Report Model to access the underlying data, you must add a new Shared Data Source – this need only be done once for all the reports you design. The settings for this data source should be similar to that shown here.

The user should right-click on the Shared Data Source and Select 'Add New Data Source'. The following is displayed:

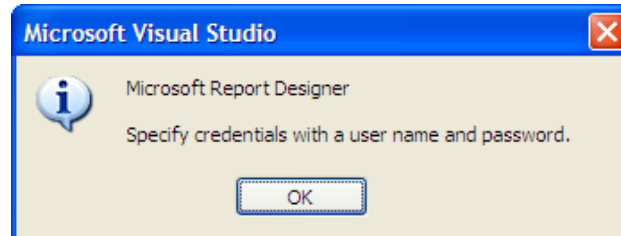


Rename DataSource1 to KSM_DataSource, then select 'Report Server Model' from the 'Type:' drop down list.

In the 'Connection string:' text box type:

```
server=http://XP5405/reportserver;datasource=/Report Models/Capita One Live Attainment Data Model
```

In the example shown above XP5405 is the name of the server, this will need to be replaced with the relevant server name. Next select the credentials tab. Failure to do so will result in the warning:



From the options provided the user should select the authentication requirement according to the needs of the organisation.

Notes:

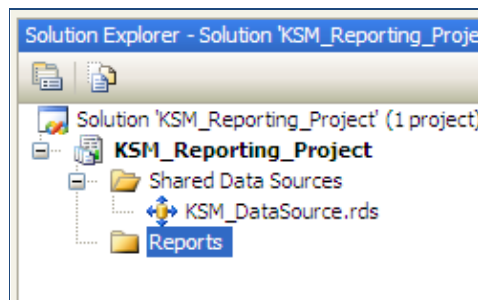
The Type of the data source should be Report Server Model and the connection string is structured as follows;

```
Server=http://W2K35318/reportserver;datasource=/Models/Capita One Live Attainment Data
```

- Server=http:// - this is a required prefix (it may be https depending on your configuration).
- W2K35318 - this is the name of your CCS Report Server.
- Reportserver;datasource=/ - this is a required prefix.
- Models – this is the folder on the report server where your models are stored
- Capita One Live Attainment Data – this is the name of the report model you wish to use.

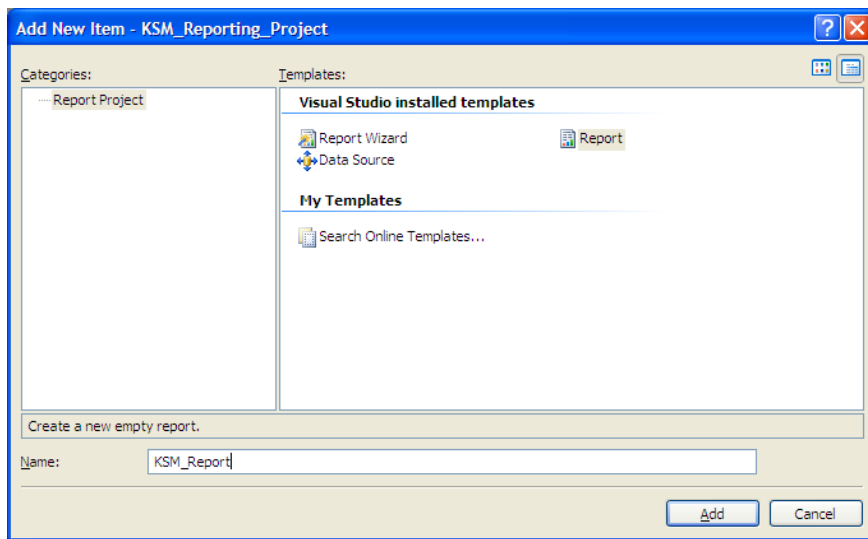
Adding a Report

You are now ready to create a report. Next, select the Reports option:

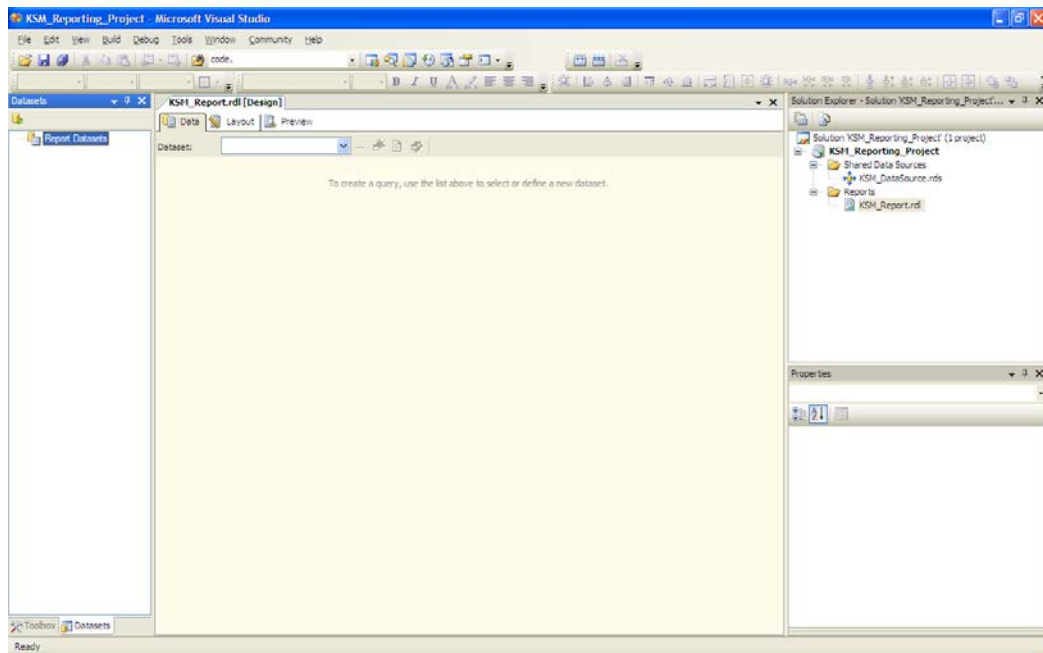


The user should right-click on 'Reports' and select 'Add Item'. Avoid using the option 'Add New Report' as this initiates the Report Wizard and requires the user to insert a select query. Instead, select 'Add' | 'New Item' and select 'Report'.

