Desktop Studio: A Tour

Intellicus Enterprise Reporting and BI Platform

intellicus
Enterprise Reporting and
Business Insights Platform

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Acknowledgements

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Introduction to Intellicus Desktop Studio

Intellicus Desktop Studio (Or Intellicus Studio as it is generally referred as) is report design tool of Intellicus web-based reporting solution.

Report designed in Intellicus is like template used to store report-design and database related information. This is then read by Report Server to generate actual reports with data.

Operating Modes

Intellicus works in two operating modes:

- **Security Enabled:** In this mode, you need to login using user name and password allotted to you to launch Intellicus Studio and work in it.

- **Security Disabled:** This mode is activated when Intellicus Report Server is running in this mode. In Security Disabled mode, there is no concept of user name and password. Intellicus Studio will start just like any other application.

While working in Intellicus Studio with security enabled, tasks you can do using Intellicus Studio will depend on the access privileges given to you.

When working in Intellicus Studio with security disabled, you will be able to access all of the functionalities of Intellicus Studio.

Launching Intellicus Studio

You can launch Intellicus Studio by clicking Start > Program Files > Intellicus > Studio.

When Intellicus Studio works with security enabled, upon launching Intellicus Studio, you are presented with the **Login** dialog box.
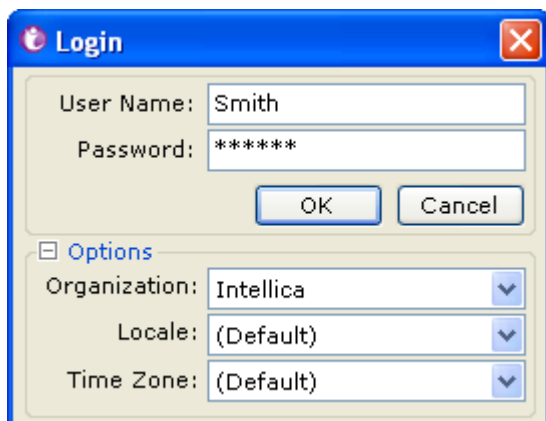

Figure 1: Login dialog box

The information to be provided is:

- **Login Name:** Specify the login name.

- **Password:** Specify the password associated with the login name that you have specified.

- **Organization:** From the available options in the drop down box, select the organization under which the Login Name allotted to you is created.

- **Locale:** Locale identifies a specific language and geographic region. In Intellicus, locales affect portal language, sorting, date/time formats, number and currency formats. From the dropdown, select the desired locale.

- **Time Zone:** In Studio, value of time zone will effect date and time value outputs during preview of report output. From the dropdown, select the desired time zone.

After specifying the information, click **OK** to proceed. On successful login, Intellicus Studio will start and **Welcome** dialog box will appear.

> **Important:** Intellicus Studio needs to be online with Intellicus Report Server. Intellicus Studio communicates with Intellicus Report Server on a specific IP and port number. If it does not find server running at that IP or Port, instead of launching Intellicus Studio, Report Engine Configuration dialog box will open.

Figure 2: Report Engine configuration dialog box
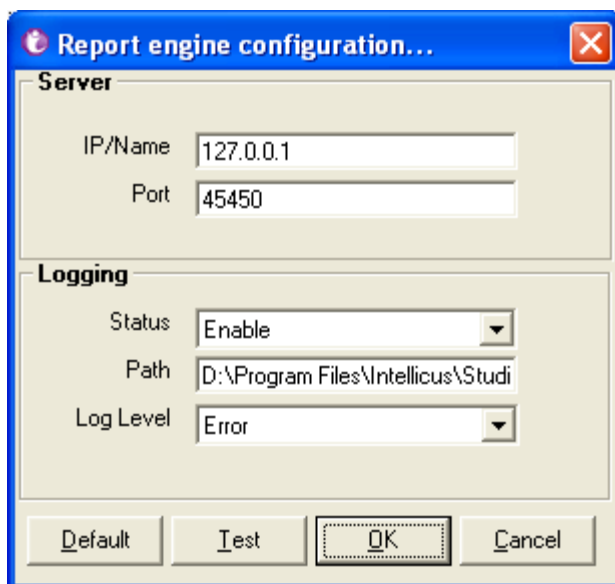
If this happens, provide the IP and port (at which server is listening) in **IP/Name** and **Port** respectively and click **Test** to check if Studio is able to communicate with the server. Upon successful test, **Test connection successful!** Message will appear. Click **OK**.
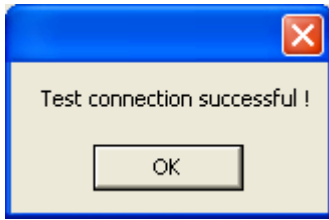
Figure 3: Successful test

Intellicus Studio will automatically get launched and its window will appear.

The Intellicus Studio window

Given below is a sample of Intellicus Studio's window having a report opened in it.

Figure 4: Intellicus Studio Main Window

Like any other Desktop application, Intellicus Studio Window has menus, toolbars, status bar and the area where other panes open.

Document area of Studio is divided in:

- Explorer Pane

- Fields List

- Properties Pane

- Report Design area

Explorer pane

Lists in a tree view, the components placed on the canvas.
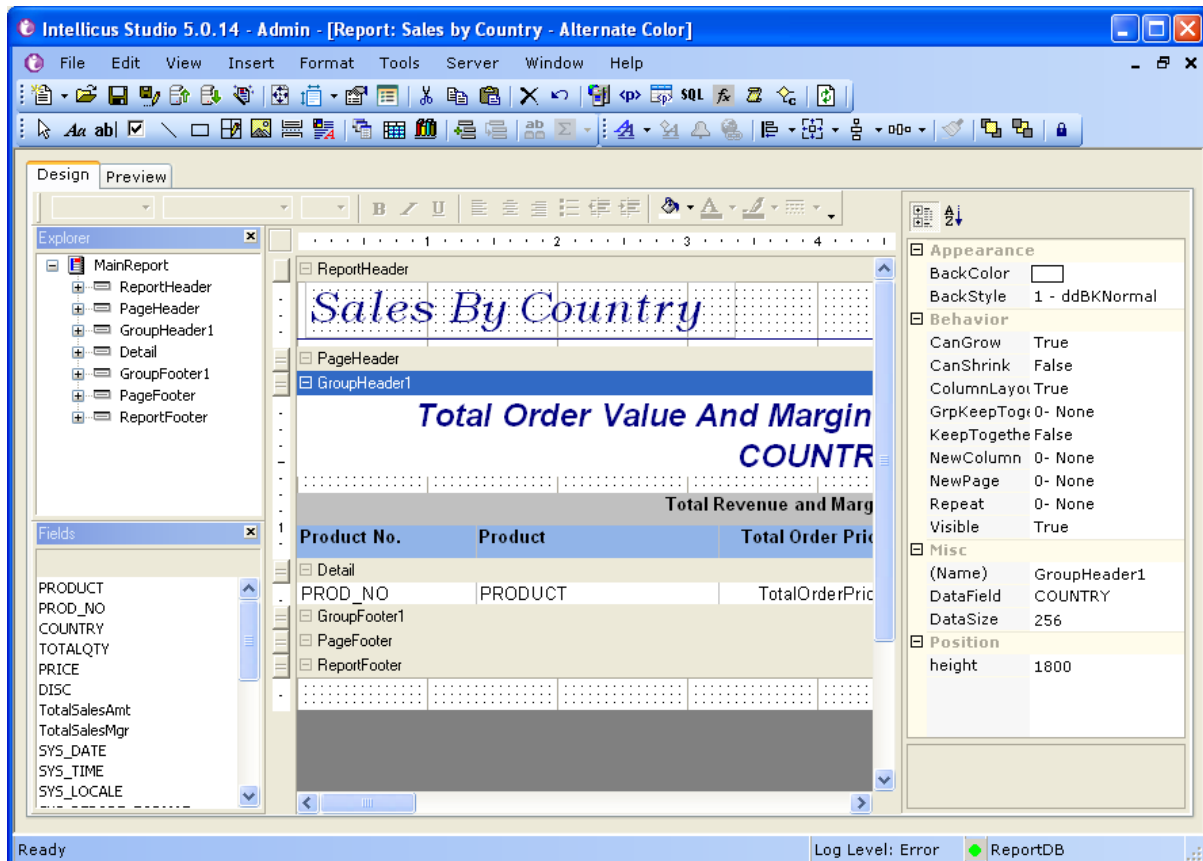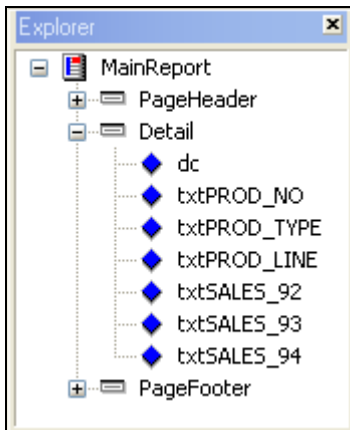

Figure 5: Explorer Pane

When you select a field in Explorer pane, respective field gets selected on the canvas too.

Fields list

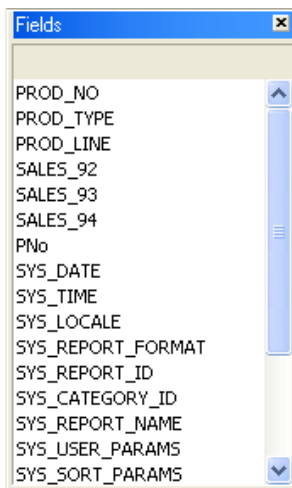Lists the fields that can be placed on the report.

Figure 6: Fields List

This list contains fields (coming from database tables, or xml file), user parameters selected for the report, Formulas as well as system parameters.

Properties pane

Displays list of properties and the values of properties related to the control selected from canvas.
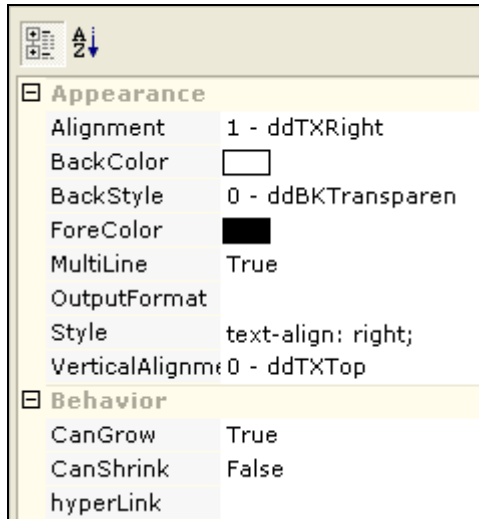
Figure 7: Properties pane

The list displays only those properties that are applicable for the selected control. Description of the selected property is available at the bottom of the list. The list can be arranged by the order (ascending order or descending order of property name) or arranged in groups.

Layout pane

This is the area where canvas is located. Report controls are placed on canvas. Detailed description of report design area is covered in later chapters.

Menus

Intellicus Menu bar has the following options:

Figure 8: Intellicus menu bar

Options under File Menu

File menu includes options for file operations about the report file.

- **New:** Use this option to open a new report. Click XML to open a report that will get data from an XML source. Click SQL that will get data from a database.
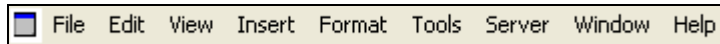
- **Open:** To open an existing report (.irl file).

