



## Desktop Studio: Sub-reports

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Intellicus Enterprise Reporting and BI Platform



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## **Acknowledgements**

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For details, visit: <http://www.intellicus.com/acknowledgements.htm> .

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## Working with Sub Reports

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Sometimes report designers face report design needs like:

- Data for report coming from two data sources
- Data presentation needs like chart in detail section
- A part of report uses SQL and another uses XML
- Master – Detail type of report having fields positioning constraints

Use sub-report component of Studio to handle such needs. For a sub-report component:

- Newly designed report, or
- A pre-designed report

can be used. A pre-designed sub-report can be:

- Embedded in the parent report
- Referenced from reports deployed in repository

### Data for sub-report

A sub report can use:

- XML source as well as SQL source
- Data from parent report's connection, a separate connection or Intellicus server's default connection

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## Creating a Sub Report

To create a sub report:

1. From **Insert** menu, click the option **Sub report**. The cursor changes to a cross (+) symbol.
2. Click the layout pane and drag your mouse to mark an area.

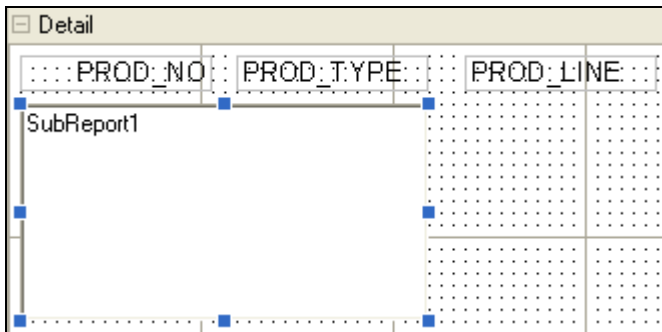


Figure 1: Creating Sub Report

To edit the sub report, from **Edit** menu click the **Sub Report** option. This will invoke a window for designing a sub report. All the designing methods discussed in the Layout Editor are available to the sub reports.

## Using a pre-designed report as a Sub Report

### Embedding an un-deployed report

You can embed a pre-designed sub-report in the main report. To embed a report,

1. Create a sub-report holder in a report or a sub report.
2. Right click on the sub report holder and select the **Edit SubReport** option.

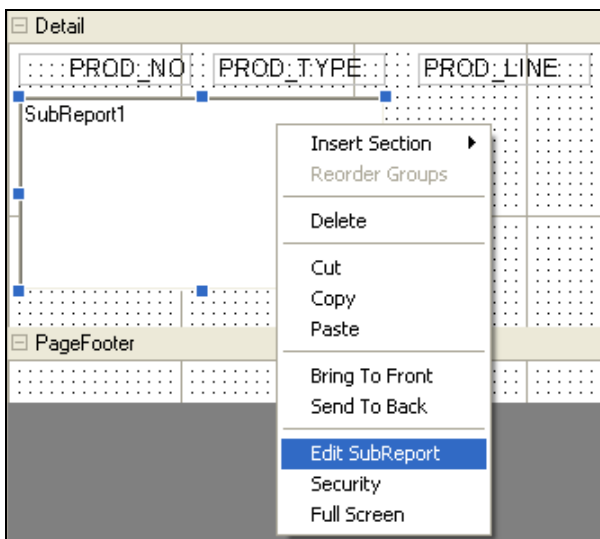


Figure 2: Edit Sub Report

This displays the **Create a Sub-Report from** dialog box.

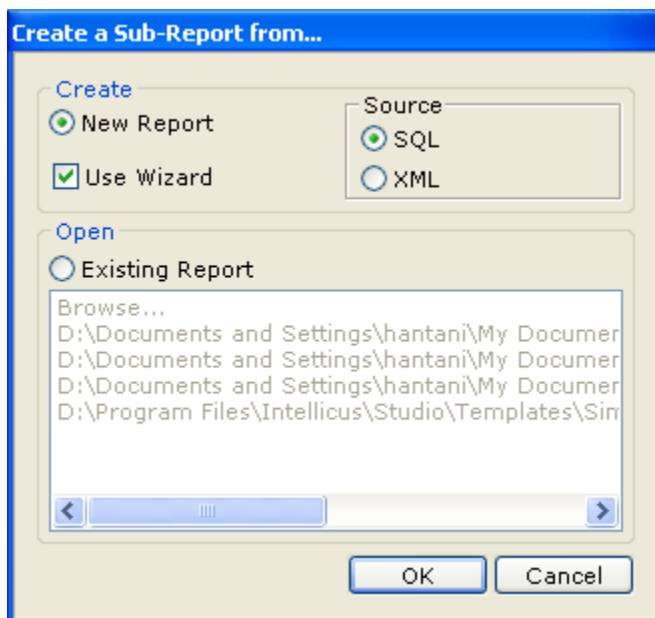


Figure 3: Create a Sub-Report from Dialog Box

1. Select the **Existing Report** option.
2. Click the **Browse** option from the list.
3. Click **OK**.
4. In the **Open** dialog box, select the parent report from which you want to insert the sub report.
5. Click **Open**. The following dialog box is displayed.