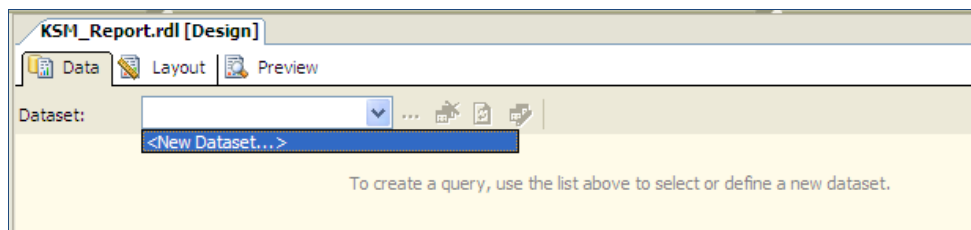
Change the name to 'KSM_Report' as per the illustration below:



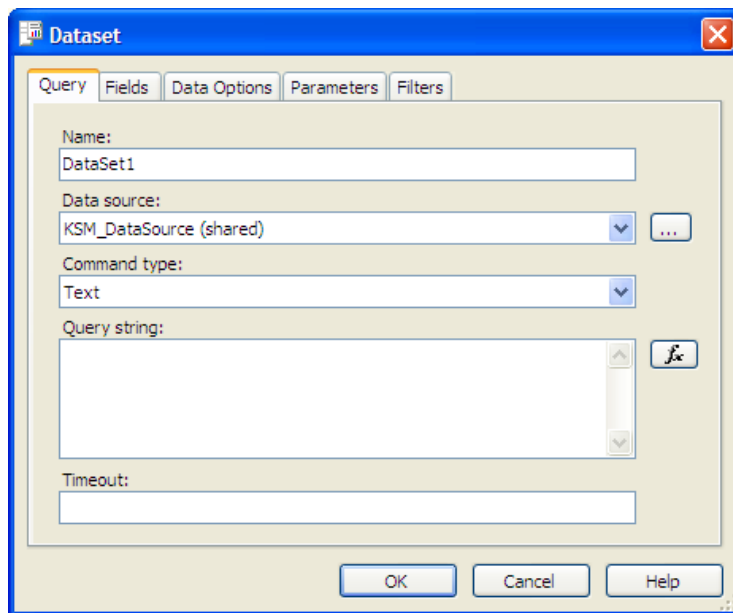
The user should now select 'Add', the system now displays:



The Solution Explorer now lists the new (empty) report within the Reports folder. Next, the dataset must be defined. The screen now displays a central area comprising three tabs, Data, Layout and Preview. The Data tab should be active and requires the user to create a query or in our case to link to the datasource. In this case the user should now select the Dataset Option and <New Dataset...>:

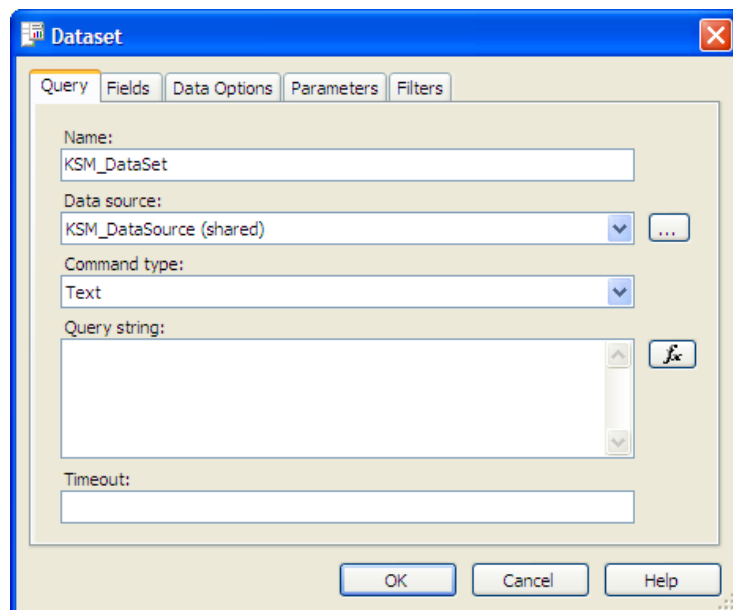


Once selected the system displays the following:



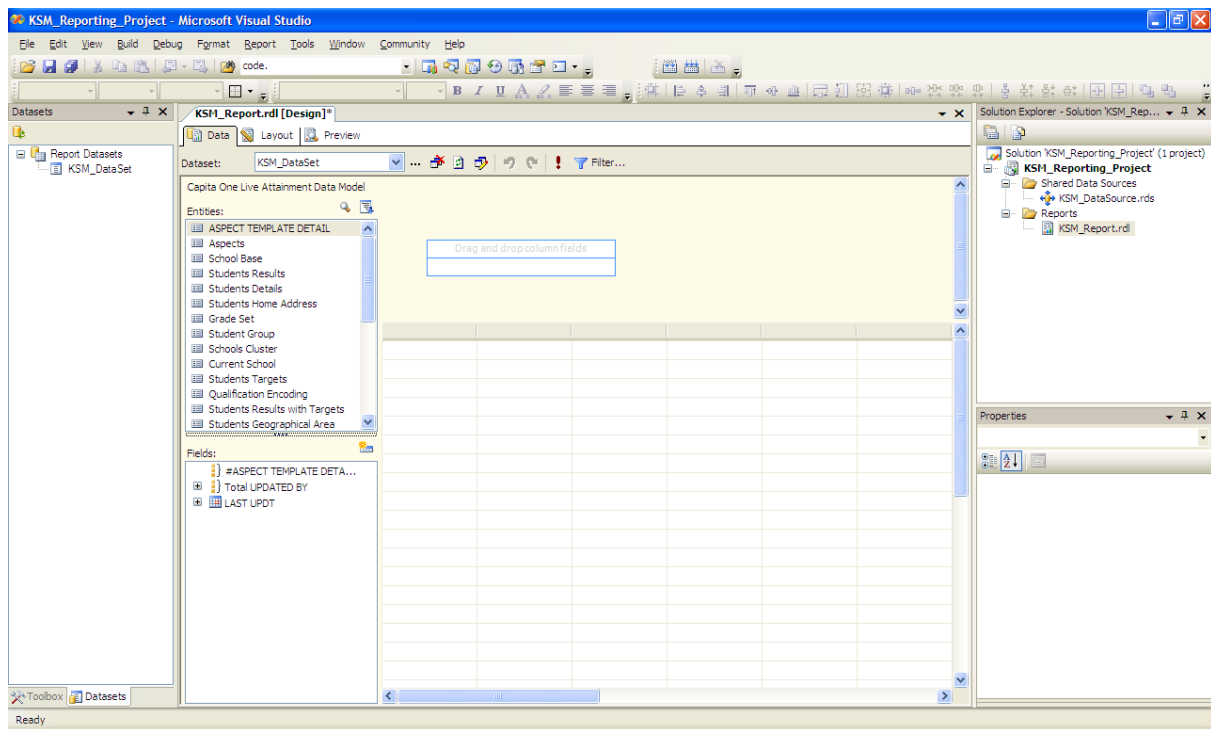
Provide a suitable name for the dataset, such as KSM_DataSet. The data source value is already populated; so this should be left.