- **Close:** To close the open report file.

- **Save:** To save the report format file.

- **Save As:** To save the open report file at a specific location with same or different name.

- **Print Preview:** To preview the report.

- **Page Setup:** To carryout print related settings.

- **Dashboard page setup:** To set the page dimensions when the report will be used on a dashboard.

- **Import:** To import a crystal report in Intellicus.

- **Exit:** To exit from Intellicus Studio.

File menu also contains recent file list.

Options under Edit Menu

Edit menu includes options having commands to assist in editing a report.

- **Sub Report:** To get the **Create a Sub-Report from..** dialog. To get the dialog, place sub report control on report layout and then click this option.

- **Undo:** To Undo the last action.

- **Cut:** To remove the selected object from its existing location (to be placed at some other location).

- **Copy:** To copy the selected object from its existing location (to be placed at some other location).

- **Paste:** To place the object that was copied or cut earlier.

- **Delete:** To delete selected (one or more) objects.

- **Delete Section:** To delete selected section.

Options under View Menu

View menu includes command options about controlling the view of the application in terms of elements that are visible on screen and the way they are visible on the screen.

- **Design:** To switch over to Design View from the Preview.

- **Preview:** To preview the report being designed.

- **Properties:** To hide / show properties list.

- **Explorer:** To make the Explorer window disappear and appear.

- **Fields:** To make the Fields window disappear and appear.

- **Refresh Fields:** To refresh the field list. You may click this option after making changes in an SQL query.

- **Full Screen:** To get a full screen view for Layout Editor. To come back to Normal View, right click on a report band, and click the **Full Screen** option. This option is not available for while previewing a report.

- **Grid:** To toggle between making a grid visible or Invisible.

- **Toolbars:** A mouse hover on this option opens a sub menu with options for Standard, Format, Status Bar and Toolbox. A click on an option will make the corresponding toolbar visible / invisible.

Options under Insert Menu

This menu includes command options that are used to insert an object / control into an open report.

- **Section:** Use this sub menu to insert a Report Header/Footer, a Page Header/Footer and Group Header/Footer in the report. Click its option Re-Arrange Groups to rearrange groups.

- **Controls and Object related menu options:** This includes options to insert Label, Field, Checkbox, Page Break, Line, Shape, Image, Frame and a Rich Text Box in the report layout.

- **Sub Report:** Use this option to insert a sub-report in the report layout.

- **CrossTab:** Use this option to insert a cross-tab control on the report layout.

- **Chart:** Use this option to insert a chart control on the report layout.

- **Caption:** Use this option to insert caption of the field whose associated caption is not present.

- **Summary Field:** Use options under this sub-menu to select and insert a summary field on all the group footers.

- **Date/Time:** Use this option to insert a Date / Time control on the report layout.

- **Page Numbers:** Use this option to insert page number control on the report layout.

Options under Format Menu

Format Menu includes options to work with formatting and look & feel aspects of a report.

- **Align:** Use this sub menu to align selected controls to Left, to Center, to right, towards top, middle or bottom or align with the grid.

- **Size:** Use this sub menu to re-arrange all the selected controls to have the Same Width, Same Height or both.

- **Horizontal Spacing:** Use this sub menu to set horizontal spacing among two or more selected controls, as Equal, Increase, Decrease.

- **Vertical Spacing:** Use this sub menu to set vertical spacing among two or more selected controls, as Equal, Increase, Decrease.

- **Paint Properties:** To apply format properties to selected control(s).

- **Bring to Front:** Use this menu option to bring the selected control to front. This control will overlap all other controls.

- **Send to Back:** Use this menu option to bring the selected control to back. All other controls will overlap this control.

- **Styles:** Use this menu option to get Styles dialog box.

- **Conditional Formatting:** Use this menu option to get Conditional Formatting dialog box.

- **Notifications:** Use this menu option to get Notifications dialog box.

- **Hyperlink:** Use this menu option to get Hyperlink Options dialog box.

- **Lock Layout:** To lock all the controls on the report to their respective locations. This is a menu option with toggle effect.

Options under Tools Menu

Following options are available under Tools menu.

- **Connections:** Use this menu option to set database connection for the open report. All types of connections will be available here, including OLAP type and others.

- **Parameters:** If the report needs one or more run time parameters at run time, use this menu option to get Parameters dialog box. Setup parameter information on this dialog box.

- **Parameters Form Layout:** Use this option to open **Parameters Form Layout** dialog and specify layout details for **Input Parameters Form** (IPF). IPF opens at runtime when a report having user-parameter is executed.

- **SQL Editor:** When the report being developed gets data from an SQL source, use this menu option to get SQL Editor dialog box. Setup SQL related details on this dialog box.

- **Scripting:** Use this option to open Script Editor.

- **Formula Fields:** Use this option to open Formula Fields dialog box.

- **Conditions:** Use this option to open Conditions dialog box to design report conditions.

- **XML Source:** When the report being developed gets data from an XML Source, use this menu option to get XML Source dialog box. Setup SML related details on this dialog box.

- **Report Properties:** Opens Report Properties dialog box.

- **Field Properties:** Opens Field Properties dialog box.

- **Options:** Opens a dialog box to specify system and custom design.

Server, Window and Help menus

Server Menu

The server menu has three options:

- **Upload Report:** To upload a report to the report server.

- **Download Report:** To download a report (.irl file) from the Intellicus report server.

Window Menu

Using Intellicus Studio, you can work with more than one report at a time. The options under Window menu provide options to have those report files differently in the application window. The options are,

- **Tile Horizontally:** Place all open reports one below other.

- **Tile Vertically:** Place all open reports side by side.

- **Cascade:** To place all open report over each other in cascading fashion. This way only the topmost report is visible. Title bar of all the report is visible. A title bar can be clicked to bring it to front.

- **Close All:** To close all the report files.

It also has one option for each of the opened report.

Help Menu

- **Help:** To launch Online Help of Intellicus Studio.

- **About:** To know about the version of the Intellicus Studio that you are using.

Toolbars

Intellicus Studio provides four types of toolbars to work with. You can use the toolbar buttons as a shortcut for doing the routine tasks. However, these options are also available in the menu.

Standard Toolbar

Buttons available on the standard toolbar are:

- (New Report): To start work on a new report layout. A click on the image will open a new SQL based report layout. To open a new XML based report layout, click icon, click XML.

- (Open Report): To open an existing report layout.

- (Save Report): To save the open (active) report layout.

- (Save Report As): To save the open report layout at a specific location with same or different name. If you are saving the open report layout for the first time, even if you click button, **Save As** dialog box will open.

- (Upload): To upload the open report layout to the server with which Intellicus Studio is connected.

- (Download): To download a report layout from the server with which Intellicus Studio is connected.

- (Report Wizard): To open Report Wizard dialog box.

- (Page Setup): To open Report Settings dialog box. On this dialog box, you can do page dimension, printer selection, grid settings and style related settings.

- (Dashboard Pagesetup): To set the page dimensions when the report will be used on a dashboard.

- (Report Properties): To open Properties dialog box. On this dialog box you can Engine (server), summary information, Security etc. related settings.

- (Field Properties): To open Field Properties dialog box. On this dialog box you can specify date type field's Time Zone related property values.

- (Cut): To cut the selected control(s).

- (Copy): To copy the selected control(s).

- (Paste): To paste the selected control(s) on the selected section.

- (Delete): To delete the selected control(s).

- (Undo): To undo actions taken on Report Layout form.

- (Connection): To set the default connection with database.

- (Parameters): To open parameter dialog box.

- (Parameters Form Layout): To open Parameters Form dialog box.

- (SQL Editor): To open SQL Editor dialog box.

- (Formula Fields): To place a summary function in group-footer section(s). Click the ▾ button to get options for all the summary function, followed by selecting a function from the options available.

- (Scripting): To open Script Editor dialog box.

- (Conditions): To open Conditions dialog box.

- (Refresh Field List): To refresh the Fields window.

Format toolbar

- (Styles): To open Styles dialog box.

- (Conditional Formatting): To open Conditional Formatting dialog box.

- (Notifications): To open Notifications dialog box.

- (HyperLink): To open Hyperlink Options dialog box.

- (Align): To align all the selected controls with respect to the one that was selected last.

- (Size): To adjust the size of selected controls. By default, a click on the button will affect width. Click ▾ to get a list of options. Size will be made equal with that of the control that was selected last.

- (Vertical Spacing): To adjust vertical spacing among selected controls. By default, a click on the button will increase vertical spacing. Click ▾ button

to get a list of options. Increase or decrease of spacing will move the controls downwards and upwards respectively.

- (Horizontal Spacing): To adjust horizontal spacing between selected controls. By default, a click on the button will increase horizontal spacing. Click to get a list of options. Increase of decrease of spacing will move the controls towards right and left respectively.

- (Paint Properties): To apply format properties to selected control(s).

- (Bring To Front): To bring the selected control front.

- (Send To Back): To push the selected control to back.

- (Lock Layout): To fix the control where they are.

Toolbox

- (Select): To return to selection mode.

- (Label): To select Label control.

- (Line): To select Line control.

- (Shape): To select shape control.

- (Frame): To select Frame control.

- (Image): To select Image control.

- (Page Break): To select page break control.

- (Rich Text Box): To select Rich Text Box control.

- (Sub-Report): To select a sub-report control.

- (Cross-tab): To select a cross-tab control.

- (Chart): To place a chart control.

- (Add Groups): To add a group. It will insert a group header, group footer and also create summary fields in respective sections for all the numeric fields available at that time in detail section.

- (Re-Arrange Groups): To get a dialog box for re-arrangement of groups.

- (Caption): To insert caption in header section (as the field name) for a field selected in detail section.

- (Summary Field): To place summary fields on all the group footers.

Working with Reports

When you launch Intellicus Studio, **Welcome to Intellicus Studio** dialog box appears immediately after opening the main window.
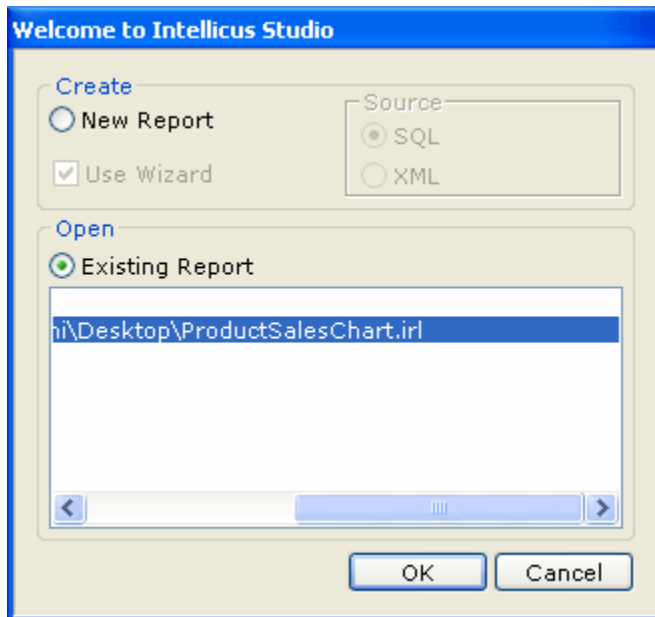
Figure 9: Welcome Dialog Box

On this dialog box, you can decide to do any of the following:

- To create a new report

- To work on any of the pre-designed reports

Choosing to create a new report on Welcome… dialog box

Under **Create**, click **New Report** option.   Under **Source**, select **SQL** if the data for report will come using an SQL.   Select **XML** if the data for report will come from an XML.