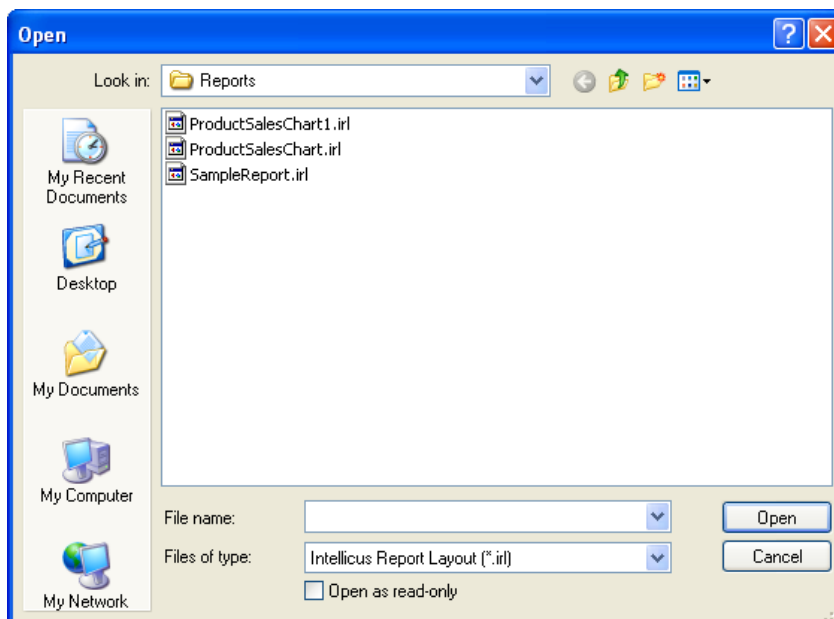


Figure 4: Insert Sub Report from Existing Report

This dialog box displays the list of pre-designed reports.

6. Select the sub report to be included and click **Open**.

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The sub report is embedded in the current report.



**Note:** To embed a deployed sub-report, download it from the server, save it locally and embed it in your main report.

## Referencing

When a sub-report is referenced, its name and category details are placed in parent report. Actual report is referred at run time.



**Tip:** Use Referenced report when a sub-report may be used in multiple parent reports. Also, it is a good idea to use referenced report when a sub-report may undergo frequent changes.

1. Create a sub report holder in a report or a sub report.
2. In **SubReportType** property, select *Referenced*.
3. In **Source** property, select the report.

Value in CategoryName and ReferencedReportname property will auto-appear based on value in Source property.

## Converting an embedded sub-report to referenced

When an embedded sub-report is changed to referenced, Intellicus Studio will upload that report on Intellicus server in user specified folder and mark it as referenced.

1. Select the sub-report component.
2. In **SubReportType** property, select *Referenced*. Click **Yes** on Confirm convert dialog box.
3. In **Upload to Server** dialog box, specify category (folder) and report name.
4. Click **Upload**.

Sub-report type is changed to referenced.

## Creating a new report to be used as sub-report

1. Create a sub-report holder in a report or a sub report.
2. Right click on the sub report holder and select the **Edit SubReport** option.

3. In **Create a new Sub-report from** dialog box, select *New Report* and click **Ok**.

A new window will open to create a new sub-report. Create the report. Click **Save** button to save the work. Click **Close** button to return to main report.



**Note:** A sub-report may need to use parameters of main report. If that is the case, create a new sub-report using wizard. This way you can use parameters of main report in sub-report also.

## Accessing Parent report's data from sub-report

You can access parent report's data from within sub-report. Values of parent report's fields are passed to sub-report as parameters in sub-report. These parameters are of the same name as field name (or alias if alias is used) in parent report. For example, value of parent report's field "customerid" is available in sub report in the parameter named "customerid".

When you create an embedded sub report, Intellicus automatically creates these parameters. When you use a referenced sub report, you need to make sure you have manually made those parameters in the sub report.

This parameter can be used in sub report as it is, as well as in SQL as filter.

### Example

- **SQL in the parent report:** SELECT ORDERS.ORDER\_NO, ORDERS.ORDER\_DT FROM ORDERS
- **Parameters in sub-report:** ORDER\_NO, ORDER\_DT
- **SQL in sub-report:** SELECT ORDRDETL.ORDER\_NO, ORDRDETL.PROD\_NO, ORDRDETL.PRICE, ORDRDETL.QTY FROM ORDRDETL WHERE ORDRDETL.ORDER\_NO = <%ORDER\_NO%>

Figure 5: Report Layout of the sample report.



Order No	3	Order	08/30/2003
ProdNo.	Price	Quantity	
60400	6	504	
60301	11	50	
50203	8	32	
40103	415	7	
40202	84	1	
40100	165	18	
40102	55	3	

Order No and Order Date on parent report and column headings on Parent report.

Values of ProdNo, Price and Quantity are part of sub-report.