For the 'Command Type' leave the option as set 'Text'.

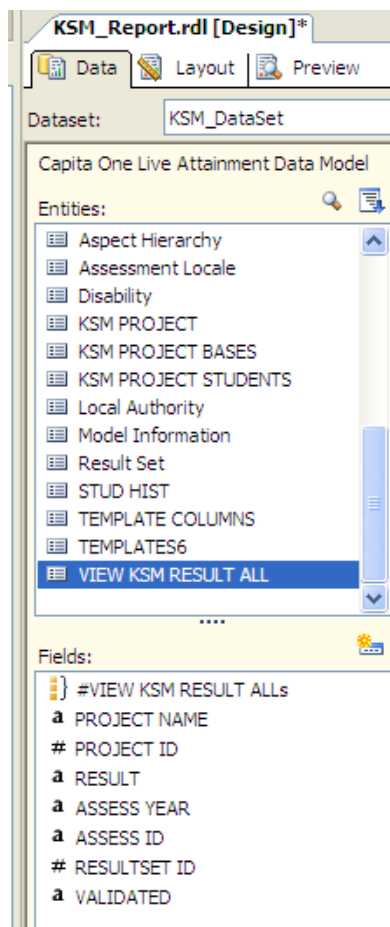


Select Ok.

The system will return the following:



Within the data tab the system now displays the available entities from which the user must make data selections. Scroll down from the list of entities until the entity 'VIEW KSM RESULT ALL' is found:



From the list of fields available it is necessary to select the fields that will provide the data for the required report.

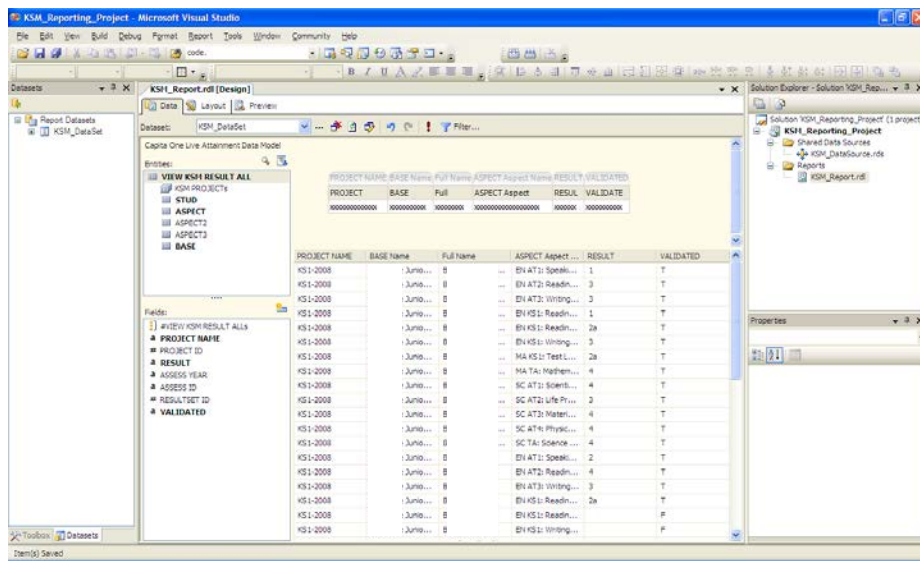
The user should drag the required fields into the central area. The first selection should be 'Project Name'. Once this is selected the list of entities reduces. From the 'Base' entity select the 'Name'. From the 'Stud' entity select the 'Full Name' field. Next, select the Aspect Name field from the 'Aspect' entity. Return to the VIEW KSM RESULT ALL and next select two fields: RESULT and VALIDATED.

On completion of the field selection the display should be as displayed below:

PROJECT NAME	BASE Name	Full Name	ASPECT Aspect Name	RESULT	VALIDATED
PROJECT	BASE	Full	ASPECT Aspect	RESUL	VALIDATE
XXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX	XXXXXXXXXXXX

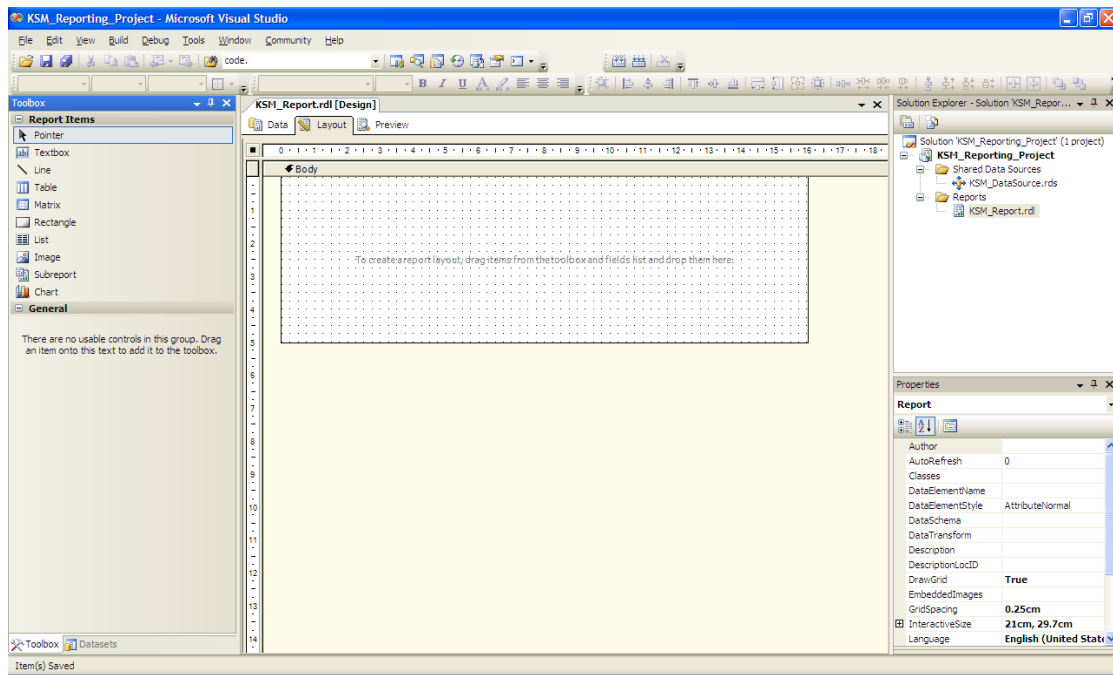
It is then necessary to select the **Run** icon:

Once the system has returned the data the screen should be as follows:

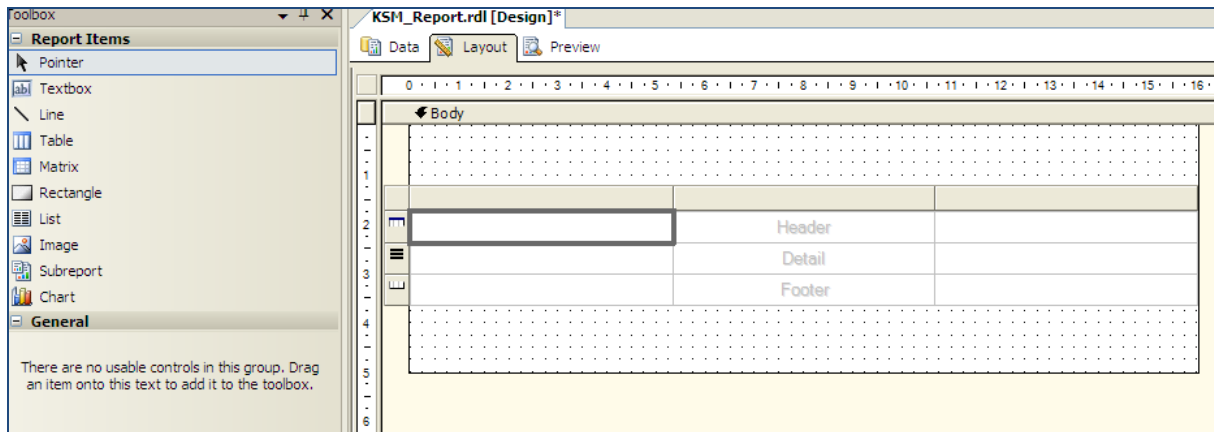


The system has accessed the relevant data and it is now possible to design the report format. Next, select the layout tab.

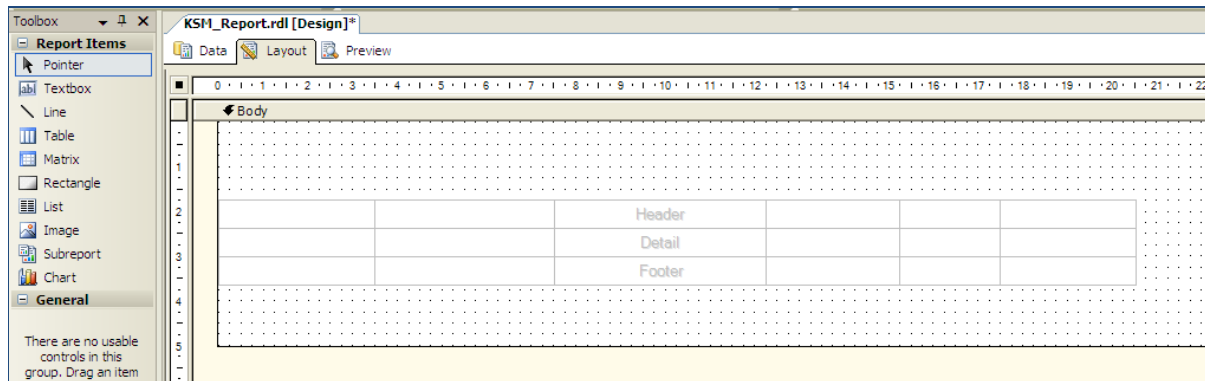
Layout



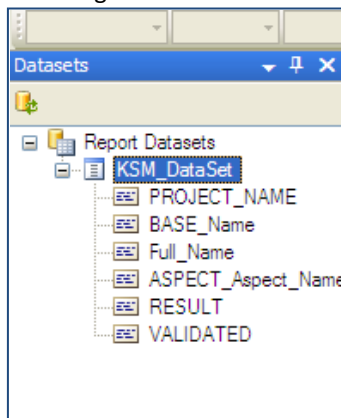
From the Toolbox select a 'Table' report item; drag the item across to the white grid:



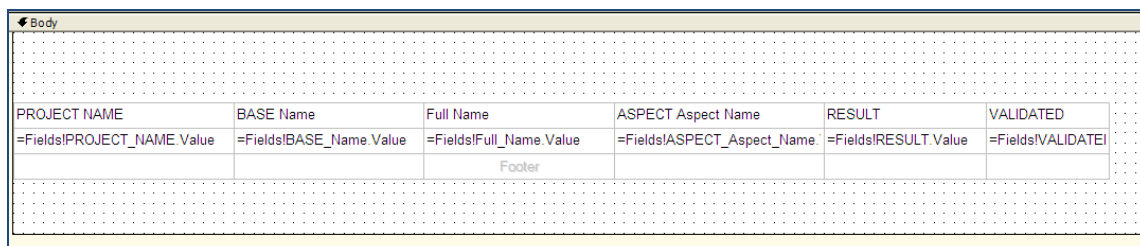
Select the far right column and then right-click, next select the option to Insert Column to the Right, repeat this process until you have six columns, (re-size the column widths if you prefer).



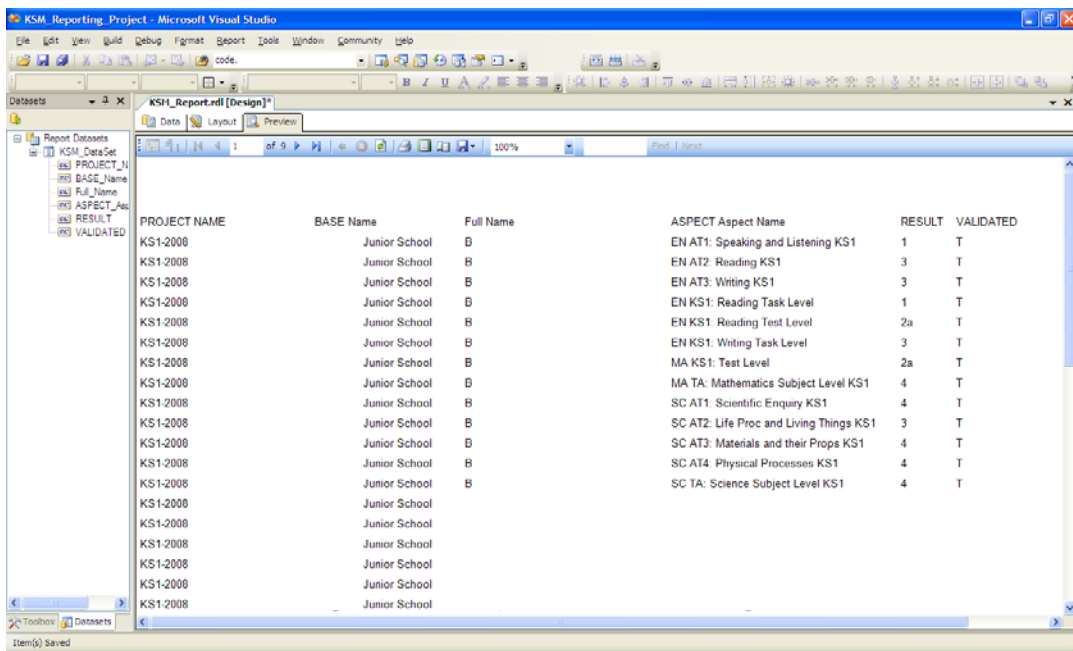
Next, select the Dataset option from the left-hand panel (Ctrl + Alt + D). The system should display the following:



For each of the fields from PROJECT_NAME to VALIDATED drag the field to the detail row of each respective column. As you do so the system will insert the correct syntax for the field and provide a title in the Header row.