To start designing the report with help of wizard, click (select) **Use Wizard** checkbox.   Click **OK** to close the dialog box and open a blank report or Wizard depending on selection.

Choosing to opening a pre-designed report on Welcome… dialog box

Under **Open**, select **Existing Report** to open a report that was already created. Double-click the report if it is available in the list or double-click **Browse…** to browse and select the report.

On **Welcome…** dialog box, click **OK** after selecting the report.   The selected report opens in Intellicus Studio.

Using the Report Wizard

The report wizard provides an easy-to-use tabbed interface to create a report. Your report is simple tabular report of one having a lot of components on it, it is always a good idea to start designing a new report using the report wizard.

A report that does not have chart, cross-tab or sub-report component can be entirely designed using Wizard. If a report has chart, cross-tab or sub-report component then it is a nice idea to use Wizard for some of the activities.

The report wizard provides the following tabs:

- **Report Type:** To specify report title and layout related information.
- **SQL Source:** To specify SQL data source related details (for SQL based reports).
- **XML Source:** To specify XML data source related details (for XML based reports).
- **Fields:** To specify the fields to be placed on the report.
- **Groups:** To specify group related information.
- **Totals:** To specify summary (totals) related information.
- **Style:** To specify Styles (pre set formatting) related information.
- **Sub Reports:** To specify and provide sub report related information.

Report type

Report title and layout related information is specified on this tab.
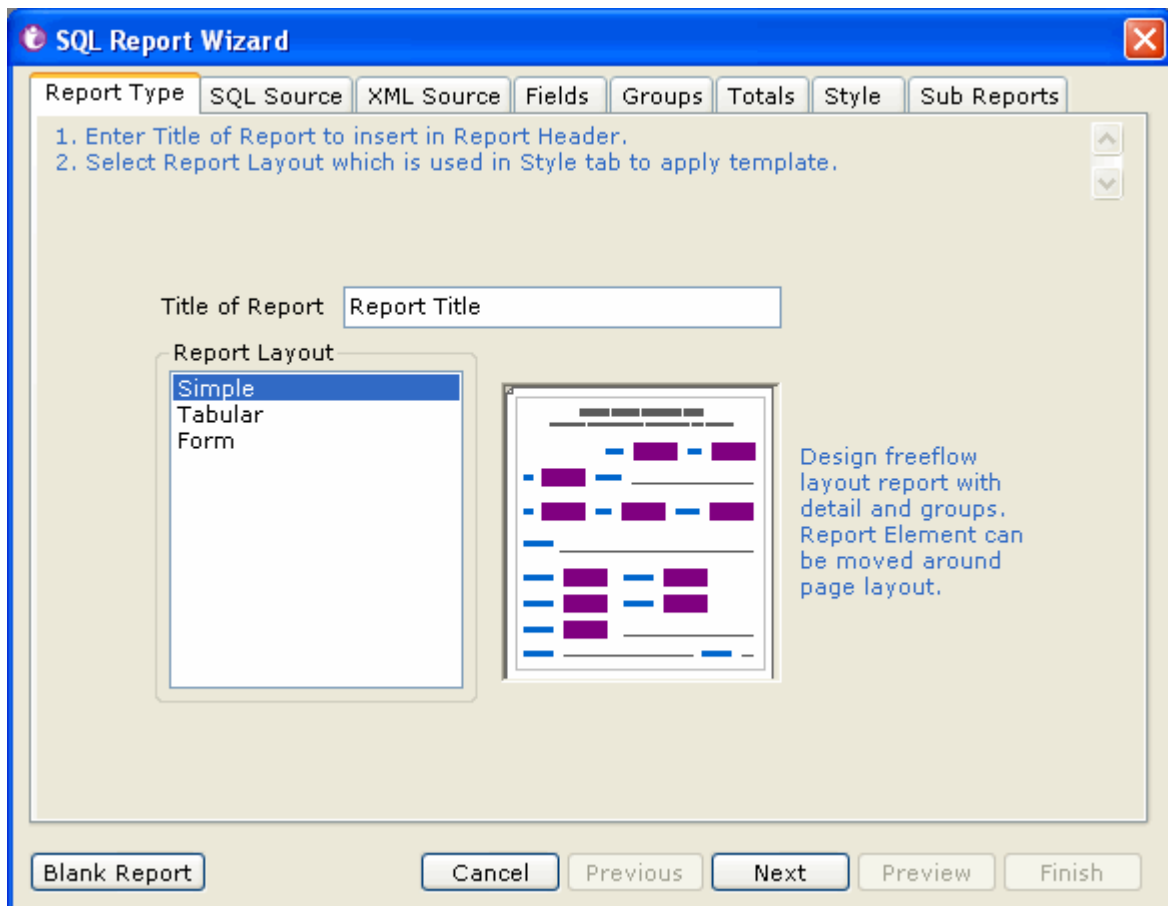
Figure 10: Report Wizard

- **Title of Report:** Specify the title of the report. This information will appear at the top of the report.
- **Report Layout:** This defines how fields (controls) will be placed on the report. Select *Simple* if you want free-form placement of controls on report. Select *Tabular* if you want auto-placement of fields on report in one row per record on report. Select *Form* if you want to auto-place fields one below other.

SQL Source

Specify your SQL related information on this tab.
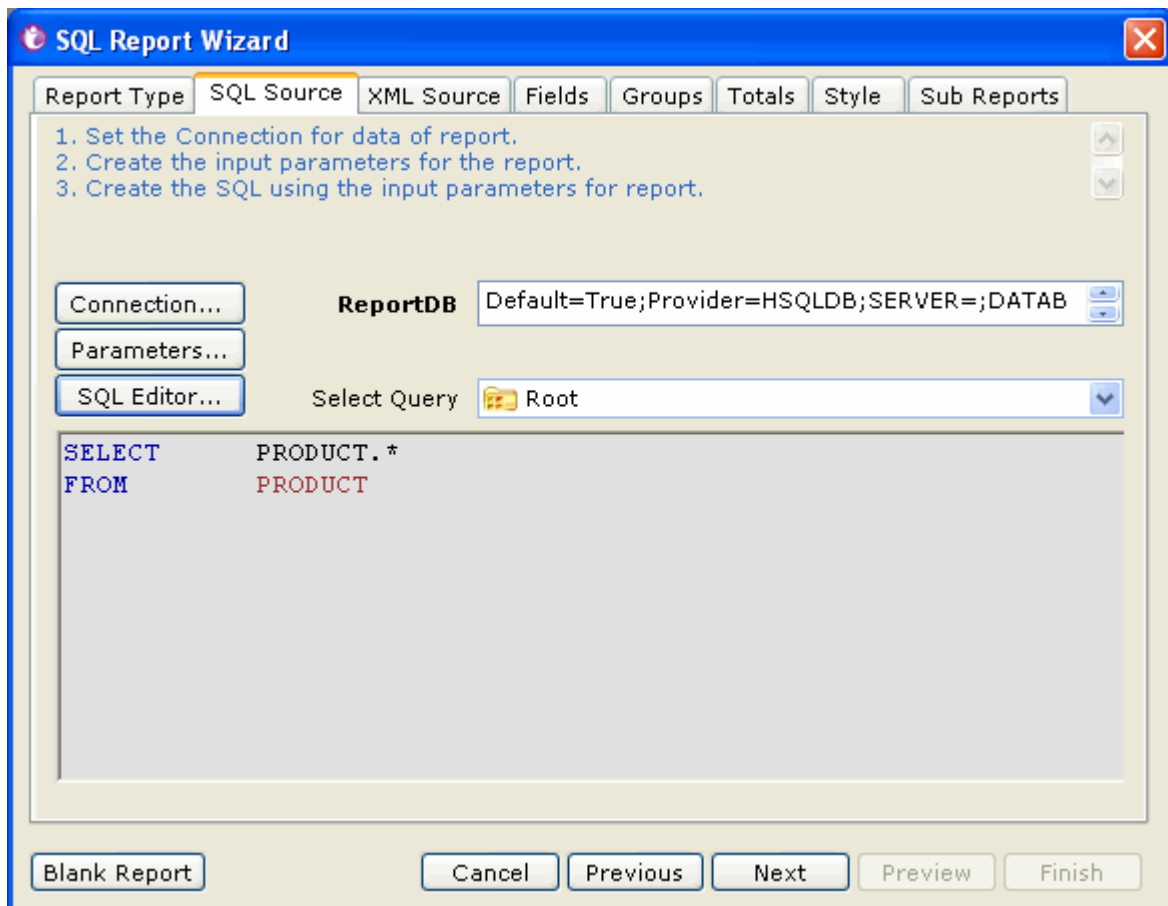
Figure 11: SQL Source Tab

- **Connection..:** To get a dialog box to set the database connection. Using this connection, Intellicus Studio will receive database information for report design and preview.

- **Parameters..:** You need to specify user parameters if the report will need values at run time from the user. Click this button to open Parameter dialog box and setup parameter details.

- **SQL Editor:** Using SQL Editor you can construct simple queries by drag and drop method.

- **Select Query:** Pre-designed queries are available in repository folders. In this dropdown, navigate to the folder where the desired query is available and select it.

Fields

Specify the fields to be added into the report from the selected database.
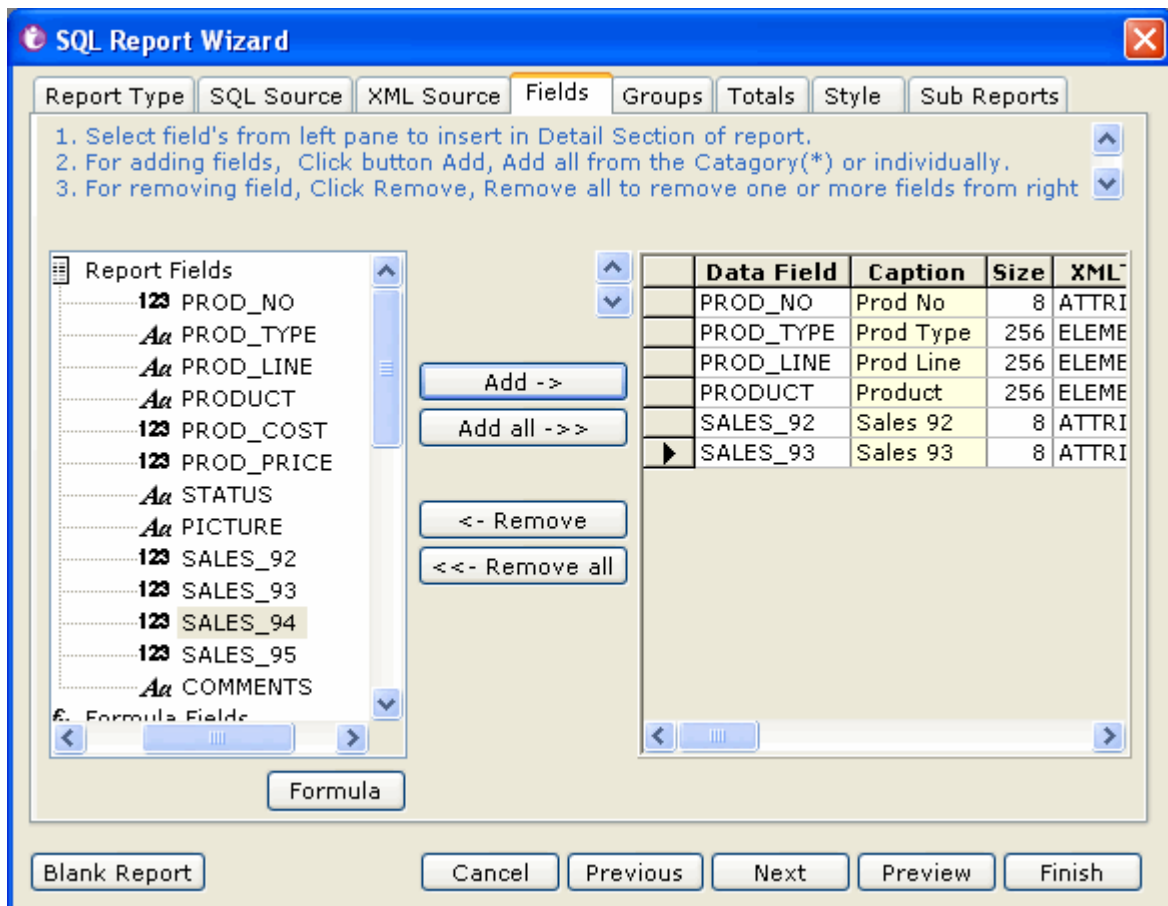
Figure 12: Fields Tab

The list on the left side has Report fields (they have come from SQL), Formula Fields (if there are any) Parameter Fields (if there are any), and system parameters.