Order number "3" was passed from parent report to sub report as a parameter in sub-report. It was used in SQL as filter.

Figure 6: A sample report preview displaying data from parent report and sub-report SQLs

**Important:** Before using a numeric parameter as filter in SQL, make sure default value has been set for the parameter. When a numeric parameter without a default value is used in SQL it will result in SQL Error.

If parent report has more than one fields with same name, for example, product.prod\_no and invoice.prod\_no, then use alias in parent report's SQL, for example, prod.prod\_no AS PprodNo and invoice.prod\_no AS InvProdNo. In sub report, Intellicus will make parameter with alias - PprodNo and InvProdNo.

## Using Stored Procedures with Sub Report

The method of using stored procedures in sub reports is the same as used in parent report.

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## Fetching Sub Report Data from Other Databases

To generate sub reports, you can either use the database connection of the parent report, or use another (configured) connection.

To do this, from the **Tools** menu click **Report Properties** option from the sub report layout window.

This would invoke a dialog box, as shown below. This dialog box is resizable.

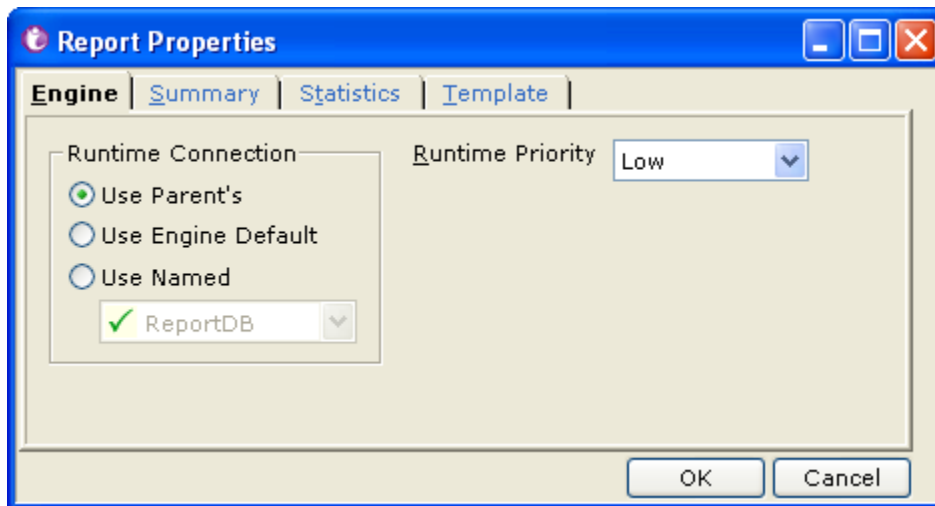


Figure 7: Tick indicates that the connection status as active.

The database connections mentioned here are configured connections<sup>1</sup> in the report engine. These connections were defined while configuring the Intellicus Report Engine.



**Important:** To let the sub reports use the parent report's database connection, you need to select **for all sub reports** check box from the database connection window.

### Selecting the Source Connection

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

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

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

**Use Engine Default:** This option will use the connection, which was marked as default on the **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.

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<sup>1</sup> To view these configured connections, right-click on the report engine icon from the system tray (from the system on which the report engine is installed), and select the Configuration menu item.

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

### Sub Report Summary information

Using the Summary tab you can specify summary information for the sub-report.

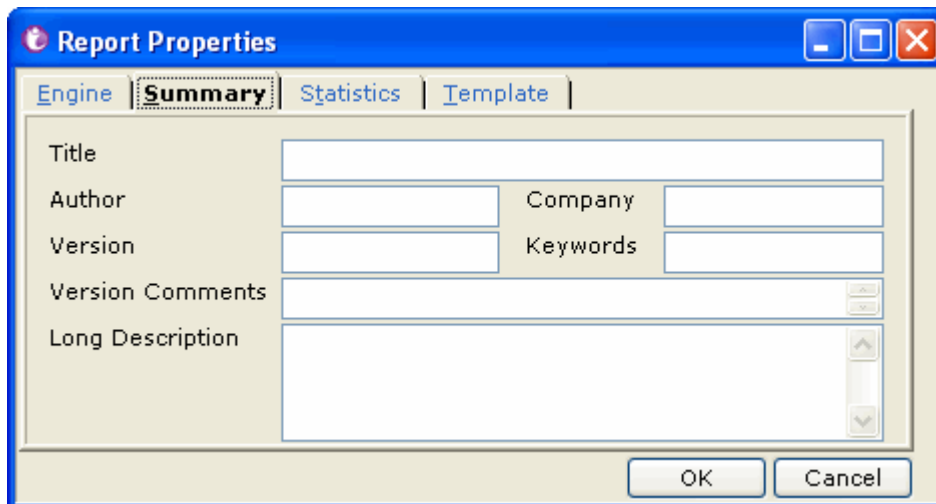


Figure 8: Sub Report Summary Tab

Simply enter the information relevant to the report in this dialog.