At this point the user may select the Preview tab; the report should look something like:

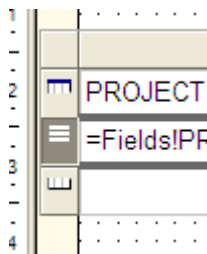


Return to the layout tab.

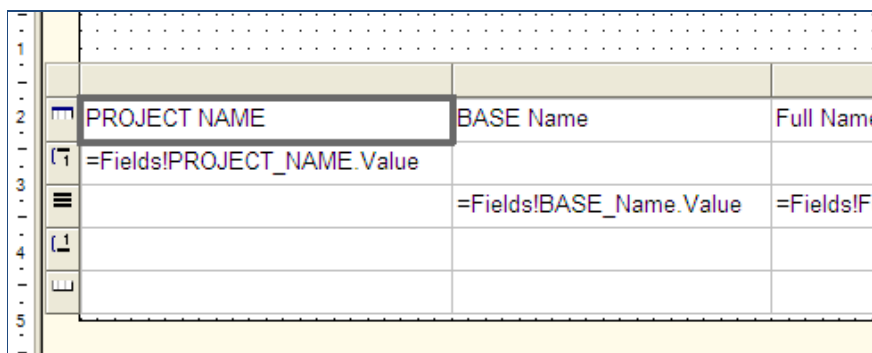
Grouping the Data

The next phase of the report creation is to consider grouping aspects. In our example it is relatively easy to consider that the next stage is to group the aspects, results and validation by the student. However, this approach is problematic; instead the first stage is to group the data by the project.

Select the detail row by the row handler:

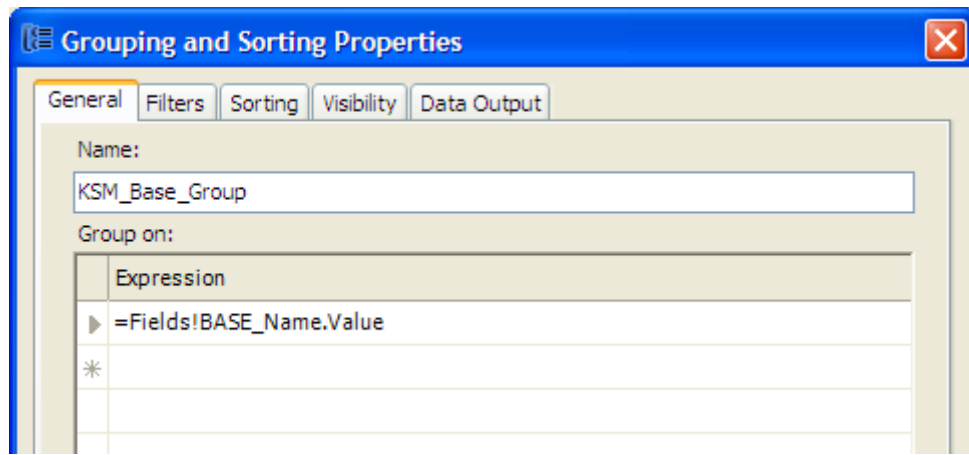


This should select the detail row. Next, the user should right-click and select 'Insert Group'. This will display the Properties pane for newly-created group. Rename the 'Name' box to KSM_Project_Group. In the Expression column select =Fields!PROJECT_NAME.Value. Then select OK. Move the =Fields!PROJECT_NAME.Value from the detail row to Group Header Row, thus:



PROJECT NAME	BASE Name	Full Name	ASPECT Aspect Name	RESULT
KS1-2008	Junior School	B	EN AT1: Speaking and Listening KS1	1
	Junior School	B	EN AT2: Reading KS1	3
	Junior School	B	EN AT3: Writing KS1	3
	Junior School	B	EN KS1: Reading Task Level	1

The data is now grouped by the project. Repeat the process for the Base Name by returning to the detail row, right-click the row handle and select Insert Group. Complete the Grouping and Sorting Properties box as follows:



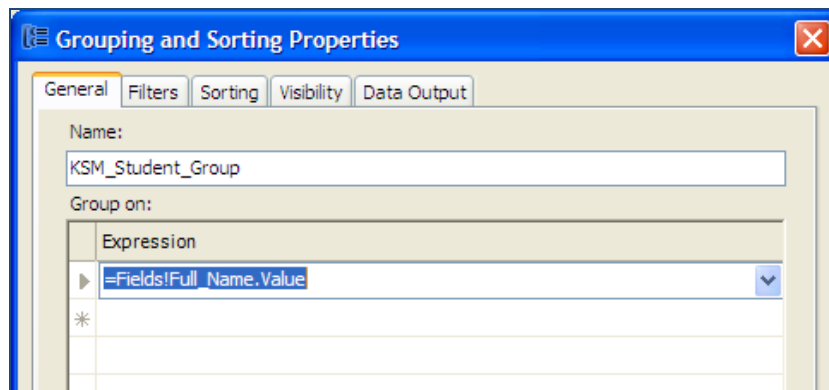
Once again cut and paste the =Fields!BASE_NAME.Value field as follows:

PROJECT NAME	BASE Name	Full Name	ASPECT Aspect Name
=Fields!PROJECT_NAME.Value	=Fields!BASE_Name.Value		
		=Fields!Full_Name.Value	=Fields!ASPECT_Aspect_Name.Value
			Footer

The data should preview as:

PROJECT NAME	BASE Name	Full Name	ASPECT Aspect Name	RESULT
KS1-2008		B	EN AT1: Speaking and Listening KS1	1
		B	EN AT2: Reading KS1	3
		B	EN AT3: Writing KS1	3

Next, repeat the process for the Full Name:



Move the Full Name field to the Group Row (3)

PROJECT NAME	BASE Name	Full Name	ASPECT Aspect Name	RESULT	VALIDATED
=Fields!PROJECT_NAME.Value					
	=Fields!BASE_Name.Value				
		=Fields!Full_Name.Value			
			=Fields!ASPECT_Aspect_Name.Value	=Fields!RE	=Fields!VALIDAT

The report should now look like this:

PROJECT NAME	BASE Name	Full Name	ASPECT Aspect Name	RESULT
KS1-2008	Junior School	B		
			EN AT1: Speaking and Listening KS1	1
			EN AT2: Reading KS1	3
			EN AT3: Writing KS1	3

You may at this stage wish to add formatting and other facilities prior to publication.