Select a field and click Add to shift selected field on the right. Click **Add All** to select all the fields of the type (Report Fields, Formula fields, etc). To remove a field from selected fields list (fields on the left side), select that field and click **Remove**. To remove all the fields, click **Remove All**.

Click **Formula** button to open the dialog box to create a new formula.

Select a field and click movement keys on the right to shift the field up (left) or down (right).

Group

Specify your grouping preferences on this tab. Grouping is done on fields listed under the **Report Fields**.
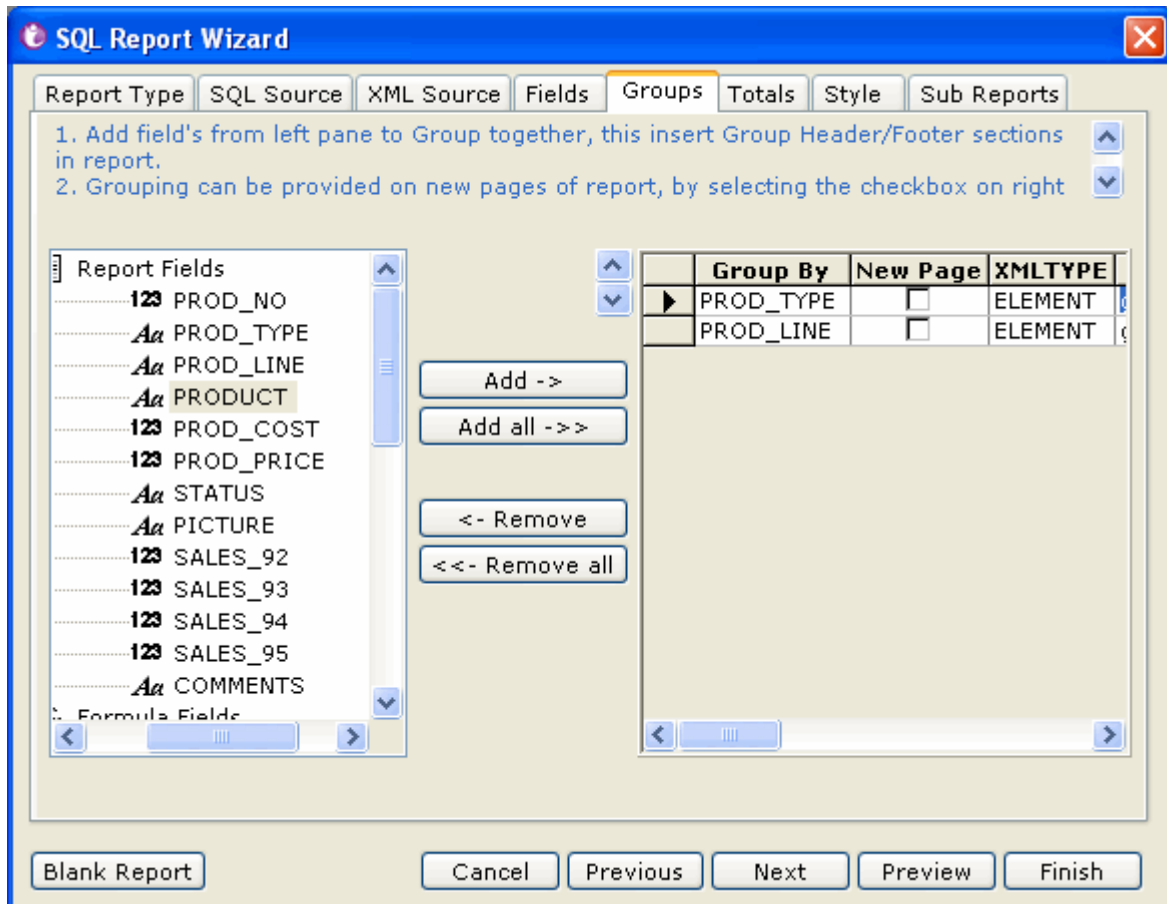
Figure 13: Group Tab

From the fields listed under the **Report Fields**, select the one on which you want grouping, and click the Add button. The field will appear on the right under **Group By**.

For every group select the **New Page** check box if you want this group to start from next page. To set a group as major or minor, select a field and shift it upwards (major) or downwards (minor) using the arrow keys.

To remove grouping on a field, select the field and click the **Remove** button.

Totals

On Totals tab, you specify your preferences for summary totals.
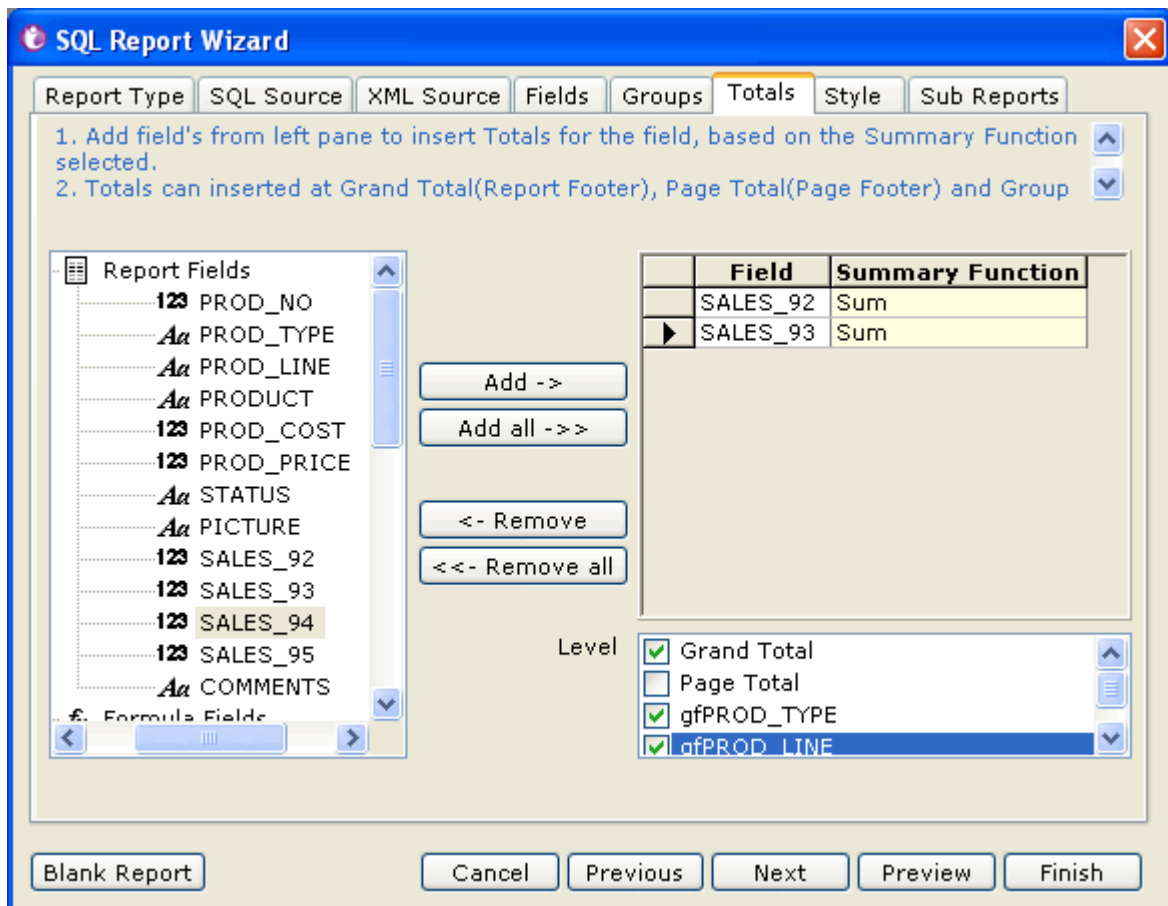
Figure 14: Totals Tab

Select a field that you want to total up, and click the **Add** button. The field appears on the right side. Select a Summary Function to be applied on the field. For the selected field, also specify the level at which you want the total to appear.

To specify the level at which the summary should appear, select a level under **Level** pane.

- **Grand Total:** Select this if you want the total to appear on Report footer (at the end of the report).

- **Page Total:** Select this if you want the total to appear on page footer (at the end of the page).

- **Group Totals:** Select check box for group total of respective group.