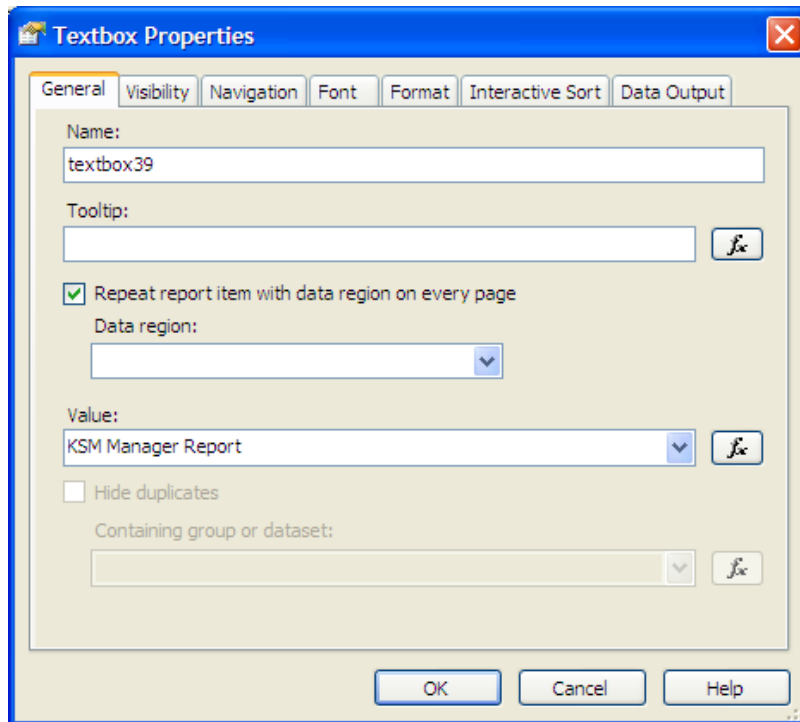
Formatting the Report

From the toolbox select a textbox and drag the textbox to an appropriate size, insert the text 'KSM Manager Report':

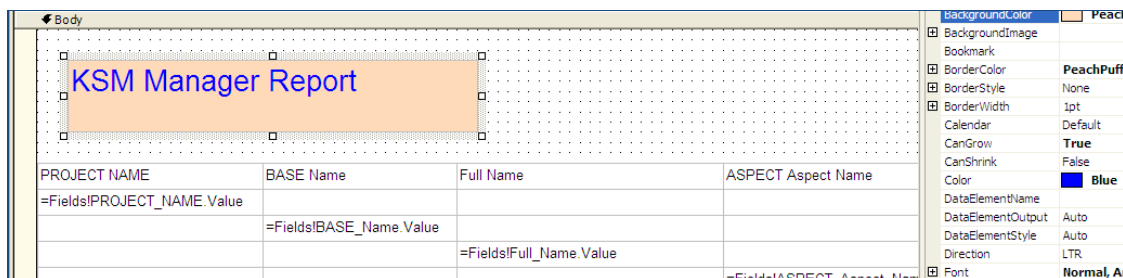
PROJECT NAME	BASE Name	Full Name
=Fields!PROJECT_NAME.Value		
	=Fields!BASE_Name.Value	
		=Fields!Full_Name.Value

Right click the textbox and select properties.

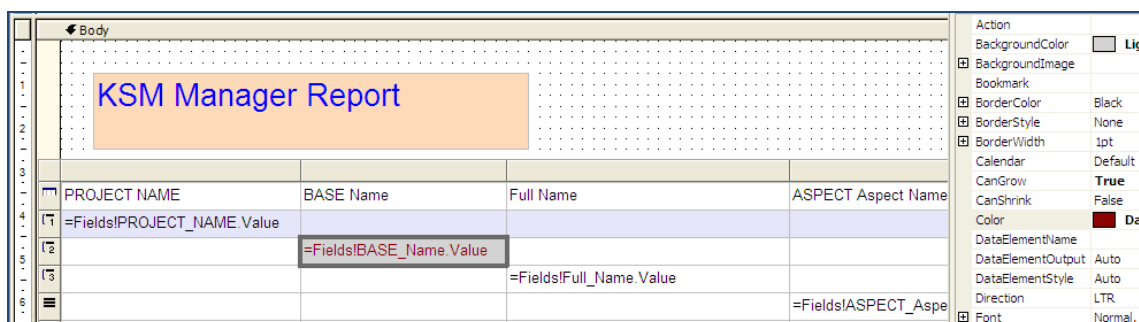
This displays the following:



Select the font tab and alter the font size to 20pt. If you wish to alter the font colour then select the Properties Window (F4) and select the 'Color' drop-down.

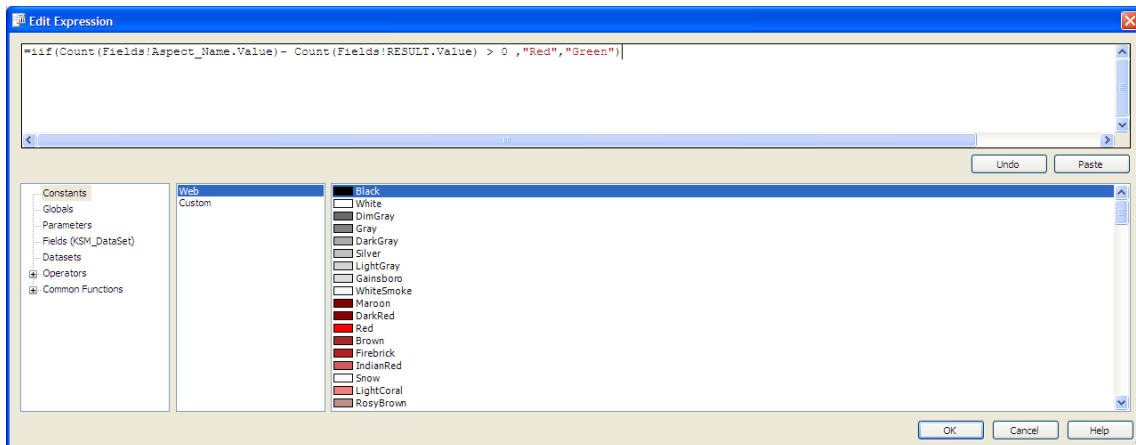


The user may amend the colour for the font and background as required. Repeat this for any additional fields such as the project and base name or the rows should you prefer.



For the Full_Name value field you may decide that the colour should depend on whether or not the results are complete. For instance, you may wish to see the student's name displayed in a green font if all the results are present and red if any or all of the results are missing. In this case it is necessary to select an expression for the 'color' property.

In the Layout tab select the Full_Name textbox and select the 'Color' drop-down text box. Next, select the 'Expression' option. The system then displays the following:



Type in the following:

```
=iif(Count(Fields!ASPECT_Aspect_Name.Value)- Count(Fields!RESULT.Value) > 0 , "Red" , "Green")
```

This formula counts the number of aspects and then subtracts the number of results. If there are results missing, the student name is displayed in red otherwise, it is displayed in green.

This can be used again for the Aspect Name textbox:

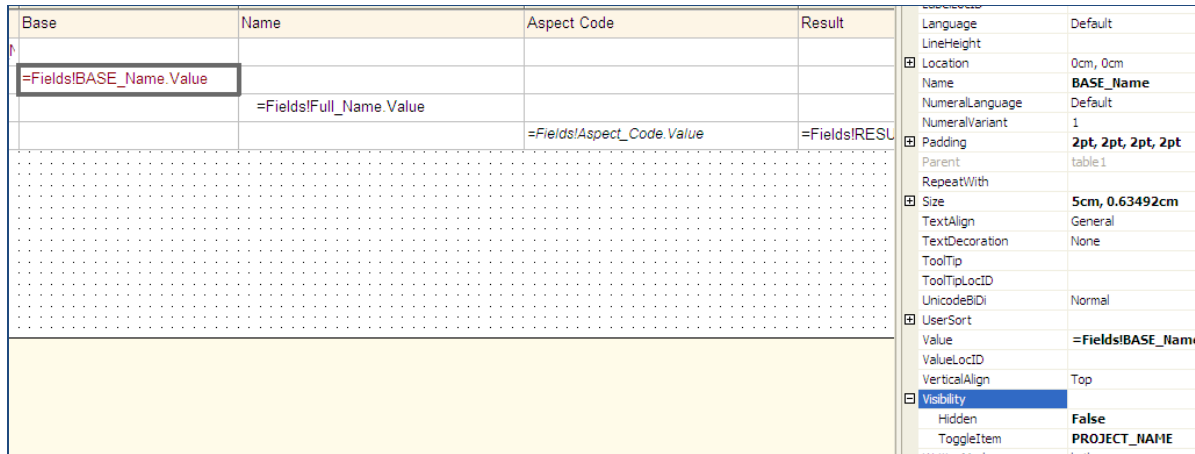
```
=iif(Fields!RESULT.Value is nothing, "Red" , "Green")
```

In this case if the result is missing the aspect code is displayed in red, otherwise it is displayed in green:

Junior School			
B			
	EN AT1: Speaking and Listening KS1	1	T
	EN AT2: Reading KS1	3	T
	EN AT3: Writing KS1	3	T
	EN KS1: Reading Task Level	1	T
	EN KS1: Reading Test Level	2a	T
	EN KS1: Writing Task Level	3	T
	MA KS1: Test Level	2a	T
	MA TA: Mathematics Subject Level KS1	4	T
	SC AT1: Scientific Enquiry KS1	4	T
	SC AT2: Life Proc and Living Things KS1	3	T
	SC AT3: Materials and their Props KS1	4	T
	SC AT4: Physical Processes KS1	4	T
	SC TA: Science Subject Level KS1	4	T
B			
	EN AT1: Speaking and Listening KS1	2	T
	EN AT2: Reading KS1	4	T
	EN AT3: Writing KS1	3	T
	EN KS1: Reading Task Level	2a	T
	EN KS1: Reading Test Level		F
	EN KS1: Writing Task Level		F

Toggleing Data Display

The presentation of a report can be aided by the ability to toggle data. Simply expressed this is the ability to hide rows of data until the user wishes to view particular projects, schools or students. This is achieved by returning to the Layout tab. Select the BASE_Name textbox and then ensure the Properties Box is displayed:



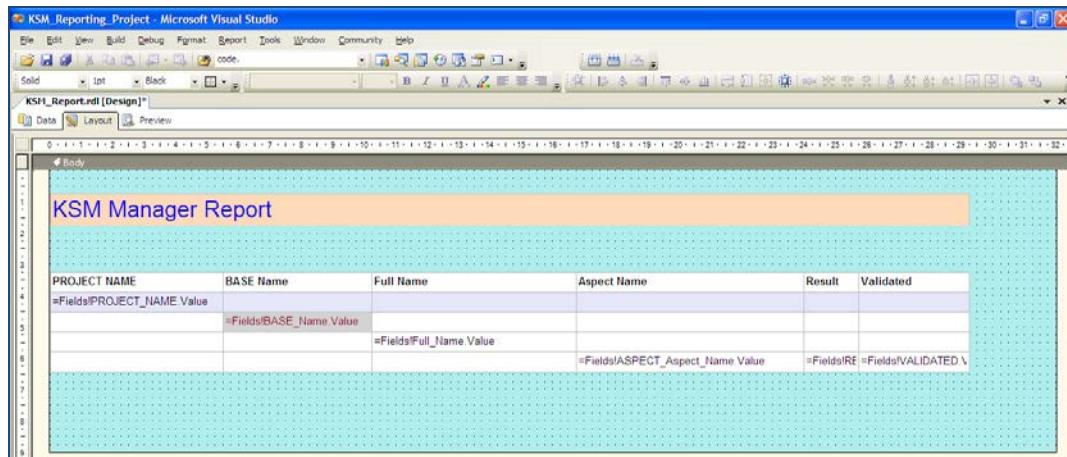
Select the Visibility attribute and set the 'Hidden' value to False and the 'ToggleItem' to 'PROJECT_NAME'.

Next, select the row handler for the details row. Select the Visibility attribute and set 'Hidden' to 'True' and the 'ToggleItem' to 'Full_Name'.

Select the row handler for the Full_Name value. Select the Visibility – Hidden attribute and set this to 'True', set the ToggleItem to 'BASE_Name'.