Style

Add style effects, page numbering, and border to the report.
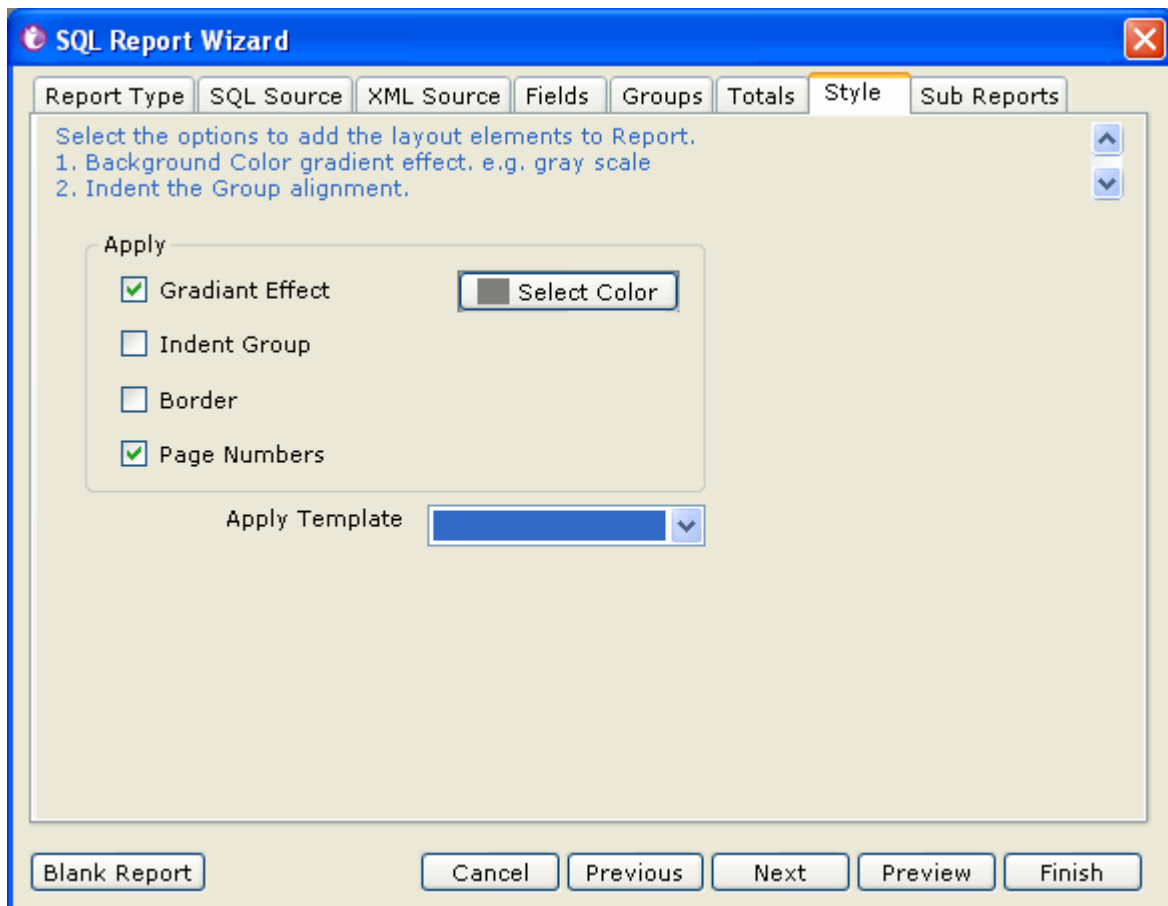
Figure 15: Style Tab

- **Gradient Effect:** Group headers are given different shades (dark to light) of the selected color. Select the color to be used for gradient effect from the Select Color button.

- **Indent Group:** Each group is placed slightly inside (right side) of the higher-level group.

- **Border:** Border is added.

- **Page Numbers:** Add page number in footer.

Click the **Select Color** button to get color palette. The color for gradient effect can be selected either from color available in the palette or can be created using the **Define Custom Colors** button.

You can also select a pre-defined template from the **Apply Template** drop down list, to be used for creating the report.

Sub Reports

Add a sub report (if any) to the report.
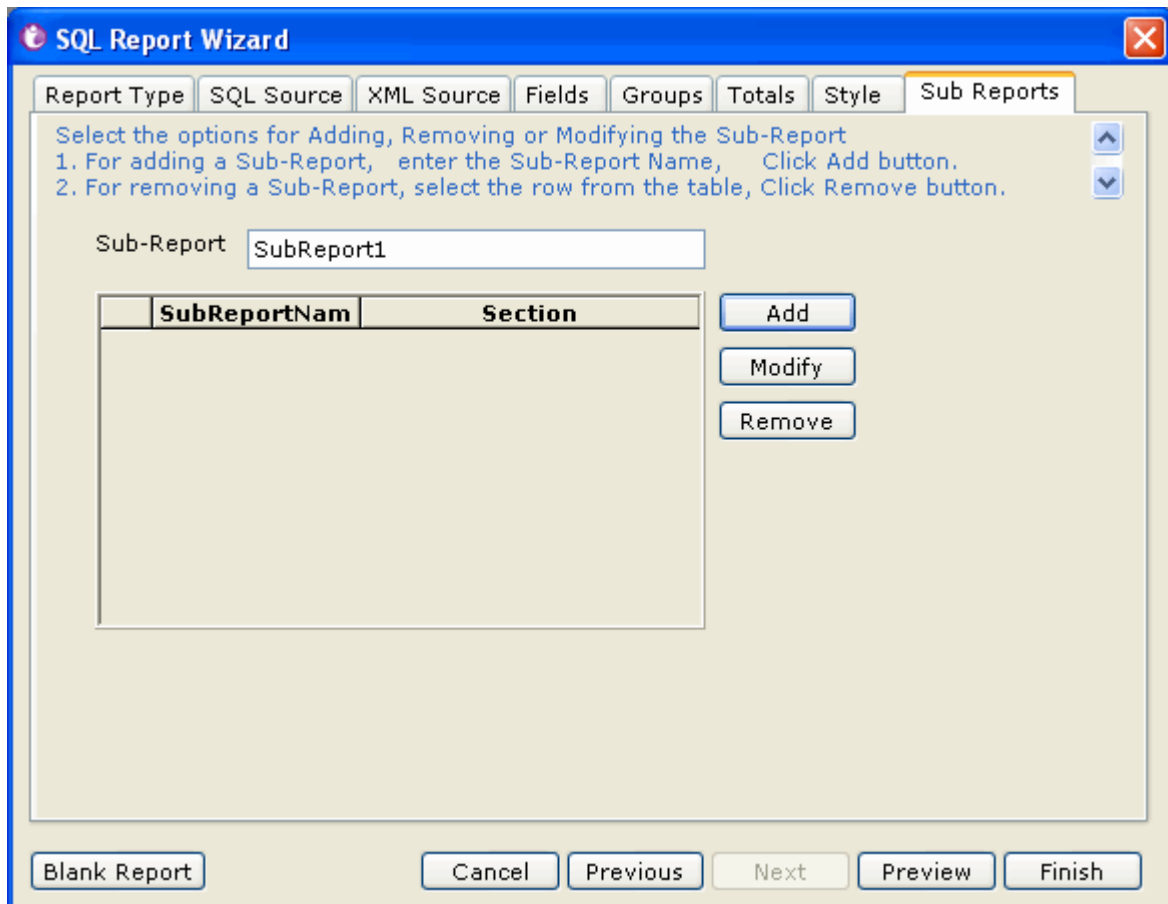
Figure 16: Sub Reports Tab

To create a sub report using SQL, select 'New Report' and choose the 'Source' as SQL. For creating report layout using XML, select 'New Report' and choose the 'Source' as XML.

To open an existing report you can choose from the list of the most recently opened reports, or browse for other reports by selecting 'Browse…' on **Create a sub report from** dialog box.

> **Tip:** To design a report, if you do not want to use the Report Wizard, click the **Blank Report** button.

> **Note:** When a sub-report is created using wizard, page header and page footer section will not be added. Page totals and Grand total fields will not be added in the list-box on **Totals** tab.

When wizard is reloaded

If you have reloaded the wizard, meaning, if wizard was used for this report and you have once again opened the wizard, some of the functionalities will NOT be available. They are:

- Data Source

- Sub-reports

- Style

- Blank button

Following functionalities will be available:

- Change in fields

- Grouping

- Total

Query Object

Query object's name will not appear (the query will appear). If query object is changed, a warning message appears and the fields (available previously) are replaced by those made available through new query object.

Style Tab

The check boxes on Style Tab will be re-set as clear. As a result of this, the styles will not be applied on the report. To continue with the style that you specified while using the wizard for the 1st time, you need to select (check) those checkboxes each time wizard is reloaded.

Control Properties

Properties set for control is re-set when wizard is reloaded.

Creating Report without using Wizard

Creating SQL Reports

To create an SQL report layout, you need to configure the database connectivity. This will enable you to retrieve data from the desired tables.

Set the Database Connectivity

All database related tasks in a report can be performed only after setting a database connection for the current report. Each report opened in the Intellicus Studio has its own connection. To open the **Database Connections** dialog, from menu, select **Tools > Connections**. You can also click [ ] button from the toolbar.
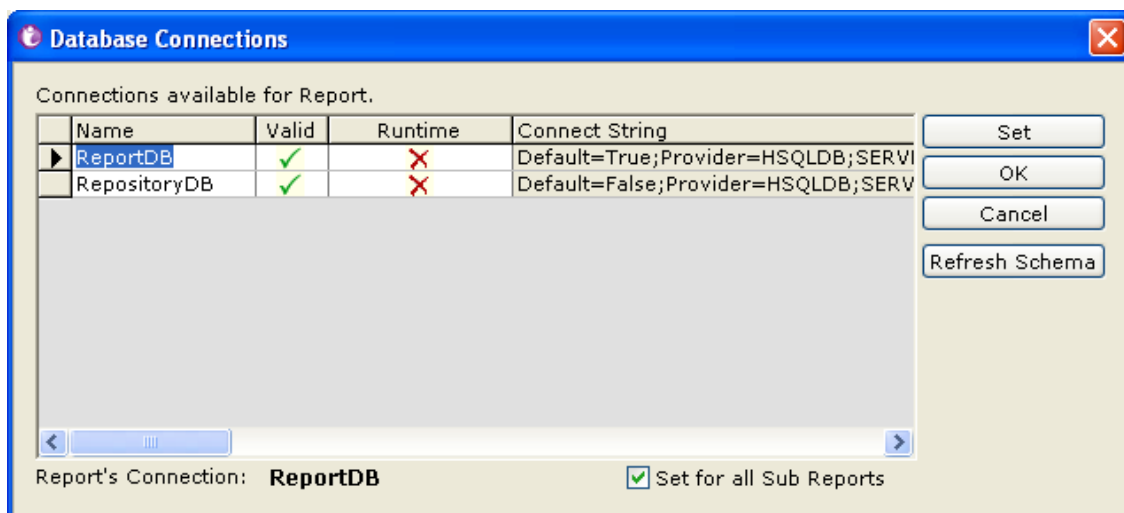
Figure 17: Connecting to a Database

The dialog box lists the connections setup in Intellicus Report Server. For each entry in the list, following information is displayed:

- **Name:** Unique name to identify the connection.

- **Valid:** A tick indicates that the connection was valid when Desktop Studio was launched.

- **Runtime:** A tick indicates that user credentials for the database server will be asked at runtime. If you try to set this connection for the report, you will be required to provide user credentials now also.

- **Connect String:** String that will be used to get connected with the database server.

- **Set for all Sub Reports:** If this check box is selected (checked) all the sub reports (if any) of this report will use this connection.

Name, **Valid**, **Runtime** and **Connect String** are *read-only*.

This dialog box lists the connection strings that have been configured earlier.

 Note: Database connections are configured using the Web Interface.

Now,
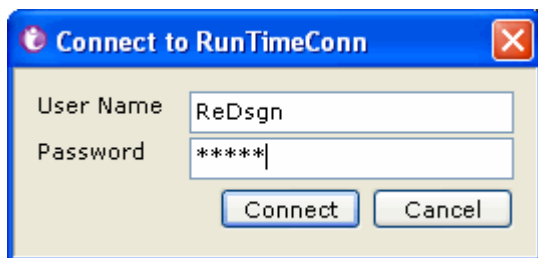
Figure 18: Connect to dialog box

1. Select the connection by clicking in the first column of the corresponding row. The entire row gets selected.
2. Click the **Set** button.
3. Click **OK** to save the changes and close the dialog box. If the connection set has a tick in **Runtime** column, then **Connect To** dialog box will appear. Specify user credentials and click **Connect** to go ahead.

Database Connection dialog box is closed and the connection is set as the active database connection for the report.