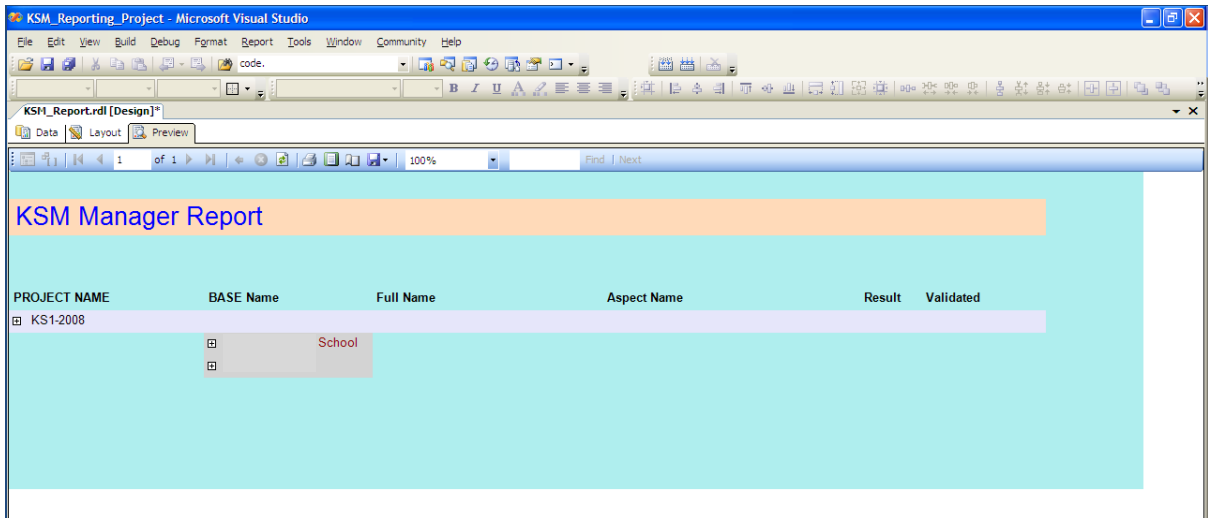
Tidying the Report

Remove empty row by deleting them after selection, these are mostly the group footers. You may also wish to colour to the report body. Select any part of the report other than the table or other text boxes. In the 'Properties' panel select a suitable background colour for the report.

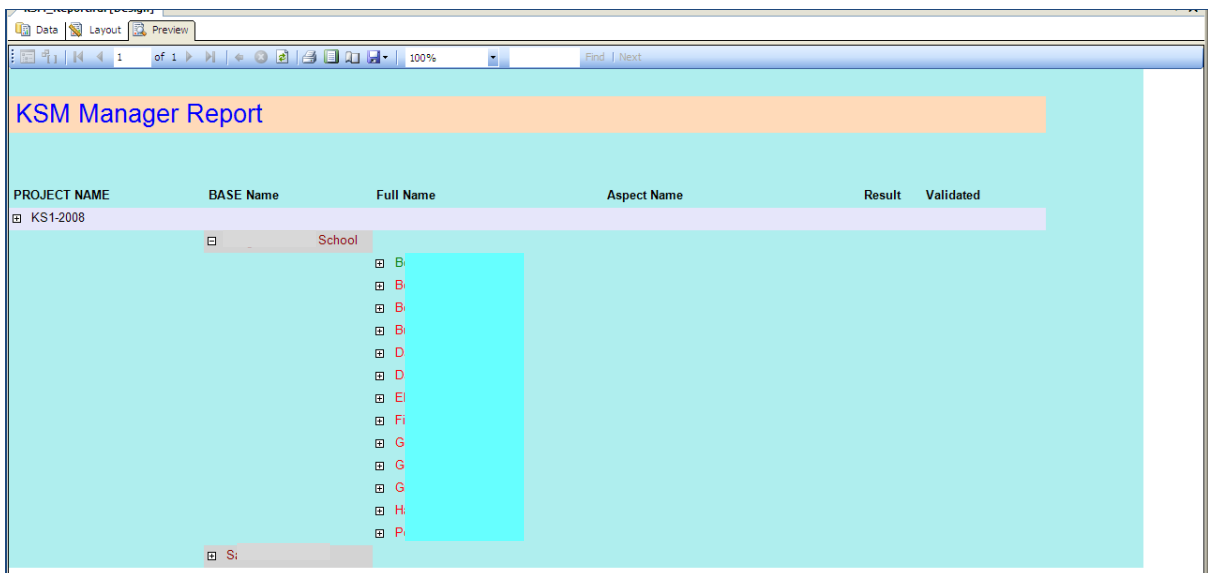


This is the example report layout.

When the report is viewed through the Preview facility it looks like this:



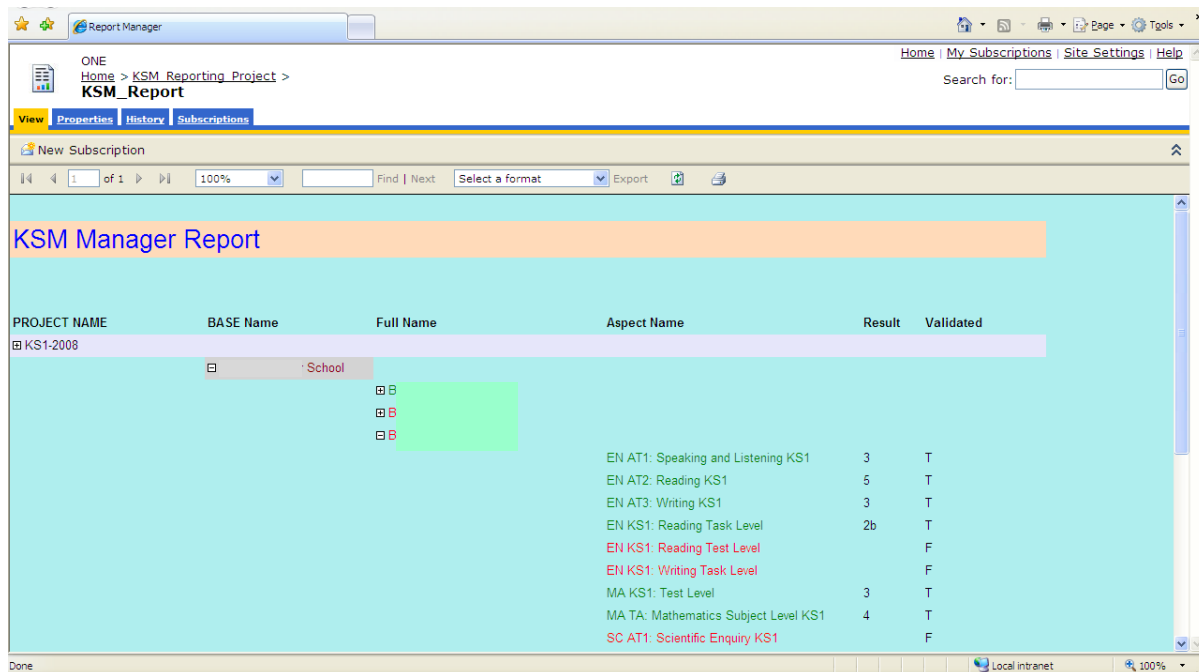
The user can toggle data by selecting the plus or minus icons:



Publishing

When you have previewed your report you can publish it to the server. Right click on the Report Project name and select the Deploy option – this will publish the report to the report server and make it available to users based on the folder permissions it has been published to.

The report published in the Report Designer to the report server will be visible within the **One** Rich Client and through the browser interface identically to a report published through Report Builder. Click-through reporting will switch between the two types of reports seamlessly.



Once deployed the report may be viewed through a standard browser.