To refresh metadata caching

Metadata is cached at the time of launching Desktop Studio. To refresh the metadata manually,

1. Select the data connection for which metadata needs to be refreshed.
2. Click **Refresh Schema** button.
3. Click **Yes** on the confirm refresh dialog box to proceed.

When you click **Yes**, a request is sent to the report server to get the metadata information for the selected database connection.

 Important: You need to have super administrator privileges to be able to manually refresh the schema.

Data from Multiple Data Sources

Generally a report gets its data from one connection (data source). However, a report may get data from multiple data sources. You may use different SQLs (but same data connection) to get data for different components of a report.

You can use separate query as well as data connection for:

- A chart component

- A cross-tab component

- A sub report

For more information, please refer to the respective chapters.

Creating Report Using XML data source

Select **XML** as the source data for the report from the **Welcome** dialog box. On doing this, the Layout Editor will be displayed on the screen. Now, click the option **XML Source** from **Tools** menu.
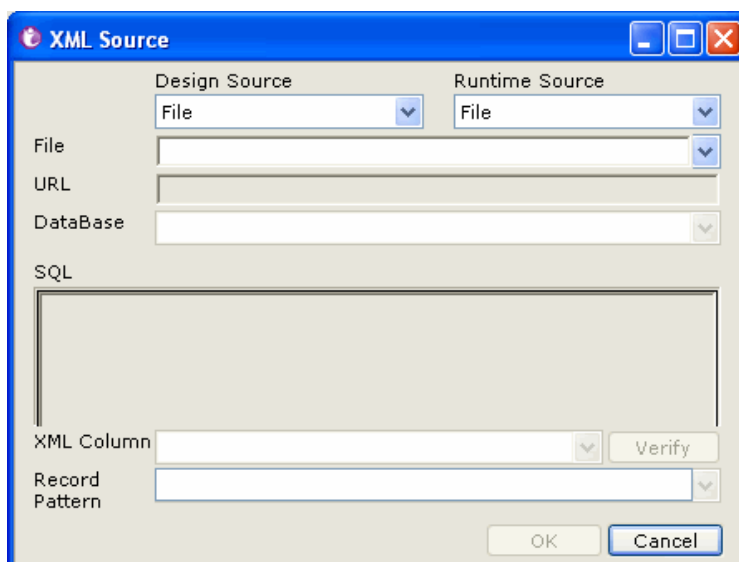
Figure 19: Specifying XML Source

Select **Design Source** and **Runtime Source**:

- If the file is stored locally or on network drive, specify the path and name of file in **File**.

- If the file is stored on Internet / Intranet location, specify its **URL**.

If the file is stored as a column on a database, select the database from **DataBase** dropdown box, select **XML Column** and specify **SQL**. Click the **Verify** button to verify the SQL.

Select the **Record Pattern**. That will act as a root. Click **OK**, and the fields will appear in the **Fields window**.
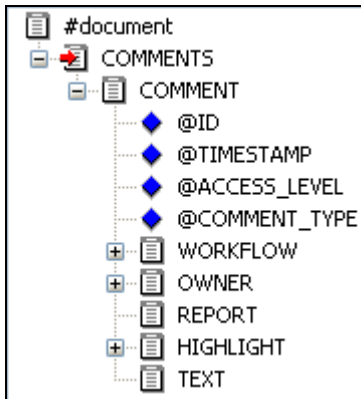
Figure 20: Field List

Also, you will notice a red arrow in the **Fields** window. This indicates the data that you chose from the **XML Source** dialog box. These fields can be dragged and dropped on respective section of the report.

The 'Xpath' value at the bottom of the **Fields** window indicates the path to the chosen value.

When you drag a value from the Field List window to the report layout area, you need to provide the displayed 'Xpath' value in the 'DataField' property of Properties list.
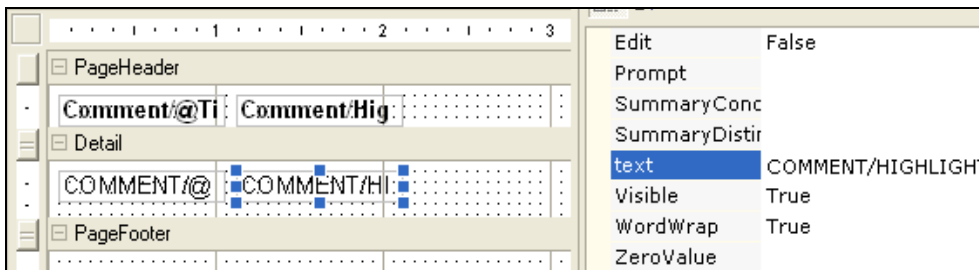
Figure 21: DataField Value

Note: All operations performed in the report layout pane are similar for both SQL generated report and XML generated report; the only difference is the method of selecting data for the report.

This will be followed by other activities of report designing.

Working with Layout Editor

This chapter provides you information on designing your report using the GUI (Graphical User Interface). The Layout Editor provides you with a facility to design a report using simple report generation tools. You can add fields and sections to your report, use formatting features and parameters to generate simple and complex reports using SQL or XML. You can also modify or delete the performed actions.

Components of a Layout Editor

The various components of Layout Editor are:

Explorer Window

The Explorer window displays all the sections and their controls in a hierarchy. If you select any value in this window, that value will get selected in the layout pane.

Click View➔ Report Explorer to show/ hide this window.
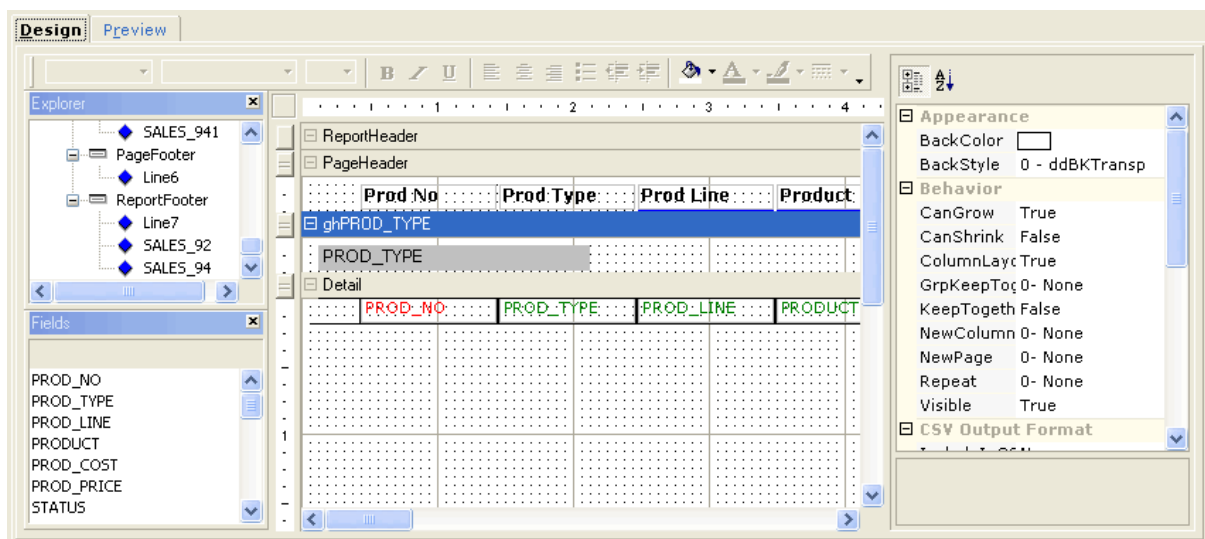
Figure 22: The layout editor

Fields Window

The field window displays all the fields from the selected tables, along with the defined parameters if any.

In order to update the fields listed in this window, you need to click **Refresh Field List** button or from **View** menu, click **Refresh Field List** option to get the updated values displayed in this window. You can simply drag the fieldnames from this window to the report layout pane.

When you drag a field from **Fields List**, Intellicus will also place its caption in the header section.

Click **View** > **Fields** to show / hide this window.

Layout Pane (Layout Window)

The layout pane contains the broad sections under which the fields will be arranged. To add fields to this pane drag the fields into this pane from the field window. You can also insert parameter values, and field controls to this pane.

To change any properties of the added controls (fields), click that control and change its properties from the Properties list.

Properties List

You can modify/ view the property set for the controls / sections on the layout pane for each selected object.

Click View **>** Properties List to show/ hide this window.

Working with Sections

There are three sections in a report:

- Report Header/ Footer

- Page Header/ Footer

- Group Header/ Footer

Creating Sections

A section is a defined area of a report, which contains report elements. Each section has a specific repeating nature. A printed report generally has heading sections that may be displayed only on the first page, or on every page, or as a heading for each group. These display options may also be used for footer sections.

Figure 23: Creating Sections

You can create a section by one of the following methods:

- Right-click on the section name and choose a section under the **Insert** option

- Select Insert > Section > <Select Section>

> **Note:** Group can be formed on a calculated field also. For example, if a calculated field CLASS gives you value "First", "second" or "third", you can group the records by CLASS, where all the records having value of CLASS as "First" will appear together.

On performing any of the options the selected section will be added to the field layout pane.

To create a blank group (section)

1. Click the header of the Detail section.
2. Create a section using any of the methods specified above.

A blank group header and footer appear.

To create sections based on field (to group)

1. Select the field from detail section by which the group (section) is to be created.
2. Use any of the above methods to create a group.

A group (section) is created and group summary fields are placed for each of the numeric field in the detail section.

To create multiple sections (groups)

1. Select the fields by which you want to create groups.
2. Use any of the above methods to create groups.

Groups will be created in the order of selection of the fields.

For example, a report needs to be grouped by *Department* and under Department, by *Grade*. To achieve this grouping, select *Department* followed by *Grade*.

Figure 24: Inserting groups – summary fields are also placed

For each group, Intellicus will automatically place summary fields of all the numeric fields in the detail section. These fields will be placed under respective field in detail section and will move horizontally if respective field in detail section is moved.

> **Note:** You can change the summary function applied on a group summary field, from properties list.

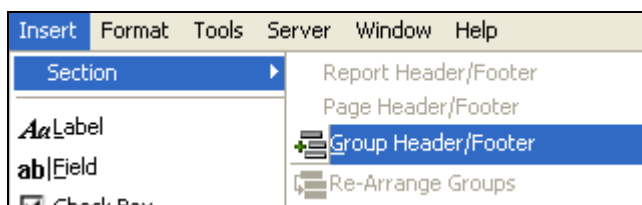## Deleting Sections

You can delete a section by one of the following methods:

1. Right-click on the section name and choose **Delete Section** or,
2. Click the section header and from **Edit** menu, click **Delete Section** option.

Arranging Section Groups

You can reorder the groups added as sections in the report layout pane. To do this:

- Right-click on a section and select Re-Order Sections menu item. On doing this a Group order dialog box will appear.

- You can rearrange the sections by click and drag method. Press the **OK** button to confirm the rearrangement.

The dialog box given on the next page shows the drag-and-drop method for rearranging sections.
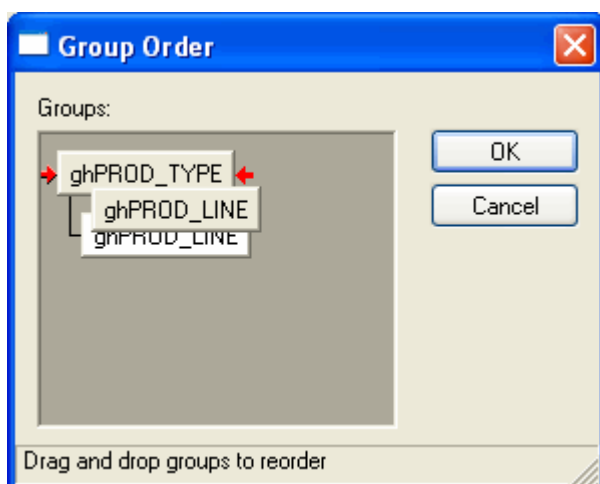
Figure 25: Reordering Groups

Designing a Report Layout

Designing a report layout involves inserting field controls, objects, and report components to the report layout page.

Types of Field Controls

A control is a field that you add to the layout pane. It may be a database field, calculated field, display field, parameter (system, report) field, or a control. A broad division for the controls is as under:

Label   A Label is used to display static text such as, titles and option button text.
Field   A Field control is used to accept data from the user. It is the default control that Intellicus defines when you drag fields from the Fields list window.
Check box   A check box control displays an empty or checked box on the report.
Page   A page break control breaks the report from the location it is
Break   placed. Remaining information is printed on the next page.

> **Note:** If you place a field in any of the footer sections, it is auto-set as a summary field.

Analytical Controls

Chart   To place a chart on your report.
Cross-tab   To place a cross-tab (also known as grid or matrix) control on the report.

Graphic Controls

These controls enhance the appearance of the report.

Line   This control draws a straight line.
Shape   This control draws a rectangle. It can be changed to ellipse and rounded rectangle.
Image   This control places an image file on the report. For example, a corporate logo.

Other Controls

Frame   This control is used to group the controls placed on it. This is to handle all the controls as one control.
RTF   This control places a Rich Text Formatted control on the report.
SubReport   This control places a report in the report being designed.

Controls can be placed within a frame:

- Label

- Field

- Checkbox

- Image

- Line

- Shape

- Rtf

Controls that cannot be placed within a frame:

- Chart

- Cross-tab

- Page Break

- Sub report

After having created the report you can preview the report to see how it would print on paper. For previewing a report, Intellicus provides two viewers to choose from:

- JVISTA

- CVISTA

Generally you can view reports using CVISTA as Intellicus Studio's default Viewer for report preview. View reports using JVISTA viewer (Intellicus Viewer), when in actual scenario reports will be viewed in Intellicus Viewer.

More on Frame control

At times, a report is expected to display different information in different conditions known only at run time. For example:

- If an end-user runs the report, display login time, logout time and duration in minutes for the user.

- If an administrator runs the report, display login time, logout time, duration in minutes and data transfer (in MB) for all the users that administrator is managing.

Such tasks can be achieved through use of frame control and scripting.
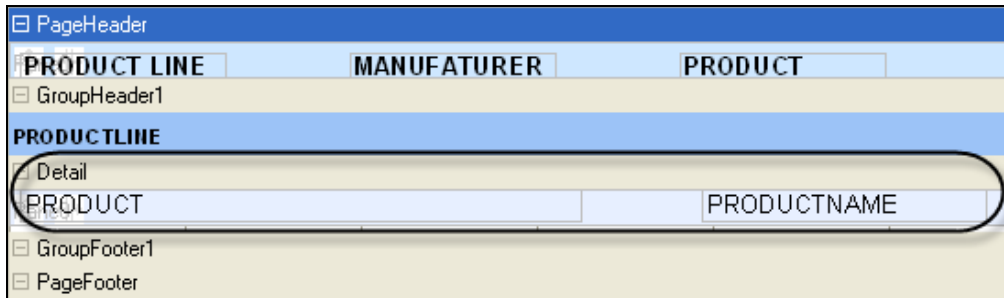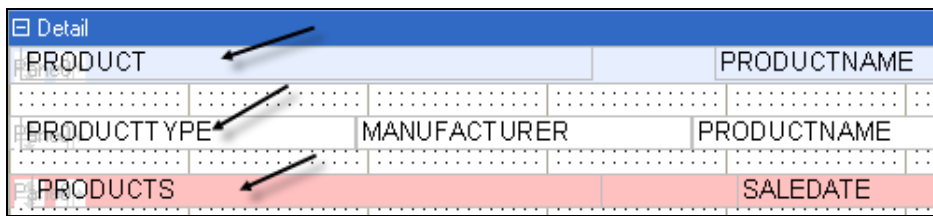
Figure 26: Detail section has three frames that are displayed conditionally

A frame control basically "holds" multiple controls. Depending on the need, you can change its properties at run time through scripting and that way affecting all the controls on the frame.

Placing the Frame control on canvas

Frame control can be placed on any of the report sections. To place frame control on report canvas,

- From **Insert** menu, click **Frame** option.

- Click toolbutton.

Mouse pointer turns to a cross-hair. Point to the top left corner of the area you want to cover in frame and drag it to bottom-right corner.
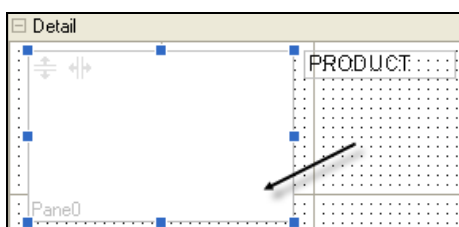
Figure 27: Placement of Frame control

Properties pane will display default properties of the selected frame control, which you can change if desired.

To place field controls on a frame, drag corresponding fields from **Fields** list to the Frame on canvas.
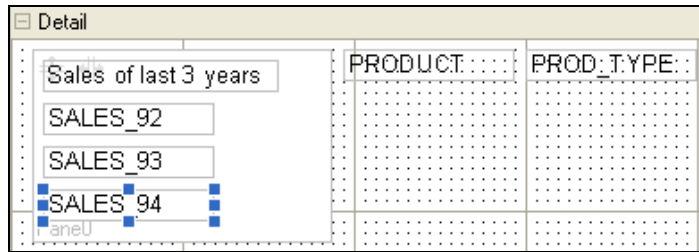
Figure 28: Three fields and one Label placed on frame

Following controls can be placed on frame:

- Label

- Field

- Checkbox

- Image

- Line

- Shape

- rtf

Following controls cannot be placed on frame:

- Chart

- Cross-tab

- Page break

- Sub report

You can set individual properties of controls placed on frame by selecting a control and changing properties from Properties pane.

Frame and Scripting

When you place multiple controls on a frame, you can manage all the controls (like its visibility) at one go.

Using scripting, you can display or hide a frame dynamically at run time.

For example, for a report, you need to:

- If for parameter UserType, user specifies "A", display Product ID, Product Name and Sales_92 in detail section.

- If for parameter UserType, user specifies "B", display Product type, and it should display Product Name, Sales_92 and Sales 93.

To achieve this, you will,

1. Create a character type parameter UserType.
2. In detail section, place a frame control A and place fields Product ID, Product Name and Sales_92 on it.
3. In detail section, place a frame control B and place fields Product Name, Sales_92 and Sales 93 on it.
4. Select Detail Section and on its OnFormat event, write script to
    i. Set Visible property of Frame A as False.
   ii. Set Visible property of Frame B as False.
  iii. Check the value of parameter UserType: (i) if value is "A" set Visible property of Frame A as True. (ii) if value is "B" set Visible property of Frame B as True.

When report is executed, Input Parameter Form will appear, where user will provide parameter value. If user has entered "A", Frame A will be displayed in the report. If user has entered "B", Frame B will be displayed in the report.

How to set Viewers

Choice of viewer to be used for preview is set from Options dialog box. From **Tools** menu, click **Options** > **Custom Design** tab.
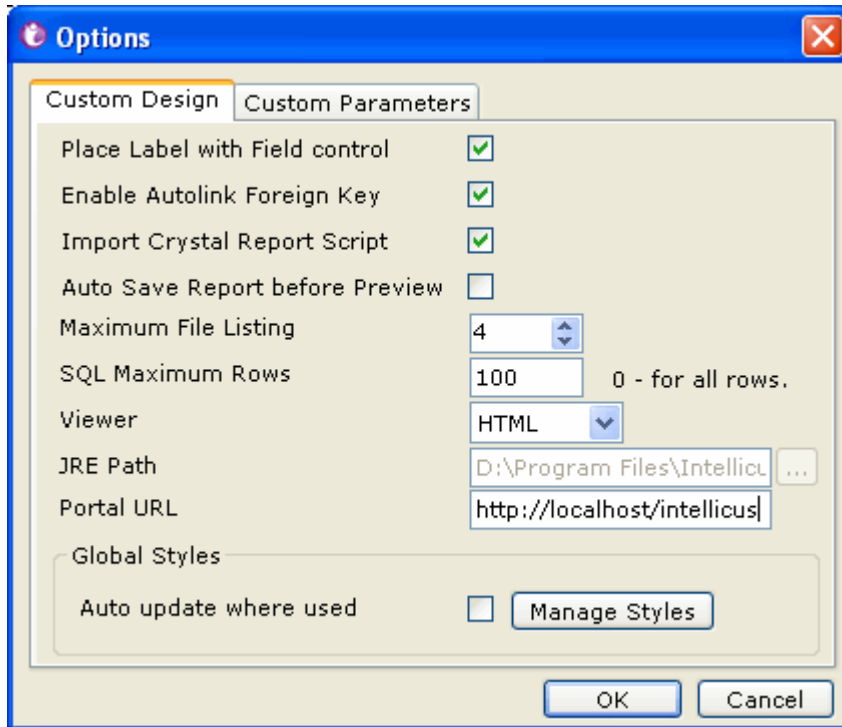
Figure 29: Setting the viewer choice for Report Preview

1. In **Viewer** drop down box, select the viewer.
2. If you have selected *JVISTA*, specify the path of JRE.
3. Click **OK** to save the changes and close Options dialog box.

How to Preview

When a report needs to be previewed,

1. Select the **Preview** tab on the main window. This will generate the output of the report for preview.
2. You will be prompted for report parameters (if defined) before generating the report.
3. After the Preview page is displayed, click the **Refresh** button on the standard toolbar. This will refresh the values that have since changed in the fields, if any.

When viewed in CVISTA

When you preview a report in CVISTA, the report will appear on Preview Tab.

Figure 30: Report Preview Toolbar when report viewed in CVISTA

Use of buttons is given below in the order of the appearance of buttons from left to right.

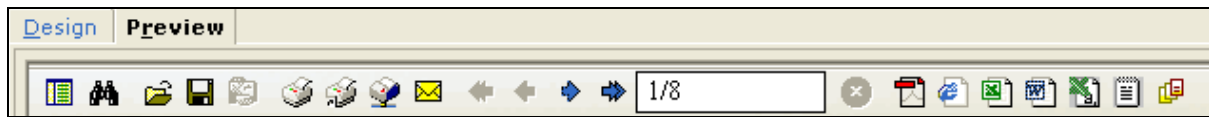- **Table of contents:** This will be displayed when the report contains grouping options. This will display a tree-like structure containing the group heading as the main branch.

- **Search:** To search for a text on report output.

- **Open:** To open a previously saved report output.

- **Save:** To save the opened report output.

- **Print Report:** To print the open report output using printers setup with the workstation where Intellicus Studio is running. When you click this button, Print dialog box appears for you to specify print preferences before you actually print the report.

- **Print Report Direct:** To print the open report output using the default printer setup with the workstation where Intellicus Studio is running.

- **Print At Server:** To print report using any of the printers installed on the machine running Intellicus Server. Printer selection and other preferences are specified using **Print At Server** dialog box.

- **Arrow buttons:** To reach to the 1st page, the previous page, the next page and the last page.

- **Cancel:** To cancel report generation.

- **Report Export:** To export open report in other formats. Clicking a button will export it in respective formats, namely pdf, html, MS Excel, CSV and text. Based on the export format selected, you may be given a dialog box to provide required information. You can click the last button to get a screen to select report type and then go ahead with report export.
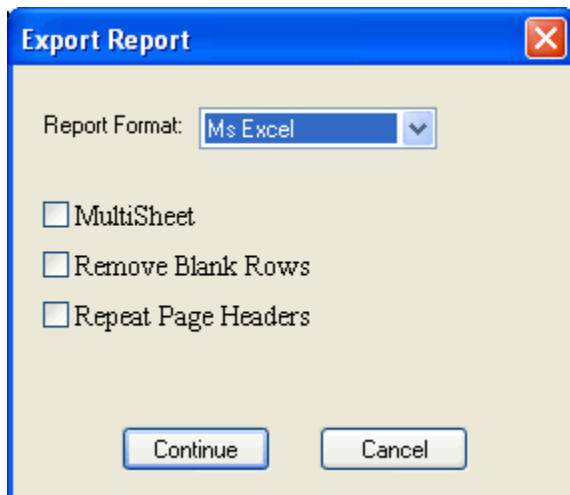
Figure 31: Select the report format and continue

Select a report format, provide values if it asks for, and click Continue to proceed with report export.

When viewed in JVISTA

When a report is viewed in JVISTA, it opens in a new window. It also has all the functionalities that are available on the CVISTA's toolbar.

Figure 32: Report Preview Toolbar when report viewed in JVISTA (Intellicus Viewer)

For detailed description on what you can do on JVISTA viewer (Intellicus Viewer) please refer to the document ViewingReportsInJVista.pdf.

When viewed in HTML

It is better to preview the report in HTML, if in production environment the report will be viewed in HTML viewer. This gives you exact idea about how report output will look like when it is actually executed by a user.

When you choose to preview the report in HTML, Intellicus Studio connects with Intellicus portal (you may need to login) and displays the report in HTML Viewer.

General Options

Custom Design tab on Options dialog box is used to carryout tasks related to Studio configuration (Global settings). These settings remain applicable to Studio irrespective of open reports.

To get this dialog box, click **Tools** > **Options** > **Custom Design** tab.
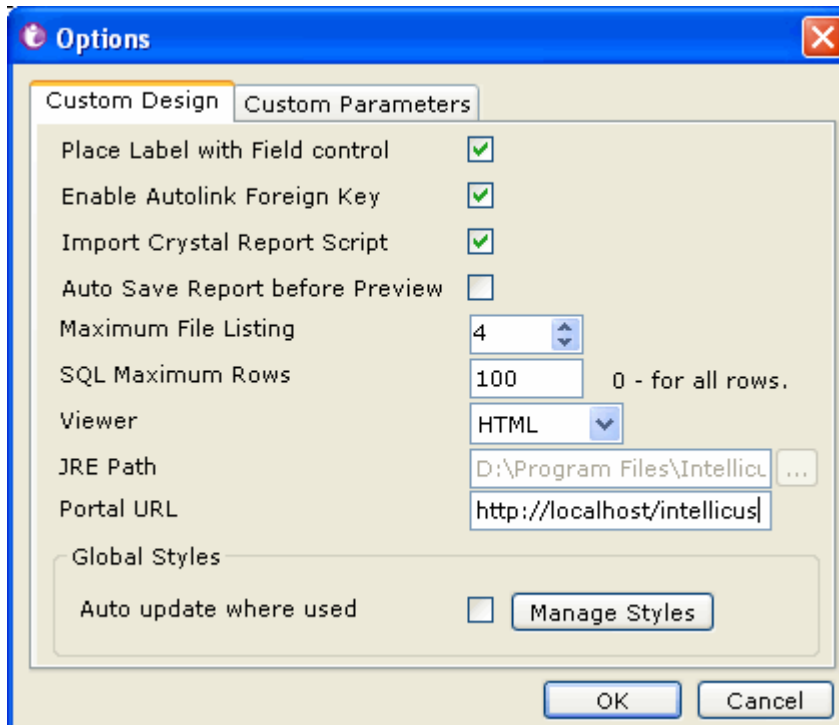

Figure 33: Options > Custom Design

- **Place Labels with Field control:** Check this check box to place labels in respective header section while placing Fields.

- **Enable Autolink Foreign Key:** On SQL Editor, when you select two tables which are already joined by Primary Key - Foreign Key elations in the database, Intellicus can create a line indicating the join and also, respective condition is added in WHERE clause of the query. To do this, select this check box.

- **Import Crystal Report Script:** During import of a Crystal report file, you can import scripts written in crystal report. Select this to import these scripts.

- **Auto Save Report before Preview:** When you preview the report before saving, a dialog box is displayed asking if report should be saved on disk before preview. Check this checkbox to automatically save the report without displaying the dialog.

- **Maximum File Listing:** Specify the number of file names to be listed. These are the names that appear as options under File menu.

- **SQL Maximum Rows:** Specify the maximum number of rows that you want to appear under Result tab of parser of SQL Editor.

- **Viewer:** Select the viewer to be used for preview. Available options are JVista and CVista.

- **JRE Path:** Select path of Java Runtime Engine if you select JVista as Viewer.

- **Portal URL:** Specify URL to access the portal if you select HTML as viewer. You may need to login in order to preview the report.

Report Properties Dialog box

Click ![tool button] tool-button or menu **Tools** > **Report Properties** to open **Properties** dialog box. On this dialog box you can specify:

- Data Connection

- Report summary

- View Statistics

- Layout information

Source Connection

From the **Engine** tab you can define the database (connection) to be used to fetch data for the report / sub report.

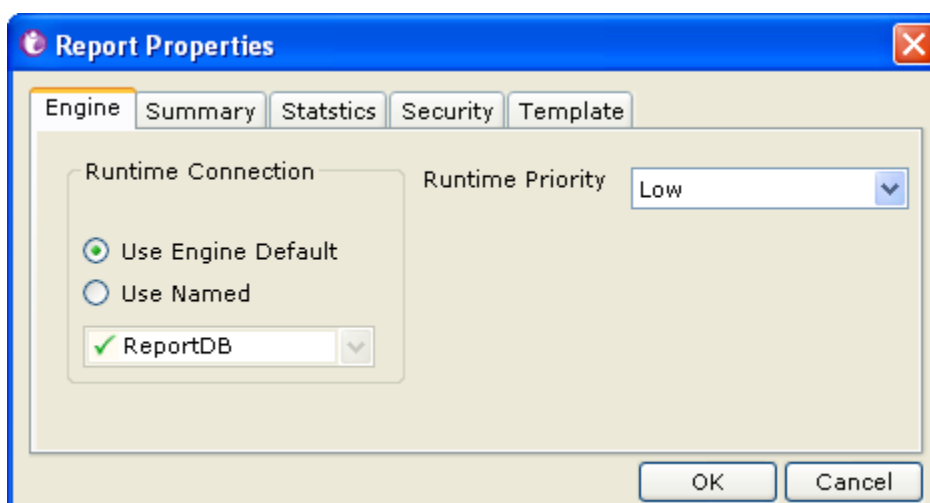You can choose from the following options available in this dialog:

Figure 34: Connection

Use Parent's: This option will appear (and in selected state) when you are working for a sub-report. This is applicable for sub-report.

Use Engine Default: This option will use the connection, which was marked as default on **Database Connections** dialog. This option will appear as default selected by default when you are working with a report that is not a sub report.

Use Named: Select this option to provide the named (configured) connection to fetch data for the report. This will override the default connection.

Report summary and Statistics

Using the **Summary** tab you can specify report summary information.
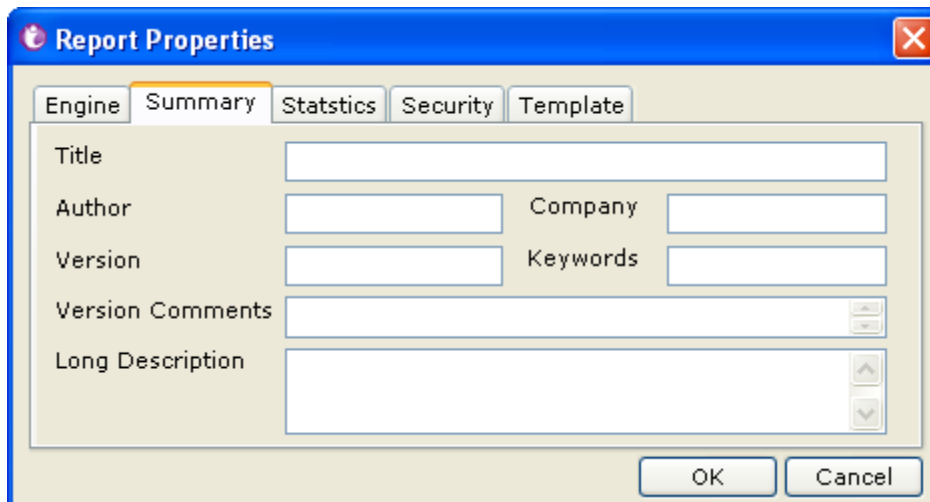

Figure 35: Sub Report Summary Tab

Simply enter the information (text) relevant to the report in this tab.

On **Statistics** tab you can view report statistics.

Template

On this tab, you can select if to use alternate background color and alternate foreground (text) color in the report.
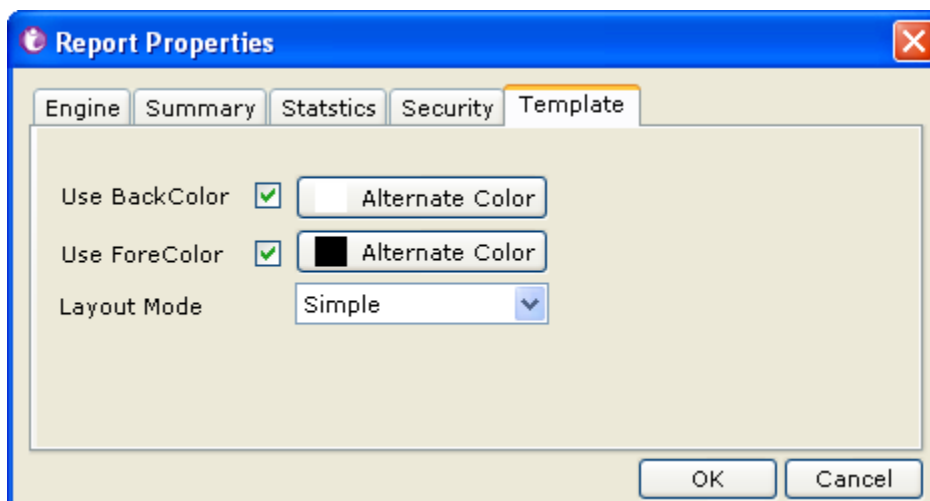

Figure 36: Color and layout mode

A report becomes easier to read if rows of report are printed in alternate colors.

Intellicus provides three report layouts: **Simple** for freeform fields arrangement, **Tabular** for list like (one line per row, with no space between fields), and **Form** arrangement having one field below other.